Northern Ireland Water Ltd
Annual Information Return 2012

Part 6 of 10 containing:
Financial Measures - commentaries for tables 32 to 38 and 40

Public Domain Submission
3 December 2012

Halcrow

Table 32 - Analysis of fixed asset additions and asset maintenance by asset type

Commentary by REPORTER

1. Background

This table facilitates analysis by asset type of fixed asset additions for enhancement and the renewal or replacement of assets for the purpose of maintaining base service.

2. Key Findings

- NI Water has continued to develop, implement and improve their proportional allocation procedures. Much work has been done to review ongoing projects and to better allocate the investment to the appropriate QBEG purpose categories. We found that NI Water review all projects to confirm the appropriateness of the proportional allocation of expenditure for all projects that have had the CIDA allocation updated on CAPTRAX.
- However, during the course of our PC13 audits we noted a number of instances where the CIDA allocation reported by the Project Manager was not always consistent with that reported on CAPTRAX. We raised this issue with the Company and they advised that they were aware of the issue and that a procedure had already been implemented to ensure CIDA is updated on CAPTRAX prior to CIP approval.

3. Audit Approach

As part of our review of NI Water's PC13 submission, we completed a number of detailed 'Capex' audits, the results of which we have used to inform our opinions for AIR12. A total of 18 PC13 projects, summarised below, were reviewed, including; 1 x water resource scheme, 2 x strategic trunk main schemes, 2 x water treatment works, 1 x service reservoir scheme, 5 x UID schemes and 7 x WwTW schemes

The detailed level 'Capex' audits completed for PC13 were followed up with a review of the contents of the spreadsheet systems, which access and collate the expenditure information by project for the Report Year. During this review, the collation system is tested to ensure that the proportional allocations exposed in the scheme specific audits are consistent with our expectations from the detailed Capex audits.

4. Audit Findings

4.1 General

NI Water has continued to develop, implement and improve their proportional allocation procedures. Much work has been done to review ongoing projects and to better allocate the investment to the appropriate QBEG purpose categories. We found that NI Water review all projects to confirm the appropriateness of the

proportional allocation of expenditure for all projects that have had the CIDA allocation updated on CAPTRAX.

As reported previously, the capital scheme approvals process is formalised, with all schemes >£25k, but <£500k, requiring formal approval by the BICC Panel and all schemes >£500k requiring CIP approval. The Strategic Investment team (within the Asset Management Directorate) review the CIDA on all projects as they seek approval and advise the above panels of any challenges.

Whilst we did not review a sample of schemes to specifically test allocation methodologies for AIR12, we did review a sample of schemes for PC13, as summarised below. Whilst the schemes did not directly apply to expenditure incurred during 2011/12, it did provide us with assurance that the CIDA allocations applied by the Company are broadly in line with the Reporter's expectations, with the following exceptions;

- During the course of our PC13 audits we noted a number of instances where the CIDA allocation reported by the Project Manager was not always consistent with that reported on CAPTRAX. We raised this issue with the Company and they advised that they were aware of the issue and that a procedure had already been implemented to ensure CIDA is updated on CAPTRAX prior to CIP approval.

- For KT402 – Dunmurry WwTW Sludge Facility, NI Water allocated a proportion of expenditure to Quality, based on the fact NIEA have requested additional investment at Dunmurry to meet IPPC requirements (relating to odour control). Whilst NI Water confirmed that this is a new regulatory requirement, in our experience work relating to odour has historically been funded within base maintenance.

Project Reference	Project Name	Budget (£k)	Spend to date (£k)	Initial PC13 CIDA QBEG Allocation				Reporter QBEG Allocation			
				Q	B	E	G	Q	B	E	G
JB662	Panel Engineers Recommendations – Northern Area	[x]	[x]	0	100	0	0	0	100	0	0
JL756	Metering and Treatment of WTW Effluents	[x]	[x]	100	0	0	0	100	0	0	0
JJ669	Killyhevlin WTW	[x]	[x]	60	40	0	0	60	40	0	0
JR342	Castor Bay to Belfast Strategic Link Main	[x]	[x]	**60**	40	0	0	0	40	0	**60**
JR460	Gravity II, McVeighs Well to Old Park	[x]	[x]	0	0	0	100	0	0	0	100
JV830	Crieve Service Reservoir	[x]	[x]	0	34	0	66	0	40	0	60
KS875	Bangor DAP – Lukes Point	[x]	[x]	90	10	0	0	90	10	0	0
KR480	Holywood Sewer Catchment Investigations	[x]	[x]	93	7	0	0	93	7	0	0
KS902	Dundrum UID Upgrades	[x]	[x]	90	10	0	0	90	10	0	0
KF330	Armagh DAP Stage 1 Improvements	[x]	[x]	26	36	0	38	26	36	0	38
KS372	Market Street WwPS Upgrade – Phase 2	[x]	[x]	65	24	0	11	65	24	0	11
KN596	Ballymagorry WwTW, ,	[x]	[x]	40	40	0	20	40	40	0	20

KN640	Dromore WwTW	[x]	[x]	40	40	0	20	40	40	0	20
KP672	Tempo WwTW, and	[x]	[x]	40	40	0	20	0	**100**	0	0
KL394	Drumsurn WwTW	[x]	[x]	40	40	0	20	40	40	0	20
KL496	Feeny WwTW	[x]	[x]	40	40	0	20	34	36	0	30
KL459	Maghera WwTW Ph 2	[x]	[x]	57	28	0	15	57	28	0	15
KT402	Dunmurry WwTW Sludge Facility	[x]	[x]	23	71	0	6	**0**	**90**	0	10

A summary of our findings is detailed below:

Water Resources

For **JB662 - Panel Engineer Recommendations – Northern Area** - NI Water is seeking to remain compliant with the Reservoirs Act 1975 (which is expected to be enacted in NI in the next few years). Associated investigations have also identified some operational safety issues in these old, but long-life assets which need attention. On the basis that all work is maintenance related, all expenditure has been allocated 100% to Base and to Water Infrastructure.

Water Treatment Works

For **JL756 - Metering and treatment of WTW effluents** - The metering programme is driven by considerations of receiving water quality only; so allocation to 100% Q is appropriate.

For **JP669 - Killyhevlin WTW upgrade** - NI Water has estimated the costs of adding the GAC process and, from recent experience, estimated the cost of the impact on existing assets. The high-level nature of this, at about 60% Q: 40% B therefore seems reasonable.

Trunk Mains

For **JR342 - Castor Bay to Belfast Trunk Main** - The drivers of investment relate to strategic objectives (of compliance with the WRMP 2011 and the Regulator's requirements to reduce DG3 interruptions and DG4 restrictions) and Company objectives arising from the major incidents in December 2010/January 2011 resulting from the freeze/thaw effects on the Company's water infrastructure. At audit we challenged the allocation as 60% had initially been allocated to Quality Enhancement and 40% to Base Service. NI Water agreed that the 60% should have been allocated to Growth and this was subsequently corrected.

For **JR460 Gravity II, McVeigh's Well to Oldpark** - The drivers of investment relate to strategic objectives (of compliance with the WRMP 2011 and the Regulator's requirements to reduce DG3 interruptions and DG4 restrictions) and Company objectives arising from the major incidents in December 2010/January 2011 resulting from the freeze/thaw effects on the Company's water infrastructure. The expenditure is allocated 100% to Growth. We challenged this split, but were advised that as the existing assets had been abandoned there was no element of Base Service. As such, we agree with the Company's assessment.

Service Reservoirs

For **JV830 - Crieve Service Reservoir** - Allocation of expenditure is relatively straightforward in this case. All work is on site and associated with Service Reservoirs so should be classed as 'water non-infrastructure'. The QBEG split has been determined by the volumes. Of the 4.5ML proposed capacity, 1.81ML is existing (which should have an ongoing capital maintenance liability). Thus 40% should be Base Service Provision and the remaining 60% should be allocated to the need for additional capacity, i.e. Supply/Demand Balance. The Company had initially allocated expenditure 34%B and 66%G, however this was subsequently corrected.

UID's

For **KN875 – Bangor DAP – Lukes Point -** the project is driven by the need to improve the Lukes Point WwPS UID from 8 to 3 spills per bathing season, as required by NIEA, and assist in the attainment of blue flag status for Ballyholme Bay.UWWTD. On this basis, NI Water has applied a nominal QBEG split of 90% Q, 10% B, 0% E and 0% G, whereby, the replacement screw pumps in the WwPS reflect the base maintenance element of the project.

For **KR480 – Holywood Sewer Catchment Investigations -** the project is driven by the need to cease discharge from 3 UIDs to a failing reed bed, as required by NIEA, and reduce the number of spills to Belfast Lough to less than 10 per year, in order to comply with the Shellfish Directive. NI Water has undertaken a detailed assessment of QBEG. We undertook a review of the assessment and confirm a QBEG split of 93% Q, 7% B, 0% E and 0% G, whereby, the upgrade of existing inlet sewers reflects the base maintenance element of the project.

For **KS902 – Dundrum UID Upgrades** - we found that the project is driven by the need to improve/close poorly performing UIDs from the Dundrum catchment, reduce the number of spills to Dundrum Lagoon to less than 10 per year (in order to comply with the Shellfish Directive), provide sufficient in-system storage to achieve equivalent 'Formula A' storage requirement at Flynn's WwPS and provide a new outfall from Flynn's WwPS. On this basis, NI Water has applied a nominal QBEG split of 90% Q, 10% B, 0% E and 0% G, which is consistent with other similar schemes reviewed.

For **KF330 – Armagh DAP Stage 1 Improvements** - The Armagh DAP Improvement project is driven by the need to remove 12 UIDs in the Armagh city centre, in order to comply with the UWWTD, as required by NIEA, ensure Newry WwPS complies with 'Formula A' storage requirements, undertake necessary maintenance on Newry WwPS, provide additional system capacity in order to cope with actual and forecast growth and replace sections of the network where structural/serviceability defects are apparent. We found that NI Water has undertaken a detailed assessment of QBEG. We undertook a review of the assessment completed and found the proposed split of 26% Q, 36% B, 0% E and 38% G, to reflect the project drivers and proposed scope.

For **KS372 – Market Street WwPS Upgrade – Phase 2** - The Market St WwPS Upgrade is driven by the need to remove 1 UID from Market St WwPS, as required by NIEA in order to comply with the UWWTD, reduce the risk of localised flooding and pollution in the Downpatrick town centre, and increase capacity and improve access to the WwPS. We found that NI Water has undertaken a detailed assessment of QBEG. We undertook a review of the assessment completed and found the proposed split of 65% Q, 24% B, 0% E and 11% G, to reflect the project drivers and proposed scope.

Waste Water Treatment Works

For **KN596 – Ballymagorry WwTW, KN640 - Dromore WwTW, KP672 – Tempo WwTW, and KL394 – Drumsurn WwTW** – These 'pre-feasibility' projects are typically driven by the UWWTD, and changing consents (down to 35/55/8) governed by the river needs standard provide a quality driver; growth, incorporating current under capacity and allowing for future development and base maintenance, to upgrade elements of each WwTW that haven't been upgraded in over 40 years. NI Water has applied a nominal QBEG split of 40% Q, 40% B, 0% E and 20% G. Whilst this is broadly appropriate for schemes, such as Ballymagorry and Dromore that are hydraulically and biologically overloaded, for Tempo WwTW, the capacity of the existing works is sufficient, but the outdated aeration and grit systems require replacement. As such, we believe that Tempo should be allocated 100% to Base.

For **KL496 - Feeny WwTW** - This project is driven by the UWWTD and changing consents (ultimately down to 15/25/4.5) governed by the river needs standard, provide a quality driver, growth, incorporating current under capacity and allowing for 100% development within the catchment and base maintenance, to upgrade elements of each WwTW that haven't been upgraded in over 40 years. NI Water has only applied a nominal QBEG split of 40% Q, 40% B, 0% E and 20% G. Whilst this is broadly appropriate, we would have expected a more robust assessment of QBEG to have been undertaken for schemes beyond the A1 approval stage. As a result of this challenge, the Company advised that they have actually completed an assessment of QBEG, based on estimated growth and known maintenance elements of the scheme. This was then critiqued by the Finance and Regulation team. We recommend that the QBEG 34% Q, 36% B, 0% E and 30% G be applied.

For **KL459 - Maghera WwTW Ph 2** - The projects within this business case are typically driven by the Quality drivers UWWTD and FWFD; and the need to provide 2 hours storage at FTFT by 2017; growth, incorporating current under capacity and allowing for 100% development within the catchment and base maintenance, to upgrade elements of the WwTW that haven't been upgraded in over 40 years. As the additional storage is not required until 2017 we queried whether it would be possible to defer work on Maghera WwTW Ph2 until PC15. The Company advised that whilst 2017 is the formal date for delivery of the additional storage, NIEA has sought early delivery of Maghera WwTW Ph2. NI Water has applied a QBEG split of 57% Q, 28% B, 0% E and 15% G for Maghera WwTW. We requested a breakdown of the QBEG assessment undertaken for Maghera WwTW, however, this was not made available prior to submission. Not withstanding this, we consider the QBEG allocation to broadly reflect the required drivers.

For **KT402 – Dunmurry WwTW Sludge Facility** - NI Water initially applied a QBEG split of 0% Q, 50% B, 40% E and 10% G, with an allocation to E (enhanced service levels) on the basis that the sludge liquors produced will be improved, thus enhancing performance of the treatment process. Whilst this assertion is correct, in regulatory terms, we do not consider this expenditure represents an enhancement to customer service levels. On this basis, we believe this project is predominantly a base maintenance project with an element of growth to account for increased capacity to treat additional Dunmurry sludge and to accept imported sludge. On this basis, we believe the QBEG split for Dunmurry sludge should be 0% Q, 90% B, 0% E and 10% G. As a result of this challenge, NI Water has reassessed QBEG as 23% Q, 71% B, 0% E and 6% G. We further challenged the high allocation to Q, and the Company advised that this allocation would be reviewed at the A3 approval stage, but was based on the fact NIEA have requested additional investment at Dunmurry to meet IPPC requirements (relating to odour control). Whilst NI Water confirm that this is a new regulatory requirement, in our experience in England and Wales, work relating to odour has generally been funded within base maintenance.

4.2 Proportional Allocation

NI Water maintains a Capital Investment Driver Allocation (CIDA) Manual, which includes:

- An explanation of the need for proportionally allocating capital investment;
- the occasions (generally formal approval stages) in the life of a capital scheme when the analysis should be considered or re-appraised;
- the thresholds for which CIDA is required;
- the procedures for undertaking the allocation;
- a comprehensive series of worked examples;
- definitions of purpose categories and investment drivers;
- descriptions of purpose categories and investment drivers
- descriptions of asset types and examples of assets;
- non-infrastructure asset life categories, lists of typical asset types in each category and the range of asset lives covered; and
- NIW asset categories

This manual appears to fully conform to the NIAUR Reporting Requirements and the Regulatory Accounting Guidelines and should form a sound basis for compliant reporting in Tables 32, 34, 35, 36 and 40.

The Reporting Requirements indicate that, for a company with capital investment greater than £100m per annum, proportional allocation should be applied to all schemes/projects expending over £100k in the Report Year.

As alluded to in Section 4.1 above, NI Water continues to improve the CIDA data capture and analysis process as follows:

- CIDA master classes were initially rolled out to Engineering Consultants responsible for delivery of the Capital Works Programme.
- For all schemes with Report Year spend above the £100k threshold, approvals

go through the Asset Management Approvals Panel where the CIDA allocation is checked and challenged.
- NI Water reviews all projects to confirm the appropriateness of the proportional allocation of expenditure for all projects that have had the CIDA allocation updated on CAPTRAX.
- A procedure has been implemented to ensure CIDA is updated on CAPTRAX prior to CIP approval.
- Operating Capital expenditure will be subject to the same governance and approvals processes as the Capital Works Programme expenditure.

During the course of our PC13 audits, we saw evidence that the CIDA allocation of schemes are regularly reviewed by the NI Water Finance and Regulation Team and that Project Managers liaise with the same team to ensure consistency of approach.

4.3 Data Reconciliation

We found that data reported in T32, T35 & T36 of AIR12 did not quite reconcile with equivalent data in the CIM, as summarised below.

Table 35 line description		T35 £m	CIM £m	Variance £m	Variance %
3	MNI (gross of grants and contributions)	20.062	20.313	0.251	**1.23**
6	Infrastructure renewals expenditure (gross)	26.771	26.448	-0.355	**-1.34**
7	Capex: Total quality enhancement programme	12.278	12.589	0.312	**2.48**
9	Capital expenditure: customer service	5.759	5.813	0.053	**0.92**
11	Capital expenditure: supply demand balance	10.480	19.791	0.594	**3.00**
16	Capital expenditure: security of supply	8.717			
	Totals	**84.099**	**84.953**	**0.855**	**1.01**

Table 36 line description		T36 £m	CIM £m	Variance £m	Variance %
3	MNI (gross of grants and contributions)	48.006	47.045	-0.961	**-2.04**
6	Infrastructure renewals expenditure (gross)	9.044	9.375	0.331	**3.53**
7	Capex: Total quality enhancement programme	28.730	28.045	-0.686	**-2.44**
9	Capital expenditure:customer service	4.251	4.374	0.123	**2.82**
11	Capital expenditure supply demand balance	17.914	18.215	0.301	**1.65**
	Totals	107.946	107.054	-0.892	**-0.83**
	check total	**192.045**	**192.008**		

Note Assets adopted at nil cost are excluded from the T35/T36 data = £48.034m

We queried this discrepancy, albeit minor (<1%), and found that AIR12 data is taken from CIDA, which has greater levels of granularity for each purpose/driver code.

We queried the nature of the small variances, and the Company advised that the CIM is reported in an 8 box format which introduces inaccuracies when back calculated for Table 35. An example project is JA210 which includes Water infra and Water non-infra items. The non-infra item is associated only with Base

Maintenance (as reported on AIR Tables) but when examining the CIM and back calculating this results in non-infra being allocated to Q, E and G which is incorrect. It is however the case that at a project level both the service indicators and purpose allocations reported on the CIM are correct. On this basis, projects with a mix of Water/Sewerage and infra/non-infra provide an incorrect answer when generating the comparisons from the CIM.

4.4 Additions – New assets (enhancement)

Enhancement expenditure reported in Table 32 has been derived from Captrax (CPMR) for Capital Works Programme expenditure and the Oracle AICC database for Operating Capital and M & G.

We note a slight increase in expenditure against infrastructure assets, and a significant reduction in expenditure against non-infrastructure assets, with an emphasis on base service provision expenditure for 2011/12, as NI Water deliver the PC10 programme, which has a strong capital maintenance focus.

We found that NI Water has reported a slight increase in the number of assets adopted at nil cost (reported in Line 7 Column 4) as developers try and reduce their liability on completed developments, resulting in increased levels of notional expenditure.

For AIR12, enhancement related M&G expenditure has been allocated on a project by project basis rather than an assumed proportional allocation between water and sewerage. For 2011/12, M&G expenditure has been allocated 56% to Water : 44% Sewerage.

We confirm that enhancement expenditure reported in Table 32 is consistent with that reported elsewhere in the AIR and our specific comments are included in our commentaries for Tables 35 and 36.

4.5 Base Service Provision

We confirm that the base maintenance expenditure reported in Table 32 is consistent with that reported elsewhere in the AIR and our specific comments are included in our commentaries for Tables 35 and 36.

When compared to the overall levels of cumulative expenditure forecast for Year 2 of PC10, as summarised in Table 32.1 below, NI Water are significantly ahead of water IRE forecasts, reflecting a significant increase in the length of main renewed during the year. Against a PC10 target of 300km pa, NI Water renewed 444km of main during the year. This increase in WMR activity reflected the need to spend additional PE funding during the year and also the opportunistic mains replacement work completed in conjunction with planned road re-surfacing work.

In terms of MNI expenditure, the Company is significantly ahead on the level of MNI expenditure forecast for Year 2 of PC10. It is evident that the PC10 programme is heavily focussed on capital maintenance schemes and there was also an increase

in Operational Capital MNI spends to match the increased PE allowance for 2011/12, with a particular focus on the inspection and replacement of inefficient MBR filters.

Table 32.1 – Asset Maintenance Expenditure

		Water Infrastructure (£m)		Water Non-Infrastructure (£m)		Sewerage Infrastructure (£m)		Sewerage Non-Infrastructure (£m)	
		Actual	SBP/ PC10	Actual	SBP/ PC10	Actual	SBP/ PC10	Actual	SBP/ PC10
SBP	2007/08	18.257	[x]	17.867	[x]	5.718	[x]	21.505	[x]
	2008/09	37.632	[x]	19.769	[x]	6.188	[x]	26.098	[x]
	2009/10	26.904	[x]	12.305	[x]	11.494	[x]	30.115	[x]
PC10	2010/11	18.810	[x]	14.447	[x]	6.053	[x]	21.229	[x]
	2011/12	**26.45**	[x]	**20.31**	[x]	**9.37**	[x]	**47.05**	[x]
			[x]		[x]		[x]		[x]

Overall, report year maintenance expenditure is £20m above the PC10 forecast, reflecting the re-profiling of Public Expenditure allowances for 2011/12.

We provide further comment on the nature and reasons for this variance in our commentaries to Tables 35 and 36.

4.6 Grants and contributions

As stated in NI Water's commentary to table 32, non-infrastructure additions are shown net of grants, contributions and asset adoptions. Assets adopted are included in gross MEAV terms as described in our table 36 commentaries

Infrastructure renewals expenditure is shown net of Infrastructure Charge Receipts.

4.7 Reconciliations

We confirm the following consistencies:

- Table 32(Total)/32/3 = Table 35(incl. PPP)/2
- Table 32(Total)/33/3 = Table 35(incl. PPP)/3
- Table 32(Total)/32/3 = Table 35(incl. PPP)/25
- Table 32(Total)/17/3 = Table 35(incl. PPP)/26
- Table 32(Total)/32/6 = Table 36(incl. PPP)/2
- Table 32(Total)/33/6 = Table 36(incl. PPP)/3
- Table 32(Total)/32/6 = Table 36(incl. PPP)/22
- Table 32(Total)/17/6 + 32/33/6 = Table 36(incl. PPP)/23

Date: 25 July 2012
Prepared by: HMS

Table 33- Depreciation Charge by Asset Type

Commentary by REPORTER

1. Background

Information in this table assists with the understanding of the accounting charges applied by the Company. Current Cost Depreciation (CCD) charges are split by service and by period of commissioning and further by whether the related capital expenditure was on the provision of enhancement assets or on maintaining existing 'base' assets.

The table also reports on Infrastructure Renewals Charges (IRC) for Water and for Sewerage services separately. It compares IRC against IR Expenditure (IRE) and tracks the prepayment/accrual position.

2. Key findings

- We have commented on proportional allocation between base and enhancements and by asset lives in our commentaries to tables 32, 35-36;
- We believe the revised table format facilitates more accurate reporting in relation to splits between different rows of the table;
- We note significant accelerated depreciation in the year, which follows similar levels of acceleration reported in AIR11 and AIR10. We suggest that NI Water should aim to achieve a stable accelerated depreciation position;
- NI Water seems to make a one way downward adjustment for impaired assets which could impact on the value of the GMEAV. NI Water advises that they have taken advice from their external financial auditors and this approach is consistent with UKGAAP;
- NI Water is putting through accelerated depreciation on infrastructure assets. This seems to be at odds with RAB and IRC type financing. NI Water advised that the financial auditors are content with this approach;
- NI Water has transferred some assets to the PPP operator, by means of an accelerated depreciation charge. NI Water advises that the financial auditors have provided comfort to them that this is the correct approach;
- Historically the IRC was based on a 10 year average. However for PC10 the IRC calculation is based on the final determination for PC10. The Company advised that the Utility Regulator has determined that the IRC and IRE would be the same for the three years covered by PC10. It should be noted however that more updated information on the IRC should be available in the PC13 plan.

3. Depreciation

The total depreciation charge for the year is reported in line 5 of table 33. The Company approach remains unchanged from previous years.

Confirm whether the systems and processes described in the Company's methodology statement are those currently in operation. Where this is not the case identify and explain areas where the methodology statement is incorrect or incomplete.

During our audit we were provided with the Company commentary and their process notes that relate to the Company approach.

There has been no fundamental shift in the way that the Company reports data in this table. As the Company advises in their commentary, the data for this table has been populated using the same method as that used to populate table 25. Table 25 is based on actual asset lives and not simplified assets as those used historically in table 34. Nevertheless, we do believe that the current array of asset lives should be improved in order to better reflect the true economic life of assets.

The Company advised that it is not able to automatically assign depreciation to either base or enhancement expenditure. It uses a split based on CIDA analysis which identifies whether an asset relates to Quality, Base, Enhancement or Growth. We have commented on the correctness of the CIDA approach in our audits of the capital expenditure tables.

Data from table 25 is already split between water and sewerage services. Many management and general assets are assigned to either water or sewerage or a mixture based on the CIDA assessment by the project manager.

Depreciation Policy
Assets are depreciated on a monthly basis from the date they are commissioned for beneficial use. The Company has a de-minimus figure for capitalisation. This approach is unchanged from previous years.

Revised MEAV valuation
The previous asset revaluation was undertaken in 2001-02 by Mott MacDonald. The Company advise that it may undertake the next revaluation for price control 2015. It should be noted that NI Water has revalued some infrastructure assets and has included the accelerated depreciation from that revaluation exercise into the data contained in this table.

Depreciation Calculations
As data already exists related to water and sewerage, the Company has used splits derived from table 34 in order to report depreciation for the current year. These data in table 34 on asset life splits would, we believe, have been useful to maintain in order to sense check that the average financial asset life is consistent with the average engineering asset life.

The Company advised that it is depreciating assets for the Kinnegar PFI as this is an 'on-balance sheet' transaction although it is being built and operated by the private sector.

Perform tests of the Company's systems and processes described by the Company's method statement to ensure that it has been followed by the Company in the calculation of the CCD and population of table 33.

Correctness of split of assets between water and sewerage services, and base and enhancement purposes.

We have commented on the robustness of expenditure allocation to service and purpose categories in our commentaries to tables 32, 34 and 35-36. We undertake sample checks of this data routinely as part of our proportional allocation audits. Based on these audits we believe the approach is appropriate for splitting assets between base and enhancement expenditure. We will undertake a more detailed audit of a sample of schemes focusing specifically on asset lives for AIR13.

Review the Company's assessment of confidence grades by line to assess the robustness of how this table has been completed. Comment on whether you agree with the confidence grade assigned.

For AIR12 NI Water reported confidence grades as B3, consistent with previous years. We continue to believe that this is appropriate.

Consider and comment on any changes that the Company could make to its analysis, which would give a more robust answer. You should consider feasibility and costs associated with making suggested changes, and explain whether you have brought your suggested improvements to the Company's attention and whether it is considering implementing them.

We have made some comments below under Company's explanation of movements.

Compare the Company's rules on proportional allocation between services (specifically between base and all enhancements) and allocation of expenditure to depreciable life categories given in table 33. Confirm whether the charge stated has been calculated in accordance with the Company's rules. Comment on any exceptions.

As part of our audit we have undertaken a review of the Company's approach to proportional allocation between base and enhancement and asset lives. Our findings are included in our commentaries to tables 32, 35-36.

The Company has historically reported the following asset lives in table 34.

Asset category	Asset life
Very Short	4
Short	10
Medium	20
Long	60

Last year we undertook an independent assessment of the average asset lives contained in the Company asset register for the various asset lives. We used the following categories of assets in our assessment, informed by discussions with NIW:

Asset type	Associated Asset Life
BUILDING	Long
CAPITAL STUDIES	Medium
CGR CIVILS	Long
CIVILS	Long
COMPUTERS	very short
COMPUTERS LLA	Short
DIGITISATION	Medium
FIXED PLANT	Medium
FURN&OFFICE	Short
ICA	Medium
INF ACC DEPN	Infra
INFRASTRUCT	Infra
LAB EQUIP	Short
LAND	Land
LAND MGMT	Medium
LL Computers	Short
LL MOB PLANT	Short
LORRIES	very short
RADIO &MONIT	Medium
SL MOB PLANT	very short
TELEMETRY	Short
VANS	very short

The table below shows the results of our analysis:

Asset category	Asset life
Very Short	6.1
Short	10.5
Medium	25.2
Long	58.4

These figures highlighted a difference to the data reported in table 34. For AIR12, we note that the regulator has removed the requirement to report asset lives in table 34.

We believe that the comparison would be useful to consider the variance between data submitted in the PR process and the outturn average asset life data.

Review and comment on the Company's explanation of the movement in the total CCD between the current year and prior year.

Approach to Accelerated Depreciation

For the current year, the Company has applied accelerated depreciation of £65 million. This is more than 70% of the total depreciation charge. The Company has applied a significant accelerated depreciation charge now for a number of years. We have recommended previously that NI Water completes a full review of assets in order to ensure that accelerated depreciation relates to one-off impacts.

The breakdown of the charge for the current year is as follows:

Category	Value of Accelerated Charge	Reasons
Omega PPP Assets	£31.5 million	These are Omega assets that NIW advised were transferred to Omega but were still on NIW's books. Hence it has applied a one off adjustment to these. For the purposes of the regulatory accounts, we believe it is correct to charge an accelerated depreciation charge if the initial RAB value included the relevant values for these assets.
Infrastructure Assets with a PPP Charge	£32.2 million. This includes some assets that were infrastructure and transferred to Alpha.	This relates to a reduction in the MEAV of infrastructure assets that NIW has reported through accelerated depreciation values.
Total	**£63.7 million**	The difference is then made up of smaller accelerated depreciation that is incurred.

Impairment of Assets

As noted above NI Water has put through an impairment value of £3.1 million. This is based on advice from independent consultants [x]. We challenged NIW and it advised that it only makes a downward adjustment as required by UKGAAP and not an upward adjustment where the consultants advise that there has been an increase in asset values.

We believe that this will result in a mismatch between the GMEAV values reported in the data submitted by NI Water and the actual GMEAV, particularly as these changes in values are only being fed through the depreciation charge rather than the GMEAV asset data lines. NI Water advised that the external auditors were content with their approach on this as it is in line with UK GAAP treatment and they have always used net value in their RAB and IRC workings.

Review and confirm whether NI Water's explanation of the impact of an MEA revaluation on its CCD charge is adequate and reasonable

There has been no MEA revaluation for the current year. NI Water has provided an explanation on why it is depreciating infrastructure assets and the impact on the GMEAV of the application of its impairment policy. NI Water advised that in both respects the financial auditors are content with their approach.

Review and confirm whether NI Water's explanation of the link between HCA and CCA depreciation, including what systems are used to derive both depreciation charges, is adequate and reasonable.

The Company's fixed asset register holds details related to both HCA and CCA. Asset values reflect those of the previous revaluation in 2001, plus new assets that have been commissioned and continue to have useful life. HCA data is indexed on an annual basis to present it as CCA data. Since the incorporation of the Company, NI Water has used RPI to index data.

The Company has on-balance sheet additions to the Alpha PPP assets. This has resulted in depreciation of £11.2m. This represents a significant increase on the value reported 2011/12 of £7.8 million. NI Water advised 'The significant increase is due to the decommissioning of Alpha assets which are no longer in use and represents a one-off accelerated depreciation in 2011/12'.

4. Infrastructure renewals charge

Consider whether NI Water's policy for infrastructure renewals charge is consistent with the calculation of the infrastructure renewals charge

Historically the IRC was based on a 10 year average. However since PC10 the IRC calculation is based on the final determination for PC10. The Company advised that the Utility Regulator has determined that the IRC and IRE would be the same for the three years covered by PC10. NI Water advised that no revised IRC will be available until the Utility Regulator has determined the Final Determination for PC13 and this will be for the 2 year PC13 period.

Halcrow has previously audited the IRE and commented on this as part of the Business Plan audits for PC10.

The difference between the actual out-turn IRE and the IRC is treated as an accrual or prepayment.

Consider whether NI Water's policy is reflective of NI Water's medium to long-term view of infrastructure renewals expenditure. The Reporter should consider what IRE projections are available to NI Water and if these projections are medium to long term;

The IRE projections used by NI Water is based on the IRE allowed for in the final determination. No long-term IRE projections were presented in the PC13 submission and we therefore anticipate that IRE will continue to be governed by budgetary requirements until a reasoned projection of IRE is tabled and accepted. We would expect this to be a component of the PC15 submission and determination.

Review and comment on NI Water's explanation of the period over which it expects any infrastructure renewals accrual/prepayment to be wound out and whether this is reasonable.

The Company has a relatively small prepayment balance of £2.73m compared to an accrual of £3.04 in AIR11.

Date: 25 July 2012
Prepared By: HMS

Table 34 – Analysis of non-infrastructure fixed asset additions by life categories

Commentary by REPORTER

1. Background

This table provides a breakdown of the non-infrastructure fixed asset additions in each Report Year, split by:

- Service area (water or sewerage service)
- Purpose category (Enhancement or Base Maintenance) and
- Asset life category

2. Key findings and recommendations

- NI Water has added additional asset lives to better allocate capital expenditure following our recommendations;
- Although NI Water has 3 year plans, its new status means that all budgets have to be spent with the year allocated, resulting in potential inefficient expenditure;
- The depreciation charge is based on depreciating a wide range of asset types over a limited selection of asset life categories;
- The appropriateness of the average asset lives was reviewed in our audits of the PC10 submissions in 2009. In general, these were deemed to be satisfactory and in line with assumptions employed elsewhere. We do believe however that the asset life categories available should be extended to ensure that the economic life of an asset is more consistent with its financial life;
- The audit trail for the basis of the split of assets is not transparent
- We challenged the Company last year on the basis of the calculations of average asset lives. For the Report year, NIAUR has removed the requirement to report an average asset life split. We consider that this data did serve a useful purpose when comparing average financial asset lives and actual average economic asset lives.

3. Audit Approach

We undertook an audit of the systems and data generated by those systems for the purposes of reporting data within this table.

4. Audit Findings

4.1 *Confirm whether the systems and processes described in NI Water's methodology statement are those currently in operation. Where this is not the case the Reporter should identify and explain where the methodology statement is incorrect or incomplete*

The Company methodology is contained in the commentary submitted. The Company installed the capital investment driver allocation (CIDA) approach in 2007/08 in order to improve the allocation of costs primarily between base and the

various enhancement categories. The CIDA manual was updated in November 2009. It was further improved in 2010/11.

The Company used the project control system (Captrax) and Oracle in order to report data in this table.

The Company advises that the CAPTRAX system is reconciled on a monthly basis with the general ledger. The CAPTRAX system allows the generation of reports that can be used directly for the population of data in table 34.

We have undertaken a broad consistency check of the data between the different capital expenditure tables for AIR12. Our analysis and tests of the data sources and the NI Water systems show no material concerns.

In allocating their fixed assets to life categories within their various systems, NI Water uses a simplistic view of assets and asset lives. We believe that a greater array of assets is required in order to fully reflect the economic life of the different assets within NI Water's asset register.

The historic list of asset lives is shown below:

Fixed Asset Register and CIDA	Asset Life	Table 34	Asset Life	Statutory/Regulatory Accounting Reporting (ORACLE coding)
Infrastructure	n/a	-	-	0113
Buildings	60	long	60	0111
Civils	60	long	60	0112
Fixed plant	20	medium	20	0115
Digitisation	20	medium	20	0115
Capital studies	20	medium	20	0115
Land management	20	medium	20	0115
Radio and monitoring	20	medium	20	0115
Long life mobile plant	10	short	10	0114
Short life mobile plant	5	short	10	0114
Lorries	10	short	10	0114
Computer equipment	6-10	short	10	0116
ICA	7	short	10	0115
Telemetry	7	short	10	0115
Furniture and office	10	short	10	0116
Lab equipment	5	short	10	0115
Vans	5	v. short	4	0114
Computers (stand alone)	3	v. short	4	0116

Further to our comments in previous years NIW has added the following additional asset life categories:

Financial Category	Definition	Life in years
Fences	All fences around sites	40
Meters	Domestic Water Meters	8
Batteries	Batteries for loggers, toughbooks etc.	4
Filter Media	Media in Biological filters, Sand filters etc.	20
MBR Membranes	MBR membranes	5
Rotating Biological Filters	RBC package plants	20
Kiosks	All kiosk type structures including small control kiosks and prefabricated control buildings	20
Steel Tanks	All Steel tanks for storage and processes	40

This does now provide a better list of asset lives and NI Water may wish to review these again prior to the next business plan submission for completeness.

Further comments are provided in relation to the systems and processed used by NI Water in our commentaries on tables 35 to 36.

4.2 ***Perform tests of NI Water's systems and processes described by NI Water's methodology statement to confirm that it has been followed by NI Water in the calculation of the CCD and population of table 34***

During our sample audits of capital schemes across purpose categories and asset types, we reviewed the CIDA data, inter alia, to test the allocation of values to assets and the allocation of these values to asset lives for depreciation purposes. We did not find any shortcomings. We did note that NIAUR has now removed the requirement to report the assumed average asset lives in the necessary categories.

The Company has provided flowcharts related to completion of the data within CAPTRAX, through to reporting data in the Annual Information Return. The processes depicted in these flowcharts are consistent with the methodologies in use.

4.3 ***Review and comment on the reasonableness and consistency of the rules adopted by NI Water for allocation of expenditure to life categories***

We undertook a review of the allocation of expenditure across life categories on a sample basis for the SBP submission. We did not find any material areas of concern during this audit. We also checked the allocation between CIDA categories as part of the PC13 process.

We will undertake a sample audit of the application of the CIDA proportional allocations to life categories for AIR13 to review the correctness of the expenditure particularly to asset life category allocations.

4.4 ***Review NI Water's procedures and consider whether or not they are reasonable, and whether they are followed by staff involved in allocation decisions***

The large part of the data reported in this table is based on the CIDA analysis. NI Water themselves perform a series of checks on CIDA data as each project passes through its life. The Project Managers (most of whom have now received CIDA training) enter the data, initially based upon their knowledge of the purpose(s) and scope of the work involved. At 'A1' stage, this allocation is checked by Asset Management and approved prior to uploading to CIDA. The project data is similarly reviewed and approved at 'A3' stage, then again at 'A4', when the CIDA information is once again updated. All new updates to CIDA are again specifically checked as responsibility is passed to the Finance and Regulation directorate.

This level of training, approvals and checks appears to have generated a sound data set as the tests we have performed on the CIDA information falls well within acceptable limits for the subjective nature of the assumptions required.

We note however that there is an absence of an audit trail in the CIDA system in relation to the basis of allocated assets between life categories. We would expect this to be resolved in the future. We reviewed an executive approval for capital expenditure and found little justification for the split of asset lives used, and concluded that the split used for a scheme by asset life is not subject to the same scrutiny by the investment board as the investment business cases are.

4.5 ***Review and comment upon any differences from rules and procedures adopted in previous years, and consistency of asset lives with those used for depreciation of assets***

There has been no significant change in the methods used for reporting this data between AIR11 and AIR12. The Company is planning changes to some asset life information and the way that the business case is presented for approval by being more explicit about CIDA splits. NI Water should also consider providing greater transparency of the split of project investment into asset life categories in the business cases presented for approval.

The Company advises in its commentary that the last comprehensive review of asset lives was completed as part of the NIAMP in 2001 although as noted above it has added some additional asset lives to the analysis.

4.6 ***Consider the appropriateness of the current cost depreciation charge in the year and in particular:***

- ***confirm when NI Water last reviewed or amended its asset life and apportionment policy;***
- ***comment on whether, in the Reporter's view, the financial asset lives reflect the operational lives of the assets and the reason for that opinion;***
- ***comment on the appropriateness of both asset lives and the apportionment of expenditure across asset lives used by NI Water***

As noted in the sections above, NI Water has added several new asset life categories to their standard list. This will improve the apportionment of CCD as there is greater granularity and clarity for allocation. The Company added some new asset lives during the previous report year so the asset base is gradually becoming better allocated to asset lives.

The Company's approach to apportionment is being improved continually. The apportionment and asset life policy remains broadly as previous years. We have made some recommendations about audit trails related to apportionments between asset lives and opening these judgements up to scrutiny by the investment board. We believe this will improve the allocation of asset lives to categories.

It should be noted that the total current cost depreciation charge has been reviewed by the financial auditors. We have commented on this in our commentary to table 33 and have raised some concerns.

The apportionment across average asset lives has been done on the basis of the CIDA allocations. The CIDA split had an average asset life for medium life assets at 15 years. This is consistent with the Executive Approval reports we reviewed for individual schemes.

Our previous audits of capital schemes have confirmed that the Company's approach to allocation of expenditure in CIDA is improving. We will undertake a sample audit of the split of asset lives across categories during our audit of AIR13.

4.7 ***Review and comment on inconsistencies between engineering and financial judgements on asset lives and investment allocation***

Our reviews of asset lives remain as reported on the SBP document. We have not revisited this analysis for the AIR. We will review this for our work in AIR13.

4.8 ***Review and comment, on an exception basis, where NI Water has not provided commentary on inconsistencies in asset lives and investment allocation between those used in previous years***

We have commented on investment allocations in more detail in our audits to tables 35-36 and 40. In general the approach to allocating expenditure to asset lives remains the same as that used in the previous year.

5. Methodology PPP table

The Company has reported only £0.236m of additions. The Company advise the Enhancements/Base Service split has been extracted from the Contractors financial model. A number of assumptions have been made in order to split data between infrastructure and non-infrastructure expenditure.

No PPP information has been included for either Omega or Kinnegar contracts. This is because the information is felt to be of insufficient quality.

Date: 25 July 2012
Prepared By: HMS

Table 35 – Water Service – Expenditure by purpose

Commentary by REPORTER

1. Background

This table disaggregates expenditure between base, enhancements, grants and contributions and adopted assets. Enhancements are reported under quality, enhanced service levels, and supply/demand. The table also indirectly checks the Company's proportional allocation rules.

2. Key Findings

- NI Water has continued to develop, implement and improve their proportional allocation procedures. Much work has been done to review ongoing projects and to better allocate the investment to the appropriate QBEG purpose categories. We found that NI Water review all projects to confirm the appropriateness of the proportional allocation of expenditure for all projects that have had the CIDA allocation updated on CAPTRAX.

- However, during the course of our PC13 audits we noted a number of instances where the CIDA allocation reported by the Project Manager was not always consistent with that reported on CAPTRAX. We raised this issue with the Company and they advised that they were aware of the issue and that a procedure had already been implemented to ensure that CIDA is updated on CAPTRAX prior to CIP approval.

- We note a 13% increase in overall capital expenditure in Year 2 of PC10, due to the re-profiling of Public Expenditure (PE) funding for 2011/12. We consider that variations to PE funding (both positive and negative) are difficult for the Company to effectively manage due to the long 'lead time' for most capital projects. For 'new start' schemes that were developed during the report year, delivery will carry over to 2012/13, which pre-commits a large proportion of, what is a reduced PE allocation for 2012/13, reducing the ability to promote further 'new start' schemes in 2012/13, reducing their ability to reactively respond to emerging issues.

- In terms of Infrastructure Renewals Expenditure (IRE), the expenditure incurred during the year is circa 40% above the PC10 forecast for IRE in Year 2, reflecting a significant increase in the length of main renewed during the year. Against a PC10 target of 300km pa, NI Water renewed 444km of main during the year.

- It is interesting to note that whilst IRE has significantly increased in AIR12 when compared to AIR11, the increase was disproportionate to the increased length of main delivered during the year. This variance indicates a shift in WMR expenditure towards Quality, which is reasonable, based on the fact NI Water proportionally allocates expenditure for each defined length of main on a case by case basis.

- We found that the final PC10 WTW output, Killylane WTW study was delivered during the year, and whilst good progress has been made against the balance of the outstanding PC10 programme, five schemes have been deferred to PC13/PC15.

3. Audit Approach

As part of our review of NI Water's PC13 submission, we completed a number of detailed 'Capex' audits, the results of which we have used to inform our opinions for AIR12.

At year-end we undertook a review of the contents of the Capital Investment Driver Allocation (CIDA) spreadsheet systems and CIM template, which collates the expenditure information by project for the Report Year. During this review, we tested the collation systems to ensure that the proportional allocations exposed in the scheme specific audits are correctly stated at the summary level for entry into the AIR Tables.

We also met with the system holder to confirm the reported data for each line and review progress against the various programmes.

4. Audit Findings - Capex

4.1 PC10 Assumptions

In order to assist with the population of Table 35a, NIAUR provided a breakdown of the Final Determination. We have reproduced the breakdown below for ongoing reference, to form the basis of expenditure comparisons undertaken throughout the PC10 period.

Water	2010-11	2011-12	2012-13	**Total**
Q	[x]	[x]	[x]	[x]
B	[x]	[x]	[x]	[x]
E	[x]	[x]	[x]	[x]
G	[x]	[x]	[x]	[x]
Total	[x]	[x]	[x]	[x]

Base	2010-11	2010-11	2010-11	**Total**
WATER INFRA	[x]	[x]	[x]	[x]
WATER NON-INFRA	[x]	[x]	[x]	[x]
Total	[x]	[x]	[x]	[x]

4.2 Proportional Allocation

NI Water has continued to develop, implement and improve their proportional allocation procedures. Much work has been done to review ongoing projects and to

better allocate the investment to the appropriate QBEG purpose categories. We found that NI Water reviewed all projects to confirm the appropriateness of the proportional allocation of expenditure for all projects that have had the CIDA allocation updated on CAPTRAX.

As reported previously, the capital scheme approvals process is formalised, with all schemes >£25k, but <£500k, requiring formal approval by the BICC Panel and all schemes >£500k requiring CIP approval. The Strategic Investment team (within the Asset Management Directorate) review the CIDA on all projects as they seek approval and advise the above panels of any challenges.

During the course of our PC13 audits we noted a number of instances where the CIDA allocation reported by the Project Manager was not always consistent with that reported on CAPTRAX. We raised this issue with the Company and they advised that they were aware of the issue and that a procedure had already been implemented to ensure CIDA is updated on CAPTRAX prior to CIP approval.

Whilst we did not review a sample of schemes to specifically test allocation methodologies for AIR12, we did review a sample of schemes for PC13, as summarised below. Whilst the schemes did not directly apply to expenditure incurred during 2011/12, it did provide us with assurance that the CIDA allocations applied by the Company are broadly in line with the Reporter's expectations

Project Reference	Project Name	Budget (£k)	Spend to date (£k)	Initial PC13 CIDA QBEG Allocation				Reporter QBEG Allocation			
				Q	B	E	G	Q	B	E	G
JB662	Panel Engineers Recommendations – Northern Area	[x]	[x]	0	100	0	0	0	100	0	0
JL756	Metering and Treatment of WTW Effluents	[x]	[x]	100	0	0	0	100	0	0	0
JJ669	Killyhevlin WTW	[x]	[x]	60	40	0	0	60	40	0	0
JR342	Castor Bay to Belfast Strategic Link Main	[x]	[x]	60	40	0	0	0	40	0	60
JR460	Gravity II, McVeighs Well to Old Park	[x]	[x]	0	0	0	100	0	0	0	100
JV830	Crieve Service Reservoir	[x]	[x]	0	34	0	66	0	40	0	60

A summary of our findings is detailed below:

Water Resources

For **JB662 - Panel Engineer Recommendations – Northern Area** - NI Water is seeking to remain compliant with the Reservoirs Act 1975 (which is expected to be enacted in NI in the next few years). Associated investigations have also identified some operational safety issues in these old, but long-life assets which need attention. On the basis that all work is maintenance related, all expenditure has been allocated 100% to Base and to Water Infrastructure.

Water Treatment Works

For **JL756 - Metering and treatment of WTW effluents** - The metering programme is driven by considerations of receiving water quality only; so allocation to 100% Q is appropriate.

For **JP669 - Killyhevlin WTW upgrade** - NI Water has estimated the costs of adding the GAC process and, from recent experience, estimated the cost of the impact on existing assets. The high-level nature of this, at about 60% Q: 40% B therefore seems reasonable.

Trunk Mains

For **JR342 - Castor Bay to Belfast Trunk Main** - The drivers of investment relate to strategic objectives (of compliance with the WRMP 2011 and the Regulator's requirements to reduce DG3 interruptions and DG4 restrictions) and Company objectives arising from the major incidents in December 2010/January 2011 resulting from the freeze/thaw effects on the Company's water infrastructure. At audit we challenged the allocation as 60% had initially been allocated to Quality Enhancement and 40% to Base Service. NI Water agreed that the 60% should have been allocated to Growth and this was subsequently corrected.

For **JR460 Gravity II, McVeigh's Well to Oldpark** - The drivers of investment relate to strategic objectives (of compliance with the WRMP 2011 and the Regulator's requirements to reduce DG3 interruptions and DG4 restrictions) and Company objectives arising from the major incidents in December 2010/January 2011 resulting from the freeze/thaw effects on the Company's water infrastructure. The expenditure is allocated 100% to Growth. We challenged this split, but were advised that as the existing assets had been abandoned there was no element of Base Service. As such, we agree with the Company's assessment

Service Reservoirs

For **JV830 - Crieve Service Reservoir** - Allocation of expenditure is relatively straightforward in this case. All work is on site and associated with Service Reservoirs so should be classed as 'water non-infrastructure'. The QBEG split has been determined by the volumes. Of the 4.5ML proposed capacity, 1.81ML is existing (which should have an ongoing capital maintenance liability). Thus 40% should be Base Service Provision and the remaining 60% should be allocated to the need for additional capacity, i.e. Supply/Demand Balance. The Company had initially allocated expenditure 34%B and 66%G, however this was subsequently corrected.

4.3 Year-end Capital Investment Reconciliations

As has been the case in previous years, we found that data reported in T35 of AIR12 does not quite reconcile with equivalent data in the CIM as AIR12 data is taken from CIDA, which has greater levels of granularity for each purpose/driver

code. As summarised below, a [x] variance in water-related capex between CIM and CIDA was identified.

Table 35 line description		T35 £m	CIM £m	Variance £m	Variance %
3	MNI (gross of grants and contributions)	20.062	20.313	0.251	**1.23**
6	Infrastructure renewals expenditure (gross)	26.803	26.448	-0.355	**-1.34**
7	Capex: Total quality enhancement programme	12.278	12.589	0.312	**2.48**
9	Capital expenditure: customer service	5.759	5.813	0.053	**0.92**
11	Capital expenditure supply demand balance	10.480	19.791	0.594	**3.00**
16	Capital expenditure - security of supply	8.717			
	Totals	**84.099**	**84.953**	**0.855**	**1.01**

We queried the nature of the small variances, and the Company advised that the CIM is reported in an 8 box format which introduces inaccuracies when back calculated for Table 35. An example project is JA210 which includes Water infra and Water non-infra items. The non-infra item is associated only with Base Maintenance (as reported on AIR Tables) but when examining the CIM, back-calculating this results in non-infra being allocated to Q, E and G which is incorrect. It is however the case that at a project level both the service indicators and purpose allocations reported on the CIM are correct. On this basis, projects with a mix of Water/Sewerage and infra/non-infra provide an incorrect answer when generating the comparisons from the CIM

4.4 Capital Expenditure

4.4.1 General

When compared against the actual expenditure incurred during the year against the various drivers, as summarised below, we note a 13% increase in overall capital expenditure in Year 2 of PC10 [x] when compared to the forecast PC10 expenditure profile for Year 2 [x]. We found that this increase in expenditure reflects a re-profiling of Public Expenditure (PE) funding for 2011/12. We found that the additional expenditure has been primarily targeted additional water mains rehabilitation, due to the relatively short lead-in time for well established rolling programmes of work such as WMR. In addition, the promotion of a number of 'new start' capital schemes were also brought forward in order to ensure the revised PE allocation for 2011/12 was spent.

We consider that variations to PE funding (both positive and negative) are difficult for the Company to effectively manage due to the long 'lead time' for most capital projects. For many 'new start' schemes that were developed during the report year, delivery will carry over to 2012/13, which pre-commits a large proportion of, what is a reduced PE allocation for 2012/13, reducing the ability to promote further 'new start' schemes in 2012/13, and NI Water's ability to reactively respond to emerging issues.

Water	[x]	[x]	[x]
	[x]	[x]	[x]
Q	[x]	[x]	[x]

B	[x]	[x]	[x]
E	[x]	[x]	[x]
G	[x]	[x]	[x]
Total	[x]	[x]	[x]

Base	**[x]**	**[x]**	**[x]**
	[x]	**[x]**	**[x]**
WATER INFRA	[x]	[x]	[x]
WATER NON-INFRA	[x]	[x]	[x]
Total	[x]	[x]	[x]

4.4.2 Base Service Provision

In terms of Infrastructure Renewals Expenditure (IRE), the expenditure incurred during the year [x] is circa 40% above the PC10 forecast for IRE in Year 2 [x] reflecting a significant increase in the length of main renewed during the year. Against a PC10 target of 300km pa, NI Water renewed 444km of main during the year. This increase in WMR activity reflected the need to spend additional PE funding during the year and also the opportunistic mains replacement completed in conjunction with planned road re-surfacing work.

It is interesting to note that whilst IRE has significantly increased in AIR12 when compared to AIR11, the increase was disproportionate to the increased length of main delivered during the year. This variance reflects a shift in WMR expenditure towards Quality, which is reasonable, based on the fact NI Water proportionally allocate expenditure for each defined length of main on a case by case basis.

Expenditure during the year, reflects investment on a number of infrastructure based maintenance schemes, including JV025 – Lough Ross Watermain Improvements [x], JB680 – Dungonnell Zone Watermain Improvements [x] and JV841 – Fofanny Banbridge WM Imps [x].

Although expenditure on maintenance to non-infrastructure (MNI) assets is higher than reported in AIR11, activity on WTW maintenance projects has reduced significantly during the year. This reflects the fact that most WTWs have recently been upgraded and therefore do not require additional maintenance spend. In fact, the only significant WTW related MNI spend related to Clay Lake WTW Remedial Work [x]. We found that the increase in MNI expenditure reported, related primarily to increased levels of Operational Capital [x] and M&G related expenditure [x]. The Company advised that the overall allocation to Operational Capital projects was circa three times the value previously allowed, in order to ensure that the PE funding allowed for Year 2 was spent.

Management and General (M&G) expenditure accounted for 37% of the MNI spend for the year, which is slightly higher than that reported previously - and higher than we normally find at companies in E&W, where M&G spend has typically been 25%

of MNI. The ongoing rationalisation of NI Water office space in Belfast city centre [x] and comprehensive replacement of NI Water's computers [x] was the main source of M&G expenditure for AIR12.

In terms of MNI expenditure, NI Water is broadly in line with the Year 2 PC10 forecast, but slightly behind in overall terms. We highlighted in our AIR11 commentary that the 2010/11 underspend was primarily related to delays in the appointment of the Service Reservoir Rehabilitation Framework Contractor. Whilst the framework has now been approved, no SR related expenditure has been forecast for the current year. The Company advised that the Service Reservoir Rehabilitation programme was due to re-commence in PC13, with [x] forecast for 2013/14.

4.4.3 Quality Enhancements

Expenditure against Line 7 [x] is consistent with the PC10 forecast for Year 2 ([x] following COPI adjustment).

NI Water has a relatively small WTW programme for PC10, with only three WTW outputs, Carmoney WTW, Lough Bradan WTW and Killylane WTW (study). Whilst the two WTW outputs were delivered in 2010/11, the Killylane WTW study was completed during the report year.

In terms of water distribution expenditure, NI Water has committed to the rehabilitation of 900km of water main over for the PC10 period (300km per year). For AIR12, NI Water delivered 444km (new and replacement mains – AIR12 T11). Based on a total expenditure [x], a unit cost of [x] was achieved. Whilst this is only a rough indicator of actual unit rates achieved, the apparent reduction in unit rate does support the suggestion that lower unit costs are being achieved, reflecting the current economic climate.

4.4.4 Enhanced Service Levels

Overall spend on enhanced service levels, circa £5.8m, is broadly in line with the PC10 forecast for Year 2. As expenditure primarily relates to the Water Mains Rehab Programme and Service Reservoir Rehab Programme, the reported under-spend in the Service Reservoir Rehab Programme due to the framework procurement issues identified above, has been countered by the increase in WMR activity.

4.4.5 Improving supply/demand balance

Overall spend on supply/demand (£19.2m) is consistent with the PC10 forecast for Year 2, with significant spend recorded against the LDTM and Service Reservoir Rehabilitation programmes.

There are four named LDTM projects in PC10, Castor Bay to Dungannon, Cross Town Main, Castor Bay to Newry and Castor Bay to Belfast. Whilst Cross Town Main was claimed in AIR11, Castor Bay to Dungannon was completed in May 2011

and claimed in AIR12. We found that additional expenditure had been incurred against the Castor Bay to Dungannon project to incorporate the Blacklough Resource Zone Link Main, an additional requirement to address issues encountered during the 2010/11 freeze/thaw incident. For the remaining two outputs, significant spend was recorded against the Castor Bay to Newry Link Main [x] and progress is ongoing, whilst the Castor Bay to Belfast Link Main has been deferred to PC13 due to PE constraints in 2012/13.

For the Service Reservoir/Clearwater tank PC10 programme, there are 13 named outputs. For AIR12, we found that expenditure on this programme was circa £4m lower than forecast due to the deferral of the Lough Macrory CWT into the PC15 period. In AIR11 we reported that two outputs were completed during the year (Dungonnell SR and Altnahinch CWT). NI Water is claiming six further outputs in AIR12, with significant spend against Tullyhappy SR, however, we note that three of these were actually completed in 2010/11 (Crew Hill, Glenlough and Tullaghans). Of the remaining five outputs, Tully SR was completed during the current year and will be claimed in AIR13.

We also note significant spend against the Strule Intake for Derg water resources scheme [x]. The Company advised that a significant change in scope was required to increase the abstraction volume from 9Ml/d to 26.6Ml/d.

4.6 Operational Capital (including M&G)

Operations Capital (including M&G projects) is subject to similar procedures as the Capital Works Programme. Project engineers provide the initial QBEG allocations (for tables 35) and the investment splits into asset type (for Table 32) and asset life categories (for Table 34 - and Table 33).

Most Operational capital will relate to base maintenance, new development, lead pipe replacement or security of supply.

4.7 New Outputs/Obligations

NI Water has reported no new outputs/obligations to date.

4.8 Leakage Expenditure

NI Water has identified expenditure on leakage in their commentary as follows:

Leakage	2007/08	2008/09	2009/10	2010/11	2011/12
Capex	£6.44m	£ 6.39m	£6.79m	£3.33m	£3.47m
Opex	£4.21m	£ 3.86m	£3.81m	£4.63m	£4.16m
Total	**£10.65m**	**£10.29m**	**£10.60m**	**£7.96m**	**£7.63m**

We note that report year spend is similar to that reported in previous years, and consistent with PC10 forecasts. The leakage capex and opex for AIR12 has been allocated in accordance with Table 3.25 of Annex N of the FD as follows:

[x]	[x]	[x]	[x]
[x]	[x]	[x]	[x]
[x]	[x]	[x]	[x]
[x]	[x]	[x]	[x]
[x]	[x]	[x]	[x]
[x]	[x]	[x]	[x]
[x]	[x]	[x]	
[x]	[x]		
[x]	[x]		
[x]	[x]		
[x]	[x]		
[x]	[x]		
[x]	[x]		
[x]	[x]		
[x]	[x]		[x]

5. Grants and Contributions

Zero receipts are reported against maintenance non-infrastructure (line 4). Lines 3 and 5 are therefore identical. We believe this to be reasonable. NI Water has also confirmed that when compiling the PC10 submissions all grants and contributions were assumed to be enhancement.

NI Water confirms the analysis of enhancement requisitions, grants and contributions in their commentaries. We have confirmed this from the summary data provided, which links back to reports derived from Oracle.

During the audit of the draft table, we noted a small difference between lines 2 and 6, suggesting some receipts related to base infrastructure renewals. NI Water explained that this related to receipts received for the diversion of water mains [x].

6. Infrastructure Charge Receipts

NI Water considers all infrastructure charge receipts (ICR's) to relate to enhancements (and thus there is generally no difference between IRE net and IRE gross). For 2011/12, 31.6% of ICR's was allocated to non-infrastructure. The SBP only identified the infrastructure element of these receipts, so for consistency NI Water has continued to report ICR's in this table on the same basis.

The non-infrastructure element of the ICR's is assigned an asset life of 30 years and released over that period into the P&L account. As NI Water has previously provided supporting information which confirms this we have not revisited for AIR12.

ICR's are received by customer services and coded into the Oracle accounting systems. For year-end reporting, an Oracle report is accessed showing the receipts against the relevant codes, using different codes for water and sewerage and for charges and subsidy components. We have previously reviewed the spreadsheets used to calculate the full ICR's for water and sewerage, then to calculate the infrastructure and non-infrastructure components using the percentage apportionments above. The infrastructure element is entered into the table. Whilst

we have not reviewed the spreadsheets for AIR12 we confirm the methodology is consistent with that previously reviewed.

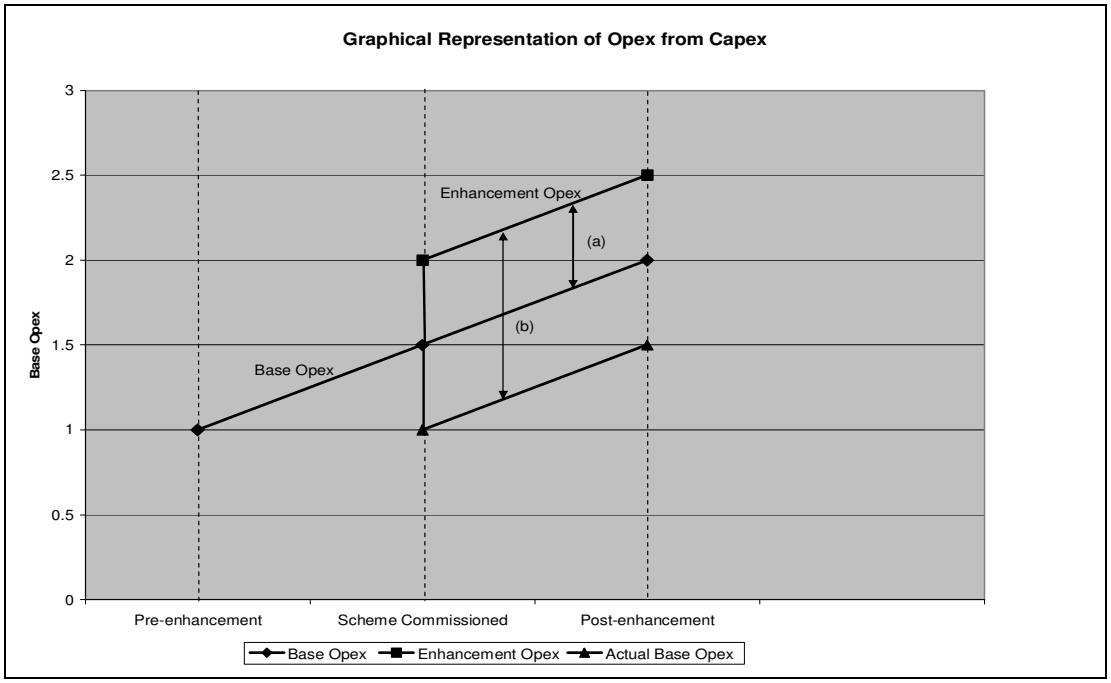
7. Operating Expenditure

We found that the methodology used to derive operating expenditure associated with capital expenditure and reported in Table 35 is unchanged from AIR11. Opex from Capex is based on incremental Opex associated with enhancement projects from prior years that has been assessed and removed from the total Opex reported in Table 21.

The Company advised that incremental Opex has been calculated directly from the accounting general ledger, and that it considered those sites that had become active during 2010/11. It then undertook a comparison of data on a site by site basis related to pre and post Capex investment. It then adjusted for inflationary impacts.

Once the total additional Opex per site is obtained the Company applies a split between the different lines based on the CIDA split. Note it applies the entire CIDA split to enhancement (i.e. the base portion of any CIDA split is apportioned across the enhancement categories, based on the non-base aspect of the CIDA split).

The Company's approach involves the comparison of base opex in the year preceding and post enhancement, assuming the base expenditure remains steady over the two year period. The increase in reported opex post enhancement is then assumed to reflect the additional opex due to enhancement. However, the Company's approach does not account for the fact enhancement expenditure would often result in an improvement in performance and resulting reduction in base opex expenditure. As summarised in the graphical representation below, it would appear that for certain schemes. NI Water is actually understating the true opex from capex by only reporting the incremental increase (a) and not accounting for the improved efficiency as a result of the enhancement (b).



In AIR11, the Company implemented a Business Improvement project - Cost to Serve. We found that progress is still ongoing, although the Company is now able to monitor power costs at each site and assess the impact that enhancements have on the power consumption at specific assets. It is intended that in future years this Oracle module will be used to facilitate the reporting of Opex from Capex.

7.1 Line commentaries

Line 1 – Base operating expenditure
The value is derived as the balancing residual after specifically allocated operating expenditure is deducted from the total operating expenditure as reviewed by the Auditors.

Line 8 – Opex: Total quality enhancement programme
The Company has reported additional opex of £279k for the current year. This expenditure relates to recently completed schemes.

Line 10 – Additional operating expenditure – customer services
The Company has reported additional opex of £21k for the current year. This expenditure relates to recently completed schemes.

Line 15 – Additional operating expenditure – Supply Demand Balance
The Company has reported additional opex of £85k for the current year. This expenditure relates to recently completed schemes.

8. Confidence Grades

Capex and opex totals reconcile very closely with those reported from Oracle.

NI Water has assigned confidence grades of B3 for most capex lines. The confidence grades placed on the investment lines are substantially dependent upon the QBEG analysis that is undertaken. The Company is continuing to increase the rigour applied to proportional allocation assumptions at project level, and there were very few allocation issues identified during our audits. We recognise the improvements made and consider there is scope to further improve the reported B3 confidence grade for capex in AIR13.

Base OPEX is populated from the General Ledger information which is used for financial management. Given the under-reporting of OPEX form CAPEX as demonstrated on the Chart above, we believe a B4 confidence grade is reasonable.

Information relating to infrastructure charge receipts, grants, contributions and adopted assets appears to be well founded, with stable and appropriate methodologies and assumptions. We concur with the A2 confidence grades assigned.

9. Reconciliations

We confirm the following consistencies:

Capex

- Table 35(incl. PPP)/2 = Table 32(Total)/32/3
- Table 35(incl. PPP)/3 = Table 32(Total)/33/3
- Table 35(incl. PPP)/25 = Table 32(Total)/32/3
- Table 35(incl. PPP)/26 = Table 32(Total)/17/3 + 32/33/3 ≠ 25/5/4

The difference between T35/26 and T25/5/4 is due to the following:

- PPP Alpha capital maintenance of [x] is not included in Table 35
- -£116k included in Table 25 relates to de-capitalised projects in 11/12

Opex

- Table 35(incl. PPP)/24 =Table 21(Total)/22-21a

10. PC10 Programme Delivery

Within our commentary, we have highlighted PC10 outputs that have been delivered during the year, and those that are forecast for delivery during 2012/13. To ensure the delivery of the overall water related PC10 capital programme is adequately monitored, we have replicated Annex N1 from the FD below:

Water Treatment Works			
Ref.	**Project Name**	**Forecast Delivery**	**Actual Delivery**
WTW/001	Carmoney WTW		2010/11
WTW/002	Lough Braden WTW		2010/11
WTW/003	Killylane WTW - Study		2011/12

Trunk main projects			
Ref.	**Project Name**	**Forecast Delivery**	**Actual Delivery**
TMS/001	Castor bay to Dungannon		2011/12
TMS/002	Cross Town Main		2010/11
TMS/003	Castor Bay to Newry Phase 1	2012/13	
TMS/004	Castor Bay to Belfast Phase 2	PC13	

Service Reservoirs			
Ref.	**Project Name**	**Forecast Delivery**	**Actual Delivery**
SRV/001	Carland SR		2011/12
SRV/002	Ballylone SR		2011/12
SRV/003	Crew Hill SR		2010/11
SRV/004	Dungonnell CWT		2010/11
SRV/005	Glenlough SR		2010/11
SRV/006	Altnahinch CWT		2010/11
SRV/007	Tullaghans SR		2010/11
SRV/008	Tullyhappy SR		2011/12
SRV/009	Crieve SR	PC13	
SRV/010	Tully SR		2012/13
SRV/011	lough Macrory CWT	PC15	
SRV/012	Drumaroad CWT	PC15	
SRV/013	Killyhevlin CWT	PC13	
SRV/014	Service Reservoir rehabilitation Programme continuation.	2012/13	

Water Resources			
Ref.	**Project Name**	**Forecast Delivery**	**Actual Delivery**
WRS/001	Strule Abstraction.	2012/13	
WRS/002	Completion of Inspection (Panel) Engineer's Recommendations on Impounding reservoir.	2012/13	
WRS/003	Completition of new Water Resource Strategy in 2010.	2012/13	

Defined activities			
Ref.	**Project Name**	**Forecast Delivery**	**Actual Delivery**
WRS/003	Water mains rehabilitation	2012/13	

Date: 25 July 2012
Prepared by: HMS

Table 35a – Water service – Expenditure comparisons by purpose

Commentary by Reporter

1. Background

This table facilitates capital and operating expenditure comparisons between Company report year actual figures and those contained in the PC10 Final Determination.

2. Key Findings & Recommendations

- NIAUR has provided a breakdown of the annual PC10 projections on the basis of QBEG, to enable population of Table 35a.
- PC10 has been adjusted using actual COPI, resulting in a £1.3m reduction in forecast expenditure for Year 2.
- Whilst some variance has been reported amongst purpose categories (particularly IRE), overall expenditure in Year 2 of PC10 is in line with the adjusted allowance for Year 2, with good progress in delivering the PC10 water programme.

3. Audit Approach

The audit consisted of interviews with the NI Water's table author and a review of relevant supporting documentation, the methodology, assumptions and data used to compile the table. The audit also included a review of the Company's commentary.

4. Audit Findings (Capex)

4.1 PC10 Projections

In order to assist with the population of Table 35a, NIAUR provided a breakdown of the Final Determination. We have reproduced the breakdown below for ongoing reference, to form the basis of expenditure comparisons undertaken throughout the PC10 period.

Water	2010-11	2011-12	2012-13	Total
Q	[x]	[x]	[x]	[x]
B	[x]	[x]	[x]	[x]
E	[x]	[x]	[x]	[x]
G	[x]	[x]	[x]	[x]
Total	[x]	[x]	[x]	[x]

Base	2010-11	2010-11	2010-11	Total
WATER INFRA	[x]	[x]	[x]	[x]
WATER NON-INFRA	[x]	[x]	[x]	[x]
Total	[x]	[x]	[x]	[x]

However, the above forecasts are subject to adjustments in Public Expenditure (PE) funding, compromising the Company's ability to deliver the agreed outputs. As we highlight below, a re-profiling of PE in Year 2 of PC10 saw an increase in water main rehabilitation activity, due to the relatively short lead-in time for what is, a well established rolling programme of work. In addition, the promotion of a number of 'new start' capital schemes were also brought forward in order to ensure the revised PE allocation for 2011/12 was spent.

4.2 Indexation

We confirm that NI Water has indexed the PC10 projections from the 2007/08 base year using the COPI adjustment of 0.982, which reduced the Year 2 allowance for PC10 by circa £1.3m for the water service. Whilst this approach is consistent with guidance from NIAUR, the Company has highlighted that subsequent revision to COPI for the year, if applied to Table 35a, would increase the Year 2 allowance by £1.2m. This highlights the vagaries of this methodology and, considering the PC10 FD is subject to variation in accordance to PE funding allowances, we question the appropriateness of this comparison.

4.3 Expenditure comparisons

In reviewing the expenditure for Year 2 of PC10, the Company has highlighted a number of well justified reasons for reported variance.

As noted by NI Water in their commentary, there are significant differences between the proportional allocation assumptions made in the PC10 submission and those now being applied using the CIDA methodology.

Additionally, the Company has identified a number of additional external constraints since the Final Determination was published, impacting on the Company's ability to efficiently deliver the agreed PC10 capital programme, including:

- External funding constraints imposed by fixed annual levels of public expenditure, differing from those agreed in the PC10 Final Determination
- More stringent procurement governance, reducing the scope for capital efficiency
- Delays in acceptance of the PC10 Final Determination

4.3.1 Base service provision

- *Infrastructure renewals expenditure (line 2)*

[x]

In terms of Infrastructure Renewals Expenditure (IRE), the expenditure incurred during the year (£26.77m) is circa 40% above the PC10 forecast for IRE in Year 2 (£19.1m), reflecting a significant increase in the length of main renewed during the year. Against a PC10 target of 300km pa, NI Water renewed 444km of main during the year. This increase in WMR activity reflected the need to spend additional PE funding during the year and also the opportunistic mains replacement completed in conjunction with planned road re-surfacing work.

The Company also believes that the change in CIDA allocation we recommended in AIR10, for projects where trunk mains are being laid to remove existing Water Treatment Works (WTW), has contributed to the overspend.

- *Maintenance non-infrastructure (lines 3 and 5)*

[x]

In terms of MNI expenditure, NI Water is broadly in line with the Year 2 PC10 forecast, but slightly behind in overall terms. We highlighted in our AIR11 commentary that the overall under-spend was primarily related to delays in the appointment of the Service Reservoir Rehabilitation Framework Contractor. Whilst the framework has now been approved, no SR related expenditure has been forecast for the current year. The Company advised that the Service Reservoir Rehabilitation programme was due to re-commence in PC13, with [x] forecast for 2013/14.

Although expenditure on maintenance to non-infrastructure (MNI) assets is higher than reported in AIR11, activity on WTW maintenance projects has reduced significantly during the year. This reflects the fact that most WTWs have recently been upgraded and do not require additional maintenance spend. In fact, the only significant WTW-related MNI spend related to Clay Lake WTW Remedial Work [x]. We found that the increase in MNI expenditure reported, related primarily to increased levels of Operational Capital [x] and M&G related expenditure [x]. The Company advised that the overall allocation to Operational Capital projects was circa three times the value previously assumed, in order to ensure PE funding allowed for Year 2 was spent.

4.3.2 Quality Enhancements

[x]

Expenditure against Line 7 (£12.3m) is consistent with the PC10 forecast for Year 2 [x].

NI Water has a relatively small WTW programme for PC10, with only three WTW outputs: Carmoney WTW; Lough Bradan WTW; and Killylane WTW (study). We confirm that all three outputs have now been delivered.

The majority of quality expenditure incurred during the year related to the quality

element of WMR expenditure. NI Water has committed to the rehabilitation of 900km of water mains over the PC10 period (300km per year), however, for AIR12, NI Water delivered 444km (new and replacement mains – AIR12 T11).

4.4.3 Enhanced service levels

[x]

Overall spend on enhanced service levels, circa £5.8m, is broadly in line with the PC10 forecast for Year 2. As expenditure primarily relates to the Water Mains Rehab Programme and Service Reservoir Rehab Programme, the reported under-spend in the Service Reservoir Rehab Programme due to the framework procurement issues identified above, has been countered by the increase in WMR activity.

4.2.4 Maintaining supply/demand balance

[x]

Overall spend on supply/demand (£19.2m) is consistent with the PC10 forecast for Year 2, with significant spend recorded against the LDTM and Service Reservoir

Rehabilitation programmes.

5. Audit Findings (Opex)

No material comments to add.

Date: 25 July 2012
Prepared by: HMS

Table 36 – Sewerage Service – Expenditure by purpose

Commentary by REPORTER

1. Background

This table disaggregates expenditure between purpose categories for the sewerage service, namely base, enhancements, grants and contributions and adopted assets. Enhancements are reported under quality, enhanced service levels, and supply/demand. The table also indirectly checks the Company's proportional allocation rules.

2. Key Findings

- NI Water has continued to develop, implement and improve their proportional allocation procedures. Much work has been done to review ongoing projects and to better allocate the investment to the appropriate QBEG purpose categories. We found that NI Water reviewed all projects to confirm the appropriateness of the proportional allocation of expenditure for all projects that have had the CIDA allocation updated on CAPTRAX.

- However, during the course of our PC13 audits we noted a number of instances where the CIDA allocation reported by the Project Manager was not always consistent with that reported on CAPTRAX. We raised this issue with the Company and they advised that they were aware of the issue and that a procedure had already been implemented to ensure CIDA is updated on CAPTRAX prior to CIP approval.

- We note that NI Water allocated a proportion of expenditure to Quality, based on the fact NIEA have requested additional investment to meet IPPC requirements (relating to odour control). Whilst NI Water confirmed that this is a new regulatory requirement and thus Quality related, our experience in England and Wales indicates that work relating to odour has generally been funded within base maintenance.

- Overall capital expenditure in Year 2 of PC10 [x] is broadly in line with the forecast PC10 expenditure profile for Year 2 [x].

- The Sewer Mains Rehabilitation Programme was forecast to deliver 63km of critical and 9km of non-critical sewer improvements over PC10. We found that the Company are now only likely to deliver 20km of critical sewer improvements with the balance of non-critical, generally less expensive sewers.

- NI Water has a large WwTW programme for PC10, with 14 PC10 WwTW outputs and 30 PC10 Carryover WwTW outputs forecast for delivery during the period. For AIR12, NI Water has delivered four PC10 carryover schemes outputs during the year and a further four 'new' PC10 schemes.

- NI Water has committed to the delivery of a large UID programme over the PC10 period, and whilst significant progress was made during the year, with 45 outputs delivered, the majority were not part of the original PC10 programme.

3. Audit Approach

As part of our review of NI Water's PC13 submission, we completed a number of detailed 'Capex' audits, the results of which we have used to inform our opinions for AIR12.

At year-end we undertook a review of the contents of the Capital Investment Driver Allocation (CIDA) spreadsheet systems and CIM template, which collates the expenditure information by project for the Report Year. During this review, we tested the collation systems to ensure that the proportional allocations exposed in the scheme specific audits are correctly stated at the summary level for entry into the AIR Tables.

We also met with the system holder to confirm the reported data for each line and to review progress against the various programmes.

4. Audit Findings - Capex

4.1 PC10 Assumptions

In order to assist with the population of Table 36a, NIAUR provided a breakdown of the Final Determination. We have reproduced the breakdown below for ongoing reference, to form the basis of expenditure comparisons undertaken throughout the PC10 period.

Sewerage	2010-11	2011-12	2012-13	Total
Q	[x]	[x]	[x]	[x]
B	[x]	[x]	[x]	[x]
E	[x]	[x]	[x]	[x]
G	[x]	[x]	[x]	[x]
Total	[x]	[x]	[x]	[x]

Base	2010-11	2010-11	2010-11	Total
SEWERAGE INFRA	[x]	[x]	[x]	[x]
SEWERAGE NON-INFRA	[x]	[x]	[x]	[x]
Total	[x]	[x]	[x]	[x]

4.2 Proportional Allocation

NI Water has continued to develop, implement and improve their proportional allocation procedures. Much work has been done to review ongoing projects and to better allocate the investment to the appropriate QBEG purpose categories. We found that NI Water review all projects to confirm the appropriateness of the proportional allocation of expenditure for all projects that have had the CIDA allocation updated on CAPTRAX.

As reported previously, the capital scheme approvals process is formalised, with all schemes >£25k, but <£500k, requiring formal approval by the BICC Panel and all schemes >£500k requiring CIP approval. The Strategic Investment team (within the Asset Management Directorate) review the CIDA on all projects as they seek approval and advise the above panels of any challenges.

During the course of our PC13 audits we noted a number of instances where the CIDA allocation reported by the Project Manager was not always consistent with that reported on CAPTRAX. We raised this issue with the Company and they advised that they were aware of the issue and that a procedure had already been implemented to ensure CIDA is updated on CAPTRAX prior to CIP approval.

Whilst we did not review a sample of schemes to specifically test allocation methodologies for AIR12, we did review a sample of schemes for PC13, as summarised below. Whilst the schemes did not directly apply to expenditure incurred during 2011/12, it did provide us with assurance that the CIDA allocations applied by the Company are broadly in line with the Reporter's expectations. The only real exception applied to KT402 – Dunmurry WwTW Sludge Facility, where NI Water allocated a proportion of expenditure to Quality, based on the fact NIEA have requested additional investment at Dunmurry to meet IPPC requirements (relating to odour control). Whilst NI Water confirmed that this is a new regulatory requirement, in our experience, work relating to odour has generally been funded within base maintenance.

Project Reference	Project Name	Budget (£k)	Spend to date (£k)	Initial PC13 CIDA QBEG Allocation				Reporter QBEG Allocation			
				Q	B	E	G	Q	B	E	G
KS875	Bangor DAP – Lukes Point	[x]	[x]	90	10	0	0	90	10	0	0
KR480	Holywood Sewer Catchment Investigations	[x]	[x]	93	7	0	0	93	7	0	0
KS902	Dundrum UID Upgrades	[x]	[x]	90	10	0	0	90	10	0	0
KF330	Armagh DAP Stage 1 Improvements	[x]	[x]	26	36	0	38	26	36	0	38
KS372	Market Street WwPS Upgrade – Phase 2	[x]	[x]	65	24	0	11	65	24	0	11
KN596	Ballymagorry WwTW, ,	[x]	[x]	40	40	0	20	40	40	0	20
KN640	Dromore WwTW	[x]	[x]	40	40	0	20	40	40	0	20
KP672	Tempo WwTW, and	[x]	[x]	40	40	0	20	0	100	0	0
KL394	Drumsurn WwTW	[x]	[x]	40	40	0	20	40	40	0	20
KL496	Feeny WwTW	[x]	[x]	40	40	0	20	**34**	**36**	**0**	**30**
KL459	Maghera WwTW Ph 2	[x]	[x]	57	28	0	15	57	28	0	15
KT402	Dunmurry WwTW Sludge Facility	[x]	[x]	23	71	0	6	**0**	**90**	**0**	**10**

A summary of our findings is detailed below:

UID's

For **KN875 – Bangor DAP – Lukes Point -** the project is driven by the need to improve the Lukes Point WwPS UID from 8 to 3 spills per bathing season, as required by NIEA, and assist in the attainment of blue flag status for Ballyholme Bay.UWWTD. On this basis, NI Water has applied a nominal QBEG split of 90% Q, 10% B, 0% E and 0% G, whereby, the replacement screw pumps in the WwPS reflect the base maintenance element of the project.

For **KR480 – Holywood Sewer Catchment Investigations -** the project is driven by the need to cease discharge from 3 UIDs to a failing reed bed, as required by NIEA, and reduce the number of spills to Belfast Lough to less than 10 per year, in order to comply with the Shellfish Directive. NI Water has undertaken a detailed assessment of QBEG. We undertook a review of the assessment and concur with a QBEG split of 93% Q, 7% B, 0% E and 0% G, whereby, the upgrade of existing inlet sewers reflects the base maintenance element of the project.

For **KS902 – Dundrum UID Upgrades** - we found that the project is driven by the need to improve/close poorly performing UIDs from the Dundrum catchment, reduce the number of spills to Dundrum Lagoon to less than 10 per year, in order to comply with the Shellfish Directive, provide sufficient in-system storage to achieve equivalent 'Formula A' storage requirement at Flynn's WwPS and provide a new outfall from Flynn's WwPS. On this basis, NI Water has applied a nominal QBEG split of 90% Q, 10% B, 0% E and 0% G, which is consistent with other similar schemes reviewed.

For **KF330 – Armagh DAP Stage 1 Improvements** - The Armagh DAP Improvement project is driven by the need to remove 12 UIDs in the Armagh town centre, in order to comply with the UWWTD, as required by NIEA, ensure Newry WwPS complies with 'Formula A' storage requirements, undertake necessary maintenance on Newry WwPS, provide additional system capacity in order to cope with actual and forecast growth and replace sections of the network where structural/serviceability defects are apparent. We found that NI Water has undertaken a detailed assessment of QBEG. We undertook a review of the assessment completed and found the proposed split of 26% Q, 36% B, 0% E and 38% G, to reflect the project drivers and proposed scope.

For **KS372 – Market Street WwPS Upgrade – Phase 2** - The Market St WwPS Upgrade is driven by the need to remove 1 UID from Market St WwPS, as required by NIEA' in order to comply with the UWWTD; reduce the risk of localised flooding and pollution in the Downpatrick town centre; and increase capacity and improve access to the WwPS. We found that NI Water has undertaken a detailed assessment of QBEG. We undertook a review of the assessment completed and found the proposed split of 65% Q, 24% B, 0% E and 11% G, to reflect the project drivers and proposed scope.

Waste Water Treatment Works

For **KN596 – Ballymagorry WwTW, KN640 - Dromore WwTW, KP672 – Tempo WwTW, and KL394 – Drumsurn WwTW** – These 'pre-feasibility' projects are typically driven by the UWWTD and changing consents (down to 35/55/8 - governed by the river needs standard) provide a quality driver; growth, incorporating current under-capacity and allowing for future development; and base maintenance, to upgrade elements of each WwTW that haven't been upgraded in over 40 years. NI Water has applied a nominal QBEG split of 40% Q, 40% B, 0% E and 20% G. Whilst this is broadly appropriate for schemes, such as Ballymagorry and Dromore (which are hydraulically and biologically overloaded), for Tempo WwTW, the capacity of the existing works is sufficient, but the outdated aeration and grit systems require replacement. As such, Tempo should be allocated 100% to B.

For **KL496 - Feeny WwTW** - This project is driven by the UWWTD and changing consents (ultimately down to 15/25/4.5 - governed by the river needs standard), provide a quality driver; growth, incorporating current under-capacity and allowing for 100% development within the catchment; and base maintenance, to upgrade elements of the WwTW that haven't been upgraded in over 40 years. NI Water has only applied a nominal QBEG split of 40% Q, 40% B, 0% E and 20% G. Whilst this is broadly appropriate, we would have expected a more robust assessment of QBEG to have been undertaken for schemes beyond the A1 approval stage. As a result of this challenge, the Company advised that they have actually completed an assessment of QBEG, based on estimated growth and known maintenance elements of the scheme. This was then reviewed by the Finance and Regulation team. We recommend that a split of 34% Q, 36% B, 0% E and 30% G be applied.

For **KL459 - Maghera WwTW Ph 2** - The projects within this business case are typically driven by the Quality drivers UWWTD and FWFD; and the need to provide 2 hours storage at FTFT by 2017; growth, incorporating current under capacity and allowing for 100% development within the catchment; and base maintenance, to upgrade elements of the WwTW that haven't been upgraded in over 40 years. As the additional storage is not required until 2017 we queried whether it would be possible to defer work on Maghera WwTW Ph2 until PC15. The Company advised that whilst 2017 is the formal date for delivery of the additional storage, NIEA has sought early delivery of Maghera WwTW Ph2. NI Water has applied a QBEG split of 57% Q, 28% B, 0% E and 15% G for Maghera WwTW. We requested a breakdown of the QBEG assessment undertaken for Maghera WwTW, however, this was not made available prior to submission. Notwithstanding this, we consider the QBEG allocation to broadly reflect the required drivers.

For **KT402 – Dunmurry WwTW Sludge Facility** - NI Water initially applied a QBEG split of 0% Q, 50% B, 40% E and 10% G. The allocation to E (enhanced service levels) was based on proposed improvements to the sludge liquors, thus enhancing performance of the treatment process. Whilst this assertion is correct, in regulatory terms, we do not consider this expenditure represents an enhancement to customer service levels. On this basis, we believe this project is predominantly a base maintenance project with an element of growth to account for increased capacity to treat additional Dunmurry sludge and to accept imported sludge. On this basis, we

believe the QBEG split should be 0%Q, 90%B, 0%E and 10%G. As a result of this challenge, NI Water has reassessed QBEG as 23% Q, 71% B, 0% E and 6% G. We further challenged the high allocation to Q, and the Company advised that this allocation would be reviewed at the A3 approval stage, but was based on the fact NIEA have requested additional investment at Dunmurry to meet IPPC requirements (relating to odour control). Whilst NI Water advised that this is a new regulatory requirement, in our experience work relating to odour has generally been funded within base maintenance.

4.3 Year-end Capital Investment Reconciliations

As has been the case in previous years, we found that data reported in T36 of AIR12 does not quite reconcile with equivalent data in the CIM as AIR12 data is taken from CIDA, which has greater levels of granularity for each purpose/driver code. As summarised below, a [x] variance in sewerage related capex between CIM and CIDA was identified.

[x]

Table 36 line description		T36 £m	CIM £m	Variance £m	Variance %
3	MNI (gross of grants and contibutions)	48.006	47.045	-0.961	**-2.04**
6	Infrastructure renewals expenditure (gross)	9.044	9.375	0.331	**3.53**
7	Capex: Total quality enhancement programme	28.730	28.045	-0.686	**-2.44**
9	Capital expenditure: customer service	4.251	4.374	0.123	**2.82**
11	Capital expenditure: supply demand balance	17.914	18.215	0.301	**1.65**
	Totals	**107.946**	**107.054**	**-0.892**	**-0.83**

We queried the nature of the minor reported variances, and the Company advised that the variance is due to the '8 box' approach adopted on the CIM, whereby expenditure is reported at project level against the 4 purpose and 4 service (2 of which are sewerage) allocations. For projects with more than one service allocation, back calculation for Table 36 provides a slightly incorrect answer. As an example, the sewerage project KL443 contains water infra expenditure (4%B & 2%G), sewerage infra expenditure (27%Q, 3%B & 13%E) and sewerage non-infra (41%Q & 10%B). When back calculated, Q and E expenditure gets allocated to water and G gets allocated to sewerage, which is incorrect.

4.4 Capital Expenditure

4.4.1 General

Total capital expenditure in Year 2 of PC10 (£107.5m) is broadly in line with the Company's forecast PC10 expenditure profile for Year 2 (£116.47m). As demonstrated in Figure 36.1 below, whilst expenditure is broadly in line with most CIDA allocation categories, it is significantly lower than expected on the Quality Programme. We queried the nature of this variance and found that NI Water delayed the Quality programme, following reductions in the PE allocation, in order to maintain the Base Maintenance programme.

[x]

4.4.2 Base Service Provision

In terms of Infrastructure Renewals Expenditure (IRE), the expenditure incurred during the year [x] is 37% below the Company's PC10 forecast for IRE in Year 2 [x].

Expenditure during the year reflects investment on a number of infrastructure based maintenance schemes, including Londonderry DAP. Circa £1.5m was also incurred as Operational Capital in the maintenance of critical and non-critical sewers. The Company advised that the Sewer Mains Rehabilitation Programme was forecast to deliver 63km of critical and 9km of non-critical sewer improvements over PC10. We found that the Company are now only likely to deliver 20km of critical sewer improvements with the balance non-critical. We queried the reason for the forecast under-performance and the Company advised that they have been unable to locate a sufficient length of critical sewer requiring replacement. Furthermore, the Company also advised that there have been a number of deferrals/delays to the sewerage programme affecting the level of spend in year. The Company cited a number of examples where there was significant variance in scope and cost, due to poor scoping and cost estimating at the A0 approval stage, such as Londonderry DAP Sewer Improvements, where the original budget has escalated from £0.3m to £1.06m.

With regard to maintenance on non-infrastructure (MNI) assets, NI Water has focussed on the delivery of a large number of WwTW maintenance projects (both PC10 and PC10 carryover), including Operational Capital Schemes [x], KI463 – Small WwTW Upgrades [x], KB460 – M&E Tullygarley WwTW [x] and KR485 – M&E Belfast WwTW [x].

Management and General (M&G) expenditure accounted for less than 10% of the

MNI spend for the year. This is quite low when compared to companies in E&W, where M&G spend has typically been 25% of MNI, and quite surprising based on the level of office refurbishment completed during the year to facilitate the rationalisation of NI Water's Belfast based office accommodation.

In terms of MNI expenditure over Year 2 of PC10, NI Water was circa 43% (£14m) higher than the PC10 forecast. We queried the basis of the reported over-spend, and the Company advised that there was an increase in Operational Capital spend to match the increased PE allowance for 2011/12, with a particular focus on the inspection and replacement of inefficient MBR filters.

4.4.3 Quality Enhancements

Expenditure against Line 7 [x] is circa 40% of the PC10 forecast for Year 2 [x].

NI Water has a large WwTW programme for PC10, with 14 PC10 WwTW outputs and 30 PC10 Carryover WwTW outputs forecast for delivery during the period. As highlighted in the Company's commentary for AIR12, NI Water delivered four PC10 outputs during the year; Ballyhalbert WwTW, Dunmurry WwTW, Mullaghboy WwTW and Whitehead, Ballystrudder and Ballycarry Rationalisation. During our audit, we noted that it appeared that Feeny WwTW had not been completed, despite reviewing proposals for an additional scheme on site for PC13. The Company subsequently confirmed that Feeny WwTW was in fact completed in 2010/11, but not claimed.

At year end, we found that two PC10 carryover schemes and 11 PC10 schemes were still outstanding, although a further four new outputs were delivered during the year, that were not initially part of the PC10 programme, namely; Causway Aird, Glassdrumman, Dunmore and Ardress WwTWs. We queried the nature of these schemes and the Company advised that these were additional 'outputs projects' planned in Year 1 of PC10 to utilise the additional output funding provided in the Final Determination and agreed with NIEA. Although the PE allowance for Year 1 was subsequently reduced, a number of these projects had already progressed to construction and could not be deferred.

During the year, significant spend has been incurred on PC10 carryover projects, such as; KB346 – Whitehead, Ballystrudder and Ballycarry Rationalisation [x] completed in 2011/12 and KR310 – Newtonbreda WwTW [x], which was claimed in 2010/11. We also identified significant spend against the PC10 scheme KS848 – Newcastle WwTW [x].

NI Water has committed to the delivery of a large UID programme over the PC10 period, with circa 117 outputs forecast for delivery. Whilst progress against the PC10 programme was fairly limited in Year 1, the Company reports significant progress in Year 2, with 31 of the original 117 PC10 UID outputs delivered during the year. In addition a further 33 'new' UID outputs were delivered during the year, with significant expenditure recorded against KR441 – [x] [

x] and KR377 – Downs Road/Castle Park Sewer Upgrade [x]. We queried the nature of the additional 'new' outputs and found that the initial list of UIDs compiled by NIEA was incomplete as detailed site information was unavailable. As projects are progressed, additional UID locations are identified and, following discussion and agreement with NIEA, are included as additional UID outputs. In completing our review of the CIM we noted that there was fairly limited expenditure reported on the CIM against the claimed UID outputs, and queried the nature of this variance. The Company correctly advised that whilst expenditure during the year on the claimed outputs was lower than we would have anticipated, considerable expenditure was incurred in 2010/11 against the 2011/12 outputs.

As summarised in Section 11 below, we have continued to update our summary of progress of the WwTW and UID PC10 programmes. In preparing our summary we noted that the sequential numbering for the 'new' projects had not been continued and it appeared that some new projects had not been included within the revised PC10 programme. We queried the nature of the 'missing' projects and the Company advised that for the purposes of AIR12 reporting, only 'new' projects completed in the year were listed. The balance will be completed in PC13.

4.4.4 Enhanced Service Levels

Overall spend on enhanced service levels [x] is circa 50% lower than the PC10 forecast for Year 2 [x]. We found that the Company has continued to focus on the delivery of outputs identified within the DAP process, with significant spend recorded against outputs associated with the Londonderry DAP [x] and [x] Flood Alleviation [x]. We note that the Company has continued to define the DG5 sewer flooding PC10 programme, with only a small number of outputs delivered during the year. The Company advised that they still intend to deliver 60 DG5 outputs in PC10, however, very few outputs will include properties currently on the 2-in-10 and 1-in-10 flooding registers. We consider it will be a challenge for the Company to complete the PC10 DG5 programme next year, but consider it may be prudent to resist expenditure on large capital schemes until the true DG5 liability has been fully realised.

4.4.5 Improving supply/demand balance

Supply demand balance expenditure relates primarily to the growth element of the PC10 WwTW programme (described above), with significant spend recorded against KI463 – Small WwTW Programme [x], KV105 – Newry WwTW Extension [x] and KF028 – Keady WwTW Extension [x].

We note that circa £8m (£4m against SDB) has been expended against the Small WwTW Programme, some £4m greater than the forecast. The Company advised, that in addition to the improvements delivered to a number of small WwTW with a PE<250, NI Water delivered a further seven WwTW improvements to works with PE>250 under the Small WwTW framework, despite the framework being established for sites with PE's below 250. The Company advised that the Small WwTW framework provided a means of quickly procuring a number of projects for works that were in urgent need of upgrade and were close to the PE threshold.

At year-end, SDB expenditure [x] was circa 45% above the PC10 forecast for Year 2 [x].

4.4.6 New outputs/obligations since the SBP

NI Water has reported no new outputs/obligations, although there is a substantial Additional Outputs programme. We found that there were 16 x wastewater related additional outputs identified for development in PC10 and delivery in the PC13/15 WwTW programmes. The majority of these have recently been promoted for improvement by the NIEA. Expenditure against the additional outputs is recorded against the appropriate driver and reported in blocks A, B, C or D of T36.

4.5 Operational Capital (including M&G)

Operations Capital is subject to similar procedures as the Capital Works Programme. Project engineers provide the initial QBEG allocations (for tables 35 and 36) and the investment splits into asset type (for Table 32) and asset life categories (for Table 34 - and Table 33).

Most Operational Capital will relate to base maintenance, new development or security of supply.

5. Grants and Contributions

In NI Water's PC10 submission, all grants and contributions were assumed to relate to enhancements. Zero receipts are reported against maintenance non-infrastructure (line 4). Lines 3 and 5 are therefore identical. We believe this to be reasonable.

NI Water confirms the analysis of enhancement requisitions, grants and contributions in their commentaries.

6. Infrastructure Charge Receipts

NI Water considers all infrastructure charge receipts (ICR's) to relate to enhancements (and thus there is no difference between IRE net and IRE gross).

Further, the Company has used the PC10 investment projections on growth to determine the component of the ICR's which would be allocated to either infrastructure or to non-infrastructure.

As the Company's approach is unchanged from that adopted previously and the reported numbers are similar to AIR11 (where 32% of ICR's was allocated to non-infrastructure), we have not undertaken a detailed review of ICRs for AIR12.

7. Assets adopted or acquired at nil cost

NI Water's DSCT team (within the Operations Directorate) receives applications under Article 161 from developers requesting the adoption of sewerage assets (i.e.

sewers and sewerage pumping stations).

The DSCT team survey the assets, checking for compliance against the required standards set out in the current edition of 'Sewers for Adoption'. Upon acceptance, sewers are adopted at nil cost but added to the asset register at a cost which is determined by the diameter and the length, using cost curves developed from NI Water's own historic costs.

The costs are inflated by COPI to provide the relevant Report Year prices. We found that NI Water has reported a similar value of assets adopted at nil cost (reported in Line 20) as reported in AIR11. The previous two years nominal 'expenditure' is significantly higher as;

- developers try and reduce their liability on completed developments, resulting in increased levels of notional expenditure;
- NI Water Developer Services team pro-actively deals with backlog/mature developments in (a) reviewing old sites and (b) working with DRD Roads Service to clear a number of outstanding sites; and
- there has been a higher than usual number of sewerage pumping stations within the sites adopted.

The adopted assets are analysed by type, the proportion of 'spend' by asset type being assigned to an Oracle asset reference code. The coding references to an appropriate asset life and uploads the asset additions to the Corporate Asset Register.

8. Operating Expenditure

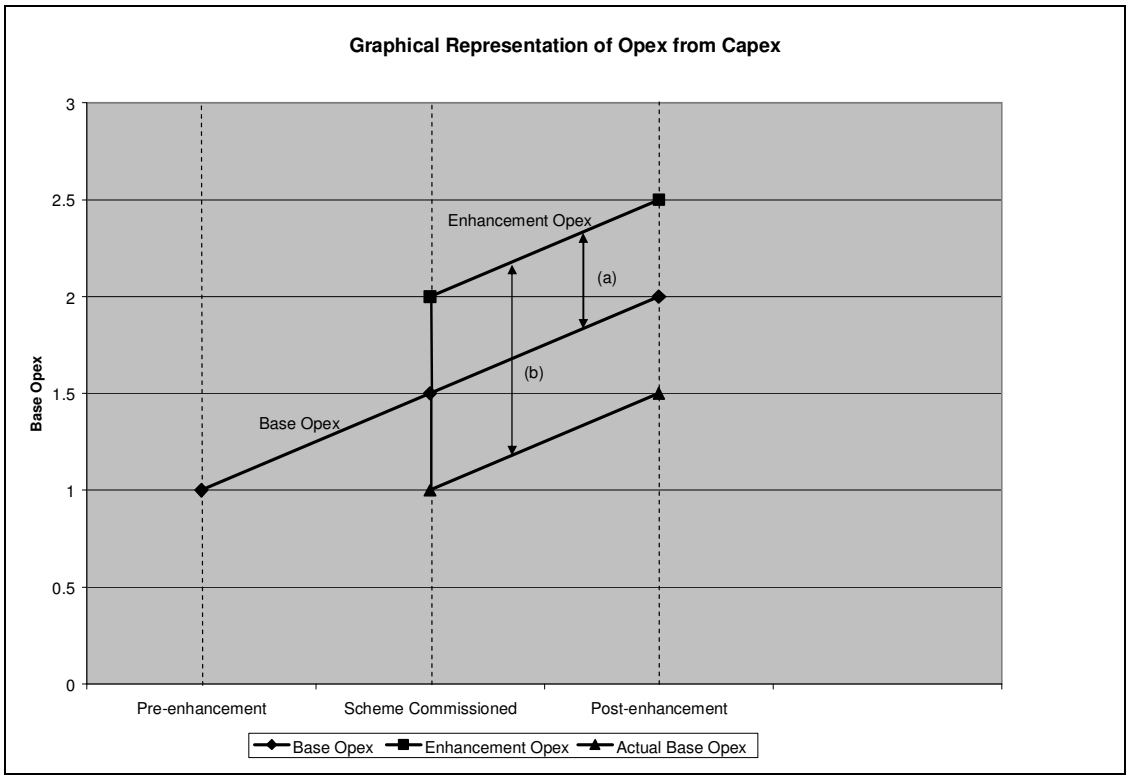
We found that the methodology used to derive operating expenditure associated with capital expenditure and reported in Table 36 is unchanged from AIR11. Opex from Capex is based on incremental Opex associated with enhancement projects from prior years that has been assessed and removed from the total Opex reported in Table 22.

The Company advised that incremental Opex has been calculated directly from the accounting general ledger, and that it considers those sites that had become active during the year. It then undertook a comparison of data on a site by site basis related to pre and post Capex investment. It then adjusted for inflationary impacts.

Once the total additional Opex per site is obtained, the Company applies a split between the different lines based on the CIDA split. Note that the entire CIDA split is allocated to enhancement. The base portion of any CIDA split is apportioned across the enhancement categories, based on the non-base aspect of the CIDA split.

The Company's approach involves the comparison of base opex in the year preceding and post enhancement, assuming the base expenditure remains steady over the two year period. The increase in reported opex post enhancement is then

assumed to reflect the additional opex due to enhancement. However, the Company's approach does not account for the fact that enhancement expenditure would often result in an improvement in performance with a resulting reduction in base opex expenditure. As summarised in the graphical representation below, it would appear that for certain schemes. NIW are actually understating the true opex from capex by only reporting the incremental increase (a) and not accounting for the improved efficiency as a result of the enhancement (b).



In AIR11, the Company implemented a Business Improvement project - Cost to Serve. We found that progress is still ongoing, although the Company are now able to monitor power costs at each site and assess the impact that enhancements have on the power consumption at specific assets. It is intended that in future years this Oracle module will be used to facilitate the reporting of Opex from Capex.

8.1 Line commentaries

Line 1 – Base operating expenditure
The value is derived as the balancing residual after specifically allocated operating expenditure is deducted from the total operating expenditure as reviewed by the Auditors.

Line 8 – Opex: Total quality enhancement programme
There has been some additional operating expenditure income relating to quality enhancements. This is in the region of £0.27m. The Company advised that this relates to recently completed WwTWs.

Line 10 – Additional operating expenditure – customer services
There has only been nominal additional operating expenditure allocated to customer service for the current year. The Company advised that this relates to DG5 related sites within recently completed projects.

Line 15 – Additional operating expenditure – Supply Demand Balance
The Company has reported additional operating expenditure of £0.1m. The Company advised that this relates to the growth element of recently completed WwTWs.

Line 17 – Additional operating expenditure – New Outputs, Obligations
The Company has reported £0 in this line for 2011/12.

9. Confidence Grades

Capex and opex totals reconcile very closely with that reported from Oracle.

NI Water has assigned confidence grades of B3 for most capex lines. The confidence grades placed on the investment lines are substantially dependent on the QBEG analysis that is undertaken. The Company is continuing to increase the rigour applied to proportional allocation assumptions at project level, and there were very few allocation issues identified during our audit. We recognise the improvements made and consider there is scope to further improve the reported B3 confidence grade for capex in AIR13.

Base OPEX is populated from the General Ledger information which is used for financial management. Given the under-reporting of OPEX from CAPEX (as demonstrated on the Chart above), we believe a B4 confidence grade is reasonable.

Information relating to infrastructure charge receipts, grants, contributions and adopted assets appears to be well founded, with stable and appropriate methodologies and assumptions. We concur with the A2 confidence grades assigned.

10. Reconciliations

We sought to confirm the following consistencies, as highlighted below:

Capex
- Table 36(incl. PPP)/2 = Table 32(Total)/32/6
- Table 36(incl. PPP)/3 = Table 32(Total)/33/6
- Table 36(incl. PPP)/22 = Table 32(Total)/32/6
- Table 36(incl. PPP)/23 = Table 32(Total)/17/6 + 32/33/6 ≠ 25/5/8
- Table 36(incl. PPP)/31 ≠ Table 42 (unitary charge)

The difference between T36/23 and T25/5/8 is explained as follows:
- [x] relates to the Residual interest on Kinnegar PPP project which is not

included on Table 36.
- -£70k included in Table 25 relates to De-capitalised projects in 11/12.
- -£95k included in Table 25 relates to an adjustment for adopted assets in 2010/11.

The difference between T36/31 and T42 relates to the fact that NI Water do not have a QBEG analysis for PPP OMEGA which means they cannot complete this section accurately. This has been the approach on all prior years.

Opex
- Table 36(incl. PPP)/21 = Table 22(Total)/21-20a

11. PC10 Programme Delivery

Within our commentary, we have highlighted PC10 outputs that have been delivered during the year, and those that are forecast for delivery during the current year. To ensure the delivery of the overall sewerage related PC10 capital programme is adequately monitored, we have replicated Annex N1 from the FD below:

Wastewater Treatment Works			
Ref.	**Project Name**	**Forecast Delivery**	**Actual Delivery**
STW/001	Ardglass WWTW	PC13	
STW/002	Ballyhalbert WWTW		2011/12
STW/003	Ballymonie WWTW		2010/11
STW/004	Ballywalter WWTW		2009/10
STW/005	Bushmills Portballintrae WWTW		2010/11
STW/006	Cargan WWTW		2010/11
STW/007	Cloughmills WWTW		2010/11
STW/008	Coagh WWTW		2010/11
STW/009	Coalisland WWTW		2010/11
STW/010	Downpatrick WWTW		2010/11
STW/011	Dunmurry WWTW Modifications		2011/12
STW/012	Eniskillen WWTW		2009/10
STW/013	Feeny WWTW		2010/11
STW/014	Hook's Corner WWTW		2010/11

STW/015	Lisbarnet WWTW		2009/10
STW/016	Loughries WWTW		2010/11
STW/017	Lurganare WWTW		2010/11
STW/018	Maghera WWTW		2010/11
STW/019	Magherafelt WWTW		2010/11
STW/020	Milltown Antrim WWTW		2009/10
STW/021	Moneymore WWTW		2010/11
STW/022	Dungannon (Moygashel) WWTW		SBP
STW/023	Mullaghboy WWTW		2011/12
STW/024	Newtownbreda WWTW		2010/11
STW/025	Portavogie WWTW / Kirkistown	2012/13	
STW/026	Rousky Sewerage Scheme		2010/11
STW/027	Saintfield WWTW		2009/10
STW/028	Stewartstown WWTW		2010/11
STW/029	Toome (Creagh) Sewerage Scheme [PE's Toome - 1349 Creagh - 605]		2010/11
STW/030	Whitehead, Ballystudder & Ballycarry Rationalisation		2011/12
STW/031	Bush WWTW		2010/11
STW/032	Benone WWTW	PC13	
STW/033	Maghera WWTW	PC13	
STW/034	Newcastle WWTW	PC13	
STW/035	Gulladuff WWTW	PC13	
STW/036	Ballintoy WWTW	PC13	
STW/037	Glenstall WWTW	PC13	
STW/038	New Holland WWTW		2010/11
STW/039	Omagh WWTW	PC13	
STW/040	Forkhill WWTW	PC13	
STW/041	Mullaghbane (Forkhill) WWTW	PC13	
STW/042	Hillsborough WWTW	PC13	
STW/043	Limavady WWTW	PC13	
STW/044	Small WTWW programme	Ongoing	
STW/045	Darragh Cross WWTW		2010/11
	Additional PC10 WwTW Outputs		
STW/051	**Causeway Aird**		**2011/12**
STW/053	**Glassdrumman WwTW**		**2011/12**
	Dunmore Sewerage		**2011/12**

	Ardress WwTW & WwPS		**2011/12**

Unsatisfactory Intermittent Discharges			
Ref.	**Project Name**	**Forecast Delivery**	**Actual Delivery**
UID/001	Armagh (HUARMBSOLNOO1) - Storm King CSO	PC13	
UID/002	Armagh (HUARMBSOLNOO1) - Scotch street CSO	PC13	
UID/003	Armagh (HUARMBSOLNOO1) - Courthouse 1 CSO	PC13	
UID/004	Armagh (HUARMBSOLNOO1) - Courthouse 2 CSO	PC13	
UID/005	Armagh (HUARMBSOLNOO6) - The Mall East CSO	PC13	
UID/006	Armagh (HAURMBSOLN005) - English Street CSO	PC13	
UID/007	Armagh (ENARMBSOLN003) - Drumcairn SPS	PC13	
UID/008	Armagh (ENARMBSOLN005/HUARMBSOLN010) - Milford SPS	PC13	
UID/009	Armagh (ENARMBSOLN002/HUARMBSOLN012) - Killylea Road SPS	PC13	
UID/010	Armagh (ENARMBSOLN004/HUARMBSOLN007) - Newry Road SPS	PC13	
UID/011	Bangor (Scheme 1) - Carnlea CSO 01	PC13	
UID/012	Bangor (Scheme 1) - Killaney PS 03	PC13	
UID/013	Bangor (Scheme 2) - Westburn Crescent 25-27 CSO 03A	PC13	
UID/014	Bangor (Scheme 2) - Crawfordsburn Rd 18 CSO 03B	PC13	
UID/015	Bangor (Scheme 2) - Crawfordsburn Rd 25 CSO 03 C	PC13	
UID/016	Bangor (Scheme 3) - Maxwell CSO 04	PC13	
UID/017	Bangor (Scheme 3) - Glen Rd PS 05	PC13	
UID/018	Bangor (Scheme 4) - Somerset Ave CSO 11	PC13	
UID/019	Bangor (Scheme 4) - Bridge St CSO 13	PC13	
UID/020	Bangor (Scheme 4) - Quay St CSO 14	PC13	
UID/021	Bangor (Scheme 4) - Tennyson CSO 10	PC13	
UID/022	Bangor (Scheme 4) - Queens parade CSO 12	PC13	
UID/023	Bangor (Scheme 5) - Castle Park CSO 07	PC13	
UID/024	Bangor (scheme 8) - Sandee Lane SPS		2011/12
UID/025	Bangor (scheme 8) - Coastgard Larne SPS		2011/12
UID/026	Ballygally (unknown) - to be determined	PC15	
UID/027	Ballygally (unknown) - to be determined	PC15	
UID/028	Ballygally (unknown) - to be determined	PC15	
UID/029	Ballywalter(DAP stage1) - Main St CSO1		2010/11
UID/030	Belfast (Beechmount Avenue Gortfin Street Hydraulic upgrade) - CSO 53		2011/12
UID/031	Castlewellan (ENCWNCSOLN002) - Ballylough Road CSO 02	PC13	
UID/032	Castlewellan (HUCWNCSOLN009) - Annesborough Pk SPS CSO 05	PC13	

UID/033	Castlewellan (ENCWNCSOLN001) - Mill Hill CSO 04	PC13	
UID/034	Castlewellan (ENCWNCSOLN004) - Castlewellan Park CSO 03	PC10	
UID/035	Castlewellan (ENCWNCSOLN004) - Castlewellan WWTW SPS CSO 06	PC10	
UID/036	Castlewellan (ENCWNCSOLN003) - Annesborough Park CSO 01	PC13	
UID/037	Cookstown (Moneymore Road Cookstown Sewerage Scheme) - Molesworth Rd CSO	PC13	
UID/038	Cookstown (Moneymore Road Cookstown Sewerage Scheme) - WWTW Inlet CSO	PC13	
UID/039	Coleraine (DAP Phase 1) - Queens st CSO 02a		2011/12
UID/040	Coleraine (DAP Phase 1) - Ballysally CSO 06a	PC13	
UID/041	Coleraine (DAP Phase 1) - Ballycairn Playing fields CSO 08a	PC13	
UID/042	Coleraine (DAP Phase 1) - Strand Road PS ERO PS 02a		2011/12
UID/043	Coleraine (DAP Phase 1) - Screen Road CSO 07a	PC13	
UID/044	Downpatrick (Market Street SPS upgrade)	PC13	
UID/045	Downpatrick stream st - CSO	PC13	
UID/046	Downpatrick (Churck street SPS upgrade) - CSO 3 meadowlands	12/13	
UID/047	Downpatrick (Churck street SPS upgrade) - Church street PS CSO	12/13	
UID/048	Downpatrick (Churck street SPS upgrade) - CSO 4 scotch street	12/13	
UID/049	Downpatrick (Churck street SPS upgrade) - CSO 11 scotch street	12/13	
UID/050	Downpatrick (Churck street SPS upgrade) - CSO 12 Rathkelt Terrace	12/13	
UID/051	east Belfast (Loop Interceptor sewer from east Belfast) - Alexander Road CSO 21		2011/12
UID/052	east Belfast (Loop Interceptor sewer from east Belfast) - Woodcot Avenue CSO 24	12/13	
UID/053	east Belfast (Loop Interceptor sewer from east Belfast) - Bells Bridge CSO 20	PC15	
UID/054	east Belfast (Loop Interceptor sewer from east Belfast) - Rosetta park/Knockbreda Road CSO 18	PC15	
UID/055	east Belfast (Loop Interceptor sewer from east Belfast) - Carnamena Avenue CSO 28		2011/12
UID/056	east Belfast (Loop Interceptor sewer from east Belfast) - Abetta Parade CSO 23	12/13	
UID/057	east Belfast (Loop Interceptor sewer from east Belfast) - Manderson Street Duffins Yard CSO 36	PC15	
UID/058	east Belfast (Loop Interceptor sewer from east Belfast) - Holywood Road CSO 37	PC15	
UID/059	east Belfast (Loop Interceptor sewer from east Belfast) - Ladas Drive CSO 108	PC15	
UID/060	east Belfast (Loop Interceptor sewer from east Belfast) - Manderson Street CSO 111	PC15	
UID/061	east Belfast (Loop Interceptor sewer from east Belfast) - Prince Regent Ave CSO 109	PC15	
UID/062	Greyabbey (DAP Phase 1) - Main st CSO 01	PC15	
UID/063	Greyabbey (DAP Phase 1) - Main st CSO 02	PC15	
UID/064	Kilkeel harbour SPS and Sewerage Improvements (CSO13)	PC10	
UID/065	Lisburn (ENLBNASOLNOO4) - Glenmore PS CSO 21	PC13	
UID/066	Lisburn (ENLBNASOLNOO5) - Waterside 2 CSO 07	PC13	

UID/067	Lisburn (ENLBNASOLNOO2) - Hilden PS CSO 13b	PC13	
UID/068	Lisburn (ENLBNASOLNOO3) - Hilden PS Compound CSO 13a	PC13	
UID/069	Lisburn (HULBNASOLNOO11) - Antrim st CSO 24	PC13	
UID/070	Lisburn (HULBNASOLNOO12) - Maralin ave CSO 02	PC13	
UID/071	Lisburn (HULBNASOLNOO13) - Maghergeery PS CSO 17	PC13	
UID/072	Lisburn (HULBNASOLNOO14) - New Holland WWTW	PC13	
UID/073	Lisburn (HULBNASOLNOO5) - Duncans road upgrade	PC13	
UID/074	Lisburn (HULBNASOLNOO9) - Laws yard CSO 14	PC13	
UID/075	Millisle (DAP stage 2) - CSO 1	PC10	
UID/076	Millisle (DAP stage 2) - CSO 2 Millisle SPS	PC13	
UID/077	Newcastle (Murlough SPS Upgrade & Network Improvements) - Bonnys caravan CSO14		2011/12
UID/078	Newcastle (Down Road/castle Park Sewer upgrade/attenuation) - CSO 10		2011/12
UID/079	Newtownards (South Street Newtownards refurb) - PS16	12/13	
UID/080	Portadown (DAP Stage 1) - Eden Avenue SPS CSO 05	PC10	
UID/081	Portadown (DAP Stage 1) - Meadow Lane CSO 06	PC13	
UID/082	Portadown (DAP Stage 1) - Meadow Lane CSO 07	PC13	
UID/083	Portadown (DAP Stage 1) - Meadow Lane CSO 08	PC13	
UID/084	Portadown (DAP Stage 1) - Princess Way CSO 10		
UID/085	Portadown (DAP Stage 1) - Clonavon Avenue CSO 11	PC13	
UID/086	Portadown (DAP Stage 1) - Meadow lane health centre CSO 12	PC13	
UID/087	Portadown (DAP Stage 1) - Orbins St CSO 01 CSO 25	12/13	
UID/088	Portadown (DAP Stage 1) - Orbins St CSO 01 CSO 24	12/13	
UID/089	Portadown (DAP Stage 1) - Park Road CSO 28	12/13	
UID/090	Portadown/Craigavon (HUPORASOLN003) - to be determined.	PC13	
UID/091	Portadown/Craigavon (ENPORASOLN005) - Annagh SPS. CSO 20	PC13	
UID/092	Portadown/Craigavon (ENPORASOLN007) - Chambers Pk CSO 01	PC13	
UID/093	Portadown/Craigavon (ENPORASOLN008) - CSO 21	PC13	
UID/094	Portadown/Craigavon (ENPORASOLN009) - Seagoe ST CSO 29	PC13	
UID/095	Warrenpoint (Newry Road Sewage pumping station Warren Point upgrade) - Newry Road SPS CSO	PC13	
UID/096	Belfast (Annadale flats belfast hydraulic upgrades) - CSO 73 - Annadale flats		2011/12
UID/097	Belfast (Annadale flats belfast hydraulic upgrades) - CSO 72 - Sunnyside street		2011/12
UID/098	Draperstown (DAP) - Derrynoyd Road CSO 02		2010/11
UID/099	Draperstown (DAP) - Saint Patricks street CSO 01		2010/11
UID/100	Londonderry (sewer imps stage 2 Duke St PS group schemes) - Duke St rab CSO 28		2010/11
UID/101	Londonderry (sewer imps stage 2 Duke St PS group schemes) - Duncreggan road CSO 29		2010/11
UID/102	Londonderry (sewer imps stage 2 Duke St PS group schemes) - Dunfield terrace CSO 30		2010/11
UID/103	Londonderry (sewer imps stage 2 Duke St PS group schemes) - Fountain Hill CSO 31		2011/12

UID/104	Londonderry (DAP Duke street work package) - Duke street PS 09		2011/12
UID/105	Londonderry (DAP Duke street work package) - Duke street storm PS CSO63/PS 24		2011/12
UID/106	Londonderry (DAP Duke street work package) - Duke street 1 PS CSO CSO 4		2011/12
UID/107	Londonderry (DAP Victoria road work package) - Victoria road PS CSO 13		2011/12
UID/108	Londonderry (DAP Victoria road work package) - Victoria road PS CSO 64	PC10	
UID/109	Londonderry (DAP Duke street work package Flood alleviation) - King street RAB CSO 35		2011/12
UID/110	Londonderry (DAP Duke street work package Flood alleviation) - Victoria Road(new) CSO 57		2011/12
UID/111	Londonderry (DAP Duke street work package Flood alleviation) - Victoria Road (old) CSO 58		2011/12
UID/112	Londonderry (DAP Strathfoyle & Drumahoework package Drumahoe old PS) - PS CSO 07		2010/11
UID/113	Londonderry (DAP Strathfoyle & Drumahoework package CAW PS) - CAW PS CSO 05		2010/11
UID/114	Londonderry (DAP Strathfoyle & Drumahoework package CAW PS) - CAW Park CSO 23		2011/12
UID/115	Portadown (Gilford Road Portadown Sewerage upgrades) - Gilford road CSO		2010/11
UID/116	Portadown (Gilford Road Portadown Sewerage upgrades) - Princess way CSO		2010/11
UID/117	Portadown (Gilford Road Portadown Sewerage upgrades) - Eden Avenue SPS CSO		2010/11
	Additional PC10 UID Outputs		
UID/118	Belfast (Beechmount Avenue Gortfin Street Hydraulic upgrade) - CSO 46		2011/12
UID/119	Belfast (Beechmount Avenue Gortfin Street Hydraulic upgrade) - CSO 47		2011/12
UID/120	Belfast (Beechmount Avenue Gortfin Street Hydraulic upgrade) - CSO 50 - Fort Street		2011/12
UID/121	Coleraine (DAP Phase 1) - Rose Gardens CSO		2011/12
UID/122	Coleraine (DAP Phase 1) - Millburn Road CSO		2011/12
UID/123	Coleraine (DAP Phase 1) - Andersons Park CSO		2011/12
UID/127	Beechlawn WwPS Hillsborough		2011/12
UID/128	Newcastle (Murlough SPS Upgrade & Network Improvements) - Murlough SPS CSO 21		2011/12
UID/129	Newcastle (Murlough SPS Upgrade & Network Improvements) - Burrendale hotel CSO 03		2011/12
UID/130	Newcastle (Murlough SPS Upgrade & Network Improvements) - Burrendale hotel No 1 CSO 02		2011/12
UID/131	Newcastle (Murlough SPS Upgrade & Network Improvements) - Mourneview CSO 04		2011/12
UID/132	Newcastle (Murlough SPS Upgrade & Network Improvements) - Burrenview CSO 05		2011/12
UID/133	Newcastle (Murlough SPS Upgrade & Network Improvements) - Shan Slieve Drive CSO 15		2011/12
UID/134	Newcastle (Murlough SPS Upgrade & Network Improvements) - South Promenade CSO 18		2011/12
UID/135	Newcastle (Down Road/castle Park Sewer upgrade/attenuation)-Castle Park WwPS CSO13		2011/12
UID/136	Newcastle (Down Road/castle Park Sewer upgrade/attenuation) – Valenta Place CSO 11		2011/12
UID/137	Newcastle (Down Road/castle Park Sewer upgrade/attenuation) – Castle Park CSO 12		2011/12

UID/140	Belfast (Annadale flats belfast hydraulic upgrades) - Annadale SPS - CSO closure		2011/12
UID/141	Belfast (Annadale flats belfast hydraulic upgrades) - Sunnyside street SPS CSO upgrade		2011/12
UID/142	Londonderry (DAP Victoria road work package) – Prehen Park CSO 47		2010/11
UID/143	Londonderry (DAP Victoria road work package) – Prehen Road CSO 46		2010/11
UID/144	Baroda Street/Ormeau Park, Belfast CSO – Baroda Street CSO 77		2011/12
UID/145	Baroda Street/Ormeau Park, Belfast CSO –Ormeau Park CSO 78		2011/12
UID/159	Ballyeaston, Sewage System Upgrade		2011/12
UID/160	east Belfast (Loop Interceptor sewer from east Belfast) - Clonduff Drive CSO 29		2011/12
UID/161	east Belfast (Loop Interceptor sewer from east Belfast) - Merok Crescent CSO 27		2011/12
UID/162	Londonderry (DAP Victoria road work package) – Sunningdale Drive CSO 53		2010/11
UID/163	Joymount WwPS		2010/11
UID/164	Whitehouse DAP Phase 1 – Camross Park CSO		2010/11
UID/165	Whitehouse DAP Phase 1 – Merville Mews CSO		2010/11
UID/166	Whitehouse DAP Phase 1 – Manse Road CSO		2010/11
UID/174	Lukes Point DAP Phase 1 – Lukes Point WwPS		2010/11
UID/189	Bangor DAP – Seacliff Road		2011/12

Defined activities			
Ref.	**Project Name**	**Forecast Delivery**	**Actual Delivery**
WRS/003	Length of sewer replaced or rehabilitated	63km	

Date: 25 July 2012
Prepared by: HMS

Table 36a – Sewerage service – Expenditure comparisons by purpose

Commentary by Reporter

1. Background

This table facilitates capital and operating expenditure comparisons between Company report year actual figures and those contained in the PC10 Final Determination.

2. Key Findings & Recommendations

- NIAUR has provided a breakdown of the annual PC10 projections on the basis of QBEG, to enable population of Table 36a.
- PC10 has been adjusted using actual COPI, resulting in a £2.0m reduction in forecast expenditure for Year 2.
- Whilst some variance has been reported amongst purpose categories, overall expenditure in Year 2 of PC10 is in line with the adjusted allowance for Year 2, with good progress made in both the delivery of the PC10 WwTW programme and the UID programme.

3. Audit Approach

The audit consisted of interviews with the NI Water's table author and a review of relevant supporting documentation, the methodology, assumptions and data used to compile the table. The audit also included a review of the Company's commentary.

4. Audit Findings (Capex)

4.1 PC10 Projections

In order to assist with the population of Table 36a, NI Water requested a breakdown of the Final Determination from NIAUR. The summary table, which we have reproduced below, will form the basis of expenditure comparisons undertaken throughout the PC10 period.

Sewerage	2010-11	2011-12	2012-13	Total
Q	[x]	[x]	[x]	[x]
B	[x]	[x]	[x]	[x]
E	[x]	[x]	[x]	[x]
G	[x]	[x]	[x]	[x]
Total	[x]	[x]	[x]	[x]

Base	2010-11	2010-11	2010-11	Total
SEWERAGE INFRA	[x]	[x]	[x]	[x]
SEWERAGE NON-INFRA	[x]	[x]	[x]	[x]
Total	[x]	[x]	[x]	[x]

However, the above forecasts are subject to adjustments in Public Expenditure (PE) funding, compromising the Company's ability to deliver the agreed outputs. As we highlight below, a re-profiling of PE in Year 2 of PC10 saw an increase in Operational Capital spend to match the increased PE allowance for 2011/12, with a particular focus on the inspection and replacement of inefficient MBR filters.

4.2 Indexation

We confirm that NI Water has indexed the PC10 projections from the 2007/08 base year using the COPI adjustment of 0.982, which reduced the Year 2 allowance for PC10 by circa £2m for the sewerage service. Whilst this approach is consistent with guidance from NIAUR, the Company has highlighted that subsequent revision to COPI for the year, if applied to Table 36a, would increase the Year 2 allowance by £1.75m. This highlights the vagaries of this methodology, and considering the PC10 FD is subject to variation in accordance to PE funding allowances, we question the appropriateness of this comparison.

4.3 Expenditure comparisons

In reviewing the expenditure for Year 2 of PC10, the Company has highlighted a number of well justified reasons for reported variance.

As noted by NI Water in their commentary, there are significant differences between the proportional allocation assumptions made in the PC10 submission and those now being applied using the CIDA methodology (following Reporter challenge).

Additionally, the Company has identified a number of additional external constraints since the Final Determination was published, impacting on the Company's ability to efficiently deliver the agreed PC10 capital programme, including:

- External funding constraints imposed by fixed annual levels of public expenditure, differing from those agreed in the PC10 Final Determination
- More stringent procurement governance, reducing the scope for capital efficiency
- Delays in acceptance of the PC10 Final Determination
- Land procurement issues, delaying delivery of some WwTW outputs

4.3.1 Base service provision

- *Infrastructure renewals expenditure (IRE) (line 2)*

[x]

In terms of IRE, the expenditure incurred during the year (£9.04m) is slightly below the PC10 forecast for IRE in Year 1 (£10.1m). This is due primarily to the prudent deferral of the flooding and DG5 sub- programmes.

Additionally, the Company advised that the Sewer Mains Rehabilitation Programme, which was forecast to deliver 63km of critical and 9km of non-critical sewer improvements over PC10 is now only likely to deliver 20km of critical sewer improvements with the balance of generally less expensive non-critical sewers, due to the fact NI Water has been unable to locate a sufficient length of critical sewer requiring replacement.

- *Maintenance non-infrastructure (MNI) (lines 3 and 5)*

[x]

In terms of MNI expenditure in Year 2 of PC10, NI Water was circa 48% (£15m) higher than the PC10 forecast. We queried the basis of the reported over spend, and the Company advised that the Company has successfully delivered a number of MNI WwTW projects. There was an increase in Operational Capital spend to match the increased PE allowance for 2011/12, with a particular focus on the inspection and replacement of inefficient MBR filters.

4.3.2 Quality Enhancements

[x]

Expenditure against Line 7 (£28.7m) is circa 35% below the PC10 forecast for Year 2 (£44.3m).

NI Water has a large WwTW programme for PC10, with 14 PC10 WwTW outputs and 30 PC10 Carryover WwTW outputs forecast for delivery during the period.

As highlighted in the Company's commentary for AIR12, this variance is due

primarily to a slower than expected start on the Wastewater Treatment new start programme and a shift in CIDA allocation for the overall WwTW programme, with less spend than expected on Quality and more on Supply/Demand. There were also delays to the main sewerage programme and additional outputs programme that will not be caught up due to PE limitations.

4.3.3 Enhanced service levels

[x]

Overall spend on enhanced service levels (£4.25m) is circa 45% lower than the PC10 forecast for Year 2 (£7.8m).

We found that the Company has continued to focus on the delivery of outputs identified within the DAP process and has worked to improve the definition of the DG5 sewer flooding PC10 programme, with only a small number of outputs delivered during the year, explaining the lower than forecast expenditure.

4.3.4 Maintaining supply/demand balance

[x]

At year-end, SDB expenditure (£17.9m) was circa 45% above the PC10 forecast for Year 2 (£12.3m).

We note that circa £8m (£4m against SDB) has been expended against the Small WwTW Programme, some £4m greater than the forecast. The Company advised, that in addition to the improvements delivered to a number of small WwTW with a PE<250, NI Water also delivered a further seven WwTW improvements to works with PE>250 under their Small WwTW framework. The Company advised that the Small WwTW framework provided a means of quickly procuring a number of projects for works that were in urgent need of upgrade and were close to the PE threshold.

5. Audit Findings (Opex)

Nothing more to add.

Date: 25 July 2012
Prepared by: HMS

Table 40 – Capital Investment Monitoring Return

Commentary by REPORTER

1. Background

This Table covers the Capital Investment Monitoring (CIM) Return for the Report Year.

Figures reported in Table 40 should be consistent with those reported on in the other capital investment tables of the AIR submission. For the PC10 period, the CIM template has been modified to more easily identify the outputs and expenditure relating to the PC10 Determination. The CIM submission includes:

- A breakdown of the agreed outputs by sub-programme or project, covering the whole capital programme except for the capital elements of the PPP projects.
- Milestones, expenditure profiles, expenditure allocations by purpose and asset category assumed in the Determination.
- Actual spend and updated forecasts of milestones, expenditure and allocations.
- A commentary by NI Water providing an overview of progress against the baseline programme.
- A textual explanation covering any material changes to the baseline programme.
- Expenditure shall be reported net of any grants and capital contributions.

For AIR12, the CIM should also be consistent with Table 3.3 of NI Water's June 2012 PC13 submission, or explanations should be given by the Company of any material differences.

2.1 Key Findings

- The Baseline stated in the CIM is equal to that stated in AIR11.
- Expenditure is stated as the gross figure, ie prior to adjustments for Grants and Contributions. Adopted Assets are excluded.
- Table 40 is materially consistent with capital expenditure information in ORACLE.
- We confirm that NI Water has correctly translated the 2011/12 expenditure given in Table 40 into the 16-box model given in their commentary.
- The 16-box model from Table 40 is materially consistent with Table 32 and Tables 35 and 36.
- There is also reasonable consistency between Table 40 and Table 3.3 of the recent PC13 submission. The Company has provided a detailed account of the differences by sub-programme.

- Baseline expenditure assumptions are expressed in 2007/08 prices. Actual and forecast expenditure is given in 2011/12 prices.
- Procedures for proportional allocation of actual expenditure continue to improve and our audits of projects and programmes indicate that allocations into QBEG categories are more reliable.
- Overall, we believe that the allocation of investment into service areas and asset types has been done reasonably well.

2.2 Recommendations

- We understand that a number of wastewater schemes in the PC10 programmes have been/are being designed to new drivers/standards and that it is highly likely that there will be material cost implications which are currently being absorbed. We have not seen any clear mechanism which identifies and accounts for output and/or cost variations and recommend that an appropriate process is devised, agreed and put into effect as soon as is practicable.
- It is also possible that the accommodation of such changes is resulting in some disruption to the design/construction processes and programming. We therefore re-affirm our recommendation that, as far as is practicable, NIEA, DWI, NI Water, NIAUR, DRD work together to formalise the full programme of improvements in reasonable time for them to be efficiently embraced in the business planning and delivery processes.

3. Audit Findings

3.1 General

Annex N of the PC10 FD provided a breakdown of the post-efficiency expectations by sub-programme for enhancements but dealt with Base Maintenance efficiency as a whole. NIAUR has provided information on how the PC10 FD is allocated into the '16-box model' (the 4 service areas by the 4 purpose categories) for each PC10 year. NI Water has extended this information into Tables 35a, 36a for comparison of actual expenditure with baseline at the 16-box level and further extended it into the CIM to create a baseline profile for each PC10 project where reasonably feasible. To do this, NI Water has assumed that NIAUR's efficiency assumptions for each sub-programme are the same. This may not be the case and indeed we understand that information provided in August 2011 provided more detail at sub-programme level. This has not been incorporated and we have not reviewed the scale or consequence of any differences. However, a significant amount of work has been invested by NI Water and NIAUR in configuring Table 40 (CIM) to represent the financial and physical outputs expected from the PC10 capital investment programme. Since no other detailed Monitoring Plan has been formally agreed, the CIM appears to be the accepted baseline for the PC10 FD.

We have checked that the Baseline totals by sub-programme for 2011/12 are consistent with those stated in AIR11.

The 'Actuals' total for 2010/11 is also the same in the AIR12 Table 40, confirming that no inflation has been applied to 'Actuals' data, i.e. reporting is in 'money of the day'.

NI Water has confirmed that they have adjusted specific projects or sub-programmes where they have reasonable confidence in the latest best estimates or forecast expenditure, but where not, an adjustment has been included in sub-programme 22 as allowed by the Reporting Requirements. A negative adjustment of £19.3m has been included in 2012/13 (to correct for the 'over-profiling' contained within the sub-programmes). A coincidentally similar but opposite amount has been entered in 2014/15 (project code XX999) to adjust for under-allocation to the sub-programmes.

3.2 Reconciliation of Table 40 with ORACLE

NI Water has provided a table in section 1.4 of their commentary which reconciles Table 40 to their ORACLE financial reporting system.

We noted that the CIM provided a total of £39.8m for sub-programmes 09, 10, 18, 19 and 20 which reflect the *Operations Capital and M&G* (i.e. non-EP) components of the Capital programme. We requested a reconciliation of this sum with the £39.2m stated in the commentary as the 'non-EP capital reported from ORACLE'. The Company provided further information, demonstrating that certain projects (amounting to £0.6m) within the above sub-programmes were EP projects. These are included in the EP totals and therefore deducted from non-EP spend (these projects can be identified by their J or K project code).

Operations Capital and M&G expenditure has not, hitherto, been subject to any significant Reporter scrutiny although the content and progress of the PC10 M&G programmes will be reviewed this year as a topic within the in the Systems of Planning and Internal Control Review. We believe that it would be beneficial to include a review of these programmes of work on an annual basis.

3.3 Comparison with other tables and submissions

NI Water has provided a reconciliation of actual 2011/12 expenditure reported in the CIM with AIR12 Tables 32 and 35/36. Comparisons are net of Grants and Contributions (£5.0m) and exclude Adopted Sewerage Assets (£48.0m).

Service Area	CIM		Table 32		Tables 35/36[1]		PC13 Table 3.3	
	[x]	[x]	[x]	[x]	[x]	[x]	[x]	[x]
WI	[x]	[x]	[x]	[x]	[x]	[x] [x]	[x]	[x]
WNI	[x]	[x]	[x]	[x]	[x]		[x]	[x]
SI	[x]	[x]	[x]	[x]	[x]	[x] [x]	[x]	[x]
SNI	[x]	[x]	[x]	[x]	[x]		[x]	[x]
Sub-Totals	[x]	[x]	[x]	[x]	[x]	[x]	[x]	[x]
Totals	[x]		[x]		[x]		[x]	

[x]

The CIM and PC13 Table 3.3 are also compared graphically below.

[x]

As can be seen, a close reconciliation has been achieved throughout. We have not challenged NI Water to explain these small differences.

NI Water has also provided a more detailed reconciliation (by Enhancement category) of Table 40 with Tables 35 and 36 in their commentary. We have confirmed these numbers are consistent with Table 40 and Tables 35 and 36.

We confirm that the Company has correctly derived Table 1.7 of their commentary from Table 40.

3.4 Proportional Allocation

Our commentaries to Tables 35 and 36 include an analysis of our findings from a more detailed review of specific projects and programmes, including comments on the assumptions made in proportionally allocating expenditure to purpose categories and to asset types. Over recent years, we have found that the allocation procedures have continued to improve, and we are no longer concerned that there are any material errors or systemic mis-allocation issues. In our PC13 audits earlier this year, we did however notice a difference between the allocations on CIDA and CAPTRAX for several projects. The Company advised that they had already identified this issue and a procedure had been developed to correct it.

3.5 Expenditure variance from the PC10 FD

NI Water's delivery of the PC10 capital programme has been severely disrupted by a variety of external and internal causes, notably the changes in the PE budget have driven NI Water to spend considerably less than the PC10 Baseline. This has been well documented in other regulatory submissions. The chart below presents the accumulating variance by sub-programme as the PC10 period progresses, including NI Water's projections for 2012/13. No adjustments for inflation have been made. The PC10 FD Baseline is stated in 2007/08 prices. The actual/projected figures are stated in money of the day, projections being in 'report year' prices. The variances stated below are the differences between these for the full PC10 period.

Total variances, as given in Table 40, are:

[x]

[x]

[x]

Generally the variance between actual/projected spend and the PC10 FD assumptions (no inflation adjustments), by sub-programme, increases each year. Notable exception to this are sub-programmes where variance is shown to reverse over the period. The Company's commentary provides detail on the projects being delivered and the causes of concern to date. Further observations are as follows:

- ***08 Water mains rehabilitation*** – which shows a significant under-spend in 2010/11, a full recovery in 2011/12 and an over-spend in 2012/13. In their commentary, NI Water confirms that they have discussed the variance of this programme with NIAUR, and explained the additional cost pressures.
- ***15 Wastewater treatment (carry-over)*** – after some disruption to the programme due mainly to planning issues, the programme has largely caught up. NI Water has also included some over-profiling in this sub-programme but an overall over-spend is expected.
- ***21 Additional outputs programme*** – a 2012/13 cumulative variance of -£11.9m is currently forecast. Some 42 projects are listed in the CIM which contrasts with the undefined single line programme entry in the PC10 business plan and FD. This suggests the uncertainty of this programme when the FD was set. NI Water has commented on the material content of this growing programme and has also confirmed that NIEA in particular is increasing their interest in IPPC improvements.

The largest projected variances (2012/13) are sub-programmes:

- ***12 Sewerage programme***: [x] – This sub-programme is already showing significant variance as described by NI Water.
- ***22 Management adjustment*** [x] – the CIM is a reflection of the expenditure profiles of all the projects listed as approved by NI Water's Capital Investment Panel which, to maximise the likelihood of meeting the PE budgets,

includes some over-profiling within the sub-programmes. Management will adjust the rate at which projects are being delivered during the year to achieve the PE Budget. The management adjustment corrects for this as, at this stage, the particular projects or programmes which will be affected are uncertain. The over-profiling shown in 2012/13 will lead to a deferment of expenditure into the PC13 period. NI Water has shown this as a reversal of the Management adjustment in 2014/15.

- ***02 Base maintenance (sewerage)***: [x] – This sub-programme is already showing a significant variance, mainly as a result of the strategies in place at the start of PC10 which were designed to defer non-essential capital maintenance work. NI Water has reviewed their approach and is developing a strategy based on prioritisation, geographic clustering and an intention not to revisit sites (for any major capital works purposes) for a minimum of 5 years. NI Water also acknowledges that some of the increases in expenditure identified are as a result of changes to allocation practice. We believe their allocation practice is reasonable and have not identified any material mis-allocations or systemic issues during our recent audits.
- ***20 Management & General***: [x] – A major under-spend against the PC10 FD occurred in 2010/11. NI Water has advised that this was due to the governance and controls processes for accepting and approving M&G related expenditure within NI Water, DRD and DFP. This has led to a much reduced take-up of these programmes and (together with the slower start on the CWP due to winter weather impacts) precipitated a reduction in the PE budgets. With other commitments and priorities for capital expenditure, NI Water is unlikely to be able to recover the delivery of the M&G programme and, as some of these initiatives were of a 'spend-to-save' nature, the opex savings expected will not be realised in the PC10 period. A further under-spend has occurred in 2011/12 and is projected for 2012/13.
- ***16 Wastewater treatment works (new starts)***: [x] – largely resulting from a significant under-spend against the FD in 2011/12. NI Water's commentary indicates that the programme has progressed as planned in 2011/12. There have been significant changes in this programme particularly following the implementation of the PE10 Monitoring Plan.
- ***10 Ops capital (water)***: [x] – This over-spend appears to be accumulating steadily. NI Water advises that this is a result of a re-alignment of some maintenance activities into Ops capital's remit and an upturn in the social housing market.
- ***01 Base maintenance (water)***: [x] – NI Water acknowledges that there have been major delays (in 2010/11 and 2011/12) to the delivery of the base maintenance (WNI) programme as a result of the change in procurement strategy. The variance is projected to increase further in 2012/13 as the procurement should be resolved during the year but the full years' expenditure will not be achieved.

[x]

3.6 Expenditure Variance from PE10

Whilst the Reporting Requirements seek explanations of variance from the PC10 Baseline, a substantial driver for the variance to date is the re-assessment of the PE budgets which required NI Water to re-prioritise and re-profile their sub-programmes.

Variance against the PE10 budgets is shown on the following page.

Cumulative variances to end 2011/12 are much less significant, with sub-programmes 08 (over-spent), 12 and 20 (both under-spent) being the most notable.

In 2012/13, the effects of the over-profiling in the sub-programmes, and the management adjustment to counteract this, can clearly be seen.

3.7 External engagement in capital programme sign-off

A considerable amount of the capital works programme is shown as requiring third party sign-off (by NIAUR, DRD, DWI, NIEA). Following discussion with NI Water, it appears that much of this is incorrect (owing to the programming of input formats which require the data for this column to be completed, and not left blank). NI Water proposes to consult with the Regulators and correct this.

Our experience to date suggests that if formal sign-off is to be a regulatory requirement (which would confirm that the project has satisfactorily achieved the desired outcomes), then efficient and effective processes need to be established and implemented swiftly such that NI Water's delivery of the programme can be appropriately demonstrated and that variations can be appropriately managed. We are concerned that this is still under development.

3.8 Capitalised salaries and on-costs

We note that the relationship between capitalised salaries and on-costs in the CIM for 2011/12 is approximately [x] of capital spend. Last year, the outturn was [x] [x].

Date: 25 July 2012
Prepared by: HMS

[x]