Table 42 – PPP Reporting

1. Introduction

The purpose of the table is to collect information on the cost, performance, and other explanatory variables of the PPP concession, together with assessment of NIW and PPP relative efficiency.

2. Key findings

Criteria	RAG	Assessment
Independent review of performance and reporting	Green	Performance good. Reporting process well managed
Methodology	Blue	Minor concern over APH methodology not impacting materially in 14/15
Assumptions	Green	Assumptions reasonable and appropriately applied
Source data	Green	Source data is clearly identified, complete beyond material concern, well managed through to accurate systems input
Clarity of audit trails	Green	Detailed and comprehensive audit trail to all numbers available
Confidence grades	Green	Confidence grade appropriate and rationale clearly documented
Governance	Green	Responsibilities for integrity of data and commentary clearly defined. Good evidence of engagement and of final sign-off.

- Based on our audit of selected sample data we believe that the data reported in this table is materially consistent with the reporting requirements.
- Consistency with the Regulatory Accounts has also been demonstrated at total level for each PPP.
- More granular Unitary Charge information is supported by invoices from the PPP concessionaires, either split down by site where shown or at PPP level as shown.
- More granular information on other lines is extracted from the PPP models which were established at the outset of each concession. Line 14 (Maintenance) for Alpha uses an average.
- Inflation of 2.5% per annum is assumed in the models and included in the tables, adjustments to reflect actual charges and actual inflation are made and reported in the following year.
- We audited the reported data and challenged the processes on a sample basis. We consider the data reported in the table is robustly prepared using systems and process that are appropriate and in line with the reporting requirements and that are properly implemented with effective quality control and governance arrangements.

3. Audit approach

To verify the data reported our audit consisted of an interview with the NI Water system holders during which the methodologies were reviewed and a selection of data reported in the table was audited back to example source data (e.g. to concessionaire invoices) .

As part of our audits of financial data we liaised with KPMG to share key findings. This was done at a tripartite meeting between the Reporter, KPMG and NI Water.

We have not checked data back to the PPP models this year.

4. Audit findings

4.1 Block A – Project Description

No changes have been made to this data. No changes were expected.

4.2 Block B – Payment to PPP concessionaire (Lines 7 to 20)

Line 7 – Unitary Charge Capacity Charge

This charge applies to Alpha sites only.

NI Water satisfactorily demonstrated that the data is based on actual invoices from the concessionaires which detail charges for each of the sites for the 12 months up to and including March 2015. The costs are based on the payment mechanism as set out in the payment mechanism schedule of the contract.

On average, the Alpha capacity charges have risen by [x] since 2013/14.

Line 8 – Unitary Charge Variable Charge

This charge is identifiable at site level for all PPPs.

As for the capacity charge, NI Water satisfactorily demonstrated that the data is based on actual invoices received for each of the sites for the 12 months up to and including March 2015.

In total, across the Alpha sites, the Variable charges have risen by [x], but Distribution Input (line 21) from these sites has remained relatively static. We assume that this is due to the fact that some sites, particularly [x] (at [x]), have delivered significantly more in 2014/15 and there is a charge escalation mechanism which is not fully balanced out when agreed flows are not taken from the sites.

Kinnegar charges have dropped by [x] which is similar to the decrease in load reported.

The variable charges for the Omega sites have risen by [x] Both p.e. and loads received at WwTW have dropped by around [x] but sludge produced at the PPP facilities have increased from [x] ttds to [x] ttds (or by [x]). Taking cost inflation into account, the overall increase is within reasonable tolerances.

Line 9 – Unitary Charge Deductions

These deductions are identifiable at site level for Alpha only.

NI Water makes performance deductions for both capacity and quality failures. The data is extracted from the invoices (which was satisfactorily demonstrated) and the payment calculation mechanisms.

Performance deductions have been reported in the company commentary for both Alpha and Omega (for both WwTW and Sludge services).

Note that there is a difference between the way in which Alpha PPP and Omega PPP deductions are treated. For Alpha, the deductions are generally agreed quite quickly and identified in, and consistent with, the monthly invoices. The monthly invoices report total deductions of [x] on capacity and [x] on quality. An additional accrual of [x] has been included which gives the reported total of [x].

For Omega, the performance deductions are recognised through credit notes, some of these are not resolved for some time and may be reported in subsequent years: the deductions reported for Omega include [x] of deductions incurred in 2013/14 but settled in 2014/15. Conversely, there are deductions of [x] made but not yet recognised by the Contractor and thus not reported in table 42:

- Wastewater performance deductions [x]
- Sludge service performance deductions [x]

No deductions were made for Kinnegar.

Line 10 – Atypical Expenditure

All PPPs have atypical expenditure reported, at PPP level only.

The atypical expenditure reported includes any payments or credits agreed in monthly invoices. It also includes provisions for claims, which may not necessarily be site specific.

NIW has provided detail on the relevant items in their commentary.

Note that two of the atypical costs noted by NIW ([x] and [x]) have yet to be agreed and so have been included as accruals.

Line 11 – Efficiency Gains included in lines 7 - 10

This information is generally reportable at PPP level.

As NI Water has stated, the only legitimate efficiency gains that can be used are those that arise from a change in levels of service.

The company commentary identifies the initiatives which have yielded the savings (these are consistently included in the figures and commentary for line 10).

Line 13 – 14 – Capital Repayments and Maintenance

These lines relate to Alpha only.

This data relates to paying off the finance lease creditor and any capital maintenance carried out on the contract during the year. The Company advises that data related to capital repayments at PPP level has been extracted from its accounts.

The capital maintenance charge (line 14) for the Alpha PPP has been allocated as a straight line based on the total amounts in the original financial model. This is different to the approach adopted prior to 2013/14 where the value was provided by Dalriada Water and could vary markedly between years. The values in the financial model were split by site and the totals across the full concession period have been used to pro rate the straight line [x] between the sites.

The financial lease model gives (by site) the capacity charge (line 7), from which the capital maintenance charge (line 14) is deducted. These values were used to pro rate the total Interest (line 19) and total Capital Repayments (line 13) and derive charges per site. The values are tabulated in the company's commentary.

It should also be noted that in 2013/14, the financial lease model has been revised. This is because it was noted that a discrepancy was present between the financial lease repayment term and the contract term. The Company now also allocates a proportion of the capacity charge to Opex ([x]). We have not reviewed the detail behind the model or the appropriateness of the amount allocated to Opex.

We understand that this approach was suggested/supported by the financial auditors.

Line 15 – Residual Interest

This relates to Kinnegar and Omega only (which are off balance sheet) as reported in the company's commentary.

The figures are taken from the Residual Interest Models and are not divisible by site.

This company has advised that the amounts stated are consistent with those stated in the financial accounts, pre IFRS adjustments.

Line 16 – Atypical Payments Capitalised

The Company has reported a nil return for this line.

Lines 17 & 18 – Totals from other lines

No comment

Line 19 – Interest

This relates to Alpha only (which is on-balance sheet).

The Company advised that the data is from the financial model related to the contract and is consistent with the statutory accounts. We did not review the financial model and accepted the data provided to us at face value. We do note a significant reduction due to the change in the repayment profile of the finance lease and the allocation of an element of the capacity charge to operating costs.

Line 20 – Total PPP Opex

AT PPP level this reconciles satisfactorily to a downloaded report from the General Ledger data.

Accruals summary

As requested in the Company Guidance, NIW has included a breakdown of the total accruals by PPP. We have not audited this information.

4.2 Block C – Water distribution data (Lines 21 and 22)

Line 21 – Distribution Input

This line represents the water utilised by the PPP companies. The Supply Source Distribution Table has been updated since AIR13 to take cognisance of the change in demand associated with PPP sites. The methodology mirrors that of Table 10 Line 26 to provide a calculated volume for each site and a cumulative figure for the Alpha contract.

The volume reported has reduced very marginally from 241.00 Mld to 240.82 Mld.

Line 21a – WTW Capacity

There has been no change to the minimum required capacity of the Alpha WTW under the contract. The capacities are based on Functional Design Specifications. As per the reporting guidance the volume is 'Q_{minreq}' for each facility and this aligns with the Alpha Contract requirement.

Line 22 – Length of Mains

This line represents the length of main under the contract which links Castor Bay to Forked Bridge. This 16.42 km main is operated and controlled by the contractor and information has not changed from previous reports and correlates with totals reported in other tables.

4.3 Block D – Water resource and treatment data (Lines 23 to 27)

Lines 23&24 – Turbidity 95%-ile greater or equal to 0.5NTU

We have reviewed various supported documents presented by the Company and can confirm that they are consistent. The data source is the LIMS system which is an Oracle database. We re-ran the SQL queries to replicate the reported data. We confirmed the reported information is correct, and note that NIW has appropriate quality checks in place within the Environmental Regulation function.

Lines 25-26 – Treatment Source/Type

There are no changes to these lines from AIR13. Data is consistent with methodology and summary data in Table 12. However as [x] WTW has three sources (impounded reservoirs at [x] and [x] as well as an intake from [x]), the overall classification is more complex.

Line 27 – Average Pumping Head

The APH for each Alpha PPP site is consistent with the AIR 13 return when a change to the reporting requirements was made, wherein the Company is no longer required to use its total Distribution Input as the denominator, rather use the PPP Distribution Input utilised in AIR12. This resulted in a significant change but is now relatively stable, as would be expected.

The AIR15 aggregated value is [x] compared to [x] in AIR14 and [x] in AIR13, showing a slow reduction. However, the audit of the information for AIR15 identified that whilst the input for each site was being used in the calculation, the pumping head for each site was the same as the previous year. However, given that the pumping heads for each site are of a similar order ([x]), overall input from these sites is relatively constant, and it would be the frictional headloss component that would be affected by changes in the flow regime, there would need to be a significant change in the balance of the inputs to materially affect the APH. Thus we consider that the APH figure is likely to remain reasonably reliable unless there is a significant outage of one of the major sources.

We understand that NI Water has recently installed a throttling valve ([x]) on the main from Dunore Point so that more flow is diverted to another part of the network. The impact on the pumping head (which we understand to be relatively small at around 1 metre) should be established and used when relevant in future returns.

4.4 Block E – Sewerage data (Lines 28 and 29)

Lines 28-29 – Total Length of Sewer

As all the sewers reported are classified as critical (as defined by WRc), the length is unchanged from last year. Each PPP facility has collective lengths of sewer which are supported by record drawings for each site.

4.5 Block F – Sewage treatment and disposal data (Lines 30 to 38)

Line 30 – PE of load received

The PE has been derived satisfactorily from total loads (line 31) received from the contractors using the industry standard factor of 60g BOD per person per day. We note that the figure for [x] has returned to more normal levels after a spike in 2013/14.

Line 31- Load received

The total load is based on analytical data derived from samples taken from the inlet of all the PPP wastewater treatment works.

Lines 32-36 - Consents

Information is unchanged and is derived from Water Order Consents which are held by the Contractors and supplied by the Environment Agency. These are legal documents with unequivocal limits. Consents are based on lower and upper tier limits with pass failure being based on look up tables. Any breach of the upper tier limits being classed as a failure.

The Phosphate consents which are applicable to Armagh and Ballynacor are based on annual average consent figures <1mg/l as set out in the Water Order Consent.

Line 37 – Classification of works

The treatment type has followed guidelines as per methodologies reported in Table 17b Line 8 and is unchanged from AIR14.

Line 38 – Size Band of works

This mirrors requirements associated with size banding. There is no change from last year.

4.6 Block G – Sludge treatment and disposal data (Lines 39 to 52)

Line 39 – Sludge imported

Sludge imported from NI Water is only either transferred to the belt press at Ballynacor or to the incineration plant at Duncrue Street, the sum of the two values reported in Line 39 is consistent with the

total value reported in Table 15 Line 16. The minor difference is due to the volumes of grit and screenings.

Line 40 – Sludge produced by the PPP facility

The values reported in Line 40 are consistent with Table 15 (PPP) line 15, the difference between the figures being the grit and screenings arising at the Omega and Kinnegar sites (as shown in the table in the company commentary) and which are disposed of to landfill.

Sludge produced at North Down Ards, Ballyrickard, Richill and Armagh are transferred to either the caking, belt press facility at Ballynacor or sent directly to Duncrue Street incineration plant and are measured by on-site 'Slogger' sludge monitoring systems. The 'Slogger' system has the capability of recording volume as well as dry solids content to provide accurate ttds. In conjunction with NI Water, consistent sampling and measuring of sludge cake imports is also is place.

At Ballynacor the indigenous sludge is calculated by subtracting the input logger data (which records both inputs from NI Water and PPP facilities at North Down Ards, Ballyrickard, Richhill and Armagh) from the cake transferred to Duncrue Street.

To avoid double counting of sludges produced at NI Water facilities or Kinnegar, but transferred and treated at either Ballynacor or Duncrue Street PPP Sludge facilities, zeros have been entered at these PPP sites, which do not produce their own sludges.

Kinnegar sludge is transferred to the incineration plant at Duncrue Street. Prior to discharge at this facility the sludge from Kinnegar is monitored by weighbridge at Duncrue Street. This system involves weighing the vehicles entering and leaving the facility to ascertain the exact tier weight. This is an accurate methodology for sludge disposal.

NI Water has incorporated an analysis of the sludge production trends by PPP site in their commentary.

Line 41 – Sludge exported to Duncrue Incinerator

Due to all PPP sites transferring sludge to Duncrue Street and mixing with sludge from NI Water, it is impractical to determine where any discrete PPP wastewater treatment sludge was ultimately disposed of to any of the eight disposal sites.

All sludge from PPP facilities is measured irrespective of whether it was thickened at Ballynacor only on receipt at Duncrue Street. At Duncrue Street the sludge is either incinerated or disposed of by alternative disposal routes.

The line confirms exports from only PPP Facilities to Duncrue Street. NI Water's sludge's are not included in this line, but are captured in Table 42 Line 39 instead.

The number reported excludes grit and screenings of 0.140 ttds, which are the volumes sent to landfill.

Line 42 – Sludge exported to Other PPP facilities

Zeroes are reported as expected.

Line 43 – Sludge exported to NI Water

Zeroes: the Omega sludge PPP contract has no provision regarding return of sludge to NI Water for disposal.

Line 44 to 51 – Sludge Disposed

The figures for alternative disposal are based on the total ttds excluding incinerated sludge, split in accordance with the proportion of m3 of cake sent by each disposal route. All information is based on contractor reports detailing disposal route and the disposal site. The transfers are cross-referenced by waste management notes and weighbridge reports as well as being calibrated using on-board weighing

systems on plant and road haulage vehicles. Information is collated (in wet tonnes) and submitted monthly to NI Water.

Line	Disposal Route	AIR15 (ttds)	AIR14 (ttds)	AIR13 (ttds)	AIR12 (ttds)	AIR11 (ttds)
46	Farmland Advanced (Lime treatment)	1.559	0.384	0	8.190	26.366
47	Incineration	37.497	36.545	36.386	26.765	5.899
48	Land fill	0.140	0.880	0.128	0	0
49	Composted	0	0	0	0.097	1.792
50	Land Reclamation	0.084	0.409	0.549	2.561	1.251
51	Other (Willow Coppicing)	0	0.657	0.515	0.634	1.915
52	**Totals**	**39.280**	**38.875**	**37.578**	**38.247**	**37.223**

Note that line 47 (Incineration) is calculated as the total sludge received at the Duncrue Street site minus the total sludge recorded as disposed of off-site.

The disposal route to landfill is primarily for grit and screenings this has the most uncertainty, although it is only a small volume, as the % dry solids are not measured for all skip loads. For AIR15, the volume reported is all grit and screenings from both Kinnegar and Omega.

Line 52 is correctly calculated from the sums of Lines 44 to 51.

5. Assumptions

Except where noted above we do not believe there are any material assumptions to report.

6. Confidence grades

We have no reason to reconsider the confidence grades previously agreed.

7. Reconciliation checks

Line 21 is consistent with methodology and figures used for Table 10, line 26

Line 25 = Table 12 (PPP). Confirmed.

Line 26 = Table 12 (PPP). Confirmed.

Line 27= Table 12 (PPP)/line 5. Immaterial difference.

Line 31 = Table 15 (PPP), lines 2-5 as appropriate. Immaterial difference.

Line 39 = Table 17g (PPP) and Table 15, line 16. Confirmed.