November 2017

Trust in water

RAG 4.07 – Guideline for the table definitions in the annual performance report

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Section 1 – Regulatory financial reporting

Financial performance for the 12 months ended 31 March 20xx

Pro forma 1A: Income statement

1A.1	Revenue	Appointed – Total business revenue that is within the scope of the price control, together with revenue that is outside of the price control but still forms part of regulated activities. Non-appointed – Total business revenue from non-appointed activities as defined by the licence. See appendix 1 for further examples.
1A.2	Operating costs	Historical cost operating costs.
1A.3	Other operating income	Historical cost operating income includes profits or loss on disposal of fixed assets; income arising from exceptional items should also be included. Normally a positive number, but a loss should be negative.
1A.4	Operating profit	Historical cost operating profit. Equal to the sum of lines 1A.1 to 1A.3.
1A.5	Other income	Includes rental income and income from investments (eg, share income); excludes net interest and profit on disposals on fixed assets. **Grants and contributions, adopted assets** Companies may recognise grants and contributions in the income statement under UKGAAP. This may be as revenue, by netting off opex, another income line or by amortisation over the life of the asset. We require that all such income be shown as 'other income' in this line. Similarly for adopted assets, both amounts recognised in the year and amortised credits should be recorded in this line. This permits a consistent treatment as required in RAG1 1.8 and 1.9.
1A.6	Interest income	Interest income includes interest received on cash deposits, loans to group companies, etc.
1A.7	Interest expense	Interest expense includes interest paid on loans, leases, debenture, floating rate debt, overdrafts, preference shares and all other borrowings.
1A.8	Other interest expense	Total net interest expenses which are not directly related to deposits and borrowings as defined in 1A.6 and 1A.7. e.g Net interest cost of defined benefit pension schemes.
1A.9	Profit before taxation and fair value movements	Equal to the sum of lines 1A.4 to 1A.8.

1A.10	Fair value gains/(losses) on financial instruments	Any fair value gains/(losses) arising on financial instruments which must be accounted for at fair value on the balance sheet with changes recognised in the income statement.
1A.11	Profit before tax	Historical cost profit on ordinary activities before taxation. Equal to the sum of lines 1A.9 to 1A.10.
1A.12	UK Corporation tax	The current tax charge on profits from ordinary activities. This will include mainstream corporation tax, income and other taxes. It should exclude any deferred tax charge which is to be reported separately. A positive number for tax credit, negative number for tax charge.
1A.13	Deferred tax	The movement in the deferred tax provision. A positive number for tax credit, negative number for tax charge.
1A.14	Profit for the year	Historical cost profit for the year. To be shown after taxation, but before deduction of dividends. Equal to the sum of lines 1A.11 to 1A.13.
1A.15	Dividends	Dividends paid by the company in the year.
Tax analysis		
1A.16	Current year	The current tax charge on profits from ordinary activities, excluding any adjustment in respect of prior years. This will include mainstream corporation tax, income and other taxes and any payments for group relief received. It should exclude any deferred tax charge which is to be reported separately.
1A.17	Adjustment in respect of prior years	The impact on the current tax charge of adjustments in respect of prior years.
1A.18	UK corporation tax	Sum of 1A.16 and 1A.17. Equal to 1A.12.
Analysis of non-appointed revenue		
1A.19	Imported sludge	Revenue from disposing of sludge from other wastewater undertakers.
1A.20	Tankered waste	Revenue for treating tankered waste brought to WWTWs.
1A.21	Other non-appointed revenue	Other non-appointed revenue not included in 1A.19 or 1A.20.
1A.22	Revenue	Total non-appointed revenue. Sum of 1A.19 to 1A.21.

Pro forma 1B: Statement of comprehensive income

1B.1	Profit for the year	Historical cost profit for the year. Equal to line 1A.14.
1B.2	Actuarial gains/(losses) on post-employment plans	Actuarial gains/(losses) on post-employment plans.
1B.3	Other comprehensive income	Other gains and losses.
1B.4	Total comprehensive income for the year	Total comprehensive income for the year. Equal to the sum of lines 1B.1 to 1B.3.

Pro forma 1C: Statement of financial position

Non-current assets		
1C.1	Fixed assets	Historical cost net book value of tangible fixed assets at the end of the financial year.
1C.2	Intangible assets	Total value of any intangible assets (not physical in nature) at the end of the financial year.
1C.3	Investments – loans to group companies	Loans made to other group companies repayable in more than one year.
1C.4	Investment – other	All investments, excluding those in line 1C.3, eg, shares in other group companies.
1C.5	Financial instruments	Difference between book value and fair value of any non-current assets relating to financial instruments, including options, futures, forwards and swaps, which are presented at fair value in the statutory accounts.
1C.6	Retirement benefit assets	The total amount due to employees in the pension scheme for all of the past service completed up to the balance sheet date, less scheme assets. Where this calculation results in a net asset it should be shown in this line.
1C.7	Total non-current assets	Historical cost total fixed assets. Equal to the sum of lines 1C.1 to 1C.6.
Current assets		
1C.8	Inventories	Stocks held at the year end. Stocks consist of consumable stores and work in progress, including chemicals, stationery, petrol, backfill materials, etc.
1C.9	Trade & other receivables	Debtors consist of all amounts owing to the company at the financial year end including trade debtors, prepayments and accrued income. This includes amounts falling due after more than one year. Any assets held for sale should also be included here.
1C.10	Financial instruments	Difference between book value and fair value of any current assets relating to financial instruments, including options, futures, forwards and swaps, which are presented at fair value in the statutory accounts.
1C.11	Cash & Cash equivalents	Cash consists of cash in hand and at bank and short term deposits. Overdraft balances should not be netted off as it should be included separately in 'Trade & other payables'. Equal to the sum of 1E.4 and 1E.5.
1C.12	Total current assets	Equal to the sum of lines 1C.8 to 1C.11.
Current liabilities		
1C.13	Trade & other payables	Trade creditors, accrued interest and any other accruals or creditors due within one year that are not borrowings, tax creditors, capex creditor or liabilities arising from derivative financial instruments.
1C.14	Capex creditor	Capital expenditure creditors due within one year.
1C.15	Borrowings	Balances due within one year which comprise: • obligations under finance leases; • loans due to other group companies; • redeemable debentures;

		• bonds; • commercial paper; • bills of exchange; • bank loans; and • any other borrowings. Accrued interest on borrowings should not be included.
1C.16	Financial instruments	Difference between book value and fair value of any current liabilities relating to financial instruments, including options, futures, forwards and swaps, which are presented at fair value in the statutory accounts.
1C.17	Current tax liabilities	Corporation tax payable consists of any balances of corporation tax due to HMRC.
1C.18	Provisions	Total provisions for liabilities and charges due within one year. Includes deferred income – grants and contributions and all other provisions including restructuring or reorganisation provisions.
1C.19	Total current liabilities	All creditors due to be paid within one year. Equal to the sum of lines 1C.13 to 1C.18.
Net current assets/ (liabilities)		
1C.20	Net current assets/ (liabilities)	Historical cost net current assets. Equal to the sum of lines 1C.12 and 1C.19.
Non-current liabilities		
1C.21	Trade & other payables	Trade creditors, accrued interest and any other accruals or creditors due after more than one year that are not borrowings, tax creditors, capex creditor or liabilities arising from derivative financial instruments.
1C.22	Borrowings	Balances due after more than one year which comprise: • obligations under finance leases; • loans due to other group companies; • redeemable debentures; • bonds; • commercial paper; • bills of exchange; • bank loans; and • any other borrowings. Accrued interest on borrowings should not be included.
1C.23	Financial instruments	Difference between book value and fair value of any non-current liabilities relating to financial instruments, including options, futures, forwards and swaps, which are presented at fair value in the statutory accounts.
1C.24	Retirement benefit obligations	The total amount due to employees in the pension scheme for all of the past service completed up to the balance sheet date, less scheme assets. Where this calculation results in a net liability it should be shown in this line.
1C.25	Provisions	Total provisions for liabilities and charges due after one year not included elsewhere in the table. Includes restructuring or reorganisation provisions.

1C.26	Deferred income – grants & contributions	Balance of deferred income relating to capitalised grants and contributions received.
1C.27	Deferred income – adopted assets	Balance of deferred income relating to adopted assets.
1C.28	Preference share capital	Nominal value of the preference share capital.
1C.29	Deferred tax	Provision for tax liabilities arising from timing differences between the recognition of gains and losses in the financial statements and their recognition in a tax computation. (A deferred tax asset should be entered as a positive number.)
1C.30	Total non-current liabilities	Total creditors due after one year. Equal to the sum of lines 1C.21 to 1C.29.
Net assets		
1C.31	Net assets	Total assets employed by the business under the historical cost accounting convention. Equal to the sum of lines 1C.7, 1C.20 and 1C.30.
Equity		
1C.32	Called up share capital	Nominal value of the ordinary shares of the company which are issued and fully paid.
1C.33	Retained earnings and other reserves	Cumulative balance of historical cost profits retained and any other reserves, other than called up share capital.
1C.34	Total Equity	Total of shareholders' funds. The sum of called up share capital, share premium, profit and loss account, and other reserves. This equals line 1C.31.

Pro forma 1D: Statement of cash flows

1D.1	Operating profit	Operating profit before tax and interest. This is equal to line 1A.4.
1D.2	Other income	The cash impact of ‘other income’ in line 1A.5.
1D.3	Depreciation	The negative value of depreciation and amortisation of tangible and intangible assets.
1D.4	Amortisation – Grants & contributions	This line should not be used from 2017-18 as any amortisation will be recorded as ‘other income’.
1D.5	Changes in working capital	The total movement in working capital.
1D.6	Pension contributions	Any difference between the pension contributions paid in the year and the charge included in the total operating expenditure in 2B.11.
1D.7	Movement in provisions	The negative value of any other non-cash profit and loss items which affect operating profit.
1D.8	Profit on sale of fixed assets	The negative value of net current cost profit/loss on disposal of fixed assets.
1D.9	Cash generated from operations	Net cash flow movement from the operating activities of the company. The sum of lines 1D.1 to 1D.8.

1D.10	Net interest paid	Net of interest received, interest paid, interest on finance lease rentals and non-equity dividends paid.
1D.11	Tax paid	All cash flows to or from taxation authorities (or other group companies) in respect of the company's revenue and capital profits including corporation tax paid/received and group taxation payments/receipts by the company in the year.
1D.12	Net cash generated from operating activities	The sum of lines 1D.9 to 1D.11.
Investing activities		
1D.13	Capital expenditure	Gross purchase price of fixed assets paid before the deduction of any grants and contributions.
1D.14	Grants and contributions	All grants and contributions which are accounted for as reductions in capital expenditure. This may not agree to grants and contributions recorded in tables 2B and 2E, which cover ALL grants and contributions.
1D.15	Disposal of fixed assets	Cash proceeds received in the year on the sale of fixed assets
1D.16	Other	Other movements not already included in lines 1D.13 to 1D.15.
1D.17	Net cash used in investing activities	The net cash flow of the company relating to the acquisition or disposal of any asset held as a fixed asset. The sum of lines 1D.13 to 1D.16.
1D.18	Net cash generated before financing activities	The sum of lines 1D.12 and 1D.17.
Cashflows from financing activities		
1D.19	Equity dividends paid	The total equity dividend paid by the company in the year. This includes any special dividends paid in the year.
1D.20	Net loans received	The receipts from any loans taken out in the year. These include the proceeds of any loans taken out from other group companies. Repayments should be netted off.
1D.21	Cash inflow from equity financing	The net proceeds of any share issues received in the year, less the cost of any share buy backs.
1D.22	Net cash generated from financing activities	The net effect on cash flow after repaying the capital element of finance leases, raising /repaying loans and share issues. The sum of lines 1D.19 to 1D.21.
1D.23	Increase/(decrease) in net cash	The net cash flow of the company in the year measured by the change in the level of cash. The sum of lines 1D.18 and 1D.22.

Pro forma 1E: Net debt analysis (appointed activities) at 31 March 20xx

Borrowings should be entered as positive numbers in this table.

Maturity profile

1E.1	Borrowings (excluding preference shares)	Borrowings such as: • obligations under finance leases; • loans due to other group companies; • redeemable debentures; • bonds; • commercial paper; • bills of exchange; • bank loans; and • any other borrowings. The following should not be included: • accrued interest on borrowings; • mains deposits; • fair value accounting adjustments which do not impact on the principal sum outstanding on the debt or the total interest paid. For example when financial instruments, such as interest rate swap agreements are presented at fair value. This should equal total 'Borrowings' as reported in column 'Total appointed activities' of table 1C (i.e. the sum of lines 1C.15 and 1C.22). Where there is a difference between the figures in Table 1C and table 1E a reconciliation of the differences should be provided.
1E.2	Preference share capital	Nominal value of the preference share capital. This should equal 'Preference share capital' as reported in column 'Total appointed activities' of table 1C (i.e. line 1C.27).
1E.3	Total borrowings	The sum of lines 1E.1 and 1E.2.
1E.4	Cash	Cash in hand and at bank at the year-end.
1E.5	Short term deposits	Investments which are readily convertible into known amounts of cash. This may include deposits made with group companies.
1E.6	Net Debt	The sum of lines 1E.3 to 1E.5.
1E.7	Gearing	Regulatory gearing calculated as net debt in 1E.6 divided by RCV in 4C.5.
1E.8	Adjusted gearing	Some companies may use a different measure of net debt to calculate gearing for the purposes of financial covenants which are of use to the financial community. If a different measure of debt is commonly used by a company, then the restated gearing level should be inserted in this line together with an accompanying commentary.
1E.9	Full year equivalent nominal interest cost	Full year equivalent nominal interest cost as at 31 March. Calculated as the 'Nominal interest rate' multiplied by the 'Principal sum as at 31 March'. Nominal interest rate is defined as the coupon associated with nominal debt or equivalent implied by the coupon of index linked debt. Rates entered for borrowings in hedging relationships should be stated at the post hedge interest rate. Processing rule: **Fixed rate instruments**

		The coupon rate as an input. **Floating rate instruments** The nominal coupon rate at the last pricing of the instrument. **Index-linked instruments** Nominal interest rate = ((1 + real coupon) x (1 + RPI)) – 1. The principal sum outstanding should not be adjusted for accounting adjustments such as unamortised issuance costs. Processing rule: **Fixed rate and floating rate instruments** In most instances this will be the principal sum at initial recognition of the instrument. For instruments with stepped principal repayments, the principal sum is the sum outstanding as at 31 March. **Index-linked instruments** The principal sum outstanding at 31 March, ie the principal sum at initial recognition plus indexation of the principal. **Foreign currency instruments** The Sterling equivalent upon which interest is calculated. **Swaps that are not in designated hedging arrangements** The paid and received legs should be reported separately in the appropriate categories within the table. The notional value of the swap should be reported as the principal sum, with the received leg reported as a negative principal sum.
1E.10	Full year equivalent cash interest payment	Full year equivalent cash interest payment at 31 March. Processing rule: **Fixed rate instruments and floating rate instruments** Copied from 'Full year equivalent nominal interest cost'. **Index linked instruments** Calculated as the 'Real coupon' multiplied by the 'principal sum as at 31 March'.
Indicative interest rates		
1E.11	Indicative weighted average nominal interest rate	1E.9 divided by the principal sum outstanding as at 31 March for fixed, floating and index linked instruments on which interest payments are calculated. The nominal interest rate on index linked debt should include inflation accretion.
1E.12	Indicative weighted average cash interest rate	1E.10 divided by the principal sum outstanding as at 31 March for fixed, floating and index linked instruments on which interest payments are calculated.
1E.13	Weighted average years to maturity	Calculated as the multiple of the principal sum and years to maturity divided by the principal sum outstanding as at 31 March for fixed, floating and index linked instruments on which interest payments are calculated. Definition of years to maturity: Full years to maturity of the instrument from 31 March.

		Instruments with no fixed maturity should be reported as follows: • Instruments that are instantly callable should be classified as loans due in less than one year. • Inter-company loans should be matched with the instrument at group level at the external borrowing rate. Instruments with no fixed maturity that are not instantly callable should be reported with a maturity of 25 years.

Section 2 – Price review and other segmental reporting

Pro forma 2A: Segmental income statement for the 12 months ended 31 March 20xx

2A.1	Revenue – price control	Total revenue covered by the price control split over the price controls units. Retail household column should be equal to 2I.13 (household column). Retail non-household column should be equal to 2I.13 (non-household column). Wholesale Water column should be equal to 2I.4. Wholesale Wastewater column should be equal to 2I.8.
2A.2	Revenue – non price control	Other revenue from appointed activities, not covered by the price control recorded under each price controls unit (see appendix 1). The total of 2A.1 & 2A.2 should equal 1A.1.
2A.3	Operating expenditure	Operating expenditure split over the price controls units. Will agree to 2B.9 and 2C.9 [wholesale and retail respectively]. The total of 2A.3, 2A.4 & 2A.5 should reconcile to 1A.2.
2A.4	Depreciation - tangible fixed assets	Depreciation of tangible fixed assets. Will agree to 2D.8. The total of 2A.3, 2A.4 & 2A.5 should reconcile to 1A.2.
2A.5	Amortisation - intangible fixed assets	Amortisation of intangible fixed assets. The total of 2A.3, 2A.4 & 2A.5 should reconcile to 1A.2.
2A.6	Other operating income	Other operating income split over the price controls units. Total should reconcile to 1A.3.
2A.7	Operating profit before recharges	Operating profit before principal use recharges. The sum of lines 2A.1 to 2A.6
2A.8	Recharges from other segments	Recharges made from other price controls units (PCUs) for the shared use of fixed assets which are recorded in another PCU under the principal use rule. Input as a negative number.
2A.9	Recharges to other segments	Recharges made to other PCUs for the shared use of fixed assets by the 'owning' PCU under the principal use rule. Input as a positive number.
2A.10	Operating profit	Sum of 2A.7 to 2A.9.

2A.11	Surface water drainage rebates	Total value of surface water drainage rebates paid or credited to customers' accounts in the year where the customer has challenged the proportion of their site that is connected for surface water.

Pro forma 2B: Totex analysis for the 12 months ended 31 March 20xx - wholesale water & wastewater

Operating expenditure		
2B.1	Power	All energy costs, including the climate change levy and the carbon reduction commitment. Any cost savings from power generated internally should be netted off these costs.
2B.2	Income treated as negative expenditure	Income received from sales which are external to the appointed business and which directly relate to the water and wastewater processes. It should be input as a negative number. This will include; Electricity sales from sources such as Hydro, PV, wind and CHP to external parties. Electricity sales from back-up generators under arrangements such as the National Grid 'STOR', "frequency response" and "dynamic demand".Bio-methane gas sales to the National Grid. Sludge and sludge products such as cake, granules etc. to external parties.
2B.3	Service charges/ discharge consents	Total cost of service charges by the environment agency or canal & river trust for discharge consents.
2B.4	Bulk Supply/Bulk discharge	Total payments for bulk imports/exports. Where a company jointly owns a supply, the costs associated with it should not be reported here but in the appropriate cost line.
2B.5	Renewals expensed in year (Infrastructure)	Infrastructure renewals which are expensed rather than capitalised in the statutory accounts. 'Renewals' are generally planned activities to replace significant lengths of pipework or parts of an asset. These are targeted at improving network performance or solving ongoing problems and restores an asset to full capability.
2B.6	Renewals expensed in year (Non-Infrastructure)	Non-infrastructure renewals which are expensed rather than capitalised in the statutory accounts. 'Renewals' are generally planned activities targeted at improving network performance or solving ongoing problems and restores an asset to full capability.
2B.7	Other operating expenditure excluding renewals	Other operating costs not covered by 2B.5 and 2B.6.
2B.8	Local authority and Cumulo rates	The cost of local authority rates. This should include both the local authority rates, cumulo rates and sewerage site rates (where appropriate).

2B.9	Total operating expenditure excluding third party services	Total operating costs excluding third party services. The sum of lines 2B.1 to 2B.8.
2B.10	Third party services	Operating expenditure for providing third party services. E.g. Bulk supplies, supplies of non-potable water and rechargeable works where the appointee is a monopoly supplier.
2B.11	Total operating expenditure	Total operating expenditure for the wholesale business only within each business category. The sum of lines 2B.9 and 2B.10. This should reconcile to 2A.3.
Capital expenditure		
2B.12	Maintaining the long term capability of the assets - infra	Capital expenditure on infrastructure assets excluding third party capex to maintain the long term capability of assets and to deliver base levels of service. Where projects have drivers both of enhancement and capital maintenance, companies should apply a method of proportional allocation to allocate costs between enhancement and capital maintenance.
2B.13	Maintaining the long term capability of the assets – non-infra	Capital expenditure on non-infrastructure assets excluding third party capex to maintain the long term capability of assets and to deliver base levels of service. Where projects have drivers both of enhancement and capital maintenance, companies should apply a method of proportional allocation to allocate costs between enhancement and capital maintenance.
2B.14	Other capital expenditure - infra	Any capital expenditure on infrastructure assets other than defined in 2B.12 or 2B.16 excluding third party capex.
2B.15	Other capital expenditure – non-infra	Any capital expenditure on non-infrastructure assets other than defined in 2B.13 or 2B.16 excluding third party capex.
2B.16	Infrastructure network reinforcement	Capital expenditure for the provision of new infrastructure network assets or enhanced capacity in existing infrastructure network assets such as water mains, tanks, service reservoirs, sewers and pumping stations, in consequence of new connections and/or new developments. This expenditure relates solely to network reinforcement works that are needed on existing network assets beyond the nearest practicable point where the connection to the network has, or will been made. Capital expenditure reported in this line should be the same categories of expenditure that was used to calculate infrastructure charges.
2B.17	Total gross capital expenditure excluding third party services	Total gross capital expenditure excluding third party services. The sum of lines 2B.12 to 2B.16.
2B.18	Third party services	Capital expenditure for providing third party services. E.g. Bulk supplies, supplies of non-potable water and rechargeable works where the appointee is a monopoly supplier.
2B.19	Total gross capital expenditure	The sum of lines 2B.17 and 2B.18.

2B.20	Grants & contributions	All grants and contributions. E.g. from connection charges, infrastructure charges, requisitions and other contributions. Adopted assets should not be included. Equal to lines 2E.7 for water and 2E.14 for wastewater.
2B.21	Totex	The sum of lines 2B.11, 2B.19 less 2B.20.

Cash expenditure		
2B.22	Pension deficit recovery payments	Actual pension deficit recovery payments including costs capitalised and any group recharges for pension deficit costs.
2B.23	Other cash items	Other cash items not included in totex.
2B.24	Totex including cash items	The sum of lines 2B.21 to 2B.23.

Pro forma 2C: Operating cost analysis for the 12 months ended 31 March 20xx – retail

Household properties are defined in chapter 3.

Operating expenditure		**Household**	**Non-household**
2C.1	Customer services	The costs associated with providing the following services for the appointee's household. • Billing. • Payment handling, remittance and cash handling. • Charitable trust donations. • Vulnerable customer schemes. • Non-network customer enquiries and complaints. • Network customer enquiries and complaints • Investigatory visits (where the cause of the investigation is not a network issue) Excludes customer services costs incurred in providing services to a third party's customers (eg. where a WoC bills and collect payment on behalf of a WaSC).	The costs associated with providing the following services for non-household customers. • Billing. • Payment handling, remittance and cash handling. • Non-network customer enquiries and complaints. • Network customer enquiries and complaints. • Investigatory visits (where the cause of the investigation is not a network issue)
2C.2	Debt management	All costs relating to the management of debt recovery for the	All costs relating to the management of debt recovery for non-household

		appointee's household customers – monitoring of outstanding debt, including issue of reminders and follow up telephone calls, managing and monitoring field recovery of debt, includes costs of customer visits, managing and monitoring external debt collection routes including debt collection agencies and legal. Excludes costs incurred relating to the management of debt recovery for a third party's customers (eg. where a WoC manages debt on behalf of a WaSC).	– monitoring of outstanding debt, including issue of reminders and follow up telephone calls, managing and monitoring field recovery of debt, includes costs of customer visits, managing and monitoring external debt collection routes including debt collection agencies and legal, including notification of disconnections to non-household customers.
2C.3	Doubtful debts	The charge for bad and doubtful debts for household customers. This should include only the appointee's doubtful debts and not doubtful debts relating to a third party.	The charge for bad and doubtful debts for non-household. This should include only the appointee's doubtful debts and not doubtful debts relating to a third party.
2C.4	Meter reading	Costs associated with meter reading for household customers – including ad hoc read requests, cyclical reading, scheduling, transport, physical reading, reading queries and read processing costs, managing meter data plus supervision and management of meter readers. Income from meter reading commission should be netted off these costs. Excludes costs associated with meter reading for third parties.	Costs associated with meter reading for non-household customers – including ad hoc read requests, cyclical reading, scheduling, transport, physical reading, reading queries and read processing costs, managing meter data plus supervision and management of meter readers. Income from meter reading commission should be netted off these costs. Excludes costs associated with meter reading for third parties.
2C.5	Services to developers	Not applicable for household.	The operating costs of providing services to developers, to include: • provide developer information – deal with questions from developers where physical aspects of infrastructure are required to change, investigate and advise on implications; • provide connections for developers –including

			project management, contracting with third parties; and • administration for new connections.
2C.6	Other operating expenditure	Any other operating costs (ie, excluding interest and taxation) incurred serving household customers, on an aggregated basis. Include the costs of (among other costs): • provision of offices; • insurance premiums; • net retail expenditure on demand-side water efficiency initiatives; • net retail expenditure on customer side leaks; • other direct costs; • general and support expenditure; • local authority rates; and • other business activities.	Any other operating costs (ie, excluding interest and taxation) incurred serving non-household customers , on an aggregated basis. Include the costs of (among other costs): • provision of offices; • insurance premiums; • disconnections; • demand-side water efficiency initiatives; • customer side leaks; • other direct costs; • general and support expenditure; • local authority rates; and • other business activities.
2C.7	Total operating expenditure excluding third party services	The sum of lines 2C.1 to 2C.6.	The sum of lines 2C.1 to 2C.6.
2C.8	Third party services operating expenditure	The operating costs of providing appointed household retail services to third parties.	The operating costs of providing appointed non-household retail services to third parties.
2C.9	Total operating expenditure	Total operating expenditure for households within the retail business only. The sum of lines 2C.7 and 2C.8.	Total operating expenditure for non-households within the retail business only. The sum of lines 2C.7 and 2C.8.
2C.10	Depreciation – tangible fixed assets	Depreciation on tangible assets used wholly or principally for the household retail business.	Depreciation on tangible assets used wholly or principally for the non-household retail business.
2C.11	Amortisation – intangible fixed assets	Amortisation of intangible assets used wholly or principally for the household retail business.	Amortisation of intangible assets used wholly or principally for the non-household retail business.
2C.12	Total operating costs	Total operating costs in respect of the household retail business. The sum of lines 2C.9 to 2C.11.	Total operating expenditure in respect of the non-household retail business. The sum of lines 2C.9 to 2C.11.
2C.13	Debt written off	Water and/ or sewerage outstanding debts that have been written off for the	Water and/ or sewerage outstanding debts that have been written off for non-

		appointee's household customers in the report year, net of collections of previously written off debt. Write-offs in relation to court or other debt recovery costs should not be included.	household customers in the report year, net of collections of previously written off debt. Write-offs in relation to court or other debt recovery costs should not be included.

Pro forma 2D: Historic cost analysis of tangible fixed assets (wholesale water, wholesale wastewater and retail business)

When populating the split between principal assets and third party assets for depreciation, companies should note that this distinction need only be made for assets dedicated to third party service activities. Depreciation on assets used for both principal and third party activities does not need to be allocated and should be recorded as principal services.

Cost		
2D.1	At 1 April 20xx	The historical cost value of the assets brought forward from the previous year.
2D.2	Disposals	The reduction in value of assets caused by disposal of assets, by type.
2D.3	Additions	Increase in value of assets by type caused by purchase.
2D.4	Adjustments	Any adjustments to the 'cost' value, this will include revaluations.
2D.5	Assets adopted at nil cost	The fair value of any adopted assets
2D.6	At 31 March 20xx	This is the historical cost value at the end of the year. The sum of lines 2D.1 to 2D.5.
Depreciation		
2D.7	At 1 April 20xx	Accumulated depreciation brought forward on assets by type at the beginning of the year. This should be entered as a negative number.
2D.8	Disposals	The reduction in accumulated depreciation caused by disposal of assets by type. Enter as a positive.
2D.9	Adjustments	Any adjustments to the accumulated depreciation value, this will include the impact of any impairments.
2D.10	Charge for the year	Depreciation charge. Enter as a negative.
2D.11	At 31 March 20xx	Accumulated depreciation carried forward by asset type at the end of the charging year. The sum of lines 2D.7 to 2D.10.
2D.12	Net book amount at 31 March 20xx	Net book value by asset type at the year end. The sum of lines 2D.6 and 2D.11.
2D.13	Net book amount at 1 April 20xx	Net book value by asset type at the beginning of the year. The sum of lines 2D.1 and 2D.7.

Depreciation charge for the year		
2D.14	Principal services	Depreciation charge on assets used to deliver 'principal services' as set out in appendix 1. Enter as a negative.
2D.15	Third party services	Depreciation charge on assets used to deliver 'third party services' as set out in appendix 1. Enter as a negative.
2D.16	Total	Total depreciation charge (sum of lines 14 and 15) which will agree to line 2D.10.

Pro forma 2E: Analysis of 'grants and contributions' and land sales for the 12 months ended 31 March 20xx – wholesale

For this table where the term 'capitalised' is used, this refers to a contribution which is initially recognised on the statement of financial position before being amortised over multiple accounting periods in the income statement.

Grants and contributions – Water		
2E.1	Connection charges (s45)	Contributions received from developer for service connection charges for installing a new service pipe and meter. (Water Industry Act s45)
2E.2	Infrastructure charge receipts – new connections (s146)	Infrastructure charges received in the year for new connections. This reflects a contribution to the costs of enhancing the local water network. (Water Industry Act s146)
2E.3	Requisitioned mains (s43, s55 & s56)	Contributions received from developers to requisition a new water main. (Water Industry Act s43,55 & 56)
2E.4	Other contributions (price control)	Other contributions received from organisations towards the construction of water specific capital projects which were included in the price control.
2E.5	Diversions (s185)	Contributions received from local authorities, highway authorities and private companies to divert water mains. (Water Industry Act s185)
2E.6	Other contributions (non-price control)	Other contributions received from organisations towards the construction of water specific capital projects which were not included in the price control.
2E.7	Total grants and contributions	The sum of lines 2E.1 to 2E.6.
2E.8	Value of adopted assets	The fair value of any adopted water assets
Grants and contributions – Wastewater		
2E.9	Infrastructure charge receipts – new connections (s146)	Infrastructure charges received in the year for new connections. This reflects a contribution to the costs of enhancing the local sewerage network. (Water Industry Act s146)
2E.10	Requisitioned sewers (s100)	Contributions received from developers to requisition a new sewer. (Water Industry Act s100)
2E.11	Other contributions (price control)	Other contributions received from organisations towards the construction of specific wastewater capital projects which were included in the price control.

2E.12	Diversions (s185)	Contributions received from local authorities, highway authorities and private companies to divert sewers. (Water Industry Act s185)
2E.13	Other contributions (non-price control)	Other contributions received from organisations towards the construction of specific wastewater capital projects which were not included in the price control.
2E.14	Total grants and contributions	The sum of lines 2E.9 to 2E.13.
2E.15	Value of adopted assets	The fair value of any adopted wastewater assets.
Balance sheet		
2E.16	Brought forward	Total value of capitalised grants and contributions brought forward as at 1 April.
2E.17	Capitalised in year	Total value of grants and contributions capitalised in the year.
2E.18	Amortisation (in income statement)	Total value of amortisation released to the income statement in the year. Input as a negative number.
2E.19	Carried forward	Total value of capitalised grants and contributions carried forward as at 31 March. This should represent the wholesale element of 1C.26. The sum of lines 2E.16 to 2E.18.
Land sales		
2E.20	Land sales – proceeds from disposals of protected land	The net proceeds, after the deduction of all offsetting costs from disposals of protected land, including those already subject to regulation through Condition K of the licence.

Pro forma 2F: Household – revenue by customer type

2F.1	Unmeasured water only customer	Revenue from all household unmeasured water only customers.
2F.2	Unmeasured wastewater only customer	Revenue from all household unmeasured wastewater only customers.
2F.3	Unmeasured water & wastewater customer only	Revenue from all household unmeasured water & wastewater customers only. This line should not include any revenue from WoC's billing on behalf of WaSC's.
2F.4	Measured water only customer	Revenue from all household measured water only customers.
2F.5	Measured wastewater only customer	Revenue from all household measured wastewater only customers.
2F.6	Measured water & wastewater customer only	Revenue from all household measured water & wastewater customer only. This line should not include any revenue from WoC's billing on behalf of WaSC's.
2F.7	Total	The sum of lines 2F.1 to 2F.6.

The number of customers reported in column 4 should be the average number of customers in the year, calculated at least on a monthly basis. Voids should be excluded. For the purposes of this table, 'customers' should be equal to the former June return (table 7) definition of 'billed properties'. This is as follows.

These are properties used as single domestic dwellings (normally occupied), receiving water for domestic purposes which are not factories, offices or commercial premises. These include cases where a single aggregate bill is issued to cover separate dwellings having individual standing charges. (In some instances the standing charge may be zero). The number of dwellings attracting an individual standing charge and not the number of bills should be counted. Exclude mixed/commercial properties and multiple household properties, e.g. blocks of flats having only one standing charge. Where companies issue an assessed charge to a property because metering is not possible or is uneconomic then these properties should be classified as unmeasured.

Examples:

- **Typical family dwelling, i.e. terraced, semi-detached, detached house or flat having individual standing charges.**
- **Local authority family dwellings which each have individual standing charges but may be included in an aggregate water bill.**

Column 3 is the total of columns 1 and 2. Column 5 is calculated by dividing column 2 by column 4.

The total of column 1 should be equal to the sum of lines 2I.1, 2I.2, 2I.5 & 2I.6. Column 2 should be equal to the sum of lines 2I.10, 2I.11 & 2I.12.

Pro forma 2G & 2H: Non-household water & wastewater – revenues by tariff type

Where the appointee has exited all non-household market activities then these tables should be left blank. Companies should make a narrative statement to this effect and disclose the corresponding wholesale revenue.

Default tariffs		
2[G/H].1	Tariff type 1	Total revenue received from each non-household tariff type listed separately.
2[G/H].2	Tariff type x	Total revenue received from each non-household tariff type listed separately.

2[G/H].x	Total default tariffs	Total revenue received from all non-household customers on a default tariff.
Non-default tariffs		
2[G/H].x	Total non-default tariffs	Total revenue received from all customers on a non-default tariff.
2[G/H].x	Total	Total revenue received from all default and non-default tariffs.

Column 3 is the total of columns 1 and 2. Column 5 is calculated by dividing column 2 by column 4.

Columns 1-3 should be recorded in £m with 3 decimal places. Column 4 should be recorded in '000s with 3 decimal places. Column 5 should be to the nearest £1.

Revenue per customer		
2[G/H].x	Total	Total revenue received from all default and non-default tariffs.

For the tariff analysis the number of connections reported in column 4 should be the average number of properties billed (excluding void properties) in the year, calculated at least on a monthly basis. Companies may wish to adjust the 'total' number of customers in the bottom row if a single customer is supplied at multiple sites with different tariff bands.

For the customer analysis the number of customers reported in column 4 should be equivalent to that in the tariff analysis. However some customers will be receiving multiple services under different tariffs, e.g. for a sewage service and a surface water drainage charge, or for services at multiple sites falling into different tariff bandings. Therefore the total number of 'customers' may be lower than the number of connections shown in the tariff analysis.

2G – The total of column 1 should be equal to the sum of lines 2I.1& 2I.2.

2H – The total of column 1 should be equal to the sum of lines 2I.5 & 2I.6.

Pro forma 2I: Revenue analysis & wholesale control reconciliation for the 12 months ended 31 March 20xx

Wholesale charge – water		
2I.1	Unmeasured	Total revenue from wholesale water charges, other than on a measured basis. This should be split between

		household and non-household connections. This should include revenue from large users and special agreements.
2I.2	Measured	Total revenue from wholesale water charges, where all or some of the charges are based on measured quantities of volume. This should be split between household and non-household connections. This should include revenue from large users and special agreements.
2I.3	Third party revenue	Third party revenue covered by the wholesale water price control, e.g. supplies of non-potable water to customers.
2I.4	Total	Total revenue from wholesale water charges. The sum of 2I.1 to 2I.3.
Wholesale charge – wastewater		
2I.5	Unmeasured	Total revenue from wholesale wastewater charges, other than on a measured basis. This should be split between household and non-household connections. This should include revenue from large users and special agreements.
2I.6	Measured	Total revenue from wholesale wastewater charges, where all or some of the charges are based on measured quantities of volume. This should be split between household and non-household connections. This should include revenue from trade effluent, large users and special agreements.
2I.7	Third party revenue	Third party revenue covered by the wholesale wastewater price control.
2I.8	Total	Total revenue from wholesale wastewater charges. The sum of 2I.5 to 2I.7.
Wholesale total		
2I.9	Wholesale Total	The sum of lines 2I.4 and 2I.8.
Retail Revenue		
2I.10	Unmeasured	Total revenue from retail charges, other than on a measured basis. This should be split between household and non-household connections.
2I.11	Measured	Total revenue from retail charges, where all or some of the charges are based on measured quantities of volume. This should be split between household and non-household connections.
2I.12	Retail third party revenue	Any third party revenue relating to retail activities.
2I.13	Total	Total revenue from retail charges. The sum of 2I.10 to 2I.12.
Third party revenue – non-price control		
2I.14	Bulk supplies - water	All income received for providing a bulk supply (for potable or non-potable supplies) to another water undertaker.
2I.15	Bulk supplies - wastewater	All income received for providing wastewater connection agreements with another wastewater undertaker.

2I.16	Other third party revenue – non price control	All other sources of revenue received from third parties for which costs are not covered by the wholesale price control. E.g. rechargeable works where the appointee is a monopoly supplier and Excluded charges.
Principal services – non-price control		
2I.17	Other appointed revenue	All other sources of revenue that are not reported elsewhere in the table but are classed as appointed business. E.g. recreational use of protected land.
2I.18	Total appointed revenue	The sum of lines 2I.9, 2I.13, 2I.14, 2I.15, 2I.16 and 2I.17. This should equal 1A.1 (appointed business activities column).
Wholesale revenue reconciliation		
2I.19	Wholesale revenue governed by price control	Wholesale revenue governed by price control. Equal to 2I.9.
2I.20	Grants & contributions (price control)	Relevant capital contributions from connection charges and revenue from infrastructure charges, defined in the final determination as covered by the price control. Equal to the sum of lines 2E.1, 2E.2,2E.3 and 2E.4 (column 4) for water and 2E.9, 2E.10 & 2E.11 (column 4) for wastewater. Column 4 of table 2E indicates the total of grants and contributions received (including those governed by the price control) and so are indifferent to the accounting treatment.
2I.21	Total revenue governed by wholesale price control	Total revenue governed by wholesale price control. Sum of 2I.19 and 2I.20.
2I.22	Amount assumed in wholesale determination	Amount assumed in wholesale determination for the year.
2I.23	Adjustment for in-period ODI revenue	Tbc
2I.24	Adjustment for WRFIM	Tbc
2I.25	Total assumed revenue	Total of revenue assumed at the determination and that arising from any in-period ODI revenue reward. Sum of 2I.22 to 2I.24.
2I.26	Difference	2I.21 minus 2I.25. Cross reference to a narrative explanation.

Pro forma 2J: Infrastructure network reinforcement costs for the 12 months ended 31 March 20xx

Wholesale – water network+ (treated water distribution)		
2J.1	Distribution and trunk mains	Capital expenditure on new or upsized distribution and trunk mains other than defined in 4D.14, 4D.15, and excluding third party capex

2J.2	Pumping and storage facilities	Capital expenditure on new or upgrading of pumps and the installation of small service reservoirs or towers other than defined in 4D.14, 4D.15 and excluding third party capex
2J.3	Other	Any other capital expenditure other than defined in 4D.14, 4D.15, 2J.1 and 2J.2
2J.4	Total	The sum of lines 2J.1 to 2J.3
Wholesale – wastewater network+ (sewage collection)		
2J.5	Foul and combined systems	Capital expenditure on new or upsized public foul and combined sewers other than defined in 4E.14, 4E.15 and excluding third party capex
2J.6	Surface water only systems	Capital expenditure on new or upsized surface water only public sewers other than defined in 4E.14, 4E.15 and excluding third party capex
2J.7	Pumping and storage facilities	Capital expenditure on construction of new booster stations and pumps and installation of storage tanks other than defined in 4E.14, 4E.15 and excluding third party capex
2J.8	Other	Any other capital expenditure other than defined in 4E.14, 4E.15, 2J.5 to 2J.7
2J.9	Total	The sum of lines 2J.5 to 2J.8

Section 3 – Performance summary

Pro forma 3A

Outcome performance table

Price base

Within the PR14 final determination company-specific appendices the PC and ODI monetary values, including incentive rates, are in 2012-13 prices.

For the five year AMP6 period, the PC and ODI monetary amounts in table 3A should also be in 2012-13 prices, *not* in report year prices.

This includes the 31 March 2020 forecasts for total AMP6 reward or penalty. It also includes actual performance levels that are measured in monetary values.

It is for companies to decide how best to communicate their performance to customers, customer challenge groups (CCGs) and other stakeholders.

Those companies with in-period ODIs should include a detailed note in their regulatory accounts to reconcile the value of any provision they declare in the financial statements in respect of penalties or rewards that will be payable in the next charging year with the APR table 3A 2012-13 price term values.

When will indexation take place?

The ODI monetary values will be indexed immediately prior to their application. That is, financial rewards and penalties will need to be translated to future year prices at the time of payment to/by the company:

- For in-period ODIs (adjustment to in-period revenue) indexation will take place as part of the

determination process.

- For ODIs that will be applied at a future price review determination indexation will take place as part of the price review reconciliation process.

SIM reporting

For SIM performance, we are not expecting companies to report an earned, accrued or forecast financial reward or penalty in table 3A (outcome performance) as part of the Annual Performance Reporting.

We would expect companies to clearly explain the SIM scores, and how they have been determined, when communicating performance to customers and other stakeholders.

3A.1	Unique ID	Unique identifier generated for the performance commitment. It is used in the Ofwat Fountain database. For example: PR14AFWWSW_W-A1 (pre-populated data)
3A.2	Performance commitment	Name of the performance commitment (pre-populated data)
3A.3	Unit	Unit that the PC is measured in (pre-populated data)
3A.4	Unit description	Description of the PC unit (pre-populated data)
3A.5	Decimal places	Number of decimal places (where applicable) (pre-populated data)
3A.6	Performance level – actual (previous reporting year)	Actual performance for the previous reporting year (pre-populated data)
3A.7	Performance level - actual	Actual performance for the current reporting year in the units the PC is measured in. For example, if the PC is measured in Ml/day and the actual performance level is 124.5 Ml/day, then enter 124.5 This line applies to all PCs, including those with non- financial incentives and those where a committed performance level has not been set for the current reporting year.
3A.8	CPL met?	If the committed performance level for the current reporting year has been met select ‘Yes’, where it has not been met select ‘No’. If a committed performance level has not been set for the current reporting year select "-" (hyphen).

3A.9	Reward or penalty - in-period ODIs (indicator)	**This column applies only to PCs which have ODIs that are payable within AMP6 rather than at the end of AMP6 (that is, some of the Anglian Water, Severn Trent Water and South West Water PCs).** If a reward has been earned in the current reporting year select 'Reward', if a penalty has been earned select 'Penalty'. If the actual performance level is within the reward deadband select "Reward deadband', if it is within the penalty deadband select "Penalty deadband". Otherwise leave blank (empty) or select "-". Note: this refers to the reward or penalty for the current reporting year, not the cumulative value since 1 April 2015.
3A.10	Reward or penalty - in-period ODIs (£m)	**This column applies only to PCs which have ODIs that are payable within AMP6 rather than at the end of AMP6 (that is, some of the Anglian Water, Severn Trent Water and South West Water PCs).** The reward or penalty earned in the current reporting year. £million to 4 decimal places, rounded. Rewards must be entered as a positive number, penalties as a negative number. Where no reward or penalty has been earned, leave blank (empty). Note: this is the reward or penalty for the current reporting year, not the cumulative value since 1 April 2015.
3A.11	Reward or penalty - ODIs payable at the end of AMP6 (indicator)	**This column applies only to PCs which have ODIs that are payable at the end of AMP6.** If a reward has accrued in the current reporting year select "Reward", if a penalty has accrued select "Penalty". If the actual performance level is within the reward deadband select "Reward deadband", if it is within the penalty deadband select "Penalty deadband". Otherwise leave blank (empty) or select "-". Note: this refers to the reward or penalty for the current reporting year, not the cumulative value since 1 April 2015.
3A.12	Reward or penalty - ODIs payable at the end of AMP6 (£m)	**This column applies only to PCs which have ODIs that are payable at the end of AMP6.** The reward or penalty accrued in the current reporting year. £million to 4 decimal places, rounded. Rewards must be entered as a positive number, penalties as a negative number Where no reward or penalty has accrued, leave blank (empty). Note: this is the reward or penalty for the current reporting year, not the cumulative value since 1 April 2015.

3A.13	31 March 2020 forecast - total AMP6 reward or penalty (indicator)	**This column applies to all financial ODIs (that is, ODIs that are payable within AMP6 and ODIs that are payable at the end of AMP6).** A forecast of the overall reward or penalty paid/ accrued by the end of AMP6 (31 March 2020) based on your current performance and your current expectation of your future performance. If an overall reward is forecast select “Reward”, if a penalty is forecast select “Penalty”. If the forecast is within the reward deadband select “Reward deadband”, if it is within the penalty deadband select “Penalty deadband”. Otherwise leave blank (empty) or select "-". A forecast for the total AMP6 reward or penalty, as at 31 March 2020, should be entered if: • a reward or penalty is probable ('more likely than not'); and • the amount can be estimated reliably (it should be the best estimate and, in reaching the best estimate, the company should take into account the risks and uncertainties that surround the underlying events). The forecast should include any penalties and/or rewards already earned (either in previous reporting years or the current reporting year), plus forecasts for the remaining years of the AMP.
3A.14	31 March 2020 forecast - total AMP6 reward or penalty (£m)	**This column applies to all financial ODIs (that is, ODIs that are payable within AMP6 and ODIs that are payable at the end of AMP6).** A forecast of the overall reward or penalty paid/ accrued by the end of AMP6 (31 March 2020) based on your current performance and your current expectation of your future performance. The forecast should include any penalties and/or rewards already earned (either in previous reporting years or the current reporting year), plus forecasts for the remaining years of the AMP. £million to 4 decimal places, rounded. Rewards must be entered as a positive number, penalties as a negative number.

Pro forma 3B: Sub-measure performance table

Sub-measure performance table		
3B.1	Unique ID	Unique identifier generated for the performance commitment. It is used in the Ofwat Fountain database. For example: PR14AFWWSW_W-A1 (pre-populated data)
3B.2	PC / sub-measure ID	00 for the main PC, sub-measures numbered 01 upwards (pre-populated data)
3B.3	PC / sub-measure	Name of the main PC or sub-measure (pre-populated data)
3B.4	Unit	Unit the PC or sub-measure is measured in (pre-populated data)
3B.5	Decimal places	Number of decimal places used (where applicable) (pre-populated data)
3B.6	Performance level – actual (previous reporting year)	Actual performance for the previous reporting year (pre-populated data)
3B.7	Performance level - actual	Actual performance for the current reporting year in the units of the PC or sub-measure For example, if the sub-measure is measured as a percentage and the actual performance level is 99.98%, then enter 99.98
3B.8	Performance level met?	If the reference / performance level for the current reporting year has been met select “Yes”, where it has not been met select “No” If a reference / performance level has not been set for the current reporting year select "-" (hyphen).

Pro forma 3C: AIM table (Abstraction Incentive Mechanism)

AIM table		
3C.1	Abstraction site	The name of the abstraction site. This can be anonymised if it is necessary for national security reasons.
3C.2	Decimal places	Enter the number of decimal places.

3C.3	AIM performance [Ml]	The AIM performance in Ml (megalitres) for the current reporting year is calculated as follows: AIM performance in Ml = (average daily abstraction during period when flows are at or below the trigger threshold - baseline average daily abstraction during period when flows are at or below the trigger threshold) * length of period when flows are at or below the trigger threshold.
3C.4	Normalised AIM performance [Ml]	The normalised AIM performance for the current reporting year is calculated as follows: Normalised AIM performance = AIM performance / (baseline average daily abstraction * length of period when river flows are at or below the trigger threshold).
3C.5	Cumulative AIM performance 2016-17 onwards [Ml]	Cumulative AIM performance in Ml for the years 2016-17 onwards.
3C.6	Cumulative normalised AIM performance 2016-17 onwards [Ml]	Cumulative normalised AIM performance in Ml for the years 2016-17 onwards.
3C.7	Contextual information relating to AIM performance	Water companies may provide contextual information around their AIM performance. For example, water companies could explain the environmental challenges that affect their regions, the past, current and future measures they are taking to deal with unsustainable abstraction and other information they consider relevant to put their AIM performance into context.

Guidelines on the abstraction incentive mechanism, 29 February 2016

Pro forma 3D: SIM score table

SIM score table		
3D.1	1st survey score	Score of the first qualitative survey for the current reporting year (2 decimal places).
3D.2	2nd survey score	Score of the second qualitative survey for the current reporting year (2 decimal places).
3D.3	3rd survey score	Score of the third qualitative survey for the current reporting year (2 decimal places).
3D.4	4th survey score	Score of the fourth qualitative survey for the current reporting (2 decimal places).
3D.5	Qualitative SIM score (out of 75.00)	The qualitative score is calculated to 2 decimal places as follows: [(S - LS) / (HS - LS)] * WS where:

		S = qualitative survey annual average score LS = minimum survey score possible (set at 1) HS = maximum survey score possible (set at 5) WS = survey weighting (set at 75) Please ensure that S is not rounded before being used in the above calculation.
3D.6	Total contact score	The total contact score (C) is calculated to 2 decimal places as follows: [(unwanted phone contacts x 1) + (written complaints x 5) + (escalated written complaints x 100) + (CCWater investigated complaints x 1000)] / (connected household properties / 1000)
3D.7	Quantitative SIM score (out of 25.00)	The quantitative score is calculated to 2 decimal places as follows: [1 - [(C - CL) / (CH - CL)]] * WC where: C = total contact score (see 3D.6 above) CL = contact score minimum (set at 0) CH = contact score maximum (set at 500) WC = contact score weighting (set at 25)
3D.8	Total annual SIM score (out of 100.00)	The total annual SIM score is calculated to 2 decimal places as follows: Qualitative score (3D.5) + Quantitative score (3D.7)

Pro forma 3S: Shadow reporting of new definitions of leakage, supply interruptions and sewer flooding data

Companies have been working together, co-ordinated by Water UK and supported by Ofwat, to develop consistent reporting guidance for three metrics (leakage, supply interruptions and sewer flooding) to help inform the setting of the outcome performance commitments from 2020 onwards. UKWIR published the reporting guidance alongside Ofwat's PR19 methodology consultation on 11 July 2017.

We are collecting this data alongside the Annual Performance Reports (APRs) through "shadow" (i.e. unpublished) reporting. We expect the data to go through the same assurance process as other data collected as part of the APR. The reason for the shadow reporting of the data is to avoid confusion with other published information on the same issues based on the previously existing definitions and because companies are still moving towards full compliance with the reporting guidance.

Leakage		
3S.1	Leakage region 1 or whole company	'Enter the name of leakage region 1, otherwise "Whole company" (column C) Enter the performance level for the current reporting year

		for leakage region 1 or the whole company, and the red/amber/green assessments in the columns to the right of the performance level (see more detail on the red/amber/green assessment below)
3S.2	Leakage region 2	'As above for leakage region 2, if applicable
3S.3	Leakage region 3	'As above for leakage region 3, if applicable
3S.4	Leakage region 4	'As above for leakage region 4, if applicable
Supply interruptions		
3S.5	All supply interruptions	Enter the performance level for the current reporting year and the red/amber/green assessments in the columns to the right of the performance level Performance level cells are in time hh:mm:ss format (for example, enter 00:09:45 for 9 minutes and 45 seconds)
Internal sewer flooding incidents		
3S.6	Internal sewer flooding incidents	Enter the performance level for the current reporting year and the red/amber/green assessments in the columns to the right of the performance level
3S.7	Internal sewer flooding incidents, excluding sewer flooding due to severe weather events	Enter the performance level for the current reporting year and the red/amber/green assessments in the columns to the right of the performance level
External sewer flooding incidents		
3S.8	External sewer flooding incidents	Enter the performance level for the current reporting year and the red/amber/green assessments in the columns to the right of the performance level
3S.9	External sewer flooding incidents, excluding sewer flooding due to severe weather events	Enter the performance level for the current reporting year and the red/amber/green assessments in the columns to the right of the performance level

Red/amber/green assessment

The intention of the red/amber/green rating and commentary for shadow reporting is to provide transparency on the degree to which a company has been able to implement the reporting guidance for shadow reporting.

For each element:

- Green indicates full implementation of the guidance and robust data
- Amber is appropriate for partial implementation or data that is not fully robust, but unlikely to have a material impact on reported figures
- Red is appropriate for elements that either have not yet been implemented or for which the data had significant weaknesses, and there is likely to be a material impact on reported figures as a result.

For any amber or red components companies should provide a separate short commentary covering:

1) the reasons for your non-compliance for the reporting year

2) the actions you are taking to become compliant

3) your current expectation on when your reporting will be compliant with the consistent definitions.

You can provide the commentary in a separate Word file.

Section 4 – Additional regulatory information

Pro forma 4A: Non-financial information for the 12 months ended 31 March 20xx
Number of properties and volumes

Retail household		
Number of void households ('000s)		
4A.1	Number of void households ('000s)	Average total number of household properties, within the supply area, which are connected for either a water service only, a wastewater service only or both services but do not receive a charge, as there are no occupants. This should not include properties that do not receive a bill because it would be uneconomical to do so. Note that a property connected for both services that is not occupied, only counts as one void property.
Per capita consumption (excluding supply pipe leakage) l/h/d		
4A.2 (column 1)	Unmeasured household	Estimated per capita consumption of households that are supplied with unmeasured water. This figure applies to billed unmeasured households and excludes underground supply pipe leakage. Underground supply pipe leakage is any loss of water from the underground supply pipe. This definition is the same as that in JR11 T10 L9. Our guidance identifies two distinct classes of household property under the retail household price control: 1. mainstream household properties, such as houses, bungalows, and flats; and 2. other types of property which are ineligible to choose their supplier.. These would be mixed- use premises where the principal use is as a home. Most companies will be reporting on per capita consumption relating to an outcome defined for the period 2015-20. This will be measured using the narrower household definition under 1) above and will not include 2). Companies therefore should restrict the definition of households to the narrower property types under 1) for reporting this measure.

4A.2 (column 2)	Measured household	Estimated per capita consumption of measured households. This figure applies to billed measured households and excludes underground supply pipe leakage. This definition is the same as that in JR11 T10 L8. Our guidance identifies two distinct classes of household property under the retail household price control: 1. mainstream household properties, such as houses, bungalows, and flats; and 2. other types of property which are ineligible to choose their supplier. These would be mixed- use premises where the principal use is as a home. Most companies will be reporting on per capita consumption relating to an outcome defined for the period 2015-20. This will be measured using the narrower household definition under 1) above and will not include 2). Companies therefore should restrict the definition of households to the narrower property types under 1) for reporting this measure.
Wholesale		
Volume Ml/d		
4A.3	Bulk supply export	Volume of water (treated and untreated) exported to other companies in bulk supplies by the appointed business.
4A.4	Bulk supply import	Volume of water (treated and untreated) imported from other companies in bulk supplies by the appointed business. Tankered waste volumes, which is a non-appointed activity, should not be included in this line.
4A.5	Distribution input	Distribution input is the average amount of potable water entering the distribution network and supplied to customers within the company's area of supply.

Pro forma 4B: Wholesale totex analysis

Actual totex		
4B.1	Actual totex	Reported total wholesale operating expenditure and capital expenditure including cash items as reported in table 2B line 21.
Items excluded from the menu		
4B.2	Third party costs	Actual costs relating to third party services. Equal to third party capex and opex costs included in the inputs in section 3.1 of the inputs to the PR14 reconciliation rulebook wholesale totex spreadsheet.
4B.3	Pension deficit recovery payments	Actual pension deficit recovery payments including costs capitalised and any group recharges for pension deficit costs. Equal to pension deficit recovery payments included in the inputs in section 3.1 of the inputs to the PR14 reconciliation rulebook wholesale totex spreadsheet.
4B.4	Other 'Rule book' adjustments	Other adjustments to the menu included in the inputs in section 3.1 of the inputs to the PR14 reconciliation rulebook wholesale totex spreadsheet.
4B.5	Total items excluded from the menu	The sum of lines 4B.2 to 4B.4.
Transition expenditure		
4B.6	Transition expenditure	Transition expenditure included in the inputs in section 3.1 of the inputs to the PR14 reconciliation rulebook wholesale totex spreadsheet.
Adjusted Actual totex		
4B.7	Adjusted Actual totex	4B.1 minus 4B.5 plus 4B.6
4B.8	Adjusted Actual totex – base year prices	Actual totex per 4B.7 deflated to base year (i.e. 2012-13 average year) prices using actual RPI.
Allowed totex		
4B.9	Allowed totex based on final menu choice – base year prices	The final menu choice from the 2014 price determination (base year prices) as set out in 'Allowed expenditure from menu' of the 'Wholesale water / wastewater allowed expenditure' tables in chapters A2 (water) and A3 (wastewater) of 'Final price control determination notice: company-specific appendix'. Narrative on difference between 4B.8 and 4B.9.

Pro forma 4C: Impact of AMP performance to date on RCV

4C.1	Cumulative totex over/underspend so far in the price control period	The difference between the actual cumulative totex and the allowed totex in the price control period.
4C.2	Customer share of cumulative totex over/underspend	The customer share of the difference in line 4C.1.This should be calculated using the PR14 reconciliation rulebook calculations.
4C.3	RCV element of customer share of cumulative totex over/underspend	The RCV impact of the difference between the actual cumulative totex for the AMP and the allowed totex as shown in line 4C.2.This should be calculated using the PR14 reconciliation rulebook calculations.
4C.4	Adjustment for ODI rewards or penalties	RCV impact of the reward or penalty from the ODI.
4C.5	RCV determined at FD at 31 March	RCV at 31 March per the 2014 price determination inflated using the March RPI – as published on the OFWAT website annually in April.
4C.6	Projected shadow RCV	The sum of 4C.3 to 4C.5.

Pro forma 4D: Totex analysis for the 12 months ended 31 March 20xx - wholesale water (Further disaggregated into upstream services – for guidance on these activities please see section 2.)

Operating expenditure		
4D.1	Power	All energy costs, including the climate change levy and the carbon reduction commitment. Any cost savings from power generated internally should be netted off these costs.
4D.2	Income treated as negative expenditure	Income received from sales which are external to the appointed business and which directly relate to the water processes. It should be input as a negative number. This will include; Electricity sales from sources such as Hydro, PV and wind to external parties. Electricity sales from back-up generators under arrangements such as the National Grid 'STOR', "frequency response" and "dynamic demand".
4D.3	Abstraction charges/ discharge consents	Total cost of abstraction charges and/or discharge consents by the environment agency or canal & river trust.
4D.4	Bulk Supply	Total payments for bulk imports. If a supply is a shared supply and is jointly owned, the costs associated with it should not be reported here but in the appropriate cost line.

4D.5	Renewals expensed in year (Infrastructure)	Infrastructure renewals which are expensed rather than capitalised in the statutory accounts.'Renewals' are generally planned activities to replace significant lengths of pipework or parts of an asset. These are targeted at improving network performance or solving ongoing problems and restores an asset to full capability.
4D.6	Renewals expensed in year (Non-Infrastructure)	Non-infrastructure renewals which are expensed rather than capitalised in the statutory accounts. 'Renewals' are generally planned activities targeted at improving network performance or solving ongoing problems and restores an asset to full capability.
4D.7	Other operating expenditure excluding renewals	Other operating costs not covered by 4D.5 and 4D.6.
4D.8	Local authority and Cumulo rates	The cost of local authority rates. This should include both the local authority rates and cumulo rates.
4D.9	Total operating expenditure excluding third party services	Total operating costs excluding third party services. The sum of lines 4D.1 to 4D.8.
4D.10	Total third party services	Operating expenditure for providing third party services. See appendix 1.
4D.11	Total operating expenditure	Total operating expenditure for the wholesale business only within each business category. The sum of lines 4D.9 and 4D.10. This should reconcile to wholesale operating expenditure in table 2A line 3 and 2B line 11.
Capital expenditure		
4D.12	Maintaining the long term capability of the assets - infra	Capital expenditure on infrastructure assets excluding third party capex to maintain the long term capability of assets and to deliver base levels of service. Where projects have drivers both of enhancement and capital maintenance, companies should apply a method of proportional allocation to allocate costs between enhancement and capital maintenance.
4D.13	Maintaining the long term capability of the assets – non-infra	Capital expenditure on non-infrastructure assets excluding third party capex to maintain the long term capability of assets and to deliver base levels of service. Where projects have drivers both of enhancement and capital maintenance, companies should apply a method of proportional allocation to allocate costs between enhancement and capital maintenance.
4D.14	Other capital expenditure - infra	Any capital expenditure on infrastructure assets other than defined in 4D.12 or 4D.16 excluding third party
4D.15	Other capital expenditure – non-infra	Any capital expenditure on non-infrastructure assets other than defined in 4D.13 or 4D.16 excluding third party capex.
4D.16	Infrastructure network reinforcement	Capital expenditure for the provision of new infrastructure network assets or enhanced capacity in existing infrastructure network assets such as water mains, tanks, service reservoirs, in consequence of new connections and/or

		new developments. This expenditure relates solely to network reinforcement works that are needed on an existing network assets beyond the nearest practicable point where the connection to the network has, or will been made. Capital expenditure reported in this line should be the same categories of expenditure that was used to calculate infrastructure charges.
4D.17	Total gross capital expenditure excluding third party services	Total gross capital expenditure excluding third party services - the sum of lines 4D.12 to 4D.16
4D.18	Third party services	Capital expenditure for providing third party services. See appendix 1
4D.19	Total gross capital expenditure	The sum of lines 4D.17 and 4D.18.
4D.20	Grants & contributions	All grants and contributions. E.g. from connection charges, infrastructure charges, requisitions and other contributions. Adopted assets should not be included. This should agree to line 2B.20. Input as a positive number.
4D.21	Totex	The sum of lines 4D.11, 4D.19 less 4D.20.
Cash expenditure		
4D.22	Pension deficit recovery payments	Actual pension deficit recovery payments including costs capitalised and any group recharges for pension deficit costs.
4D.23	Other cash items	Other cash items not including in the accounting charge.
4D.24	Totex including cash items	The sum of lines 4D.21 to 4D.23.
Unit cost information (operating expenditure)		
4D.25	Units	See service level guidance in part 2 – 'Disaggregation of wholesale activities – upstream services'
4D.26	Unit cost	Line 4D.11 divided by 4D.25.
4D.27	Population	Resident population in billed households and billed non-households. The population should be obtained from most recent ONS or local authority estimates, or the company's update of these estimates.
4D.28	Unit cost	Line 4D.11 divided by 4D.27.

Pro forma 4E: Totex analysis for the 12 months ended 31 March 20xx – wholesale wastewater (Further disaggregated into upstream services – for guidance on these activities please see section 2.)

Operating expenditure

4E.1	Power	All energy costs, including the climate change levy and the carbon reduction commitment. Any cost savings from power generated internally should be netted off these costs.
4E.2	Income treated as negative expenditure	Income received sales which are external to the appointed business and which directly relate to the wastewater processes. It should be input as a negative number. This will include; Electricity sales from sources such as Hydro, PV, wind and CHP to external parties. Electricity sales from back-up generators under arrangements such as the National Grid 'STOR', "frequency response" and "dynamic demand". Bio-methane gas sales to the National Grid. Sludge and sludge products such as cake, granules etc. to external parties.
4E.3	Discharge consents	Total cost of discharge consents by the environment agency or canal & river trust.
4E.4	Bulk discharge	Total payments for bulk discharges.
4E.5	Renewals expensed in year (Infrastructure)	Infrastructure renewals which are expensed rather than capitalised in the statutory accounts.'Renewals' are generally planned activities to replace significant lengths of pipework or parts of an asset. These are targeted at improving network performance or solving ongoing problems and restores an asset to full capability.
4E.6	Renewals expensed in year (Non-Infrastructure)	Non-infrastructure renewals which are expensed rather than capitalised in the statutory accounts. 'Renewals' are generally planned activities targeted at improving network performance or solving ongoing problems and restores an asset to full capability.
4E.7	Other operating expenditure excluding renewals	Other operating costs not covered by 4E.5 and 4E.6.
4E.8	Local authority and Cumulo rates	The cost of local authority rates. This should include both the local authority rates, cumulo rates and sewerage site rates (where appropriate).
4E.9	Total operating expenditure excluding third party services	Total operating costs excluding third party services. The sum of lines 4E.1 to 4E.8.
4E.10	Total third party services	Operating expenditure for providing third party services. See appendix 1.
4E.11	Total operating expenditure	Total operating expenditure for the wholesale business only within each business category. The sum of lines 4E.9 and 4E.10. This should reconcile to operating expenditure in table 2A line 3 and 2B line 11.
Capital expenditure		

4E.12	Maintaining the long term capability of the assets - infra	Capital expenditure on infrastructure assets excluding third party capex to maintain the long term capability of assets and to deliver base levels of service. Where projects have drivers both of enhancement and capital maintenance, companies should apply a method of proportional allocation to allocate costs between enhancement and capital maintenance.
4E.13	Maintaining the long term capability of the assets – non-infra	Capital expenditure on non-infrastructure assets excluding third party capex to maintain the long term capability of assets and to deliver base levels of service. Where projects have drivers both of enhancement and capital maintenance, companies should apply a method of proportional allocation to allocate costs between enhancement and capital maintenance.
4E.14	Other capital expenditure - infra	Any capital expenditure on infrastructure assets other than defined in 4E.12 or 4E.16 excluding third party
4E.15	Other capital expenditure – non-infra	Any capital expenditure on non-infrastructure assets other than defined in 4E.13 or 4E.16 excluding third party capex.
4E.16	Infrastructure network reinforcement	Capital expenditure for the provision of new infrastructure network assets or enhanced capacity in existing infrastructure network assets such as sewers and pumping stations, in consequence of new connections and/or new developments. This expenditure relates solely to network reinforcement works that are needed on an existing network assets beyond the nearest practicable point where the connection to the network has, or will been made. Capital expenditure reported in this line should be the same categories of expenditure that was used to calculate infrastructure charges.
4E.17	Total gross capital expenditure excluding third party services	Total gross capital expenditure excluding third party services - the sum of lines 4E.12 to 4E.16.
4E.18	Third party services	Capital expenditure for providing third party services. See appendix 1
4E.19	Total gross capital expenditure	The sum of lines 4E.17 & 4E.18.
4E.20	Grants & contributions	All grants and contributions. E.g. from connection charges, infrastructure charges, requisitions and other contributions. Adopted assets should not be included. This should agree to line 2B.20. Input as a positive number.
4E.21	Totex	The sum of lines 4E.11, 4E.19 less 4E.20.
Cash expenditure		
4E.22	Pension deficit recovery payments	Actual pension deficit recovery payments including costs capitalised and any group recharges for pension deficit costs.

4E.23	Other cash items	Other cash items not including in the accounting charge.
4E.24	Totex including cash items	The sum of lines 4E.21 to 4E.23.
Unit cost information (operating expenditure)		
4E.25	Units	See service level guidance in part 2 – 'Disaggregation of wholesale activities – upstream services'
4E.26	Unit cost	Line 4E.11 divided by 4E.25.
4E.27	Population	Resident population in billed households and billed non-households. The population should be obtained from most recent ONS or local authority estimates, or the company's update of these estimates.
4E.28	Unit cost	Line 4E.11 divided by 4E.27.

Pro forma 4F: Cost analysis for the 12 months ended 31 March 20xx – household retail

Household properties are defined in chapter 3.

Operating expenditure		Household unmeasured	Household measured
4F.1	Customer services	The costs associated with providing activities/services as defined in 2C.1 to household unmeasured customers in receipt of water only, sewerage only and combined water and sewerage services respectively from the company	The costs associated with providing activities/services as defined in 2C.1 to household measured customers in receipt of water only, sewerage only and combined water and sewerage services respectively from the company
4F.2	Debt management	The costs associated with providing debt management activities/services as defined in 2C.2 to household unmeasured customers in receipt of water only, sewerage only and combined water and sewerage services respectively from the company	The costs associated with providing debt management activities/services as defined in 2C.2 to household measured customers in receipt of water only, sewerage only and combined water and sewerage services respectively from the company
4F.3	Doubtful debts	The charge for bad and doubtful debts for household unmeasured customers (as reported in 2C.3) in receipt of water only, sewerage only and combined water and sewerage services respectively from the company	The charge for bad and doubtful debts for household measured customers (as reported in 2C.3) in receipt of water only, sewerage only and combined water and sewerage services respectively from the company
4F.4	Meter reading	Not applicable for unmeasured	The costs associated with providing meter reading services (as defined in

			2C.4) for household measured customers in receipt of water only, sewerage only and combined water and sewerage services respectively from the company
4F.5	Other operating expenditure	Any other operating expenditure (as defined in 2C.6) incurred in serving household unmeasured customers in receipt of water only, sewerage only and combined water and sewerage services respectively from the company	Any other operating costs (as defined in 2C.6) incurred in serving household measured customers in receipt of water only, sewerage only and combined water and sewerage services respectively from the company
4F.6	Total operating expenditure excluding third party services	Total retail operating expenditure (excluding third party services) for unmeasured households in receipt of water only, sewerage only and combined water and sewerage services respectively from the company The sum of lines 4F.1 to 4F.5.	Total retail operating expenditure (excluding third party services) for measured households in receipt of water only, sewerage only and combined water and sewerage services respectively from the company The sum of lines 4F.1 to 4F.5.
4F.7	Third party services operating expenditure	The operating costs of providing appointed household unmeasured retail services to third parties.	The operating costs of providing appointed household measured retail services to third parties.
4F.8	Total operating expenditure	Total operating expenditure in respect of the household retail business for unmeasured water only, sewerage only and water and sewerage customers. The sum of lines 4F.6 and 4F.7.	Total operating expenditure in respect of the household retail business for measured water only, sewerage only and water and sewerage customers. The sum of lines 4F.6 and 4F.7.
4F.9	Total depreciation on assets commissioned at 31 March 2015	Total depreciation charge on legacy assets that were commissioned before 1 April 2015 for the household retail business split between household unmeasured customers in receipt of water only, sewerage only and combined water and sewerage services respectively from the company.	Total depreciation charge on legacy assets that were commissioned before 1 April 2015 for the household retail business split between household measured customers in receipt of water only, sewerage only and combined water and sewerage services respectively from the company.

4F.10	Depreciation on assets commissioned since 1 April 2015 assets or later (not included in wholesale RCV)	Total depreciation on assets commissioned since 1 April 2015 for the household retail business split between household unmeasured customers in receipt of water only, sewerage only and combined water and sewerage services respectively from the company.	Total depreciation on assets commissioned since 1 April 2015 for the household retail business split between household measured customers in receipt of water only, sewerage only and combined water and sewerage services respectively from the company.
4F.11	Amortisation – intangible fixed assets commissioned at 31 March 2015	Amortisation of intangible assets commissioned at 31 March 2015 used for the household retail business split between household unmeasured customers in receipt of water only, sewerage only and combined water and sewerage services respectively from the company.	Amortisation of intangible assets commissioned at 31 March 2015 used for the household retail business split between household measured customers in receipt of water only, sewerage only and combined water and sewerage services respectively from the company.
4F.12	Amortisation – intangible fixed assets commissioned since 1 April 2015	Amortisation of intangible assets commissioned since 1 April 2015 used for the household retail business split between household unmeasured customers in receipt of water only, sewerage only and combined water and sewerage services respectively from the company.	Amortisation of intangible assets commissioned since 1 April 2015 used for the household retail business split between household measured customers in receipt of water only, sewerage only and combined water and sewerage services respectively from the company.
4F.13	Total operating costs	Total operating costs in respect of the household retail business for unmeasured water only, sewerage only and water and sewerage customers. The sum of lines 4F.8 to 4F.12.	Total operating costs respect of the household retail business for measured water only, sewerage only and water and sewerage customers. The sum of lines 4F.8 to 4F.12
Capital expenditure		**Household unmeasured**	**Household measured**
4F.14	Capital expenditure	Household element of capital expenditure on assets principally used by retail, split between household unmeasured customers in receipt of water only, sewerage only and combined water and sewerage services respectively from the company.	Household element of capital expenditure on assets principally used by retail, split between household measured customers in receipt of water only, sewerage only and combined water and sewerage services respectively from the company.

Demand-side efficiency and customer-side leaks analysis - Household		
4F.15	Demand-side water efficiency – gross expenditure	The total retail operating costs of providing water efficiency services to household customers, including: • Promotion of water saving initiatives - Production of customer literature and customer awareness campaigns; • Retro-fitting of water saving devices – Provision of advice and devices to customers; • Water efficiency audits – water and energy conservation, optimisation of systems, advice and investigations into usage; • Data logging
4F.16	Demand-side water efficiency – expenditure funded by wholesale	The retail operating costs of providing water efficiency services (as defined in 4F.15) to household customers that are funded by the wholesale business
4F.17	Demand-side water efficiency – net retail expenditure	The retail operating costs of providing water efficiency services (as defined in 4F.15) to household customers net of any operating costs that are funded by the wholesale business Line 4F.15 less line 4F.16
4F.18	Customer-side leak repair – gross expenditure	The total retail operating costs associated with household customer side leaks, to include: • Investigations - Activities from enquiries relating to customer-side leaks, including site visits, the use of pipe locating equipment and any attendance on sites during excavations; • Resolution – Activities comprising pipe repairs and replacement; • Free leak repairs
4F.19	Customer-side leak repair – expenditure funded by wholesale	The retail operating costs associated with household customer side leaks (as defined in 4F.18) that are funded by the wholesale business
4F.20	Customer-side leak repair – net retail expenditure	The retail operating costs associated with household customer side leaks (as defined in 4F.18) net of any operating costs that are funded by the wholesale business Line 4F.18 less line 4F.19

Pro forma 4G: Wholesale current cost financial performance for the 12 months ended 31 March 20xx

4G.1	Revenue	Appointed – Total wholesale revenue that is within the scope of the price control, together with revenue that is outside of the price control. The totals for water and wastewater will agree to 2A.1 & 2A.2 for each control.
4G.2	Operating expenditure	Total operating expenditure. This should reconcile to wholesale operating expenditure in 2B for each control. The totals for water and wastewater will agree to the respective totals of 2B.9.
4G.3	Capital maintenance charges	Capital maintenance charge of a similar magnitude to that previously reported for current cost depreciation for above ground assets and infrastructure renewals charges for below ground assets. Please see RAG1 section 2 for more information on how to calculate this.
4G.4	Other operating income	Other operating income split over the four price controls. This should agree to 2A.6 for each control.
4G.5	Current cost operating profit	The sum of lines 4G.1 to 4G.4
4G.6	Other income	Equal to 1A.5
4G.7	Interest income	Equal to 1A.6
4G.8	Interest expense	Equal to 1A.7
4G.9	Other interest expense	Equal to 1A.8
4G.10	Current cost profit before taxation and fair value movements	The sum of lines 4G.5 to 4G.9
4G.11	Fair value gains/(losses) on financial instruments	Equal to 1A.10
4G.12	Current cost profit before tax	The sum of lines 4G.10 to 4G.11

Pro forma 4H: Financial metrics

4H.1	Net debt	The sum of table 1E lines 3 to 5. Equal to table 1E line 6.
4H.2	Regulatory equity	Regulatory equity is calculated as year-end regulatory capital value (RCV) less net debt at the period end. Equal to table 4C line 5 less table 1E line 6.
4H.3	Regulatory gearing	Regulatory gearing calculated as net debt in table 1E line 6 divided by RCV in table 4C line 5. Equal to table 1E line 7.
4H.4	Post tax return on regulatory equity	Profit after current tax for the appointed business for the year as a % of average regulatory equity. Profit after current tax should exclude any fair value gains losses on financial derivatives (table 1A line 9 less line 12). For this

		metric average regulatory equity is a simple average of the regulatory equity at the start and end of the year. Regulatory equity at each year end is calculated in table 4H line 2. The opening regulatory equity at 31 March 2015 should be calculated after the impact of any midnight adjustment to RCV.
4H.5	RORE (return on regulatory equity)	RORE calculates the returns on a regulatory basis by reference to the notional gearing level of (62.5% for PR14) and average RCV for each year. Where a regulated business ceases to undertake a particular activity (e.g. exiting the non-household retail market), then a note should be included setting out how this has impacted on the RORE compared to the base RORE set at FD. The base RORE set at the final determination should be adjusted for the following factors net of any tax impact. 1) the company share of totex out or under performance. This should reflect genuine out or underperformance only. Any totex over or underspend which is due to timing (i.e. re-profiling of expenditure within the AMP) should not be recognised as out or under performance for the purpose of the calculation of RORE. 2) The company share of any out or underperformance on retail costs. 3) The impact of any ODI or SIM penalties or rewards earned in the year, even if they are not payable/receivable until the following AMP. 4) The difference between the actual average interest rate paid on borrowings (in real terms) and the allowed interest rate (real) on notional debt. This should be calculated based on the notional capital structure i.e difference in actual interest rate and allowed interest rate multiplied by notional net debt. When calculating the actual real interest rate paid from the actual nominal interest rate paid (nominal interest paid/average net debt) the actual year average inflation rate should be use to deflate the nominal rate to a real rate. 5) The impact of tax on the above should be calculated using the headline tax rate. RORE should be presented on an average basis (calculated as an arithmetic average of the annual figures in the AMP to date) and should recognise gains and losses made in the period from the start of the AMP to the date of the APR. The Fisher equation should be used to translate from nominal to real interest rates; (1+n)=(1+r)*(1+i)
4H.6	Dividend yield	Calculated as the total appointee dividend for the year (as would be included in the statement of changes in equity) less any dividends paid to a holding company solely to enable that company to pay interest on an intergroup loan from the appointee/ divided by actual year end regulated equity (table 4H line 2)

4H.7	Retail profit margin - Household	The retail profit margins should be calculated as earnings before interest and tax (after deducting wholesale charges) divided by total revenue charged to household or non-household customers respectively.
4H.8	Retail profit margin - Non household	The retail profit margins should be calculated as earnings before interest and tax (after deducting wholesale charges) divided by total revenue charged to household or non-household customers respectively
4H.9	Credit rating	Credit rating (corporate family where available) issued by a recognised credit rating agency. This should be the credit rating that is linked to each company's licence where applicable. If companies are rated by more than one credit rating agency then only the lowest rating needs to be included. Companies should also provide details of the "Outlook/Watch" status of the rating
4H.10	Return on RCV	Calculated as profit before interest less current tax (table 1A line 4 plus table 1A line 5 less table 1A line 12) divided by the average RCV for the year. This can be sourced from the annual OFWAT RCV publication. It should be used in the year average price base for the year as it appears on the website. This is after the impact of any midnight adjustment to RCV from the previous price control period.
4H.11	Dividend cover	Profits of the appointed business for the year before dividends (table 1A line 14) divided by total appointee dividend for the year ((as would be included in the statement of changes in equity) less any dividends paid to a holding company solely to enable that company to pay interest on an intergroup loan from the appointee).
4H.12	Funds from operations (FFO)	Funds from operations (FFO) is net cash generated from operating activities adjusted to remove the changes in working capital. We acknowledge that our approach to calculating this differs from some of the methodologies applied by the credit rating agencies.
4H.13	Interest cover (cash)	Interest cover (cash) equal to (FFO as calculated above plus interest paid on borrowings)/ interest paid on borrowings. Interest paid on borrowings excludes any accretion of interest linked debt which is a non cash item.
4H.14	Adjusted interest cover (cash)	Adjusted interest cover (cash) equal to (FFO as calculated above plus interest paid on borrowings less regulatory depreciation)/ interest paid on borrowings. Interest paid on borrowings excludes any accretion of interest linked debt which is a non cash item. Regulatory depreciation is defined in the final determinations and should be adjusted to the year-end price base. The regulatory depreciation figures are published by Ofwat each year.
4H.15	FFO/Debt	Ratio of FFO to net debt. We acknowledge that our approach to calculating this differs from some of the methodologies applied by the credit rating agencies.
4H.16	Effective tax rate	Effective tax rate is the current tax charge for the appointed business before any adjustments in respect of prior period, as a % of the profit before tax and fair value movements for the appointed business.
4H.17	RCF	Equal to table 4H line 12 less table 1D line 19.

4H.18	RCF/capex	Equal to table 4H line 17 divided by table 1D line 13.
4H.19	Revenue (actual)	Equal to table 2A line 1.
4H.20	EBITDA (actual)	EBITDA (earnings before interest, tax, depreciation and amortisation) should be calculated using the price control revenue as set out in table 4H line 19 and the associated costs. It should include only amounts which are relevant to the price control.
4H.21	Proportion of borrowings which are fixed rate	Equal to table 1E line 1 (fixed rate) plus table 1E line 2 divided by table 1E line 3.
4H.22	Proportion of borrowings which are floating rate	Equal to table 1E line 1 (floating rate) divided by table 1E line 3.
4H.23	Proportion of borrowings which are index linked	Equal to table 1E line 1 (index linked) divided by table 1E line 3.
4H.24	Proportion of borrowings due within 1 year or less	In these lines please provide details of the % of borrowings (table 1E line 3) which fall into each category.
4H.25	Proportion of borrowings due in more than 1 year but no more than 2 years	In these lines please provide details of the % of borrowings (table 1E line 3) which fall into each category.
4H.26	Proportion of borrowings due in more than 2 years but no more than 5 years	In these lines please provide details of the % of borrowings (table 1E line 3) which fall into each category.
4H.27	Proportion of borrowings due in more than 5 years but no more than 20 years	In these lines please provide details of the % of borrowings (table 1E line 3) which fall into each category.
4H.28	Proportion of borrowings due in more than 20 years	In these lines please provide details of the % of borrowings (table 1E line 3) which fall into each category.

Pro forma 4I: Financial derivatives

4I.1	Floating to fixed rate	Financial instruments through which floating interest rate liabilities are converted into fixed rate interest rate liabilities. Where the rate payable on an instrument is designated as a margin over a specified reference rate (e.g. 6 Month Libor plus X%), please include an assumption of the reference rate to determine the rate payable. Please provide details of any assumptions that have been made in a note to the table.
4I.2	Floating from fixed rate	Financial instruments through which floating interest rate liabilities are converted from fixed rate interest rate liabilities. Where the rate payable on an instrument is designated as a margin over a specified reference rate (e.g. 6 Month Libor plus X%), please include an assumption of the reference rate to determine the rate payable. Please provide details of any assumptions that have been made in a note to the table.
4I.3	Floating to index linked	Financial instruments through which floating interest rate liabilities are converted into inflation linked interest rate

		liabilities. Where the rate payable on an instrument is designated as a margin over a specified reference rate (e.g. 6 Month Libor plus X%), please include an assumption of the reference rate to determine the rate payable. Please provide details of any assumptions that have been made in a note to the table.
4I.4	Floating from index linked	Financial instruments through which floating interest rate liabilities are converted from inflation linked interest rate liabilities. Where the rate payable on an instrument is designated as a margin over a specified reference rate (e.g. 6 Month Libor plus X%), please include an assumption of the reference rate to determine the rate payable. Please provide details of any assumptions that have been made in a note to the table.
4I.5	Fixed to index-linked	Financial instruments through which fixed interest rate liabilities are converted into inflation linked interest rate liabilities. Where the rate payable on an instrument is designated as a margin over a specified reference rate (e.g. 6 Month Libor plus X%), please include an assumption of the reference rate to determine the rate payable. Please provide details of any assumptions that have been made in a note to the table.
4I.6	Fixed from index-linked	Financial instruments through which fixed interest rate liabilities are converted from inflation linked interest rate liabilities. Where the rate payable on an instrument is designated as a margin over a specified reference rate (e.g. 6 Month Libor plus X%), please include an assumption of the reference rate to determine the rate payable. Please provide details of any assumptions that have been made in a note to the table.
4I.7	Total	The total of the interest rate swaps. The sum of table 4I lines 1 to 6.
4I.8	Cross currency swap USD	Financial instruments which convert debt liabilities from US Dollars into Pounds Sterling.
4I.9	Cross currency swap EUR	Financial instruments which convert debt liabilities from Euro into Pounds Sterling.
4I.10	Cross currency swap YEN	Financial instruments which convert debt liabilities from Yen into Pounds Sterling.
4I.11	Cross currency swap Other	Financial instruments which convert debt liabilities from currencies other than US Dollars, Euro or Yen into Pounds Sterling.
4I.12	Total	Total of currency swap financial instruments. The sum of table 4I lines 8 to 11.
4I.13	Currency interest rate swaps USD	Financial instruments which convert currency in which interest is paid or payable from US Dollars into Pounds Sterling.
4I.14	Currency interest rate swaps EUR	Financial instruments which convert currency in which interest is paid or payable from Euro into Pounds Sterling.
4I.15	Currency interest rate swaps YEN	Financial instruments which convert currency in which interest is paid or payable from Yen into Pounds Sterling.
4I.16	Currency interest rate swaps Other	Financial instruments which convert currency in which interest is paid or payable from currencies other than US Dollars, Euro or Yen into Pounds Sterling.

4I.17	Total	Total of instruments which convert the currency in which interest is paid between sterling and another currency. The sum of table 4I lines 13 to 16.
4I.18	Forward currency contracts USD	Forward contracts which convert future debt obligations from US Dollars into Pounds Sterling.
4I.19	Forward currency contracts EUR	Forward contracts which convert future debt obligations from Euro into Pounds Sterling.
4I.20	Forward currency contracts YEN	Forward contracts which convert future debt obligations from Yen into Pounds Sterling.
4I.21	Forward currency contracts Other	Forward contracts which convert future debt obligations from currencies other than US Dollars, Euro or Yen into Pounds Sterling.
4I.22	Total	Total of forward contracts which convert debt between currencies. The sum of table 4I lines 18 to 21.
4I.23	Other financial derivatives	Other financial derivatives (e.g. power) not already included in lines 4I.1 to 4I.22.
4I.24	Total financial derivatives	The sum of table 4I lines 7, 12, 17, 22 and 23. The 'Mark to Market' should equal the 'Financial instruments' totals from table 1C (i.e. the sum of lines 1C.5, 1C.10, 1C.16 and 1C.23).

Pro forma 4J: Atypical expenditure by business unit for the 12 months ended 31 March 20xx - wholesale water

Operating expenditure (excl. atypicals)		
4J.1	Power	All energy costs, including the climate change levy and the carbon reduction commitment. Any cost savings from power generated internally should be netted off these costs.
4J.2	Income treated as negative expenditure	Income received from sales which are external to the appointed business and which directly relate to the water processes. It should be input as a negative number. This will include; Electricity sales from sources such as Hydro, PV and wind to external parties. Electricity sales from back-up generators under the
4J.3	Abstraction charges/ discharge consents	Total cost of service charges (abstraction licences and permits to discharge) by the Environment Agency or Canal and River Trust.
4J.4	Bulk Supply	Total payments for bulk imports. If a supply is a shared supply and is jointly owned, the costs associated with it should not be reported here but in the appropriate cost line.
4J.5	Renewals expensed in year (Infrastructure)	Infrastructure renewals which are expensed rather than capitalised in the statutory accounts. 'Renewals' are generally planned activities to replace significant lengths of pipework or parts of an asset. These are targeted at improving network performance or solving ongoing problems and restores an asset to full capability.

4J.6	Renewals expensed in year (Non-Infrastructure)	Non-infrastructure renewals which are expensed rather than capitalised in the statutory accounts. 'Renewals' are generally planned activities targeted at improving network performance or solving ongoing problems and restores an asset to full capability.
4J.7	Other operating expenditure excluding renewals	Other operating costs not covered by 4J.5 and 4J.6.
4J.8	Local authority and Cumulo rates	The cost of local authority rates. This should include both the local authority rates and cumulo rates.
4J.9	Total operating expenditure excluding third party services	Total operating costs excluding third party services. The sum of lines 4J.1 to 4J.8.
4J.10	Total third party services	Operating expenditure for providing third party services. See RAG 4 appendix 1.
4J.11	Total operating expenditure	Total operating expenditure for the wholesale business only within each business category. The sum of lines 4J.9 and 4J.10.
Capital expenditure (excl. atypicals)		
4J.12	Maintaining the long term capability of the assets - infra	Capital expenditure on infrastructure assets excluding third party capex to maintain the long term capability of assets and to deliver base levels of service. Where projects have drivers both of enhancement and capital maintenance, companies should apply a method of proportional allocation to allocate costs between enhancement and capital maintenance.
4J.13	Maintaining the long term capability of the assets – non-infra	Capital expenditure on non-infrastructure assets excluding third party capex to maintain the long term capability of assets and to deliver base levels of service. Where projects have drivers both of enhancement and capital maintenance, companies should apply a method of proportional allocation to allocate costs between enhancement and capital maintenance.
4J.14	Other capital expenditure - infra	Any capital expenditure on infrastructure assets other than defined in 4J.12 excluding third party capex.
4J.15	Other capital expenditure – non-infra	Any capital expenditure on non-infrastructure assets other than defined in 4J.13 excluding third party capex.
4J.16	Infrastructure network reinforcement	A water or sewerage undertaker's capital expenditure for the provision of new infrastructure network assets or enhanced capacity in existing infrastructure network assets such as water mains, tanks, service reservoirs, sewers and pumping stations, in consequence of new connections and/or new developments. This expenditure relates solely to network reinforcement works that are needed on a water or sewerage undertaker's existing network assets beyond the nearest practicable point where the connection to the water or sewerage undertaker's network has, or will been made. Capital expenditure reported in this line should be the same categories of expenditure that was used to calculate a water or sewerage undertaker's infrastructure charges.

4J.17	Total gross capital expenditure excluding third party services	Total gross capital expenditure excluding third party services - the sum of lines 4J.12 to 4J.16
4J.18	Third party services	Capital expenditure for providing third party services. See appendix 1
4J.19	Total gross capital expenditure	The sum of lines 4J.17 and 4J.18.
4J.20	Grants & contributions	All grants and contributions. E.g. from connection charges, infrastructure charges, requisitions and other contributions. Adopted assets should not be included. This should agree to line 2B.20. Input as a positive number.
4J.21	Totex	The sum of lines 4J.11, 4J.19 less 4J.20.
Cash expenditure (excl. atypicals)		
4J.22	Pension deficit recovery payments	Actual pension deficit recovery payments including costs capitalised and any group recharges for pension deficit costs.
4J.23	Other cash items	Other cash items not including in the accounting charge.
4J.24	Totex including cash items	The sum of lines 4J.21 to 4J.23.
Atypical expenditure		
4J.25-4J.29	Atypical expenditure items	Please specify atypical items in the lines 4J.25 to 4J.29. Atypical items are defined as unusual items outside ordinary activities. This would include items such as office moves and one-off reorganisations. For avoidance of doubt these items should **not** be included in lines 4J.1 to 4J.24 above.
4J.30	Total atypical expenditure	Total atypical expenditure. Calculated as the sum of lines 4J.25 to 4J.29.
4J.31	Total expenditure	Total expenditure. Calculated as the sum of 4J.24 and 4J.30.

Pro forma 4K: Atypical expenditure by business unit for the 12 months ended 31 March 20xx - wholesale wastewater

Operating expenditure (excl. atypicals)		
4K.1	Power	All energy costs, including the climate change levy and the carbon reduction commitment. Any cost savings from power generated internally should be netted off these costs.
4K.2	Income treated as negative expenditure	Income received from sales which are external to the appointed business and which directly relate to the wastewater processes. It should be input as a negative number. This will include; Electricity sales from sources such as Hydro, PV, wind and CHP to external parties. Electricity sales from back-up generators under the National Grid 'STOR'. Bio-methane gas sales to the National Grid. Sludge and sludge products such as cake, granules etc. to external parties.

4K.3	Discharge consents	Total cost of discharge consents by the environment agency or canal & river trust.
4K.4	Bulk discharge	Total payments for bulk discharges.
4K.5	Renewals expensed in year (Infrastructure)	Infrastructure renewals which are expensed rather than capitalised in the statutory accounts. 'Renewals' are generally planned activities to replace significant lengths of pipework or parts of an asset. These are targeted at improving network performance or solving ongoing problems and restores an asset to full capability.
4K.6	Renewals expensed in year (Non-Infrastructure)	Non-infrastructure renewals which are expensed rather than capitalised in the statutory accounts. 'Renewals' are generally planned activities targeted at improving network performance or solving ongoing problems and restores an asset to full capability.
4K.7	Other operating expenditure excluding renewals	Other operating costs not covered by 4K.5 and 4K.6.
4K.8	Local authority and Cumulo rates	The cost of local authority rates. This should include both the local authority rates, cumulo rates and sewerage site rates (where appropriate).
4K.9	Total operating expenditure excluding third party services	Total operating costs excluding third party services. The sum of lines 4K.1 to 4K.8.
4K.10	Total third party services	Operating expenditure for providing third party services. See RAG4 appendix 1.
4K.11	Total operating expenditure	Total operating expenditure for the wholesale business only within each business category. The sum of lines 4K.9 and 4K.10.
Capital expenditure (excl. atypicals)		
4K.12	Maintaining the long term capability of the assets - infra	Capital expenditure on infrastructure assets excluding third party capex to maintain the long term capability of assets and to deliver base levels of service. Where projects have drivers both of enhancement and capital maintenance, companies should apply a method of proportional allocation to allocate costs between enhancement and capital maintenance.
4K.13	Maintaining the long term capability of the assets – non-infra	Capital expenditure on non-infrastructure assets excluding third party capex to maintain the long term capability of assets and to deliver base levels of service. Where projects have drivers both of enhancement and capital maintenance, companies should apply a method of proportional allocation to allocate costs between enhancement and capital maintenance.
4K.14	Other capital expenditure - infra	Any capital expenditure on infrastructure assets other than defined in 4K.12 excluding third party capex.
4K.15	Other capital expenditure – non-infra	Any capital expenditure on non-infrastructure assets other than defined in 4K.13 excluding third party capex.
4K.16	Infrastructure network reinforcement	A water or sewerage undertaker's capital expenditure for the provision of new infrastructure network assets or enhanced capacity in existing infrastructure network

		assets such as water mains, tanks, service reservoirs, sewers and pumping stations, in consequence of new connections and/or new developments. This expenditure relates solely to network reinforcement works that are needed on a water or sewerage undertaker's existing network assets beyond the nearest practicable point where the connection to the water or sewerage undertaker's network has, or will been made. Capital expenditure reported in this line should be the same categories of expenditure that was used to calculate a water or sewerage undertaker's infrastructure charges.
4K.17	Total gross capital expenditure excluding third party services	Total gross capital expenditure excluding third party services - the sum of lines 4K.12 to 4K.16.
4K.18	Third party services	Capital expenditure for providing third party services. See appendix 1
4K.19	Total gross capital expenditure	The sum of lines 4K.17 & 4K.18.
4K.20	Grants & contributions	All grants and contributions. E.g. from connection charges, infrastructure charges, requisitions and other contributions. Adopted assets should not be included.
4K.21	Totex	The sum of lines 4K.11, 4K.19 less 4K.20.
Cash expenditure (excl. atypicals)		
4K.22	Pension deficit recovery payments	Actual pension deficit recovery payments including costs capitalised and any group recharges for pension deficit costs.
4K.23	Other cash items	Other cash items not including in the accounting charge.
4K.24	Totex including cash items	The sum of lines 4K.21 to 4K.23.
Atypical expenditure		
4K.25-4K.29	Atypical expenditure items	Please specify atypical items in lines 4K.25 to 4K.29. Atypical items are defined as unusual items outside ordinary activities. This would include items such as office moves and one-off reorganisations. For avoidance of doubt these items should **not** be included in lines 1 to 24 above.
4K.30	Total atypical expenditure	Total atypical expenditure. Calculated as the sum of lines 4K.25 to 4K.29.
4K.31	Total expenditure	Total expenditure. Calculated as the sum of 4K.24 and 4K.30.

Pro forma 4L: Enhancement capital expenditure by purpose for the 12 months ended 31st March 20xx - wholesale water

Enhancement capex wholesale water		
4L.1	Making ecological improvements at abstractions (habitats directive, SSSI, BAPs)	Capital expenditure to deliver projects required to deal with the environmental impact of water abstraction during the report year.
4L2	NEP ~ Eels Regulations (measures at intakes)	Capital expenditure on quality enhancement schemes listed in the NEP (or WINEP) to improve intakes to prevent the entrainment of fish to meet the requirements of the Eels Regulations.
4L.3	Addressing low pressure	Capital expenditure to reduce the number of properties with low pressure.
4L.4	Improving taste / odour / colour	Capital expenditure to deliver improvements to consumer acceptability of the drinking water (relating to colour, taste and odour)
4L.5	Meeting lead standards	Capital expenditure to meet lead standards. This includes expenditure to deal with the conditioning of water before entering distribution to reduce plumbosolvency, expenditure on replacing lead communication pipes owned by the company and any other lead related work including investigations.
4L.6	Supply side enhancements to the supply/demand balance (dry year critical / peak conditions)	Capital expenditure to enhance the supply/demand balance. Includes expenditure associated with schemes to deliver supply side (resource and production options) enhancements to supply demand capacity in dry year critical / peak conditions.
4L.7	Supply side enhancements to the supply/demand balance (dry year annual average conditions)	Capital expenditure to enhance the supply/demand balance. Includes expenditure associated with schemes to deliver supply side (resource and production options) enhancements to supply demand capacity in dry year annual average conditions.
4L.8	Demand side enhancements to the supply/demand balance (dry year critical / peak conditions)	Capital expenditure to enhance the supply/demand balance. Includes expenditure associated with schemes to deliver demand side (distribution and customer options) enhancements to supply demand capacity in dry year critical / peak conditions.
4L.9	Demand side enhancements to the supply/demand balance (dry year annual average conditions)	Capital expenditure to enhance the supply / demand balance. Includes expenditure associated with schemes to deliver demand side (distribution and customer options) enhancements to supply demand capacity in dry year annual average conditions.
4L.10	New developments	Capital expenditure associated with the provision of local distribution infrastructure and non-infrastructure assets for water service to provide for new customers with no net deterioration of existing levels of service. The capital cost of connecting a new property (including the cost of a meter, communication pipe and boundary stop tap valve etc) should be recovered through the connection charge and should not be included in this line.

4L.11	New connections element of new development (CPs, meters)	The capital cost of connecting a new property (including the cost of a meter, communication pipe and boundary stop tap valve etc)
4L.12	Investment to address raw water deterioration (THM, nitrates, Crypto, pesticides, others)	Capital expenditure to address raw water deterioration.
4L.13	Resilience	Capital expenditure to improve resilience. This relates to expenditure to manage the risk of giving consumers an appropriate level of service protection in the face of extreme events caused by hazards that are beyond their control.
4L.14	SEMD	Capital expenditure to comply with the requirements of Security and Emergency Measures Direction (SEMD).
4L 15	NEP ~ Investigations	Capital expenditure on environmental investigations and options appraisals listed in the NEP for AMP5 or AMP6.
4L.16	Improvements to river flows	Capital expenditure relating to reducing abstraction licenses
4L.17	Metering (excluding cost of providing metering to new service connections)	Metering (excluding cost of providing metering to new service connections) for meters requested by optants
4L.18	Metering (excluding cost of providing metering to new service connections) for meters introduced by companies	Metering (excluding cost of providing metering to new service connections) for meters introduced by companies (irrespective of whether these meters are used for charging).
4L.19	Metering (excluding cost of providing metering to new service connections)	Metering (excluding cost of providing metering to new service connections) for businesses and other
4L.20-4L.29	Capital expenditure purpose – WATER additional line 1 [Other categories]	Other capital expenditure by purpose. Regard should be had for the desirability of maintaining consistency with corresponding lines in previous data submissions when using these lines.
4L.30	Total enhancement capital expenditure	Total of lines 4L.1 to 4L.29

Where a quality enhancement scheme (or the proportionally allocated component of a quality enhancement scheme) has more than one cost driver, companies should allocate the expenditure attributable to the primary driver to the relevant line 4L.1 to 4L.24. Any net additional cost for delivering any further drivers should be included in the relevant line.

Pro forma 4M: Enhancement capital expenditure by purpose for the 12 months ended 31st March 20xx - wholesale wastewater

Enhancement capex wholesale wastewater		
4M.1	First time sewerage (s101A)	Capital expenditure for new and additional sewage treatment and sewerage assets for first time sewerage schemes to meet the duty under s101A of the Water Industry Act 1991.
4M.2	Sludge enhancement (quality)	Capital expenditure on sludge treatment and disposal assets and associated biogas treatment for meeting new environmental obligations listed in the NEP. This is for both infrastructure and non-infrastructure assets.
4M.3	Sludge enhancement (growth)	Capital expenditure on sludge treatment and disposal assets and associated biogas treatment for providing new capacity for growth. This is for both infrastructure and non-infrastructure assets.
4M.4	NEP - Conservation drivers	Capital expenditure on the primary cost driver at quality enhancement schemes listed in the NEP for AMP5 or AMP6 where the objective of the primary driver is to meet the requirements of conservation drivers (the Habitats and Birds Directives, the CRoW Act and the UK Biodiversity Action Plan) over and above that on schemes and investigations for which expenditure is required to be reported elsewhere in this table (principally 4M.11 to 4M.16).
4M.5	NEP - Eels Regulations (measures at outfalls)	Capital expenditure on quality enhancement schemes listed in the NEP to improve outfalls to prevent the entrainment of fish to meet the requirements of the Eels Regulations.
4M.6	NEP - Event Duration Monitoring at intermittent discharges	Capital expenditure on quality enhancement schemes listed in the NEP for AMP5 or AMP6 to provide event and duration monitoring of intermittent discharges. For AMP5 this is the capital expenditure to deliver the outputs included in the sewerage service quality enhancement schedule (Annex 4 – S) driven by the revised EU Bathing Water or Shellfish Waters Directives (driver codes rB5 and S8 respectively). For AMP6 these are the outputs required by the Environment Agency (or Natural Resources Wales) under driver codes rB5, S8, EDM1, EDM2 and EDMW.
4M.7	NEP - Flow monitoring at sewage treatment works	Capital expenditure on quality enhancement schemes listed in the NEP for AMP6 to provide flow monitoring at sewage treatment works (driver code Flow3).
4M.8	NEP - Monitoring of pass forward flows at CSOs	Capital expenditure on quality enhancement schemes listed in the NEP for AMP6 to provide monitoring of pass forward flows at CSOs (driver code Flow4)
4M.9	NEP - Schemes to increase flow to full treatment	Capital expenditure on quality enhancement schemes listed in the NEP to increase the flow to full treatment to 3PG+I+3E
4M.10	NEP - Schemes to increase storm tank capacity	Capital expenditure on quality enhancement schemes listed in the NEP to increase the storm tank capacity to 69 l/hd or to 2 hours retention at max flow into the tanks.

4M.11	NEP - Storage schemes to reduce spill frequency at CSOs, storm tanks, etc	Capital expenditure on the primary cost driver of quality enhancement schemes listed in the NEP for AMP5 or AMP6 where the objective of the primary cost driver is to reduce spill frequency of CSOs, storm tank overflows etc by the provision of new or additional storage volume.
4M.12	NEP - Chemicals monitoring / investigations / options appraisals	Capital expenditure on monitoring, investigations, feasibility studies and improvements listed in the NEP (or WINEP) as part of the national Chemicals Investigation Programme (driver codes C1 - C3 in AMP5 and C4 - C7 in AMP6
4M.13	NEP - National phosphorus removal technology investigations	Capital expenditure on monitoring, investigations, feasibility studies and improvements listed in the NEP (or WINEP) as part of the national AMP6 Phosphorus removal technology investigations programme (driver codes P1 - Px).
4M.14	NEP - Groundwater schemes	Capital expenditure on the primary cost driver of quality enhancement schemes listed in the NEP for AMP5 or AMP6 where the objective of the primary cost driver is to meet one or more requirements of the EU Groundwater Directive. For AMP5 this is the capital expenditure to deliver the outputs included in the sewerage service quality enhancement schedule (Annex 4 – S) associated with driver codes G1, G2 and G3. (Expenditure associated with driver code G4 should be included in 4M.11).
4M.15	NEP - Investigations	Capital expenditure on investigations listed in the NEP for AMP5 or AMP6 over and above that on investigations for which expenditure is required to be reported elsewhere in this table (principally 4M.9).
4M.16	NEP - Nutrients (N removal)	Capital expenditure on the primary cost driver of quality enhancement schemes listed in the NEP for AMP5 or AMP6 where the objective of the primary cost driver is to meet new or tightened consent conditions for nitrogen.
4M.17	NEP - Nutrients (P removal at activated sludge STWs)	Capital expenditure on the primary cost driver of quality enhancement schemes listed in the NEP for AMP5 or AMP6 where the objective of the primary cost driver is to meet new or tightened consent conditions for phosphorus at an activated sludge STW.
4M.18	NEP - Nutrients (P removal at filter bed STWs)	Capital expenditure on the primary cost driver of quality enhancement schemes listed in the NEP for AMP5 or AMP6 where the objective of the primary cost driver is to meet new or tightened consent conditions for phosphorus at a biological filter STW.
4M.19	NEP - Reduction of sanitary parameters	Capital expenditure on the primary cost driver of quality enhancement schemes listed in the NEP for AMP5 or AMP6 where the objective of the primary cost driver is to meet new or tightened consent conditions for one or more of the sanitary parameters.

4M.20	NEP - UV disinfection (or similar)	Capital expenditure on the primary cost driver at quality enhancement schemes listed in the NEP for AMP5 or AMP6 where the objective of the primary cost driver is to meet new or tightened consent conditions for microbiological parameters to meet the requirements of the EU Shellfish Waters or revised Bathing Water Directives. Such schemes will typically involve UV disinfection but may involve alternative technologies eg membrane filtration.
4M.21	NEP - Discharge relocation	Capital expenditure on the primary cost driver at quality enhancement schemes listed in the NEP for AMP5 or AMP6 where the objective of the primary cost driver is to meet the requirements of the Habitats Directive or the CRoW Act (2000) by relocating the discharge to controlled waters.
4M.22	NEP - Flow 1 schemes	Capital expenditure on the primary cost driver of quality enhancement schemes listed in the NEP for AMP5 where the objective of the primary driver is to ensure no deterioration in the current classification of the receiving waters as a result of increased volumes of discharge (historic) - (driver code Flow1)
4M.23	Odour	Capital expenditure on schemes where the primary objective is to effect a step change improvement in odour control above base standards.
4M.24	New development and growth	Capital expenditure associated with the provision of new development and growth in sewerage services. Includes capital expenditure associated with the provision of local network assets for sewerage services to provide for new customers with no net deterioration of existing levels of service (new development) and capital expenditure associated with changes in sewage collected from new and existing customers whilst maintaining existing levels of service (growth). This should exclude capital expenditure for the purpose of reducing the risk to properties and external areas of flooding from sewers that should be reported in 4M.29, unless an increase in risk is clearly the result of new development.
4M.25	Growth at sewage treatment works (excluding sludge treatment)	Capital expenditure associated with meeting or offsetting changes in demand from new and existing customers at sewage treatment works but excluding sludge treatment centres. Expenditure at sludge treatment centres should be reported in 4M.3.
4M.26	Resilience	Capital expenditure to improve resilience. This relates to expenditure to manage the risk of failing to give consumers an appropriate level of service protection in the face of extreme events caused by hazards that are beyond their control. For AMP5 this is the capital expenditure to deliver the outputs included in the supplementary report for improving resilience (e.g. under driver code ESL04).

4M.27	SEMD	Capital expenditure on schemes to protect assets and assessments of potential further improvements to comply with the Security and Emergency Measures Direction 1998 including associated Advice Notes. For AMP5 this is the capital expenditure to deliver the outputs included in the sewerage service quality enhancement schedule (Annex 4 - S) to comply with the SEMD (driver code SEMD).
4M.28	Reduce flooding risk for properties	Capital expenditure for the purpose of enhancing the public sewerage system to reduce the risk to properties and external areas of flooding from sewers. Exclude maintaining the long term capability of the assets – infra that should be reported in 4K.12 and expenditure associated with the provision of new sewers for new development and such other expenditure required in consequence of the new development that should be reported in 4M.25.
4M.29-4M.38	Capital expenditure purpose - WASTEWATER additional lines [Other categories]	Other capital expenditure purpose [Company to insert other purposes as required and explain in commentary]. Regard should be had for the desirability of maintaining consistency with corresponding lines in previous data submissions when using these lines.
4M.39	Total enhancement capital expenditure	Total enhancement capital expenditure. Calculated as the sum of 4M.1 to 4M.38inclusive.

Pro forma 4N: Operating expenditure - Sewage treatment for the 12 months ended 31st March 20xx

Sewage treatment operating expenditure		
4N.1	Direct costs of STWs in size band 1	Sum of direct costs of STWs in band 1. See additional guidance below for STW banding
4N.2	Direct costs of STWs in size band 2	Sum of direct costs of STWs in band 2. See additional guidance below for STW banding
4N.3	Direct costs of STWs in size band 3	Sum of direct costs of STWs in band 3. See additional guidance below for STW banding
4N.4	Direct costs of STWs in size band 4	Sum of direct costs of STWs in band 4. See additional guidance below for STW banding
4N.5	Direct costs of STWs in size band 5	Sum of direct costs of STWs in band 5. See additional guidance below for STW banding
4N.6	General & support costs of STWs in size bands 1 to 5	The sum of general and support expenditure for all STWs in bands 1 to 5 (see additional guidance). Where possible, such expenditure should be attributed on a causal basis; otherwise it should be apportioned in proportion to direct costs.
4N.7	Direct costs of STWs in size band 6	Sum of direct costs of STWs in band 6. Calculated from Table 4O (Large STW).

4N.8	General & support costs of STWs in size band 6	The sum of general and support expenditure for all STWs in band 6 (see additional guidance). Where possible, such expenditure should be attributed on a causal basis; otherwise it should be apportioned in proportion to direct costs.
4N.9	Service charges for STWs in size band 6	The sum of service charges (EA and BWB) for the STWs in band 6 included in the direct costs (Line 4N.7) above.
4N.10	Estimated terminal pumping costs size band 6 works	The sum of estimated costs of terminal pumping stations pumping to STWs in band 6 included in the direct costs (Line 4N.7) above.
4N.11	Estimated sludge costs in size band 6 works	If the costs of sludge treatment are included in the direct costs (line 4N.7) above, companies should enter an estimate of the costs involved (otherwise, zero)
4N.12	Total operating expenditure (excluding 3rd party services)	Total operating expenditure (excluding 3rd party services). Calculated as the sum of 4N.1 to 4N.11 inclusive.

Treatment works size

For the purpose of these tables, sewage treatment works (STW) size is defined by the load received by the works, expressed as mass (i.e. kilograms of BOD5 per day). In calculating the size of a works, companies should assume that resident connected population contribute 60g BOD5/head/day and add the trade effluent load (total COD) using a conversion factor of COD:BOD of 2:1.

No allowance should be made for non-resident population when classifying the size band of a works.

Companies must include non-resident population when reporting loads and costs.

Under this classification scheme, large works are defined as those with an average daily loading >1,500kg BOD5/day, and small works are those with an average loading <=1,500kg BOD5/day.

Small worksSize band 1 <= 15kg BOD5/day (population equivalent: 0 - 250)
Size band 2 >15 but <= 30kg BOD5/day (population equivalent: 250 - 500)
Size band 3 >30 but <= 120kg BOD5/day (population equivalent: 500 – 2,000)
Size band 4 >120 but <= 600kg BOD5/day (population equivalent: 2,000 –10,000)
Size band 5 >600 but <= 1,500kg BOD5/day (population equivalent: 10,000 – 25,000)

Large works

Size band 6 > 1,500kg BOD5/day (population equivalent: >25,000)

Pro forma 4O: Wholesale waste water service - Large sewage treatment works for the 12 months ended 31 March 20xx

This table relates to Network+ costs only at the treatment works. This means that any costs relating to sludge (also known as the Bioresources price control unit) should be excluded.

Also note that treatment of tankered waste treatment is a non-appointed activity (see appendix 1) and so should not be taken into account when completing lines 4O.3 and 4O.9.

Large sewage treatment works data		
4O.1	Works name	Name of sewage treatment works
4O.2	Classification of treatment works	Classification of treatment works P = Primary treatment; SAS = Secondary Activated Sludge; SB = Secondary Biological; TA1 = Tertiary A1; TA2 = Tertiary A2; TB1 = Tertiary B1; TB2 = Tertiary B2 Where a works' load is split into two treatment streams, the works should be reported in this line as the higher of the two proportions. For example, a works with a split of 60% Secondary Activated Sludge and 40% Secondary Biological should be classed as Secondary Activated Sludge (SAS) in this line.
4O.3	Population equivalent of total load received	The average equivalent population of the total load received by the treatment works during the report year. Total load will be comprised of both resident and non-resident population loads.
4O.4	Suspended solids consent	The value of the effluent consent standard (95%ile) with respect to suspended solids. This figure must be as determined by the Environment Agency and not a company's own assessment of the consent standard.
4O.5	BOD5 consent	The value of the effluent consent standard (95%ile) with respect to BOD5. This figure must be as determined by the Environment Agency and not a company's own assessment of the consent standard.
4O.6	Ammonia consent	The value of the effluent consent standard (95%ile) with respect to ammonia, if applicable at the works in question. This figure must be as determined by the Environment Agency and not a company's own assessment of the consent standard.
4O.7	Phosphorus consent	The value of the effluent consent standard with respect to phosphorus (annual mean), if applicable at the works in question. This figure must be as determined by the Environment Agency and not a company's own assessment of the consent standard.

4O.8	UV consent	The value of the consent process standard with respect to intensity of UV irradiation, if applicable at the works in question. This figure must be as determined by the Environment Agency and not a company's own assessment of the consent standard.
4O.9	Load received by STW	The average daily organic load (in kgBOD5) received by the treatment works during the report year. Calculated on the basis of a contribution of 60g BOD5 per head of equivalent population per day. Calculated values should agree with those reported in 4S.6.
4O.10	Flow passed to Full Treatment	The average daily flow (in m^3/d) passed to full treatment at the treatment works during the report year.
4O.11	Direct expenditure	The total direct cost of sewage treatment (The costs directly attributable to each works). Where the works also undertakes sludge treatment, the costs associated with sludge treatment should be excluded. If terminal pumping costs are included here, the costs should be estimated in line 4O.15.
4O.12	General and support expenditure	The general and support expenditure allocated to each sewage works (see additional guidance). Where possible, such expenditure should be attributed on a causal basis; otherwise it should be apportioned in proportion to direct costs.
4O.13	Functional expenditure	Functional expenditure is the sum of direct expenditure (in 4O.11) and general and support expenditure (in 4O.12).
4O.14	Service charges	The total service charges (EA and BWB) for the STW included in the direct costs above. Note: 4O.14 and 4O.15 are components of 4O.13 (but do not sum to it.)
4O.15	Estimated terminal pumping expenditure	The estimated direct cost of terminal pumping stations pumping to the works in question, for which costs are included in 4O.11.

RAG2 sets out how costs should be divided across that price control units. In this table, general and support costs may, where they cannot be directly attributed, require allocation so that the network+ element can be identified.

Companies should follow the guidance in RAG2 table 2.4.1 to source appropriate cost drivers for allocation.

Pro forma 4P: Non-financial data for WR, WT and WD for the 12 months ended 31st March 20xx - wholesale water

Wholesale water non-financial data - Water Resources, Water Treatment		
4P.1	Proportion of distribution input derived from impounding reservoirs	Proportion of distribution input derived from impounding (gravity fed) reservoirs, including bulk supply. Operational sources from which no water has been obtained in the report year should not be included in the number of sources.
4P.2	Proportion of distribution input derived from pumped storage reservoirs	Proportion of distribution input derived from pumped storage reservoirs including bulk supply. Operational sources from which no water has been obtained in the report year should not be included in the number of sources. Please refer to additional guidance relating to number of sources. Pumped storage reservoirs will receive an element of gravity flow. If this flow makes a material contribution (>20%) to the volume of the reservoir the distribution input from this source should be allocated proportionally between the two reservoir types. When reporting source numbers the source should be allocated according to the type of flow that delivers the larger part of the reservoir's input. For example, if 60% of the reservoir's volume is pumped river water the source should be counted as a pumped storage source.
4P.3	Proportion of distribution input derived from river abstractions	Proportion of distribution input derived from river abstractions including bulk supply. Operational sources from which no water has been obtained in the report year should not be included in the number of sources. Please refer to additional guidance relating to number of sources.
4P.4	Proportion of distribution input derived from groundwater works, excluding managed aquifer recharge (MAR) water supply schemes	Proportion of distribution input derived from groundwater works including bulk supply, but excluding managed aquifer recharge (MAR) water supply schemes. Operational sources from which no water has been obtained in the report year should not be included in the number of sources. Please refer to additional guidance relating to number of sources.
4P.5	Proportion of distribution input derived from artificial recharge (AR) water supply schemes	Proportion of distribution input derived from AR supply schemes including bulk supply. AR schemes are a subset of managed aquifer recharge (MAR) schemes, which functions by recharging an aquifer before or after abstraction. The water abstracted is not necessarily the water that has been recharged, so the water can be of natural quality and require more complex treatment. This excludes aquifer storage and recovery (ASR) water supply schemes (see line below)
4P.6	Proportion of distribution input derived from aquifer storage and recovery (ASR) water supply schemes	Proportion of distribution input derived from ASR supply schemes including bulk supply. ASR schemes are a subset of managed aquifer recharge (MAR) schemes, which functions by recharging an aquifer, storing that water and maintaining its quality. The aim is to enable simple and less costly treatment of the re-abstracted water, and that the water recharged is predominantly the water that is re-abstracted. This excludes artificial recharge (AR) water supply schemes (see line above)

4P.7	Number of impounding reservoirs	Number of sources of impounding reservoirs. Please refer to additional guidance in line 4P.13 relating to number of sources.
4P.8	Number of pumped storage reservoirs	Number of sources of pumped storage reservoirs. Please refer to additional guidance in line 4P.13 relating to number of sources. Pumped storage reservoirs will receive an element of gravity flow. The source should be allocated according to the type of flow that delivers the larger part of the reservoir's input. For example, if 60% of the reservoir's volume is pumped river water the source should be counted as a pumped storage source.
4P.9	Number of river abstractions	Number of sources of river abstractions. Please refer to additional guidance in line 4P.13 relating to number of sources.
4P.10	Number of groundwater works, excluding managed aquifer recharge (MAR) water supply	Number of sources of groundwater works, excluding MAR water supply schemes. Please refer to additional guidance in line 4P.13 relating to number of sources. For detailed definitions of water supply schemes, see associated data lines for distribution input.
4P.11	Number of artificial recharge (AR) water supply schemes	Number of sources of AR water supply schemes. Please refer to additional guidance in line 4P.13 relating to number of sources. For detailed definitions of water supply schemes, see associated data lines for distribution input.
4P.12	Number of aquifer storage and recovery (ASR) water supply schemes	Number of sources of ASR water supply schemes. Please refer to additional guidance in line 4P.13 relating to number of sources. For detailed definitions of water supply schemes, see associated data lines for distribution input.
4P.13	Total number of sources	The total number of sources operated by a company. This should equal the sum of lines 4P.7 to 4P.12. Subject to the relevant appendix in RAG4 a source is defined as an independent raw water supply that directly supplies a treatment works, such as impounding reservoirs, river abstractions and ~~boreholes~~ groundwater works. Standby or mothballed sources from which no water has been obtained in the year should not be included.
4P.14	Total number of water reservoirs	All reservoirs used for holding raw water. This line shall include impounding reservoirs, pumped storage reservoirs and bank side storage facilities.
4P.15	Total capacity of water reservoirs	Total design/construction capacity of all reservoirs used for holding raw water. This line shall include impounding reservoirs, pumped storage reservoirs and bank side storage facilities.
4P.16	Total number of intake and source pumping stations	The total number of surface water intake and groundwater works associated with potable, non-potable and raw water systems. For the avoidance of doubt this is the number of sites as opposed to the number of individual pumps.

4P.17	Total number of raw water transfer stations	Total number of number of raw water transfer stations. For the avoidance of doubt this is the number of sites as opposed to the number of individual pumps.
4P.18	Total capacity of intake and source pumping stations	Total kW's of all abstraction pumpsets (duty, assist and standby - irrespective of the number that may be working at any one time) associated with Raw water abstraction. Refer to RAG 2 Appendix 2 for proportional allocation.
4P.19	Total capacity of raw water transfer pumping stations	Total kW's of all transfer pumpsets (duty, assist and standby - irrespective of the number that may be working at any one time) associated with Raw water transfer.
4P.20	Total length of raw water mains and conveyors	All mains or conveyors associated with the transfer of raw water either between sources or from source to treatment. Exclude mains carrying water of potable quality on entry to the main.
4P.21	Average pumping head – resources	Average pumping head for the Resources business unit as defined in RAG 4 and RAG 2. This is to be calculated using actual pumping head rather than the rating of the pumps.
4P.22	Average pumping head - raw water transport	Average pumping head for the Resources business unit as defined in RAG 4 and RAG 2. This is to be calculated using actual pumping head rather than the rating of the pumps.
4P.23	Total water treated at all SW simple disinfection works	The average daily distribution input derived from surface water works providing simple disinfection and pre-aeration only. Bulk supplies received should be included and bulk exports should be omitted.
4P.24	Total water treated at all SW1 works	The average daily distribution input derived from surface water works providing simple physical treatment only. Bulk supplies received should be included and bulk exports should be omitted.
4P.25	Total water treated at all SW2 works	The average daily distribution input derived from surface water works providing single stage complex physical or chemical treatment but excluding processes in W4, W5 & W6. Bulk supplies received should be included and bulk exports should be omitted.
4P.26	Total water treated at all SW3 works	The average daily distribution input derived from surface water works providing more than one stage of complex treatment but excluding processes in W4, W5 & W6. Bulk supplies received should be included and bulk exports should be omitted.
4P.27	Total water treated at all SW4 works	The average daily distribution input derived from surface water works providing one of the processes with very high operating costs. Bulk supplies received should be included and bulk exports should be omitted.
4P.28	Total water treated at all SW5 works	The average daily distribution input derived from surface water works providing two or more of the processes with very high operating costs. Bulk supplies received should be included and bulk exports should be omitted.
4P.29	Total water treated at all SW6 works	The average daily distribution input derived from surface water works providing processes with extremely high operating costs. Bulk supplies received should be included and bulk exports should be omitted.

4P.30	Total water treated at all GW simple disinfection works	The average daily distribution input derived from surface water works providing simple disinfection and pre-aeration only. Bulk supplies received should be included and bulk exports should be omitted.
4P.31	Total water treated at all GW1 works	The average daily distribution input derived from ground water works providing simple physical treatment only. Bulk supplies received should be included and bulk exports should be omitted.
4P.32	Total water treated at all GW2 works	The average daily distribution input derived from ground water works providing single stage complex physical or chemical treatment but excluding processes in W4, W5 & W6. Bulk supplies received should be included and bulk exports should be omitted.
4P.33	Total water treated at all GW3 works	The average daily distribution input derived from ground water works providing more than one stage of complex treatment but excluding processes in W4, W5 & W6. Bulk supplies received should be included and bulk exports should be omitted.
4P.34	Total water treated at all GW4 works	The average daily distribution input derived from ground water works providing one of the processes with very high operating costs. Bulk supplies received should be included and bulk exports should be omitted.
4P.35	Total water treated at all GW5 works	The average daily distribution input derived from ground water works providing two or more of the processes with very high operating costs. Bulk supplies received should be included and bulk exports should be omitted.
4P.36	Total water treated at all GW6 works	The average daily distribution input derived from ground water works providing processes with extremely high operating costs. Bulk supplies received should be included and bulk exports should be omitted.
4P.37	Total water treated at more than one type of works	Where water is treated at more than one type of works shown in lines 4P.23 to 4P.36 above, the average daily input which is recorded more than once in rows 4P.23 to 4P.36 above, entered as a negative.
4P.38	Total number of SW simple disinfection works	Total number of surface water works providing simple disinfection and pre-aeration only
4P.39	Total number of SW1 works	Total number of surface water works providing simple physical treatment only
4P.40	Total number of SW2 works	Total number of surface water works providing single stage complex physical or chemical treatment but excluding processes in W4, W5 & W6
4P.41	Total number of SW3 works	Total number of surface water works providing more than one stage of complex treatment but excluding processes in W4, W5 & W6
4P.42	Total number of SW4 works	Total number of surface water works providing one of the processes with very high operating costs
4P.43	Total number of SW5 works	Total number of surface water works providing two or more of the processes with very high operating costs
4P.44	Total number of SW6 works	Total number of surface water works providing processes with extremely high operating costs

4P.45	Total number of GW simple disinfection works	Total number of ground water works providing simple disinfection and pre-aeration only
4P.46	Total number of GW1 works	Total number of ground water works providing simple physical treatment only
4P.47	Total number of GW2 works	Total number of ground water works providing single stage complex physical or chemical treatment but excluding processes in W4, W5 & W6
4P.48	Total number of GW3 works	Total number of ground water works providing more than one stage of complex treatment but excluding processes in W4, W5 & W6
4P.49	Total number of GW4 works	Total number of ground water works providing one of the processes with very high operating costs
4P.50	Total number of GW5 works	Total number of ground water works providing two or more of the processes with very high operating costs
4P.51	Total number of GW6 works	Total number of ground water works providing processes with extremely high operating costs
4P.52	Number of treatment works requiring remedial action because of raw water deterioration	The number of water treatment works that require remedial action because of raw water deterioration. All works should be supported by the drinking water inspectorate (DWI) or in the case of planned activity be proposed to the DWI. The works should be included in the year the substantive activity is planned to take place.
4P.53	Zonal population receiving water treated with orthophosphate	Zonal population receiving water treated with orthophosphate, in thousands
4P.54	Average pumping head – treatment	Average pumping head for the Treatment business unit as defined in RAG 4 and RAG 2. This is to be calculated using actual pumping head rather than the rating of the pumps.
4P.55	Total length of potable mains as at 31 March	The total length of potable water mains on 31 March of report year
4P.56	Total length of mains relined	Length of mains relined in report year. Include all spray applied lining.
4P.57	Total length of mains renewed	Length of mains renewed in report year. Include mains whose prime purpose is renewal of an existing main, even where existing main remains in service (i.e. is not abandoned immediately on commissioning of new main). Include mains sleeving/pipe cracking/sliplining where used for this category of work.
4P.58	Total length of new mains	Length of new mains laid in report year. Include new mains and mains renewals involving upsizing, whose prime justification is the requirement for additional capacity.
4P.59	Potable water mains (<320mm)	The length of all potable water mains <320mm. Include all elements of trunk and distribution assets and system ancillaries. Include facilities intended for standby and emergency supplies. Include potable water mains of 320mm.

4P.60	Potable water mains 320mm - 450mm	The length of all potable water mains of from 320mm up to and including 450mm Include all elements of trunk and distribution assets and system ancillaries. Include facilities intended for standby and emergency supplies. Include potable mains of 450mm. Exclude potable water mains of 320mm.
4P.61	Potable water mains 450mm - 610mm	The length of all potable water mains of from 450mm up to and including 610mm Include all elements of trunk and distribution assets and system ancillaries. Include facilities intended for standby and emergency supplies. Include potable mains of 610mm. Exclude potable water mains of 450mm.
4P.62	Potable water mains > 610mm	The length of all potable water mains greater than 610mm. Include all elements of trunk and distribution assets and system ancillaries. Include facilities intended for standby and emergency supplies. Exclude potable water mains of 610mm.
4P.63	Total length of non-potable and partially treated main for supplying customers	The length of all non-potable and partially treated water mains. Include all non-potable and partially treated industrial process water or fire-fighting mains. Exclude raw water mains classified as aqueducts under water resources as captured in line 4P.20, all potable water mains as captured in line 4P.20, potable water distribution mains and partially treated water mains between treatment processes.
4P.64	Total length of non-potable and partially treated main for treatment	The length of all non-potable and partially treated water mains for treatment.
4P.65	Capacity of booster pumping stations	Total kW's of all treated water pumpsets (duty, assist and standby - irrespective of the number that may be working at any one time) associated with Treated water distribution (into and within). Refer to RAG 2 Appendix 2 for proportional allocation.
4P.66	Capacity of service reservoirs	The installed design/constructed capacity of treated water service reservoirs within the water supply system including treated water reservoirs at water treatment works and any secondary disinfection plant on reservoir sites. Include break pressure tanks. Exclude decommissioned assets.
4P.67	Capacity of water towers	The installed design/constructed capacity of treated water storage towers within the water supply system. Exclude decommissioned assets.
4P.68	Distribution input	Distribution input is the average amount of potable water entering the distribution system. Please refer to the 2011 June return reporting requirements chapter 10 for a diagrammatic representation of what this should include.
4P.69	Water delivered (non-potable)	All non-potable water supplied as part of the appointed business. Include all non-potable water charged at standard and non-standard rates.

4P.70	Water delivered (potable)	All potable water supplied as part of the appointed business. This includes: a) the average volume of water delivered for billed measured residential and businesses; b) the estimated volume of water delivered for billed unmeasured residential and businesses; c) supply pipe leakage; meter under registration for water delivered which is measured e) unbilled water taken legally for legitimate purposes (public supplies for which no charge is made e.g. some sewer flushing etc, uncharged church supplies, fire training and fire-fighting supplies where these are not charged irrespective of whether or not they are metered). Do not include volumes associated with leakage allowance rebates to metered customers; d) water taken illegally providing it is based on actual occurrences using sound and auditable identification and recording procedures (if not this should be treated as distribution losses and excluded from this line).
4P.71	Water delivered (billed measured residential properties)	Average volume of water delivered to residential properties which is measured (Ml/d). This is to include supply pipe leakage and meter under-registration. Additional meters fitted to measured residential properties for ancillary supplies (e.g. external hosepipes) which are non-commercial are to be included, as should any fitted to unmeasured residential properties if this is how revenue is allocated. Exclude miscellaneous use (Distribution system operational use, water taken legally unbilled and water taken illegally unbilled).
4P.72	Water delivered (billed measured businesses)	Average volume of water delivered to businesses which is measured (Ml/d). This is to include supply pipe leakage and meter under-registration. Additional meters fitted to measured businesses for ancillary supplies (e.g. external hosepipes) which are non-commercial are to be included, as should any fitted to unmeasured businesses if this is how revenue is allocated. Exclude miscellaneous use (Distribution system operational use, Water taken legally unbilled and Water taken illegally unbilled).
4P.73	Total leakage	Total leakage measures the sum of distribution losses and supply pipe losses in megalitres per day (Ml/d). It includes any uncontrolled losses between the treatment works and the customer's stop tap. It does not include internal plumbing losses.
4P.74	Distribution losses	Distribution losses represent the losses on the company's potable water distribution system and so excludes supply pipe leakage.
4P.75	Water taken unbilled	Total water taken unbilled (whether legally or illegally). Water used by the company for mains tests, flushing, washouts, running to waste, or incurred through burst mains or other leakage should be excluded.
4P.76	Number of lead communication pipes	The total number of lead communication pipes within the undertaker's supply area.
4P.77	Number of galvanised iron communication pipes	The total number of galvanised iron communication pipes within the undertaker's supply area.
4P.78	Number of other communication pipes	The total number of other (excluding lead & galvanised iron) communication pipes within the undertaker's supply area.

4P.79	Number of booster pumping stations	The number of booster pumping stations within the distribution system (potable only). Include those relating to peak network capacity provision and those designed to provide resilience and back up for pump failure. For the avoidance of doubt this is the number of sites as opposed to the number of individual pumps.
4P.80	Total number of service reservoirs	The number of treated water service reservoirs within the water supply system including treated water reservoirs at water treatment works and any secondary disinfection plant on reservoir sites. Include break pressure tanks. Exclude decommissioned assets. A single structure divided into separate cells counts as one reservoir.
4P.81	Number of water towers	The number of treated water service towers within the water supply system. Exclude decommissioned assets.
4P.82	Total length of mains laid or structurally refurbished pre-1880	Total length of mains laid or structurally refurbished pre-1880
4P.83	Total length of mains laid or structurally refurbished between 1881 and 1900	Total length of mains laid or structurally refurbished between 1881 and 1900
4P.84	Total length of mains laid or structurally refurbished between 1901 and 1920	Total length of mains laid or structurally refurbished between 1901 and 1920
4P.85	Total length of mains laid or structurally refurbished between 1921 and 1940	Total length of mains laid or structurally refurbished between 1921 and 1940
4P.86	Total length of mains laid or structurally refurbished between 1941 and 1960	Total length of mains laid or structurally refurbished between 1941 and 1960
4P.87	Total length of mains laid or structurally refurbished between 1961 and 1980	Total length of mains laid or structurally refurbished between 1961 and 1980
4P.88	Total length of mains laid or structurally refurbished between 1981 and 2000	Total length of mains laid or structurally refurbished between 1981 and 2000
4P.89	Total length of mains laid or structurally refurbished post 2001	Total length of mains laid or structurally refurbished post 2001
4P.90	Average pumping head – distribution	Average pumping head for the Distribution business unit as defined in RAG 4 and RAG 2 This is to be calculated using actual pumping head rather than the rating of the pumps.
4P.91	Band Disclosure (nr) WTWs in size band 1	Please disclose the number of WTW for each banding. See Additional Guidance
4P.92	Band Disclosure (nr) WTWs in size band 2	Please disclose the number of WTW for each banding. See Additional Guidance

4P.93	Band Disclosure (nr) WTWs in size band 3	Please disclose the number of WTW for each banding. See Additional Guidance
4P.94	Band Disclosure (nr) WTWs in size band 4	Please disclose the number of WTW for each banding. See Additional Guidance
4P.95	Band Disclosure (nr) WTWs in size band 5	Please disclose the number of WTW for each banding. See Additional Guidance
4P.96	Band Disclosure (nr) WTWs in size band 6	Please disclose the number of WTW for each banding. See Additional Guidance
4P.97	Band Disclosure (nr) WTWs in size band 7	Please disclose the number of WTW for each banding. See Additional Guidance
4P.98	Band Disclosure (nr) WTWs in size band 8	Please disclose the number of WTW for each banding. See Additional Guidance
4P.99	Band Disclosure (%) Proportion of Total DI band 1	Please disclose the proportion (%) of Total DI for each banding See Additional Guidance
4P.100	Band Disclosure (%) Proportion of Total DI band 2	Please disclose the proportion (%) of Total DI for each banding See Additional Guidance
4P.101	Band Disclosure (%) Proportion of Total DI band 3	Please disclose the proportion (%) of Total DI for each banding See Additional Guidance
4P.102	Band Disclosure (%) Proportion of Total DI band 4	Please disclose the proportion (%) of Total DI for each banding See Additional Guidance
4P.103	Band Disclosure (%) Proportion of Total DI band 5	Please disclose the proportion (%) of Total DI for each banding See Additional Guidance
4P.104	Band Disclosure (%) Proportion of Total DI band 6	Please disclose the proportion (%) of Total DI for each banding See Additional Guidance
4P.105	Band Disclosure (%) Proportion of Total DI band 7	Please disclose the proportion (%) of Total DI for each banding See Additional Guidance
4P.106	Band Disclosure (%) Proportion of Total DI band 8	Please disclose the proportion (%) of Total DI for each banding See Additional Guidance

The proportions entered in lines 4P.1 to 4P.6 should sum to unity. The proportion of water in each source category is a measure of how difficult a company's water is to treat. When classifying the water into one of the categories, please see the June Return reporting requirements and definitions manual (Chapter 12) for guidance on allocation.

For Water Treatment, rows 4P.23 to 4P.54:

For both groundwater and surface water, a works is here defined as an individual location which receives raw or partially treated water for treatment (excluding secondary disinfection) and direct delivery to customers.

For the avoidance of doubt;

- if the output of a site needs to be blended so as to become potable, then that site in itself is not defined as a works. However, where the total treatment process is split between a number of sites, the DI entering treated distribution should be split pro rata between bands based on the volumes treated at the individual sites,
- the pre-aeration of deep borehole water is included in category SD,correction

- companies should include in Lines 4P.38 to 4P.53 water treatment works that have not been used in the year but have not been decommissioned and state in their commentary any instances where this is the case.

Categories of treatment types	Examples
SD: Works providing simple disinfection only	• Marginal chlorination • Pre-aeration
W1: Simple disinfection plus simple physical treatment only	• Rapid gravity filtration • Slow sand filtration • Pressure filtration
W2: Single stage complex physical or chemical treatment W3: More than one stage of complex treatment but excluding processes in W4, W5 or W6	• Super chlorination • Coagulation • Flocculation • Biofiltration • pH correction • Softening
W4: Single stage complex physical or chemical treatment with significantly higher operating costs than in W2/ W3 W5: More than one stage of complex, high cost treatment	• Membrane filtration (excluding desalination) • Ozone addition • Activated carbon/ pesticide removal • UV treatment • Arsenic removal • Nitrate removal
W6: Works with one or more very high cost processes	• Desalination • Re-use

Band Guidance 4P.91 to 4P.106

Size band	Distributed Input Ml/d
Band 1	< 2
Band 2	≤ 2 and < 4
Band 3	≤ 4 and < 8
Band 4	≤ 8 and < 16
Band 5	≤ 16 and < 32
Band 6	≤ 32 and < 64
Band 7	≤ 64 and < 128
Band 8	≥ 128

Pro forma 4Q: Non-financial data - Properties, population and other for the 12 months ended 31st March 20xx - wholesale water

Where the following definitions refer to 'residential' properties then this has the same meaning as 'households' as described in chapter 3. References to 'business' properties have the same meaning as 'non-households' in chapter 3.

Non-financial data - Properties and population wholesale water		
4Q.1	Residential properties billed for measured water (external meter)	Average number of billed metered residential properties with external meters. An external meter is one located underground on the customer's underground supply pipe. Closeness to the property boundary is not important. Exclude void properties.
4Q.2	Residential properties billed for measured water (not external meter)	Average number of billed metered residential properties (not externally metered). An internal meter is one located inside the customer's property or attached to the property at above ground level in a box or cabinet. All other meters should be classed as external. Exclude void properties.
4Q.3	Business properties billed measured water	Average number of business properties billed for measured water within the supply area. Exclude miscellaneous users.
4Q.4	Residential properties billed for unmeasured water	Average number of residential properties billed for unmeasured water within the supply area.Exclude void properties.
4Q.5	Business billed unmeasured water	Average number of businesses billed for unmeasured water within the supply area. Exclude miscellaneous users.
4Q.6	Total business connected properties at year end	The total number of business properties connected to the water distribution system at the end of the report year. This must include properties which are connected but not necessarily billed (for example, temporarily unoccupied) but should exclude properties which have been permanently disconnected. A group of properties supplied by a single connection should be counted as several properties. They should only be treated as a single property if a single bill covers the whole property.

4Q.7	Total residential properties connected properties at year end	The total number of residential properties connected to the water distribution system at the end of the report year. This must include properties which are connected but not necessarily billed (for example, temporarily unoccupied) but should exclude properties which have been permanently disconnected. A group of properties supplied by a single connection should be counted as several properties. They should only be treated as a single property if a single bill covers the whole property.
4Q.8	Total connected properties at year end	The total number of properties (residential and business) connected to the distribution system at the end of the report year. This must include properties which are connected but not billed (for example, temporarily unoccupied) but should exclude properties which have been permanently disconnected. A group of properties supplied by a single connection should be counted as several properties. They should only be treated as a single property if a single bill covers the whole property.
4Q.9	Number of residential properties meters renewed	The total number of meters renewed at residential properties during the report year.
4Q.10	Number of business properties meters renewed	The total number of meters renewed at business properties during the report year.
4Q.11	Number of meters installed at the request of optants	The total number of meters installed at the request of the optants at existing residential properties during the year (Including where a company has installed a meter for social tariff purposes). Include meters installed at residential properties fitted in any location (e.g. internal, external in garden, external at boundary etc). Exclude all meters installed at the company's behest. For clarity and to avoid possible double counting, this should exclude meters installed at properties where the resident subsequently becomes an optant by virtue of switching to measured charges. These meters should have already been reported in line 12.
4Q.12	Number of selective meters installed	The number of meters installed during the year at existing billed residential properties at the behest of the company. Include meters installed at residential properties fitted in any location (e.g. internal, external in garden, external at boundary etc). Exclude all meters installed for meter optants or following property conversions.
4Q.13	Total number of new business properties connections	Total number of new business connections to a company's area of supply during the report year. This will cover the number of new business properties added for each year that were previously not connected for water supply. Exclude separation of common services, or other reconnections.
4Q.14	Total number of new residential connections	Total number of new residential connections to a company's area of supply during the report year. This will cover the number of new residential properties added for each year that were previously not connected for water supply. Exclude separation of common services, or other reconnections.

4Q.15	Total population served	Total resident population served. This should include billed households supplied with unmeasured and measured water and billed business supplied with unmeasured and measured water. Please provide commentary on how you have calculated population and household growth including how you have taken account of the 2011 Census.
4Q.16	Number of business meters (billed properties)	The total number of business meters at billed properties within the company's area supply (including void properties).
4Q.17	Number of residential meters (billed properties)	The total number of residential meters at billed properties within the company's area of supply (including void properties).
4Q.18	Company area	Area of company in km^2
4Q.19	Number of lead communication pipes replaced for water quality	The total number of lead communication pipes replaced for quality reasons (as a result of the lead quality programme to deal with the revised Drinking Water Regulations). All replacement activity under quality, must have been confirmed by DWI in the schedule of works attached to a legally binding instrument of works. This must be consistent with the programme of work funded under the PR14 water quality enhancement programme (annex 4. Include all lead communication pipes which are replaced at customers' request under Regulation 30(4)(b) of the Water Supply (Water Quality) Regulations 2000.
4Q.20	Total supply side enhancements to the supply demand balance (dry year critical / peak conditions)	Incremental supply side improvements delivered during the reporting year to the dry year critical / peak period supply demand balance as at the start of the reporting year. The reported value should account for all water resource zones. Where dry year critical / peak conditions have not been presented in the current WRMP for a specific zone, the dry year annual average conditions should be substituted. Supply side enhancements should include all resource and production options. Interpretation of resource and production options, dycp and dyaa should align with water resources management plan guidance.
4Q.21	Total supply side enhancements to the supply demand balance (dry year annual average conditions)	Incremental supply side improvements delivered during the reporting year to the dry year annual average supply demand balance as at the start of the reporting year. The reported value should account for all water resource zones. Supply side enhancements should include all resource and production options. Interpretation of resource and production options, dycp and dyaa should align with water resources management plan guidance.
4Q.22	Total demand side enhancements to the supply demand balance (dry year critical / peak conditions)	Incremental demand side improvements delivered during the reporting year to the dry year critical / peak period supply demand balance as at the start of the reporting year. The reported value should account for all water resource zones. Where dry year critical / peak conditions have not been presented in the current WRMP for a specific zone, the dry

		year annual average conditions should be substituted. Demand side enhancements should include all distribution and customer side options. Interpretation of resource and production options, dycp and dyaa should align with water resources management plan guidance. Demand side enhancements should be reported as a positive number
4Q.23	Total demand side enhancements to the supply demand balance (dry year annual average conditions)	Incremental demand side improvements delivered during the reporting year to the dry year annual average period supply demand balance as at the start of the reporting year. The reported value should account for all water resource zones. Demand side enhancements should include all distribution and customer side options. Interpretation of resource and production options, dycp and dyaa should align with water resources management plan guidance. Demand side enhancements should be reported as a positive number.
4Q.24	Energy consumption – network +	Measure of energy usage (electricity, gas, liquid fuels) by the network+ wholesale business unit (irrespective of the power source). Energy usage should be measured as that which is either imported or self-generated and used in relevant business unit. No account should be taken of self-generated energy that is exported from the business unit where it is generated. Fleet transport and standby generation should be included as should an allowance for administrative buildings and head office function.
4Q.25	Energy consumption - water resources	Measure of energy usage (electricity, gas, liquid fuels) by the water resource business units (irrespective of the power source). Energy usage should be measured as that which is either imported or self-generated and used in relevant business unit. No account should be taken of self-generated energy that is exported from the business unit where it is generated. Fleet transport and standby generation should be included as should an allowance for administrative buildings and head office function.
4Q.26	Energy consumption (i.e. including imports, self-generation, excluding exports) - wholesale	Energy consumption – wholesale water business. Calculated as the sum of 4Q.24 and 4Q.25.
4Q.27	Peak factor	Calculated by expressing the maximum daily consumption as a percentage of the average consumption.. The duration over which maximum daily consumption is measured over will be at least one week but is unlikely to be more than a month
4Q.28	Mean Zonal Compliance	DWI measure

4Q.29	Volume of Leakage above or below the Sustainable Economic Level	The variance between actual leakage and the sustainable economic level of leakage. Leakage below the economic level will have a negative value. To be disclosed as Ml/d.

Lines 4Q.22 and 4Q.23 should exclude any costs incurred by the retail business unit. All demand management savings delivered in the reporting year should be included (whether funded as enhancement or maintenance).

Lines 4Q.24, 4Q.25 and 4Q.26 relate to the energy costs associated with operating costs only. For consistency with the APR (Line 2B.1) this line should include all energy costs (including electricity, gas and fuel for vehicles, plant and machinery). These lines are intended to capture energy consumed; energy exported should not be included. Energy consumption should be allocated between lines 4Q.25 and 4Q.26 in a way that is consistent with the accounting separation units, i.e. 'network +' includes raw water distribution, water treatment and treated water distribution (in line with Ofwat's Water 2020 decisions document (May 2016)).

Based on UKWIR report 06/WR/01/7 (“Peak water demand forecasting methodology”), which says that the calculation of peaking factors will depend on circumstances such as a company's asset base and the specific drivers of peak demand, we will allow companies to use an alternative formula that is appropriate to them and explain their formula in the commentary.

Pro forma 4R: Non-financial data - Wastewater network and sludge for the 12 months ended 31st March 20xx - wholesale wastewater

Non-financial data WWW Network and Sludge		
4R.1	Connectable properties served by s101A schemes completed in the report year	The number of connectable properties (either identified as "polluting" or "likely to pollute") associated with s101A schemes completed in the report year and for which the capital costs are reported in Table 4M.
4R.2	Number of s101A schemes delivered in the report year	The number of s101A schemes completed in the report year and for which the capital costs are reported in Table 4M.
4R.3	Total pumping station capacity	Total installed pumping capacity of all sewage pumping stations (including standby pumps). Include foul, combined, stormwater and terminal pumping stations. Exclude inter-stage pumping within a sewage treatment works or sludge treatment centre. Report capacity of all installed pumps (irrespective of the number that may be working at any one time.)

4R.4	Number of network pumping stations	Number of pumping stations on sewerage network on 31 March of the reporting year. Pumping stations transferred into the incumbent's ownership by 31 March of the reporting year as a result of schemes made by the Secretary of State / Welsh Ministers under the Water Industry (Schemes for Adoption of Private Sewers) Regulations 2011 should be included.
4R.5	Total number of sewer blockages	Total number of sewer blockages on the current network (ie. the sewerage network including private sewers and lateral drains transferred as a result of schemes made by the Secretary of State / Welsh Ministers under the Water Industry (Schemes for Adoption of Private Sewers) Regulations 2011.)
4R.6	Total number of gravity sewer collapses	Total number of gravity sewer collapses on the current network (ie. the sewerage network including private sewers and lateral drains transferred as a result of schemes made by the Secretary of State / Welsh Ministers under the Water Industry (Schemes for Adoption of Private Sewers) Regulations 2011.)
4R.7	Total number of sewer rising main bursts / collapses	Total number of rising mains bursts / collapses on the current network (ie. the sewerage network including private sewers and lateral drains transferred as a result of schemes made by the Secretary of State / Welsh Ministers under the Water Industry (Schemes for Adoption of Private Sewers) Regulations 2011.)
4R.8	Number of combined sewer overflows	The total number of combined sewer overflows - a storm overflow (with no significant settlement) on a gravity sewer, a pumping station or STW inlet.
4R.9	Number of emergency overflows	The total number of emergency overflows at sewage pumping stations - an emergency overflow does not normally operate in storm conditions but is designed to operate in the event of asset failure i.e. electrical power failure, mechanical breakdown, rising main failure or blockage downstream. Must not be included if already counted as a CSO in 4R.8 (some overflows are permitted to operate as both an EO and a CSO) i.e. no overflows should be double counted. All emergency overflows at pumping stations should be included irrespective of whether they are located on the network or at a sewage treatment works.
4R.10	Number of settled storm overflows	The total number of storm tank overflows - a storm overflow with significant settlement at a STW.
4R.11	Sewer age profile (constructed post 2001)	Total length of sewer (including rising mains) laid or structurally refurbished post 2001. Reported length should include both legacy assets and formerly private sewers and lateral drains transferred into the company's ownership on (or in the case of rising mains, from) 1 October 2011.
4R.12	Volume of trade effluent	Total volumes of trade effluent
4R.13	Volume of wastewater receiving treatment at sewage treatment works	Calculated as the flow receiving treatment at sewage treatment works reported to the EA in the annual OMA report plus an estimate for the additional flow for all remaining works (typically those with a population equivalent of less than 250). This will include foul flows, surface and highway drainage and infiltration.
4R.14	Length of gravity sewers rehabilitated	Total length of sewer renovated or replaced in the report year.

4R.15	Length of rising mains replaced or structurally refurbished	Total length of sewer rising mains replaced or structurally refurbished in the report year. The term 'structurally refurbished' is intended to capture any pipeline rehabilitation technique which results in an improvement in the structural integrity of the pipe such that its expected service life has been materially extended. The term has been used in the definition of data items in previous submissions (eg. Table S5 Line 15 of the 2013 business plan) and companies should interpret the term in a way that is consistent with such submissions. However, for the avoidance of uncertainty, companies are invited to clarify the way in which they've interpreted the term 'structurally refurbished' in the accompanying commentary. If a company is unable to identify the actual length of rising main that has been replaced / structurally refurbished, then it should submit an estimate and fully explain the methodology used and the assumptions made in the accompanying commentary.
4R.16	Length of foul (only) public sewers	Length of gravity foul (only) public sewers on 31 March of report year excluding formerly private sewers transferred into the company's ownership on 1 October 2011.
4R.17	Length of surface water (only) public sewers	Length of gravity surface water (only) public sewers on 31 March of report year excluding formerly private sewers transferred into the company's ownership on 1 October 2011.
4R.18	Length of combined public sewers	Length of gravity combined public sewers on 31 March of report year excluding formerly private sewers transferred into the company's ownership on 1 October 2011.
4R.19	Length of rising mains	Length of rising mains on 31 March of report year excluding formerly private sewers transferred into the company's ownership from 1 October 2011.
4R.20	Length of other wastewater network pipework	Length of other wastewater network pipework on 31 March of report year excluding formerly private sewers transferred into the company's ownership on 1 October 2011 that are not captured in 4R.16 to 4R.19 (eg sludge mains, overflow pipes, etc).
4R.21	Total length of "legacy" public sewers as at 31 March	To be entered as the sum of 4R.16 to 4R.20 inclusive.
4R.22	Length of formerly private sewers and lateral drains (s105A sewers)	Total length of formerly private sewers and lateral drains (s105A sewers) transferred into the company's ownership on (or in the case of rising mains, from) 1 October 2011.
4R.23	Total sewage sludge produced, treated by incumbents	This is a measure of all the untreated sewage sludge (primary, secondary, tertiary) produced by in-area wastewater treatment processes in the report year which is either treated by the incumbent or remains untreated prior to disposal. Grit and screenings removed through preliminary treatment processes should be excluded. Cross-border imports should be excluded. Sludge treated by managed contractors should be included; sludge treated by separate 3rd party service providers should be reported in 4R.24.
4R.24	Total sewage sludge produced, treated by	This is a measure of all the untreated sewage sludge (primary, secondary, tertiary) produced by in-area wastewater treatment processes in the report year which is treated by a 3rd party

	3rd party sludge service provider	sludge service provider. Grit and screenings removed through preliminary treatment processes should be excluded. Cross-border imports should be excluded. Sludge treated by managed contractors (as opposed to separate 3rd party service providers) should be excluded; instead it should be reported in 4R.23.
4R.25	Total sewage sludge produced	To be entered as the sum of 4R.23 and 4R.24.
4R.26	Percentage of sludge produced and treated at a site of STW and STC co-location	The percentage of the sludge quantity reported in line 3 that is produced at co-located sites. For the purposes of this definition: i) "co-located" includes sites where the STC is physically separate but the sludge is transferred from a wastewater treatment site by pipeline, and ii) STC means any site where thickening to >10%DS, and/or dewatering and or microbial reduction (eg digestion, lime stabilisation etc) is undertaken.
4R.27	Total sewage sludge disposed by incumbents	The total amount of sewage sludge treated and disposed of during the report year by the incumbent expressed in thousands of tonnes of dry solids of sludge disposed by the whole service. This should include disposal to farmland (irrespective of whether spreading is undertaken by the 3rd party service provider or the farmer), landfill, incineration, composting and other routes. This will be different from sewage sludge produced due to: - quantities of lime used in lime treated sludge, - losses of volatile solids in the treatment process, and - changes in the amount of stockpiled sludge. Sludge disposed of by managed contractors should be included; sludge disposed of by separate 3rd party service providers should be reported in 4R.28.
4R.28	Total sewage sludge disposed by 3rd party sludge service provider	The total amount of sewage sludge treated and disposed of during the report year by a 3rd party sludge service provider expressed in thousands of tonnes of dry solids of sludge produced by the whole service. This should include recycling to farmland (irrespective of whether spreading is undertaken by the 3rd party service provider or the farmer) and disposal to landfill, incineration, land restoration/ reclamation, composting and other routes. This may be different from sewage sludge produced due to: - quantities of lime used in lime treated sludge, - losses of volatile solids in the treatment process, and - changes in the amount of sludge stockpiled at sludge treatment centres. Sludge disposed of by managed contractors (as opposed to separate 3rd party service providers) should be excluded; instead it should be reported in line 4R.27.
4R.29	Total sewage sludge disposed	To be entered as the sum of 4R.27 and 4R.28.
4R.30	Total measure of intersiting 'work' done by pipeline	Total work done in intersiting sludge operations by pipeline during the report year measured as the product of sludge mass (in ttds) multiplied by distance conveyed (in km). Based on actual length of pipeline from sludge holding tanks to STC, not straight line distance. This measure should not include sludge transported between STWs via a gravity sewer, the operating costs of which are allocated to Network+.

		(km1*tds1)+(km2*tds2)+…...(kmN*tdsN)
4R.31	Total measure of intersiting 'work' done by tanker	Total work done in intersiting sludge operations carried out by road tanker during the report year measured as the product of sludge mass (in ttds) multiplied by distance travelled (in km). Based on actual distance travelled from sludge holding tanks to STC, not straight line distance. If actual road distances aren't available please estimate this road distance and state in comments if this is the case. Work done by other forms of transport of liquid sludge (eg tractors) should be included in this line. This measure should exclude the distance travelled by vehicles to the sewage treatment works to collect the sludge. (km1*tds1)+(km2*tds2)+…...(kmN*tdsN)
4R.32	Total measure of intersiting 'work' done by truck	Total work done in intersiting sludge operations carried out by truck during the report year measured as the product of sludge mass (in ttds) multiplied by distance travelled (in km). Based on actual distance travelled from sludge holding tanks to STC, not straight line distance. If actual road distances aren't available please estimate this road distance and state in comments if this is the case. This measure should exclude the distance travelled by vehicles to the sewage treatment works to collect the sludge. (km1*tds1)+(km2*tds2)+…...(kmN*tdsN)
4R.33	Total measure of intersiting 'work' done (all forms of transportation)	To be entered as the sum of 4R.30, 4R.31 and 4R.32.
4R.34	Total measure of intersiting 'work' done by tanker (by volume transported)	Total work done in intersiting sludge operations carried out by road tanker during the report year measured as the product of sludge volume (in m^3) multiplied by distance travelled (in km) in transporting the sludge. Based on actual distance travelled from sludge holding tanks to STC, not straight line distance. If actual road distances aren't available please estimate this road distance and state in commentary if this is the case. Work done by other forms of transport of liquid sludge (eg tractors) should be included in this line. This measure should exclude the distance travelled by vehicles to the sewage treatment works to collect the sludge. No account should be taken of distance travelled by empty tankers. (km1*$m^3$1)+(km2*$m^3$2)+…...(kmN*m^3N)
4R.35	Total measure of 'work' done in sludge disposal operations by pipeline	Total work done in sludge disposal operations carried out by pipeline (eg transport to an incinerator) during the report year measured as the product of sludge mass (in ttds) multiplied by distance travelled (in km). Based on actual distance travelled from the STC to the landbank, landfill site, land reclamation site or incinerator as appropriate, not straight line distance. (km1*tds1)+(km2*tds2)+…...(kmN*tdsN)
4R.36	Total measure of 'work' done in sludge disposal operations by tanker	Total work done in sludge disposal operations carried out by road tanker during the report year measured as the product of sludge mass (in ttds) multiplied by distance travelled (in km). Based on actual distance travelled from the STC to the landbank, landfill site or land reclamation site as appropriate,

		not straight line distance. If actual road distances aren't available please estimate this road distance and state in comments if this is the case. Work done by other forms of transport of liquid sludge (eg tractors) should be included in this line. (km1*tds1)+(km2*tds2)+…...(kmN*tdsN)
4R.37	Total measure of 'work' done in sludge disposal operations by truck	Total work done in sludge disposal operations carried out by truck during the report year measured as the product of sludge mass (in ttds) multiplied by distance travelled (in km). Based on actual distance travelled from the STC to the landbank, landfill site or land reclamation site as appropriate, not straight line distance. If actual road distances aren't available please estimate this road distance and state in comments if this is the case. (km1*tds1)+(km2*tds2)+…...(kmN*tdsN)
4R.38	Total measure of 'work' done in sludge disposal operations (all forms of transportation)	The sum of lines 4R.35 to 4R.37.
4R.39	Total measure of 'work' done by tanker in sludge disposal operations (by volume transported)	Total work done in sludge disposal operations carried out by road tanker during the report year measured as the product of sludge volume (in m^3) multiplied by distance travelled (in km) in transporting the sludge. Based on actual distance travelled from the STC to the landbank, landfill site or land reclamation site as appropriate, not straight line distance. If actual road distances aren't available please estimate this road distance and state in comments if this is the case. Work done by other forms of transport of liquid sludge (eg tractors) should be included in this line. No account should be taken of distance travelled by empty tankers. (km1*$m^3$1)+(km2*$m^3$2)+…...(kmN*m^3N)
4R.40	Chemical P sludge as percentage of sludge produced at STWs	The total quantity of sludge which is produced from a phosphorus removal process using a chemical coagulant, expressed as a percentage of total sewage sludge produced (by ttds).

For the purposes of reporting quantities of sludge produced (lines 4R.23 to 4R.25), this is measured ideally at the boundary between the Network plus and Bioresources business units as defined in RAG 4 or if not, at the point of treatment. There should be continuous measurement via instrumentation rather than by composite or spot sampling.

Where both the incumbent and a 3rd party service provider undertake different stages of sludge treatment eg dewatering followed by lime stabilisation, sludge quantities should not be doubled-counted and should be reported either in line 4R.23 or line 4R.24, not both. Where this situation occurs the company should report on the quantity involved and the line to which it has been allocated in the commentary.

For the purposes of reporting against lines 4R.27 and 4R.28, sludge disposal operations for sludge recycled to farmland are assumed to end upon arrival at the field. Accordingly, no account need be taken of changes in the quantity of sludge stored in field piles when completing these lines.

Pro forma 4S: Non-financial data - Sewage treatment for the 12 months ended 31st March 20xx - wholesale wastewater

This table relates to Network+ costs only at the treatment works. This means that any costs relating to sludge (also known as the Bioresources price control unit) should be excluded.

Also note that treatment of tankered waste treatment is a non-appointed activity (see appendix 1) and so should not be taken into account when completing lines 4S.1 to 4S.7.

Sewage treatment Wholesale Wastewater		
4S.1	Load received by STWs in size band 1	Average daily pollution loads in kg BOD5 received by sewage treatment works of size band 1. (See additional guidance)
4S.2	Load received by STWs in size band 2	Average daily pollution loads in kg BOD5 received by sewage treatment works of size band 2. (See additional guidance)
4S.3	Load received by STWs in size band 3	Average daily pollution loads in kg BOD5 received by sewage treatment works of size band 3. (See additional guidance)
4S.4	Load received by STWs in size band 4	Average daily pollution loads in kg BOD5 received by sewage treatment works of size band 4. (See additional guidance)
4S.5	Load received by STWs in size band 5	Average daily pollution loads in kg BOD5 received by sewage treatment works of size band 5. (See additional guidance)
4S.6	Load received by STWs above size band 5	Average daily pollution loads in kg BOD5 received by sewage treatment works above size band 5. (See additional guidance) Reported values should agree with those reported in 4O.9.
4S.7	Total load received	Average daily pollution loads in kg BOD5 received by sewage treatment works of all sizes. Calculated as sum of 4S.1 to 4S.6.
4S.8	Load received from trade effluent customers at treatment works	Average daily pollution load in kg BOD5 received by sewage treatment works of all sizes from trade effluent customers
4S.9	STWs in size band 1	Number of sewage treatment works of size band 1. (See additional guidance)
4S.10	STWs in size band 2	Number of sewage treatment works of size band 2. (See additional guidance)

4S.11	STWs in size band 3	Number of sewage treatment works of size band 3. (See additional guidance)
4S.12	STWs in size band 4	Number of sewage treatment works of size band 4. (See additional guidance)
4S.13	STWs in size band 5	Number of sewage treatment works of size band 5. (See additional guidance)
4S.14	STWs above size band 5	Number of sewage treatment works of size band above size band 5. (See additional guidance)
4S.15	Total number of works	Total number of sewage treatment works of all sizes. Calculated as sum of 4S.9 to 4S.14.
4S.16	Current population equivalent served by STWs	Population equivalent (resident) connected to sewage treatment works. Equivalent population should be calculated on the basis of 60g BOD5 per capita per day. Imported effluents should be included in calculation. No account should be taken of holiday population.
4S.17	Current population equivalent served by discharge relocation schemes	Population equivalent served by schemes to relocate the discharge to receiving waters, delivered in the report year and for which capital costs are reported in 4M.22. Exclude population equivalent served where the output has primarily been met through opex rather than capex solutions.
4S.18	Current population equivalent served by filter bed STWs with tightened/new P consents	Population equivalent served by biological filter STWs at which there are new or tightened consent conditions for phosphorus, delivered in the report year and for which capital costs are reported in 4M.19. Exclude population equivalent served where the output has primarily been met through opex rather than capex solutions.
4S.19	Current population equivalent served by activated sludge STWs with tightened/new P consents	Population equivalent served by activated sludge STWs at which there are new or tightened consent conditions for phosphorus, delivered in the report year and for which capital costs are reported in 4M.18. Exclude population equivalent served where the output has primarily been met through opex rather than capex solutions.
4S.20	Current population equivalent served by groundwater protection schemes	Population equivalent served by schemes to deliver improvements driven by the EU Groundwater Directive, delivered in the report and for which capital costs are reported in 4M.154. Exclude population equivalent served where the output has primarily been met through opex rather than capex solutions.
4S.21	Current population equivalent served by STWs with a Flow1 driver scheme	Current population equivalent served by STWs with a Flow1 driver code, delivered in the report and for which capital costs are reported in 4M.23. Exclude population equivalent served where the output has primarily been met through opex rather than capex solutions.
4S.22	Current population equivalent served by STWs with tightened/new N consents	Population equivalent served by STWs at which there are new or tightened consent conditions for nitrogen, delivered in the report and for which capital costs are reported in 4M.17. Exclude population equivalent served where the output has primarily been met through opex rather than capex solutions.

4S.23	Current population equivalent served by STWs with tightened/new sanitary parameter consents	Population equivalent served by STWs at which there are new or tightened consent conditions for one or more sanitary parameters, delivered in the report year and for which capital costs are reported in 4M.20. Exclude population equivalent served where the output has primarily been met through opex rather than capex solutions.
4S.24	Current population equivalent served by STWs with tightened/new UV consents	Population equivalent served by STWs at which there are new or tightened consent conditions for microbiological parameters to meet the requirements of the EU Shellfish Waters or revised Bathing Water Directives, delivered in the report year and for which capital costs are reported in 4M.16. Exclude population equivalent served where the output has primarily been met through opex rather than capex solutions.
4S.25	Population equivalent treatment capacity enhancement	The increase in treatment capacity, from company action, measured in population equivalent. The increase must be measured from the previous year's capacity of existing sewage treatment works and the previous capacity at each works must be the higher of the then current design capacity or the company's revised understanding of actual capacity before the company's action.

In accordance with Appendix 1, tankered waste is not part of the appointed business and should therefore be excluded from consideration when completing lines 4S.1 to 4S.7 (and lines 4O.3 and 4O.9).

Primary sewage treatment works	Treatment methods are restricted to primary treatment (screening, comminution, maceration, grit and detritus removal, pre-aeration and grease removal, storm tanks, plus primary sedimentation, including where assisted by the addition of chemicals e.g. Clariflow).
Secondary activated works	Sewage treatment works providing secondary activated sludge treatment methods whose treatment methods include those for primary works plus works whose treatment methods include activated sludge (including diffused air aeration, coarse bubble aeration, mechanical aeration, oxygen injection, submerged filters) and other equivalent techniques including deep shaft process, extended aeration (single, double and triple ditches) and biological aerated filters as secondary treatment.
Secondary biological works	Sewage treatment works providing secondary biological treatment methods whose treatment methods include those for primary works plus works whose treatment methods include rotating biological contractors and biological filtration (including conventional filtration, high rate filtration, alternating double filtration and double filtration, root zone treatment (where used as a secondary treatment stage).
Tertiary activated works	A1 - Works with a secondary activated sludge process whose treatment methods also include prolonged settlement in conventional lagoons or raft lagoons, irrigation over grassland, constructed wetlands, root zone treatment (where used as a tertiary stage), drum filters, microstrainers, slow sand filters, tertiary nitrifying filters, wedge wire clarifiers or Clariflow installed

	in humus tanks, where used as a tertiary treatment stage. A2 - Works with a secondary activated sludge process whose treatment methods also include rapid-gravity sand filters, moving bed filters, pressure filters, nutrient removal control using physico-chemical and biological methods, disinfection, hard COD and colour removal, where used a s a tertiary treatment stage.
Tertiary biological works	B1 - Works with a secondary stage biological process whose treatment methods also include prolonged settlement in conventional lagoons or raft lagoons, irrigation over grassland, constructed wetlands, root zone treatment (where used as a tertiary stage), drum filters, microstrainers, slow sand filters, tertiary nitrifying filters, wedge wire clarifiers or Clariflow installed in humus tanks, where used as a tertiary treatment stage. B2 - Works with a secondary biological process whose treatment methods also include rapid-gravity sand filters, moving bed filters, pressure filters, nutrient removal control using physico-chemical and biological methods, disinfection, hard COD and colour removal, where used as a tertiary treatment stage.
Load received by STWs in size band 1	The average daily load received (in kg of BOD5/day) by STWs of size band 1 (<= 15kg BOD5/day) for each treatment category. The convention outlined under the common definitions should be used to calculate the load for each STW. Companies must classify the size band of a works using resident population only. Companies must include non-resident population when reporting loads.
Load received by STWs in size band 2	The average daily load received (in kg of BOD5/day) by STWs of size band 2 (15 - 30kg BOD5/day) for each treatment category. The convention outlined under the common definitions should be used to calculate the load for each STW. Companies must classify the size band of a works using resident population only. Companies must include non-resident population when reporting loads.
Load received by STWs in size band 3	The average daily load received (in kg of BOD5/day) by STWs of size band 3 (30 - 120kg BOD5/day) for each treatment category. The convention outlined under the common definitions should be used to calculate the load for each STW. Companies must classify the size band of a works using resident population only. Companies must include non-resident population when reporting loads.
Load received by STWs in size band 4	The average daily load received (in kg of BOD5/day) by STWs of size band 4 (120 - 600kg BOD5/day) for each treatment category. The convention outlined under the common definitions should be used to calculate the load for each STW. Companies must classify the size band of a works using resident population only. Companies must include non-resident population when reporting loads.
Load received by STWs in size band 5	The average daily load received (in kg of BOD5/day) by STWs of size band 5 (600 - 1500kg BOD5/day) for each treatment category. The convention outlined under the common definitions should be used to calculate the load for each STW. Companies must classify the size band of a works using resident population only. Companies must include non-resident population when reporting loads.
Load received by STWs above size band 5	The average daily load received (in kg of BOD5/day) by STWs above size band 5 (>1500kg BOD5/day) for each treatment category. The convention outlined under the common definitions should be used to calculate the load for each STW. Companies must classify the size band of a works using resident population only. Companies must include non-resident population when reporting loads.

Pro forma 4T: Non-financial data - Sludge treatment for the 12 months ended 31st March 20xx - wholesale wastewater

Sludge Treatment wholesale wastewater		
4T.1	% Sludge - untreated	Percentage of sludge produced which is untreated prior to disposal
4T.2	% Sludge treatment process - raw sludge liming	Percentage of sludge produced which is untreated other than by liming
4T.3	% Sludge treatment process - conventional AD	Percentage of sludge produced which is treated by conventional AD (with or without liming)
4T.4	% Sludge treatment process - advanced AD	Percentage of sludge produced which is treated by advanced AD (with or without liming). (THP, EH, two-stage + PAS and APD)
4T.5	% Sludge treatment process - incineration of raw sludge	Percentage of sludge produced which is untreated other than by incineration
4T.6	% Sludge treatment process - incineration of digested sludge	Percentage of sludge produced which is digested and then incinerated
4T.7	% Sludge treatment process - phyto-conditioning/composting	Percentage of sludge produced which is phyto-conditioned or composted
4T.8	% Sludge treatment process - other (specify)	Percentage of sludge produced by other treatment type(s) (to be specified)
4T.9	% Sludge treatment process - Total	Calculated as the sum of lines 4T1 to 8. The totals for the incumbent and 3rd party service provider columns should sum to 100%
4T.10	% Sludge disposal route - landfill, raw	Percentage of (un-incinerated) sludge by disposal route - landfill, raw
4T.11	% Sludge disposal route - landfill, partly treated	Percentage of (un-incinerated) sludge by disposal route - landfill, partly treated
4T.12	% Sludge disposal route - land restoration / reclamation	Percentage of (un-incinerated) sludge by disposal route - land restoration / reclamation
4T.13	% Sludge disposal route - sludge recycled to farmland	Percentage of (un-incinerated) sludge by disposal route - sludge recycled to farmland
4T.14	% Sludge disposal route - other (specify)	Percentage of (un-incinerated) sludge by disposal route - other (specify)
4T.15	% Sludge disposal route - Total	The totals for the incumbent and 3rd party service provider columns should sum to 100%

The quantity of sludge produced to which the percentages reported in lines 4T.1 to 4T.9 (inclusive) relate should be that reported in line 4R.31.

Pro forma 4U: Non-financial data - Properties, population and other for the 12 months ended 31st March 20xx - wholesale wastewater

Non-financial data – Properties, population and other – wholesale wastewater		
4U.1	Residential properties connected during the year	The number of new residential properties added for each period within the company's sewerage area during the report year.
4U.2	Business properties connected during the year	The number of new business properties added for each period within the company's sewerage area during the report year. This should be the number of new connections; disconnections and demolished properties should not be netted off.
4U.3	Residential properties billed unmeasured sewerage	Average number of residential properties billed for unmeasured sewerage within the undertaker's area. Exclude void properties.
4U.4	Residential properties billed measured sewerage	Average number of residential properties billed for measured sewerage within the undertaker's area. Exclude void properties. Include residential properties billed for measured water supply where sewerage bills are based on value of water supplied.
4U.5	Residential properties billed for sewerage	Residential properties billed for sewerage. Calculated as the sum of 4U.3 and 4U.4.
4U.6	Business properties billed unmeasured sewerage	Average number of business properties billed for unmeasured sewerage. Exclude void properties.
4U.7	Business properties billed measured sewerage	Average number of business properties billed for measured sewerage, including trade effluent customers. Exclude void properties.
4U.8	Business properties billed for sewerage	Business properties billed for sewerage. Calculated as the sum of 4U.6 and 4U.7.
4U.9	Void properties	Average number of properties (residential and business) within the undertaker's area which are connected to the sewerage system but do not receive a charge as there are no occupants. This should not include properties that do not receive a bill because it would be uneconomical to do so.
4U.10	Number of properties	Total number of connected properties. Calculated as the sum of 4U.5, 4U.8 and 4U.9.
4U.11	Resident population	The annual average resident population connected to the sewerage system.
4U.12	Non-resident population	The annual average holiday and tourist population connected to the sewerage system. Do not include daily commuters or day visitors.

4U.13	Energy consumption - network plus	Measure of energy usage (electricity, gas, liquid fuels) by the network+ wholesale business unit (irrespective of the power source). Energy usage should be measured as that which is either imported or self-generated and used in relevant business unit. No account should be taken of self-generated energy that is exported from the business unit where it is generated. Fleet transport and standby generation should be included as should an allowance for administrative buildings and head office function.
4U.14	Energy consumption - sludge	Measure of energy usage (electricity, gas, liquid fuels) by the sludge wholesale business unit (irrespective of the power source). Energy usage should be measured as that which is either imported or self-generated and used in relevant business unit. No account should be taken of self-generated energy that is exported from the business unit where it is generated. Fleet transport and standby generation should be included as should an allowance for administrative buildings and head office function.
4U.15	Energy consumption – wholesale	Energy consumption – wholesale wastewater business. Calculated as the sum of 4U.13 and 4U.14.
4U.16	Population resident in National Parks, SSSIs and Areas of Outstanding Natural Beauty (AONBs)	Population resident within National Parks, SSSIs and Areas of Outstanding Natural Beauty designated by Natural England or by Natural Resources Wales. Population resident within areas designated under more than one category eg an SSSI within a National Park, should only be counted once. All relevant designations in a company's operating area should be included, not just those on land owned by the company.
4U.17	Total sewerage catchment area	Total area of sewered catchments. Note: This will be less than the operating area within which company as the sewerage undertaker is licensed to provide sewerage services (owing to the exclusion of unsewered areas).
4U.18	Designated coastal bathing waters	Number of EU designated coastal bathing waters within the company's operating area. Inland bathing waters should be excluded unless i) bathing water quality is impacted by any water company discharge and ii) their designation has resulted in a tightening of the permit conditions of the discharge.
4U.19	Number of intermittent discharge sites with event duration monitoring	Number of intermittent discharge sites at which event duration monitors are installed during the report year. The associated capital costs are reported in 4M.6. For AMP5 these are the outputs included in the sewerage service quality enhancement schedule (Annex 4-S) driven by the revised EU Bathing Water or Shellfish Waters Directives (driver codes rB5 and S8 respectively). For AMP6 these are the outputs required by the Environment Agency (or Natural Resources Wales) under driver codes rB5, S8, EDM1, EDM2 and EDMW.

4U.20	Number of monitors for flow monitoring at STWs	Number of STWs at which NEP flow monitoring schemes under driver code Flow3 have been delivered in the report year and for which the associated capital costs are reported in 4M.9.
4U.21	Number of odour related complaints	The total number of complaints received in any format during the year relating to odour from sewerage service assets.
4U.22	Volume of storage provided at CSOs, storm tanks, etc to reduce spill frequency	Volume of new or additional storage provided to meet new or tightened spill frequency requirements at CSOs, storm tank overflows etc, delivered in the report year and for which the associated capital costs are reported in 4M.11. Storage volumes associated with non-NEP schemes (eg that provided for the prevention of sewer flooding to properties) should be excluded. The volume reported should be the volume required to meet the permit conditions (most commonly the storage volume that must be filled before any discharge takes place), rather than what was actually constructed (which may be different due to factors related to the design or construction).
4U.23	Total volume of network storage	Total of all storage facilities across company network.

Non-resident population (4U.12)

Non-resident population should comprise holiday and tourist population. An acceptable method of estimation would be to obtain from tourist boards estimates of the number of bed spaces available for non-residents. Except where there is firm evidence to the contrary, companies should assume a two-thirds occupancy rate for four months in the year. Non-resident population should exclude day visitors and daily commuters.

Where companies have followed a different methodology, they should provide details of the approach in their commentary.

Pro forma 4V: Operating cost analysis for the 12 months ended 31 March 20xx – water resources

Water resources		
4V.1	Power	All energy costs, including the climate change levy and the carbon reduction commitment. Any cost savings from power generated internally should be netted off these costs.
4V.2	Income treated as negative expenditure	Please refer to Line 4D.2, Table 4D for definition

4V.3	Local authority and Cumulo rates	The cost of local authority rates. This should include both the local authority rates and cumulo rates.
4V.4	Other direct operating expenditure	Other Direct Costs not included in previous lines 4V.1 to 4V.3
4V.5	Other indirect operating expenditure	Other Indirect Costs not included in previous lines 4V.1 to 4V.3
4V.6	Total operating expenditure (excluding 3rd party)	The sum of lines 4V.1 to 4V.5.
4V.7	Depreciation	Historical Deprecation charge for relevant fixed asset
4V.8	Total operating costs (excluding 3rd party)	Total operating costs for the wholesale business only within each business category. The sum of lines 4V.1 to 4V.7.
Other expenditure - wholesale water		
4V.9	Employment costs - directly allocated	The gross salaries and wages of all employees directly attributable to the water service (water resources, raw water distribution, water treatment and treated water distribution), including payments resulting from bonus and profit-related payment schemes, employer's National Insurance contributions, superannuation, pension liabilities, sick pay, sickness benefits, private health insurance, retirement awards, death in service benefits, paid leave, subsistence, travel, entertaining and conference expenses. The costs should include temporary/agency staff directly employed by the company, but should exclude the cost of contractors. To be entered as £m
4V.10	Employment costs - indirectly allocated	The gross salaries and wages of all general and support (G&S) employees indirectly attributed to the water service. Where possible, such expenditure should be attributed on a causal basis, otherwise it should be apportioned in proportion to direct costs. Gross salaries and wages include payments resulting from bonus and profit-related payment schemes, employer's National Insurance contributions, superannuation, pension liabilities, sick pay, sickness benefits, private health insurance, retirement awards, death in service benefits, paid leave, subsistence, travel, entertaining and conference expenses. The costs should include temporary/agency staff directly employed by the company, but should exclude the cost of contractors. Further guidance on General and Supports costs is provided in Table 4O. To be entered as £m.

4V.11	Number FTEs consistent with 4V.9 above	Number of full time equivalents consistent with the employment costs reported in 4V.9 and averaged over the year.
4V.12	Number FTEs consistent with 4V.10 above	Number of full time equivalents consistent with the employment costs reported in 4V.10 and averaged over the year
4V.13	Costs associated with Traffic Management Act	Costs associated with the impact of the introduction of permit schemes made pursuant to the Traffic Management Act and excluding penalties or fines incurred by the company. To be entered as £
4V.14	Canal & River Trust abstraction charges/ discharge consents	Costs associated with Canal & River Trust service charges and discharge consents To be entered as £
4V.15	Environment Agency abstraction charges/ discharge consents	Costs associated with Environment Agency service charges/ discharge consents. To be entered as £
4V.16	Other abstraction charges/ discharge consents	Costs associated with Other service charges/ discharge consents. To be entered as £
4V.17	Statutory water softening	Costs associated with statutory requirements for the softening of water as directed by the relevant legislation. To be entered as £

Pro forma 4W: Operating cost analysis for the 12 months ended 31 March 2018 – sludge treatment

Sludge treatment type		
4W.1	Power	All energy costs, including the climate change levy and the carbon reduction commitment. Any cost savings from power generated internally should be netted off these costs.
4W.2	Income treated as negative expenditure	Please refer to Line 4E.2, Table 4E for definition
4W.3	Local authority and Cumulo rates	The cost of local authority rates. This should include both the local authority rates and cumulo rates.
4W.4	Other direct operating expenditure	Other Direct Costs not included in previous lines 4W.1 to 4W.3
4W.5	Other indirect operating expenditure	Other Indirect Costs not included in previous lines 4W.1 to 4W.3
4W.6	Total operating expenditure (excluding 3rd party)	Total before depreciation. The sum of lines 4W.1 to 4W.5.

4W.7	Depreciation	Historical Deprecation charge for relevant fixed asset
4W.8	Total operating costs (excluding 3rd party)	Total operating expenditure for the wholesale business only within each business category. The sum of lines 4W.1 to 4W.7.
Sludge disposal route		
4W.9	Power	All energy costs, including the climate change levy and the carbon reduction commitment. Any cost savings from power generated internally should be netted off these costs.
4W.10	Income Treated as negative expenditure	Please refer to Line 4E.2, Table 4E for definition.
4W.11	Local authority and Cumulo rates	The cost of local authority rates. This should include both the local authority rates and cumulo rates.
4W.12	Other Direct operating expenditure	Other Direct Costs not included in previous lines 4W.9 to 4W.11
4W.13	Other Indirect operating expenditure	Other Indirect Costs not included in previous lines 4W.9 to 4W.11
4W.14	Total operating expenditure	Total before depreciation. The sum of lines 4W.9 to 4W.13
4W.15	Depreciation	Historical depreciation charge for relevant fixed asset
4W.16	Total operating costs (excluding 3rd party)	Total operating expenditure for the wholesale business only within each business category. The sum of lines 4W.14 to 15.
Other expenditure - wholesale wastewater		
4W.17	Employment costs - directly allocated	The gross salaries and wages of all employees directly attributable to the wastewater service (sludge, sewage treatment and sewage collection), including payments resulting from bonus and profit-related payment schemes, employer's National Insurance contributions, superannuation, pension liabilities, sick pay, sickness benefits, private health insurance, retirement awards, death in service benefits, paid leave, subsistence, travel, entertaining and conference expenses. The costs should include temporary/agency staff directly employed by the company, but should exclude the cost of contractors.
4W.18	Employment costs - indirectly allocated	The gross salaries and wages of all general and support (G&S) employees indirectly attributed the water service. Where possible, such expenditure should be attributed on a

		causal basis, otherwise it should be apportioned in proportion to direct costs. Gross salaries and wages include payments resulting from bonus and profit-related payment schemes, employer's National Insurance contributions, superannuation, pension liabilities, sick pay, sickness benefits, private health insurance, retirement awards, death in service benefits, paid leave, subsistence, travel, entertaining and conference expenses. The costs should include temporary/agency staff directly employed by the company, but should exclude the cost of contractors. Further guidance on General and Support costs is provided in Table 4O.
4W.19	Number FTEs consistent with line 4W.17	Number of full time equivalents consistent with the employment costs reported in line 4W.17 and averaged over the year.
4W.20	Number FTEs consistent with 4W.18 above	Number of full time equivalents consistent with the employment costs reported in line 4W.18 and averaged over the year.
4W.21	Costs associated with Traffic Management Act	Costs associated with the impact of the introduction of permit schemes made pursuant to the Traffic Management Act and excluding penalties or fines incurred by the company. To be entered as £.
4W.22	Costs associated with Industrial Emissions Directive	Costs associated with industrial emissions directive
4W.23	Canal & River Trust service charges and discharge consents	Costs associated with Canal & River Trust service charges and discharge consents.
4W.24	Environment Agency service charges / discharge consents	Costs associated with Environment Agency service charges / discharge consents.
4W.25	Other discharge charges / permits	Costs associated with other service charges / discharge consents.

2. Disaggregation of wholesale activities – upstream services

This section sets out our definitions of the different activities that water companies in England and Wales carry out as part of delivering their upstream services. The upstream services sit within the price control units that we have proposed for PR19.

This is so that companies can record their totex costs in tables 4D and 4E.

Water service	
Water resources – Abstraction licences	
Description	This service has been identified separately because of the potential for a market to emerge in the future, which would enable abstraction licences to generate a separate income stream. This service includes activities related to negotiating with third parties to obtain abstraction rights and to agree charges, as well as the annual cost of the licence itself. This service should not include activities that are incurred in choosing abstraction sites, optimising abstraction or ensuring compliance with licence conditions. All such abstraction planning activities and licence administration activities should be included in the 'raw water abstraction' service. This also includes Transfer Licences where they are to support another abstraction.
Boundary points	N/A
Assets	N/A
Unit cost description	Licensed volume available in Ml.
Water resources – Raw water abstraction	
Description	The water abstraction service includes activities related to the operation of existing water resource sites, identification of new sources, catchment management, licence management, management of schemes in accordance with acts of parliament and other legal obligations, and the abstraction infrastructure which may include pre-treatment where it is upstream of raw water distribution. Pre-treatment processes can vary, from a relatively simple physical separation of the largest impurities, to more complex chemical treatments. In some circumstances, transport from the water abstraction site is included within the abstraction service rather than in raw water transport. Where raw water is transported between Water resources assets, the assets supporting this transport should also be included in Water resources – Raw water abstraction The activities relating to the inspections, operation and maintenance of assets in this price control unit are included in this service.

Boundary points	**Start:** none **End:** Where raw and pre-treated (non-potable) water either; • enters treatment works; • enters Raw water transport; • enters raw water storage facilities; • is delivered to the end customer; or • is delivered to a third party water company. Where pre-treatment is downstream of the pump/abstraction structure the boundary is the outlet of pre-treatment. Water resources pre-treatment is for the purposes of enabling raw water distribution and therefore should be upstream of raw water distribution assets. Pre-treatment on a treatment works is not considered Water resources pre-treatment but is Network + - Water treatment.
Assets	• Reservoirs, springs and lakes with an abstraction licence – including all associated assets e.g. dams, control rooms, valves, sluices. • Reservoirs filled by catchment rather than abstracted water from another water body. • Reservoirs/other storage assets without an abstraction licence where the function of the asset is to support a flow condition or abstraction at another point as part of a recognised scheme (e.g. as part of a licenced operation that covers multiple locations and sources). • Reservoirs that do not have any of the above (own abstraction licence, natural catchment or support downstream abstraction) but do have15 days or more usable storage. • Pre-treatment (upstream of raw water distribution) devices including Ultra Violet Panels, pH correction, other chemical process or screening/grit separation in order to protect pumps or downstream pipework. • Aquifer recharge assets (e.g. as part of a licenced operation that covers multiple locations and sources) which augment groundwater yields. • Borehole abstraction assets – pumping equipment, buildings and other sundry equipment. • River abstraction assets – pumping equipment, buildings, weirs, screens, inlets, fish passes, stilling well, other sundry equipment and other assets that support abstraction (regardless of their location in relation to the source). • Pipework between Water resources defined assets. Where an abstraction asset is the first Water resource asset but not directly at the source (e.g. riverbank), any pipework between the source and first Water resource asset should also be Water resources. • The asset used to control the volume of abstraction e.g. pump, penstock, weir or valve. • Abstraction meters. • IT assets – abstraction sites control. • Vehicles. • Premises.
Unit cost description	Volume abstracted in Ml.

	This is equivalent to the June return 2011 definition for table 10b line 4 but on an annual rather than daily basis; Raw water abstracted is taken from the point of chargeable abstraction, and together with raw water imported less raw water exported, constitutes raw water collected (UKWIR/NRA (1995) Demand forecasting methodology - Main Report).
Network+ – Raw water transport	
Description	This service includes the activities related to transporting the raw water or pre-treated water from the boundaries of the abstraction site/assets or pre-treatment assets through a distribution network to a treatment works , a raw water storage facility (balancing reservoirs/tanks), or to customers that require untreated or non-potable water (including third party water companies). It can also include blending of water from different sources. Where a water abstraction site and water treatment works are co-located on the same site, then the raw water effectively 'by-passes' the raw water transport stage. The activities allocated to this service include primarily the development and maintenance of the physical raw water transport network. This includes pipelines and aqueducts.
Boundary points	**Start:** raw and pre-treated (non-potable) water that has been pumped or gravity fed from a raw water abstraction or raw water storage source. **End:** raw and pre-treated (non-potable) water where it either: • enters treatment works; • enters raw water transport facilities; • is delivered to the end customer; or • is delivered to a third party water company.
Assets	• Pipelines and aqueducts. Where a water abstraction site and water treatment works are co-located on the same site, then the raw water effectively 'by-passes' the raw water transport stage and the assets should be allocated to raw water abstraction. • Booster pumps, valves, meters and other equipment within the raw water distribution network not already defined elsewhere as Raw Water Abstraction. • Leakage detection equipment. • IT assets – network control. • Vehicles. • Premises.
Unit cost description	Volume transported in Ml.
Network+ – Raw water storage	
Description	This service includes activities related to the construction, operation and maintenance of raw water storage facilities. In general, no raw water transport costs should be allocated to this service, since the cost of raw water transport should be included within the 'raw water transport' service. Associated activities, such as inlet flow control to prevent overfilling and outflow control (which ensures continuity of availability of supply)

	and planned and emergency drawdown and discharge facilities (with associated permitting) are included in this service. Activities related to determining losses due to leakage and to ensuring security of the site from contamination are also included. Reservoirs/other storage assets that are not covered by the definitions in raw water abstraction and have less than 15 days usable storage should be included as raw water storage. . Please see Appendix 2 for more detail. Where pre-treatment is downstream of raw water storage it should be included in raw water storage. (Note the location of pre-treatment determines whether it should be accounted for in raw water abstraction or raw water storage).
Boundary points	**Start:** raw water or pre-treated (non-potable) water entering the storage facility. **End:** raw water or pre-treated (non-potable) water pumped or gravity fed from the storage facility where it either • enters treatment works; • enters raw water transport; • is delivered to the end customer; or • is delivered to a third party water company.
Assets	• Storage reservoirs and other storage assets that are not captured by the definitions in raw water abstraction and have less than 15 days usable storage. • Booster pumps, valves, meters and other equipment within the raw water storage sites. • Devices including Ultra Violet Panels, pH correction, other chemical process or screening/grit separation in order to protect pumps or downstream pipework. • IT assets. • Vehicles. • Premises.
Unit cost description	Average volume stored in Ml. Volumes should be measured at least monthly.
Network+ - Water treatment	
Description	Receive raw or pre-treated (non-potable) water from raw water distribution network and undertake treatment processes. This may include water softening. **Inputs:** Raw water and pre-treated (non-potable) water from raw water distribution network. **Outputs:** Treated water (potable and non-potable) fed into the distribution network or directly to an end user customer. Waste by-products from treatment processes into the sewerage network.
Boundary points	**Start:** Input of raw water and pre-treated (non-potable) water from the abstraction site, raw water storage facility or raw water transport **End:** Treated water (both potable and non-potable)which: • enters water distribution network; • enters treated water storage facilities;

	• is delivered to the end customer (without entering the distribution network); or • is delivered to a third party water company.

Assets	• Treatment works including;
	  ○ on site pipework,
	  ○ Pumps which support the treatment process.
	• IT assets – treatment works control.
	• Vehicles.
	• Other premises.

Unit cost description	Distribution input (potable) volume in Ml. This is equivalent to the June return 2011 definition for table 10 line 26 but on an annual rather than daily basis; Distribution input is the average amount of potable water entering the distribution system and supplied to customers within the company's area of supply
Network+ - Treated water distribution	
Description	Treated water transport includes activities related to transporting treated water from the treatment works to the customer including secondary disinfection and other chemical dosing. This includes all trunk and distribution network repair and maintenance activities, as well as activities associated with any new network development. **Inputs:** Treated (potable) water from treatment sites and third parties. **Outputs:** Supply of treated (potable) water to customers and new appointees.
Boundary points	**Start:** Treated (potable) water that has been pumped or gravity fed into the treated water distribution network. **End:** Supply of treated (potable) water to customer.

Assets	• Water mains and pipework up to meter point or curtilage in customer premises or new appointee boundary.
	• Booster pumps and high lift pumps.
	• Storage reservoirs, service reservoirs and water towers within the distribution network.
	• Leakage detection equipment.
	• Other ancillaries including;
	  • washouts,
	  • pressure reduction valves,
	  • air release valves,
	
	  hydrants
	
	• Network monitoring equipment including loggers and flow measurement equipment.
	• IT assets – network control.
	• Vehicles.
	• Premises.
	• District and customer meters.
	• Meter chambers.

Unit cost description	Distribution input (potable) volume in Ml. This is equivalent to the June return 2011 definition for table 10 line 26 but on an annual rather than daily basis; Distribution input is the average amount of potable water entering the distribution system and supplied to customers within the company's area of supply.

Wastewater service	
Network+ (Sewage collection) - Foul	
Description	This service is for the collection of foul sewage from customers' properties. This includes development, repair and maintenance of the sewage collection infrastructure. Other specific activities are the provision and maintenance of ancillaries such as overflows, screens, on-line and off-line retention tanks, rising main wells and pumps and flow measurement.
Boundary points	**Start:** Receipt of sewage from retail customer or new appointee. **End:** Sewage arriving at the inlet to sewage treatment works or discharging through CSOs in adverse weather conditions.
Assets	• Sewers and pipework – from customer premises/new appointees to sewage treatment works. • Pumping stations and other assets within the sewerage network (such as manholes and inspection chambers). • Storm overflows and screens. • Street furniture and other ancillary assets. • Emergency outflows. • IT assets – network control. • Vehicles. • Premises. • Storage tanks.
Unit cost description	Volume collected in Ml. This is equivalent to the foul element of the June return 2011 definition for table 17 line 4 but on an annual rather than daily basis; Average volume of sewage collected.
Network+ (Sewage collection) - Surface water drainage	
Description	This service is for the collection of surface water from exterior areas of customers' properties. This includes development, repair and maintenance of the sewage collection infrastructure. Other specific activities are the provision and maintenance of ancillaries such as overflows, screens, on-line and off-line retention tanks, rising main wells and pumps and flow measurement.
Boundary points	**Start:** Receipt of surface water drainage from retail customer or new appointee. **End:** Sewage arriving at the inlet to sewage treatment works or discharging through CSOs in adverse weather conditions. Discharge from a SuDS system adopted by the company or a watercourse.
Assets	• Sewers and pipework – from customer premises/new appointees to sewage treatment works. • Pumping stations and other assets within the sewerage network (for example, manholes and inspection chambers). • Storm overflows and screens.

	• Street furniture and other ancillary assets. • Emergency outflows. • IT assets – network control. • Vehicles. • Premises.
Unit cost description	Volume collected in Ml. This is equivalent to the surface water drainage element of the June return 2011 definition for table 17 line 4 but on an annual rather than daily basis; Average volume of sewage collected.
Network+ (Sewage collection) - Highway drainage	
Description	This service includes the activities related to collection of surface water that runs off roads and pavements. The activities included in this service relate to the development, repair and maintenance of the sewage collection infrastructure. Other activities that should be considered within this service may include the provision and maintenance of ancillaries such as overflows, screens, on-line and off-line retention tanks, rising main wells and pumps and flow measurement.
Boundary points	**Start:** Receipt of highway drainage into sewage collection infrastructure. **End:** Sewage arriving at the inlet to sewage treatment works or discharging through CSOs in adverse weather conditions. Discharge from a SuDS system adopted by the company or a watercourse.
Assets	• Sewers and pipework – from customer premises/new appointees to sewage treatment works. • Pumping stations and other assets within the sewerage network (for example, manholes and inspection chambers). • Storm overflows and screens. • Street furniture and other ancillary assets. • Emergency outflows. • IT assets – network control. • Vehicles. • Premises.
Unit cost description	Volume collected in Ml. This is equivalent to the highway drainage element of the June return 2011 definition for table 17 line 4 but on an annual rather than daily basis; Average volume of sewage collected.
Network+ - Sewage treatment & disposal	
Description	Receive untreated sewage from the sewage collection system into treatment works, undertake treatment processes and discharge treated wastewater into rivers, etc and sewage sludge for transporting onwards to sludge treatment processes. Includes all direct costs associated with sewage treatment including terminal pumping costs. The activities of emptying septic tanks or very small sewage works by transporting the contents periodically to the inlet of a larger sewage treatment works are sewage treatment activities. **Inputs:** Untreated sewage from sewage collection network. **Outputs:** Treated wastewater into receiving watercourses, discharge of sewage sludge for transporting to sludge treatment processes. Excludes imported liquor treatment.

Boundary points	**Start:** Sewage arriving at the inlet to sewage treatment works. **End:** Consented sampling point at point of discharge of treated wastewater to receiving watercourse; point of discharge of sewage sludge from sewage treatment process or from holding tank into pumping station or pipework leading to sludge treatment processes or in to tankers for onward transport for sludge dewatering or treatment processes. Sewage treatment activities include those that thicken indigenous sludge to no more than 10% dry solids through gravity or mechanical means and may use chemicals to do so. Please see diagrams in Appendices 4 and 5 for more detail.
Assets	• Sewage treatment plants – tanks, filters, strainers etc. • Pumps, valves and other ancillary assets. • Sludge holding tanks and associated ancillary assets. • Indigenous sludge thickening plant and associated ancillary assets. • IT assets – treatment works control. • Vehicles. • Other premises.
Unit cost description	Biochemical oxygen demand (BOD) in tonnes. This is equivalent to the June return 2011 definition for table 15 line 5; This is the total pollution load in tonnes BOD/year that is discharged to the sewerage system.
Network+ - Sludge liquor treatment	
Description	Includes all activities in transporting and treating liquors at a sewage treatment plant that have been generated during the sludge treatment process. This includes transporting and treating liquors that have been partially treated and are returned for final treatment at a sewage treatment plant. Excludes liquor treatment which is carried out at a stand-alone liquor treatment plant (which will be included in the 'sludge treatment' upstream service).
Boundary points	**Start:** Pipework from sludge treatment process to sewage works. **End:** Discharge of treated liquor to receiving watercourse.
Assets	• Liquor pipework from sludge treatment to sewage treatment site. • Pumps, valves and other ancillary assets. • Vehicles. • IT assets. • Premises.
Unit cost description	Biochemical oxygen demand (BOD) in tonnes.
Sludge transport	
Description	This service includes the transport of sludge from the sewage treatment plant to the sludge treatment plant. All types of transport, and associated fuel costs, are included within this service. However, transport within the sludge treatment plant or between sludge treatment plants is not included in this service, which is instead an activity of the 'sludge treatment' service.
Boundary points	**Start:** point of discharge of sludge from indigenous thickening processes, indigenous sludge holding tanks or directly from sewage treatment process into pumps and pipework or tankers for transport to sludge treatment processes.

	End: input of sludge into sludge treatment works.
Assets	• Pipework from sewage treatment site to sludge treatment site. • Pumps, valves and other ancillary assets. • Vehicles. • IT assets. • Premises.
Unit cost description	Volume transported (m^3).
Sludge treatment	
Description	All sludge treatment activities including; • Thickening of treated sludge, • De-watering of thickened sludge, • Incineration of non-treated sludge; and, • Treatment of sludge liquors in a stand-alone liquor treatment plant. While different technologies exist for sludge treatment, sludge treatment is defined as a technology-neutral service for the purpose of the APR. Where income is received for energy generation then this should be shown as 'negative expenditure' in table 4E.
Boundary points	**Start:** storage of sewage sludge in blending or holding tanks and input into sludge treatment sites. **End:** Point at which the treated sludge is collected for disposal.
Assets	• Pre-treatment sludge blending tanks. • Screening of sludge prior to treatment or prior to disposal • Pre-treatment thickening of mixed indigenous and imported sludge • Sludge treatment plants – thickeners, advanced pre-digestion process assets, digesters, centrifuges, vacuum presses, belt presses, other dewatering assets, sludge dryers, drying beds. • Composting vessels and facilities. • Incinerators, • Stand-alone liquor treatment plants. • Sludge measurement assets, • Cake pads, • Associated pumps, valves and other ancillary assets. • Treated sludge storage facilities. • Vehicles. • IT assets. • Premises. • Gas treatment and energy generation equipment such as combined heat and power (CHP) plants. • CHP electrical connection to the electricity grid. • Gas connections to gas grid. • Measuring equipment.

Unit cost description	Dried solid mass in thousand tonnes of dried solids (ttds). This is equivalent to the June return 2011 definition for table 15 line 14; The total amount of sewage sludge produced during the report year expressed in thousands of tonnes of dry solids of sludge produced by the whole service.
Sludge disposal	
Description	The collection of treated sludge from collection point, onward transport and disposal to landfill, agricultural land, land reclamation sites and to other end users in various forms including; • treated sludge • incinerated sewage sludge ash (ISSA), • composted sludge, • sludge cake. If incineration of completely treated sludge takes place, then this should be included in 'sludge disposal'. Where income is received for treated sludge then this should be shown as 'negative expenditure' in table 4E.
Boundary points	**Start:** Collection from treated sludge holding tanks or cake storage facilities at sludge treatment works; or collection of untreated sludge that is taken directly for disposal such as via landfill sites. **End:** Sludge disposed or recycled to land.
Assets	• Vehicles. • IT assets. • Premises. • Landfill sites or sludge tips. • Incinerators (for completely treated sludge). Sludge measurement assets.
Unit cost description	Dried solid mass in thousand tonnes of dried solids (ttds). This is equivalent to the June return 2011 definition for table 15 line 15; Total for all sewage sludge disposal. This should include disposal to farmland, landfill, incineration, composting and other routes.

3. Household and Non-household premises

In December 2016 we reviewed the non-household retail price controls. This was in anticipation of retail market opening which occurred earlier this month. Our final determination, Business retail price review 2016: final determinations (PR16), set price controls for business retail activities for English water companies in relation to **premises other than household premises (as defined in Section 17C of the Water Industry Act 1991)**.

This is different to our position at PR14. Our PR14 final determination said that "households" had, for the purposes of the price controls for retail activities, "the same meaning as:

(i) the regulatory reporting definition of that term set out in section A5.4 of Appendix 5 (Guidance on business plan tables) to 'Setting price controls for 2015-20 – final methodology and expectations for companies' business plans' (July 2013); or (if different)

(ii) such definition as may be included in Regulatory Accounting Guidelines issued under paragraph 5 of Condition F (Accounts and accounting information) of the Appointment".

We included the reference to the RAGs because we knew that it was likely that the final eligibility criteria for the business retail market would change. This meant that some customers who were non-households at 1 April 2015 for the purpose of the price controls at PR14 were not eligible to switch supplier from 1 April 2017 because they fell outside the criteria.

For 2017-18 we changed the definition of "households" so that we can ensure that these customers continue to be protected by a retail price control. Therefore the definition of "households" is the same as the legal definition of "household premises" in section 17C of the Water Industry Act 1991. Premises falling within that definition **are not eligible to switch supplier**.

The 2015-20 **average cost to serve (ACTS)** control for household retail activities automatically adjusts according to the number of customers, so the newly classified households (who were previously non-households) will be assimilated under the household control without the need for further changes.

Welsh water companies

We intend to retain the original definition of "households" in the RAGs for water companies whose areas are wholly or mainly in Wales (Welsh water companies). No change in the definition is needed to protect customers of Welsh water companies. At PR16 our final determinations for Welsh water companies set price controls for

business retail activities in relation to premises other than households using the same definition as at PR14. This is because, reflecting the policy position of the Welsh Government, the new business retail market has not been extended to customers of Welsh water companies. Customers of Welsh water companies continue to be only able to switch their water supplier if they are supplied with at least 50Ml of water per year.

For completeness we set out below the definition for households in relation to water undertakers and wastewater undertakers whose areas are wholly or mainly in Wales:

These are properties used as single domestic dwellings (normally occupied), receiving water for domestic purposes which are not factories, offices or commercial premises. These include cases where a single aggregate bill is issued to cover separate dwellings having individual standing charges. (In some instances the standing charge may be zero). The number of dwellings attracting an individual standing charge and not the number of bills should be counted. Exclude mixed/commercial properties and multiple household properties, for example, blocks of flats having only one standing charge. Where companies issue an assessed charge to a property because metering is not possible or is uneconomic then these properties should be classified as unmeasured.

Examples:

- typical family dwelling, that is, terraced, semi-detached, detached house or flat having individual standing charges; or
- Local authority family dwellings which each have individual standing charges but may be included in an aggregate water bill.

For non-households in relation to water undertakers and wastewater undertakers whose areas are wholly or mainly in Wales:

These are properties receiving water for domestic purposes but which are not occupied as domestic premises, or where domestic dwellings are combined with other properties, or where properties are in multiple occupation but only have one standing charge. The number of bills should be counted in this case.

Examples:

- industrial/commercial properties (for example, institutions, farms, public houses, offices);
- combined premises with a single standing charge, such as a flat above a shop; or
- block of flats, or caravan site (consisting of multiple dwellings) but only having one standing charge. These must be counted as one non-household property.

Residential and Business properties

In our cost assessment tables (and our proposed PR19 business plan tables) where the definitions refer to 'residential' properties then this has the same meaning as 'households' as described above. References to 'business' properties have the same meaning as 'non-household' properties described above.

4. Infrastructure and non-infrastructure assets

Infrastructure assets generally comprise:

- underground systems of mains and sewers;
- impounding and other types of raw water storage reservoirs;
- dams;
- sludge pipelines;
- sea outfalls; and
- information about infrastructure assets e.g. zonal investigations records.

Non-infrastructure assets cover:

- intake works;
- pumping stations;
- treatment works;
- boreholes;
- operational land;
- offices;
- depots;
- workshops;
- residential properties directly connected with operational services;
- land held for protecting wholesomeness of water supply;
- plant and machinery;
- vehicles;
- surplus land; and
- all other assets not listed as infrastructure.

5. Small company return line definitions

Pro forma S1: Analysis of turnover and operating costs

Turnover		
S1.1	Unmeasured - household	All revenue derived from: • the sale of water at tariff basket charges; • optional unmeasured water charges at standard rates for example, for hosepipes and swimming pools; and • the provision of sewerage services at tariff basket charges, to households other than on a measured basis.
S1.2	Unmeasured – non-household	All revenue derived from: • the sale of water at tariff basket charges; and • the provision of sewerage services at tariff basket charges to non-households other than on a measured basis.
S1.3	Measured – household	All revenue accrued from the sale of water and from the provision of sewerage services at tariff basket charges to households where all or some of the charges for the supplies are based on measured quantities of volume.
S1.4	Measured – non-household	All revenue accrued from the sale of water and from the provision of sewage treatment and disposals at tariff basket charges to non-households where all or some of the charges for the supplies are based on measured quantities of volume. Exclude reception, treatment and disposal of trade effluent.
S1.5	Other	All other sources of turnover for water and sewerage services that are not reported in lines S1.1 to S1.4. Include revenues from large users, special agreements, revenue grants, rechargeable works, and other appointed business.
S1.6	Total turnover	The sum of lines S1.1 to S1.5.

Retail operating costs		
S1.7	Customer service	The costs associated with providing the following services for customers. • Billing. • Payment handling, remittance and cash handling. • Charitable trust donations. • Vulnerable customer schemes. • Non-network and network customer enquiries and complaints.

		• Investigatory visits (where the cause of the investigation is not a network issue)
S1.8	Doubtful debts	The charge for bad and doubtful debts for all types of customer.
S1.9	Other operating costs	Any other operating costs related to retail, not included in S1.7 or S1.8. Include the costs of (among other costs): • provision of offices; • insurance premiums; • net retail expenditure on demand-side water efficiency initiatives; • net retail expenditure on customer side leaks; • other direct costs; • general and support expenditure; • local authority rates; and • other business activities.
Wholesale operating costs		
S1.10	Power	All energy costs, including the climate change levy and the carbon reduction commitment.
S1.11	Service charges/ discharge consents	Total cost of service charges by the environment agency or canal & river trust for discharge consents.
S1.12	Bulk Supply/Bulk discharge	Total payments for bulk imports/exports. Where a company jointly owns a supply, the costs associated with it should not be reported here but in the appropriate cost line.
S1.13	Other operating costs	Any other operating costs relating to the wholesale business (ie. excluding interest, taxation and local authority rates).
S1.14	Local authority rates	The cost of local authority rates. This should include both the local authority rates, cumulo rates and sewerage site rates (where appropriate).
S1.15	Total operating costs	Sum of lines S1.7 to S1.14.
Depreciation		
S1.16	Depreciation - retail	Positive value of depreciation on assets used for the retail business only.
S1.17	Depreciation - wholesale	Positive value of depreciation on assets used for the wholesale business only.
S1.18	Total depreciation	The sum of lines S1.16 and S1.17.
S1.19	Total operating profit	The sum of line S1.6 minus S1.15 and S1.18.

Pro forma S2: Number of connections and site consumption

S2.1	Site name	Name of each individual site area for which an appointment is currently held.

S2.2	No. of household properties connected (000)	Total number of household connections billed for a water or wastewater service within the supply area. Exclude void properties.
S2.3	No. of non-household properties connected	Total number of non-household connections billed for a water or wastewater service within the supply area. Exclude void properties.
S2.4	Annual site consumption – households (Ml/yr)	Water: Estimated/calculated annual total consumption of households that are supplied with water on a site by site basis. This figure applies to billed households and excludes underground supply pipe leakage. Underground supply pipe leakage is any loss of water from the underground supply pipe. Wastewater: Volume of sewage discharged to the sewerage area and billed. Companies should include sewage collected from properties supplied by all water supply companies within their sewerage area. Note that this should be the volume for which customers are billed in the year and is therefore the volume registered by customers' water meters adjusted by the company's non-return to sewer allowance. The reported volume must therefore exclude meter-under registration and any supply pipe leakage that customers are not charged for. It should include external supply pipe leakage as long as charges for this are not refunded to customers.
S2.5	Annual site consumption – non-households (Ml/yr)	Water: Estimated/calculated annual total consumption of non- households that are supplied with water on a site by site basis. This figure applies to billed non-households and excludes underground supply pipe leakage. Underground supply pipe leakage is any loss of water from the underground supply pipe. Wastewater: Volume of water delivered to non-households returned as sewage to the sewer in the sewerage area and billed. Companies should include sewage collected from properties supplied by all water supply companies within their sewerage area. Note that this should be the volume for which customers are billed in the year and is therefore the volume registered by customers' water meters adjusted by the company's non-return to sewer allowance.

Appendix 1: Income categorisation

	Retail appointed	Wholesale appointed			Non-appointed
		Income governed by price control	Income not governed by price control		
Principal services	Retail tariff income (for households and non-households) from water, foul sewage, surface water and highway drainage, trade effluent services and special agreements (including potable water, foul and trade effluent). Income from providing developer information and the administration of new connections (eg dealing with s45 connection charges). Income from meter reading commission.	Wholesale tariff income (for households and non-households) from water, foul sewage, surface water and highway drainage, trade effluent services, including special agreements. Developer contributions[1] (should exclude any retail administration income); • Infrastructure charges • Requisitions & self lay • s45 connection charges • s104 sewer adoption fees (based on 2.5% of the construction cost) Electricity generation from appointed assets, income should be entered as a negative operating cost.	Management of protected land Recreational use of protected land eg □ Rambling □ Forestry □ Rental income from appointed assets eg ○ mobile telephone masts on water towers, ○ wind turbines and solar panels on land at treatment works.		Non water/ wastewater services eg; • Billing commission • Garage services • Rental income from non-appointed properties • Property searches • Introducer revenue from plumbing and drainage insurance Tankered waste; • Haulage; • Reception; and, • Treatment.
Third party services		Non-potable water (which are not a bulk supply)	Rechargeable works; - Fluoridation - Fire hydrant maintenance - Fire hydrant installation - Charges for repair of damage to company assets by another party - Charges for building over company assets - Charges for installation of a meter on an unmetered supply (non- household) - Fee for trade effluent consent revision - "Non-primary" charges to retailers under WSL regime - Provision of plan information of underground infrastructure - Charges for flow and pressure testing of a customer supply - Meter testing - Relocation of a household meter - Installation of a meter with a data logger to a previously unmeasured	Excluded charges; - Bulk supplies - Stand pipes and water tanks - Water cleansing - Charges for reception and disposal of waste - Unmeasured cattle troughs - Unmeasured building water supplies - Unmeasured supplies by water tankers - Unmeasured farm taps - Reservoir operating agreements - Unmeasured supply hereditaments - Diversions[2]	Rechargeable work where the appointee is not a statutory supplier. Use of land for water supply beyond duties imposed by WIA91 eg • Water skiing/sailing, • Fishing, • Bird watching permits, • Restaurants/ visitor centres.

1 These may be recognised in the accounts as income, netted off expenditure or capitalised.

2 Income from diversions are not listed as an excluded charge under licence condition B, however for reporting purposes they should be treated as if they were excluded charges. This will not have an impact on revenues ultimately received by the companies under WRFIM since where companies did include this income in their business plans it should be offset by a corresponding cost, hence there will be no impact.

Appendix 2: Water resources boundary - further detail

In this appendix we provide additional supporting information on the allocation of raw water reservoir assets and provide two stylised examples to illustrate the application of this guideline.

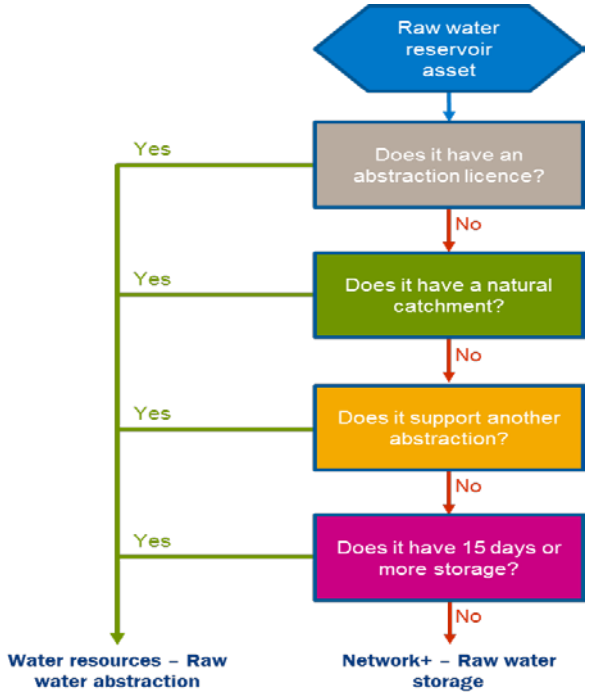
Allocation of raw water reservoir assets

In this guideline a distinction is made between balancing reservoirs and water resource storage reservoirs whereby:

- **Balancing reservoirs (Network+ - Raw water storage)** - the function of the reservoir is to support the raw water distribution network. Such balancing reservoirs that only have a small amount of storage in relation to the demands placed on them (generally a few days) and provide enough temporary storage to support a constant rate to and from the water treatment works. They may allow some resilience in storage for very short amounts of time for pump outages or pollution events.
- **Water resource storage reservoirs (Water resources – Raw water abstraction)** - these reservoirs are used to store the abstracted water for an average summer or even drought periods to provide storage to meet demand when the abstraction stops due to low river levels. In essence they are providing additional water resources by providing storage. These reservoirs may be large enough to supply very long periods of time (potentially years).

To assist in the allocation of raw water reservoir assets between Network+ - Raw water storage and Water resources – Raw water abstraction the following decision tree should be applied. The decision tree is sequential and if any of the conditions are met the raw water reservoir asset will fall into Water resources – Raw water abstraction.

Figure: Decision tree for raw water reservoirs



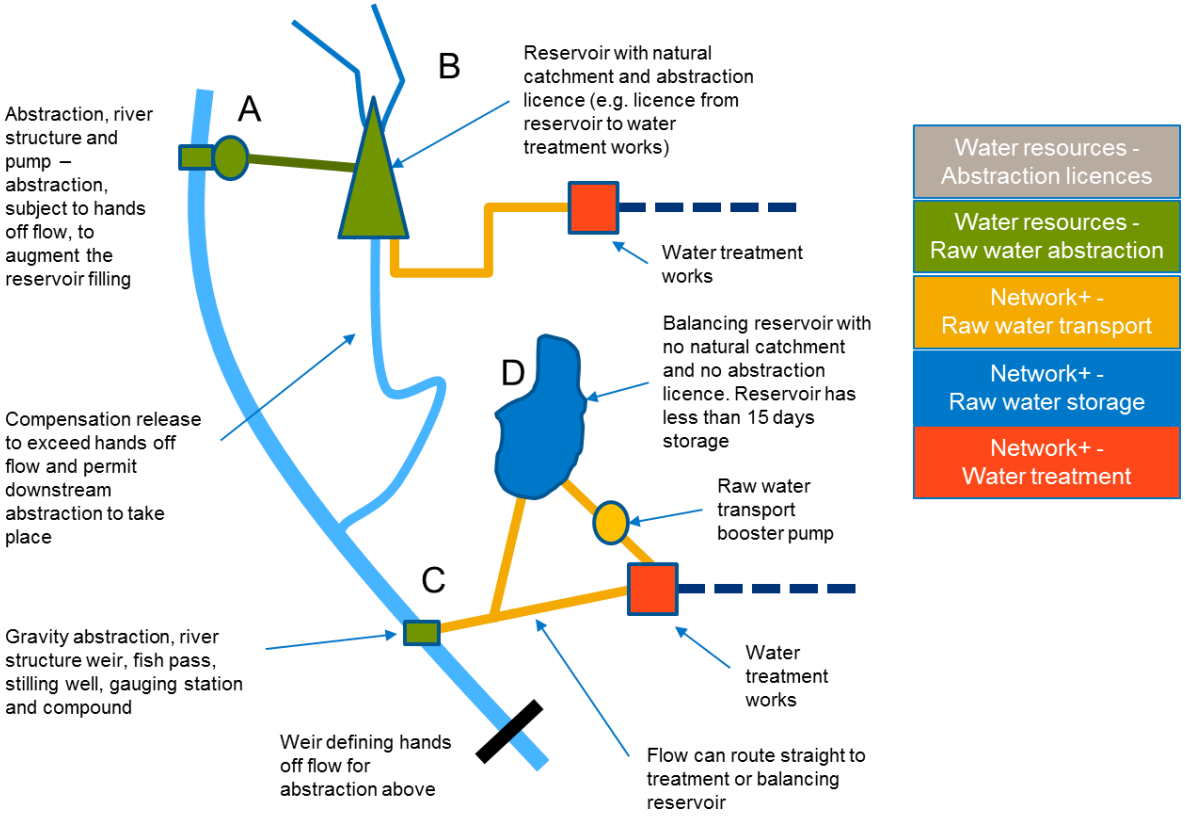
The calculation of storage is only required if the answer is no to the first three questions in the decision tree. In calculating storage the following guidelines should be followed:

- **Demand –** The number of days of storage should be based on measured (where available) average usage (Ml/d) of the reservoir. The flow from the reservoir to the works may not be directly measured. In this case the average demand placed on that reservoir by the treatment works can be used (where the treatment works is supplied by one reservoir this can be the water into supply figure).

- **Usable Storage –** Only the usable storage of the reservoir should be compared against the calculated 15 day storage. It is up to companies to determine this usable quantity (e.g. excluding storage below the lowest draw-off valve or where water quality inhibits its usage).
- **Multiple Sources –** Where more than one reservoir supplies a treatment works (in series or parallel) and the individual demand placed on each reservoir is not measured, it is reasonable to assess the reservoirs as a group. The total usable reservoir storage across all contributing reservoirs should be used together with the treatment works total average demand.

Examples of applying the guidelines

Example 1



In this example there are four key points:

- **Point A –** Raw water is abstracted from the river via pumping assets. Any operating costs for assets supporting abstraction are included within this activity.

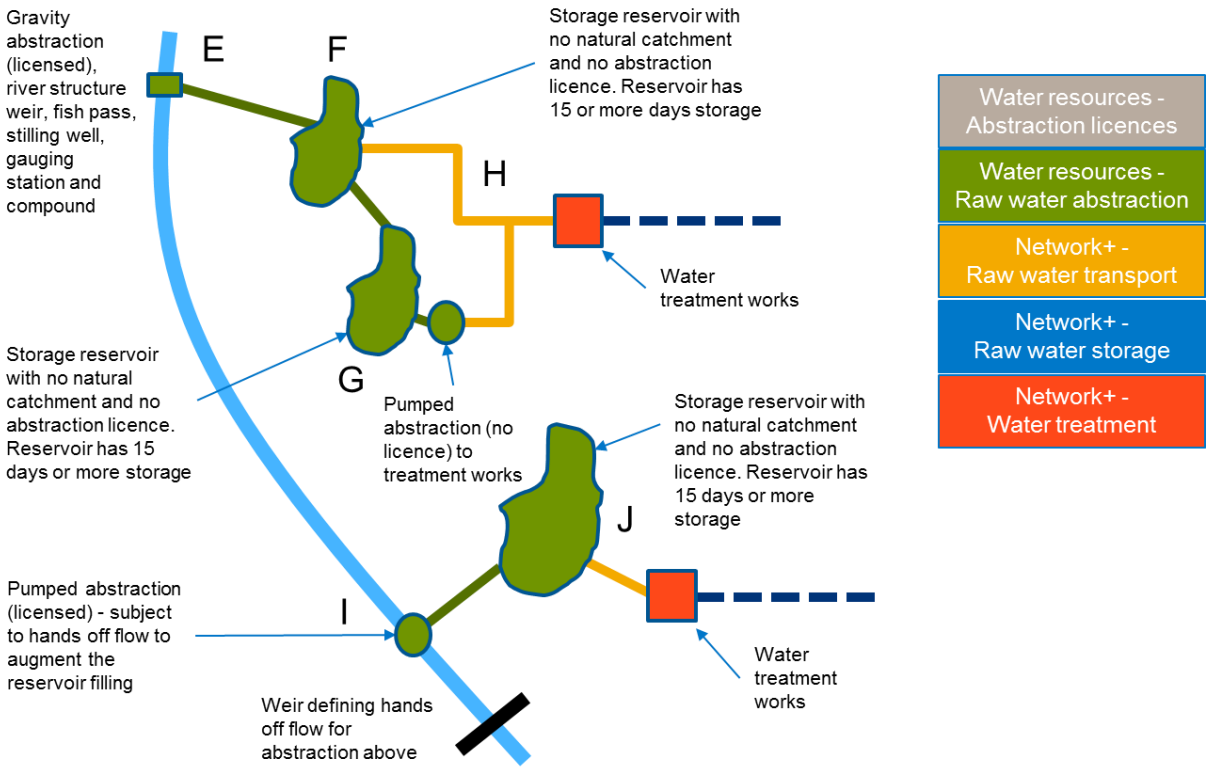
- **Point B –** A reservoir is supplied by its own natural catchment as well as the cross-catchment pumped abstraction via a pipeline. It releases water back to the river in order to maintain flow conditions measured downstream. The reservoir also has an abstraction licence.
- **Point C –** There is a gravity abstraction from the river. Any operating costs for assets supporting abstraction are included within this activity.
- **Point D –** There is a reservoir, with no natural catchment, with no licence but filled via the licensed river abstraction. The reservoir itself has no abstraction licence. The reservoir has less than 15 days usable storage based on the average demand of the treatment works. The reservoir is a balancing asset that is used to maintain continuation of supply to the treatment works (acting as a buffer against short term low river flow or poor river quality).

These points can be interpreted as follows:

- **Points A** and **B** are Water resources – Raw water abstraction activities. **Point A** contains river abstraction assets which are defined in the RAGs as being Water resources. This also includes the pipe transferring raw water from **Point A** to the reservoir at **Point B** (both being Water resources – Raw water abstraction). As the reservoir at **Point B** has an abstraction licence and natural catchment (see decision tree above) it is considered a Water resources – Raw water abstraction asset.
- For **Point C** only the assets supporting the abstraction process are classified Water resources – Raw water abstraction (in this case the weir, fish pass, stilling well, gauging station and compound).
- The Reservoir at **Point D** has no natural catchment or abstraction licence and does not support abstraction downstream. Its function is to support the raw water distribution network and the treatment process by balancing demands. It also has less than 15 days usable storage based on the average demands of the treatment works. It is therefore classified as Network+ - Raw water storage.
- The pipe connecting the abstraction assets (**Point C**) to the raw water storage (**Point D**) is classified as Network+ - Raw water transport. Only pipework transferring water between Water resources assets, or where Water resources and Water treatment assets are located on the same site are classified as Water resources – Raw water abstraction.

- Across the four points any activities related to negotiating with third parties to obtain abstraction rights and to agree charges, as well as the annual cost of the licence itself should be captured under Water resources – Abstraction licences.

Example 2



In this example there are five key points:

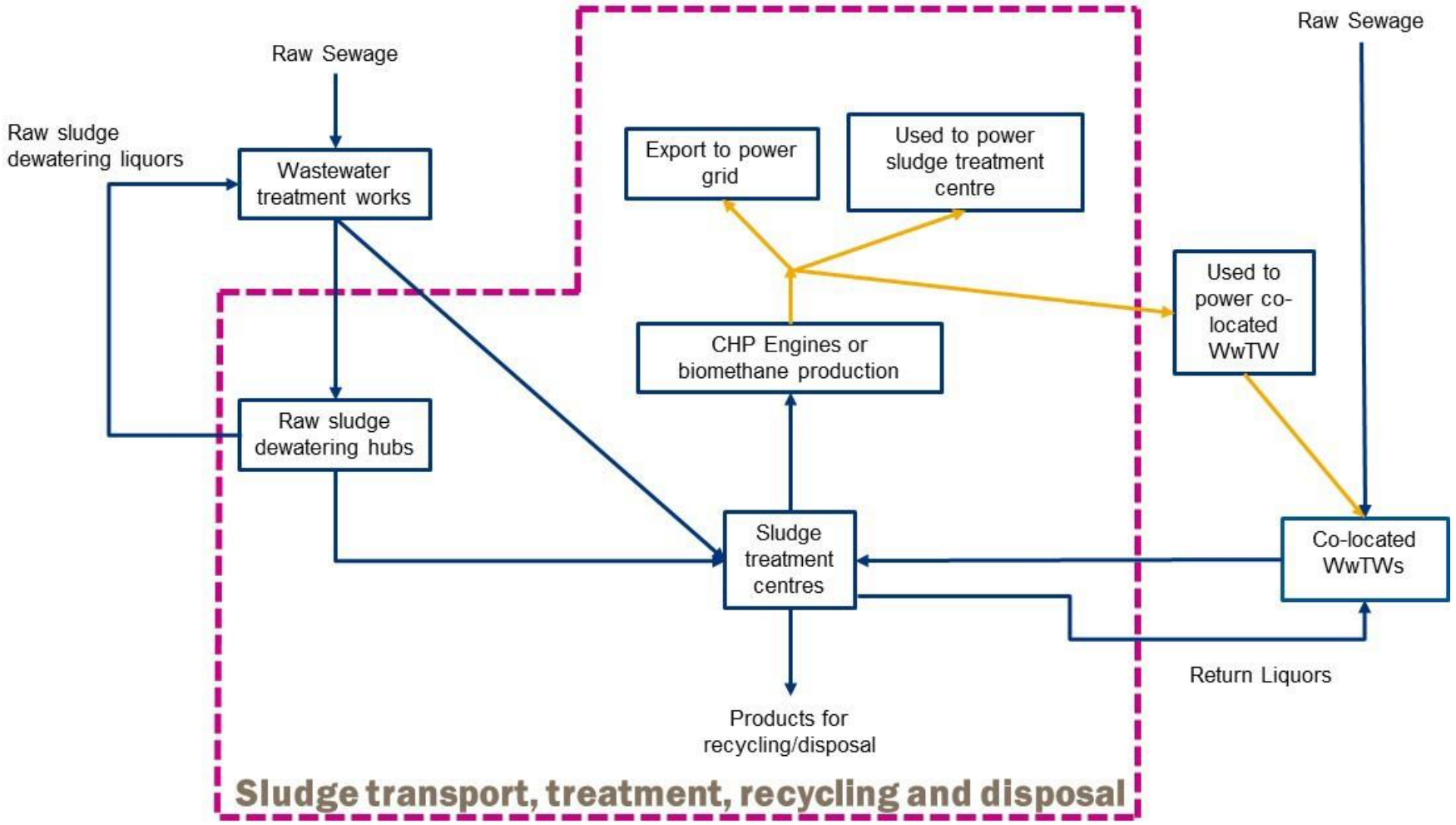
- **Point E –** Raw water is abstracted from the river via gravity. Any operating costs for assets supporting abstraction are included within the Water resources activity.
- **Point F –** The upper reservoir is supplied from the river abstraction. The reservoir does not have its own catchment or abstraction licence. It does have 15 days or more usable storage (based on the average supply sent to the treatment works measured on the gravity pipeline).
- **Point G -** The lower reservoir in the cascade receives some water from the upstream reservoir. It also supplies the treatment works via a pump and pipeline. The lower reservoir also doesn't have natural catchment or an abstraction licence but does have 15 days or more usable storage (based on the average supply sent to the treatment works measured on the pumped pipeline). If the individual contribution from each reservoir to the treatment works were not directly measured, the total usable storage (of the two) could be combined, and compared with the treatment works average demand to calculate the number of storage for the reservoir system. The reservoir assets would be classified in the same category depending on the result of the calculation.
- **Point H –** There is a gravity pipeline to the treatment works from the upper reservoir and a pumped pipeline from the lower reservoir. They are not on the same site.
- **Point I –** There is a pumped abstraction from the river – with a pipeline to the reservoir.
- **Point J –** The reservoir is supplied from the pumped river abstraction. The reservoir does not have its own catchment or abstraction licence. It does have 15 days or more usable storage.

These five points can be interpreted as follows:

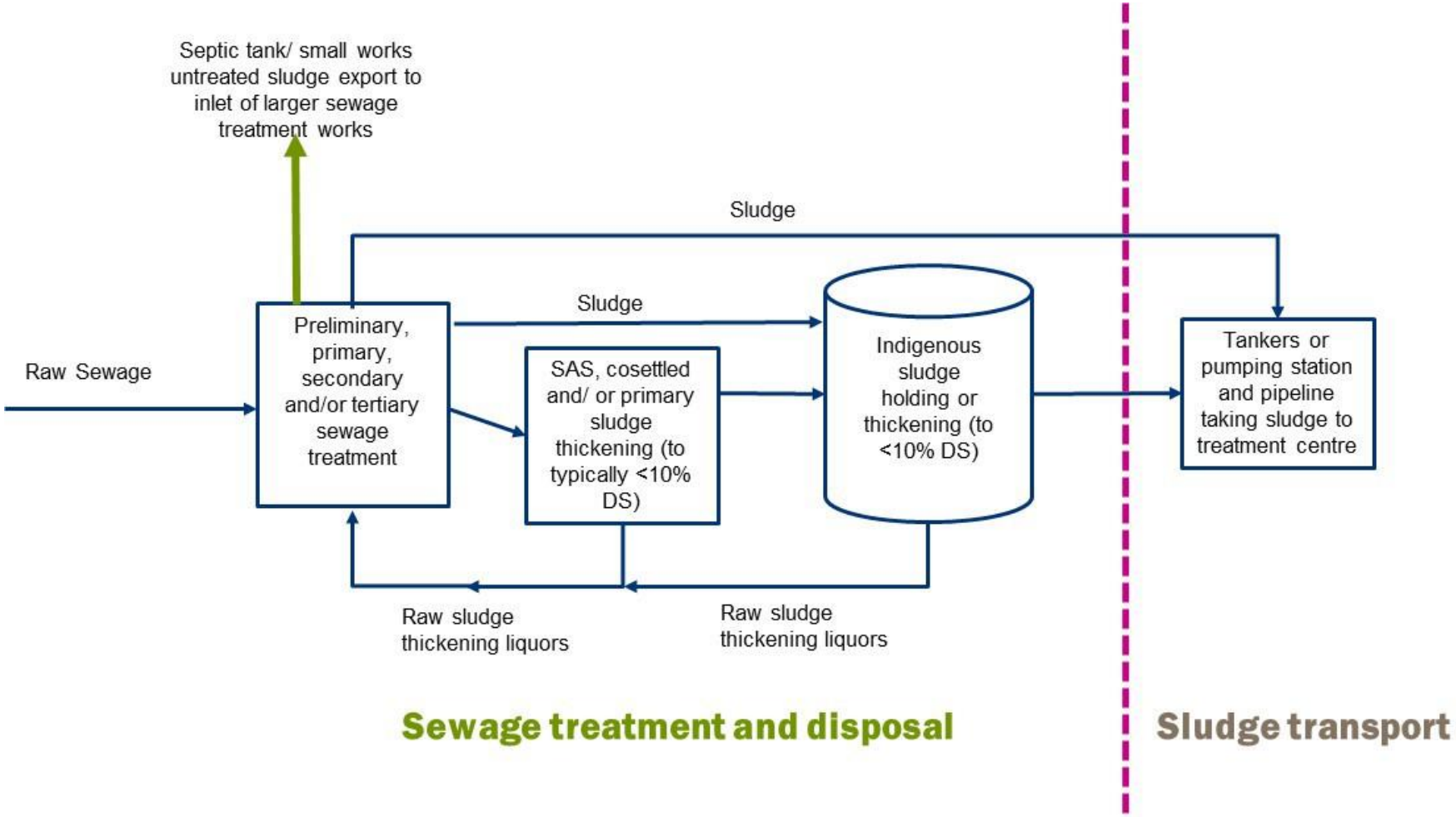
- **Points E**, **F and G** - are Water resource – Raw water abstraction activities. Both sets of reservoirs require the 15 day storage test (as they do not have abstraction licences a natural catchment or support downstream abstraction). Based on the calculation they do have 15 days or more storage and all assets from the abstraction from the river down to the pumped abstraction from the lower reservoir are considered Water resources – Raw water abstraction assets. This is because essentially all assets are working in combination to provide a yield availability at the last Water resource asset in the chain to enter raw water distribution/treatment.

- For **Point H** all pipework assets from **Point F** (the upper reservoir) and after the abstraction pump at **Point G** (the lower reservoir) are Network+ - Raw water transport assets.
- The reservoir at **Point J** is supplied from the pumped river abstraction. The reservoir does not have its own catchment or abstraction licence. It does have 15 days or more usable storage. It is therefore a Water resource – Raw water abstraction asset, as is the pipeline from the river abstraction. The pipe connecting the reservoir to treatment works is a Network+ - Raw water transport asset.
- Across the five points any activities related to negotiating with third parties to obtain abstraction rights and to agree charges, as well as the annual cost of the licence itself should be captured under Water resources – Abstraction licences.

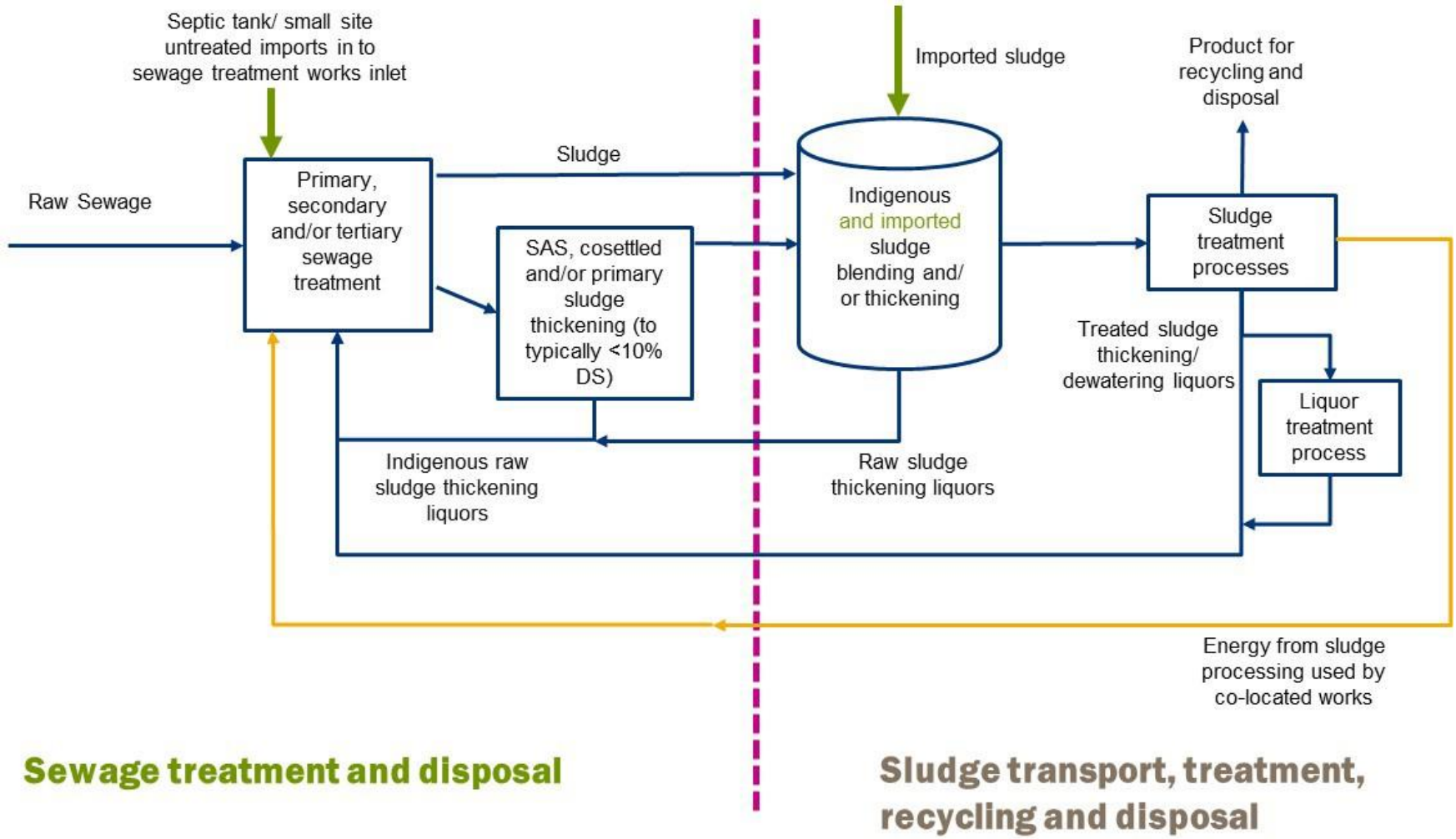
Appendix 3: General sludge boundary



Appendix 4: Sludge boundary detail (wastewater treatment sites without STCs)



Appendix 5: Sludge boundary detail (co-located site detail) showing main transfers across the boundary



Appendix 6: Cumulative Total

Tables 4L and 4M Cumulative Total

This guidance note refers to Table 4L and 4M – Cumulative Totals.

Cumulative Total allows Ofwat to relate spend by Project to Outcomes. The licensee should report the cumulative total for projects completed. A simple example below demonstrates how it works.

	A	B	C	D	E	F
				20X1	20X2	20X3
		Start	Finish	Spend (£m)	Spend (£m)	Spend (£m)
1	Project A	20x1	20X2	6	1	
2	Project B	20X2	20X2		4	
3	Project C	20X2	20X3		2	8
4						
5	Year Total			6	7	8
6	Cumulative Total			0	11	10
7						

A company runs 3 projects (A, B and C) over 3 years (20X1, X2 and X3). If the company was reporting total year end capital expenditure for projects it would show the total for each reporting year – 20X1 £6m, 20X2 £7m and 20X3 £8m – as given in Row 5.

Reporting cumulative capital expenditure shows the cumulative spend for projects completed in the year.

For 20X1, no projects were completed so zero is reported

For 20X2, 2 projects were completed (Project A at £7m and Project B at £4m), so £11m is reported

For 20X3, Only Project C was completed, so £10m is reported.

Overlap schemes

Overlap schemes are when projects on which capital expenditure is incurred either before the start of the reporting period or is expected to be incurred after the end of the reporting period.

In the case of the first any pre-period capex will contribute toward the ‘Cumulative Totals’ but NOT the ‘Year Totals’.

In the case of the second any within-period spend will contribute toward the ‘Year Totals’ but NOT the ‘Cumulative Totals’.