

PR19 Water Services business plan Table commentaries

August 2019

Document Change Control:

September submission 2018 – Text in black

*April IAP 2019 – Changes in **red***

*Draft Determination Representations 2019 – Changes
in **blue***

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WS1 – Wholesale water operating and capital expenditure by business unit

Table Validation

No validation errors appear in this table

We have updated our figures in this table to reflect our decisions about areas where we have accepted the draft determination. Detailed commentary is given against individual lines. Some elements of the “Table Overview” section are now out of date but we have left this in the document for reference.

An overview of the changes are below;

Line Number	Cost	Total Change	Reason
5	Renewals expensed in year (Infrastructure)	£53.761m	We have reviewed our approach to the treatment of infrastructure maintenance expenditure and now include all infra maintenance as an operating expense.
12	Maintaining the long term capability of the assets ~ infra	-£53.761m	
14	Other capital expenditure ~ infra	-£41.083m	See WS2
15	Other capital expenditure ~ non-infra	-£87.678m	
16	Infrastructure network reinforcement	-£0.405m	An error in allocation between the lines 14, 15 and 16 has been corrected
21	Grants and contributions ~ capital expenditure	£10.000m	Included impact of charge to NRW for reservoirs investment in line with the DD.

Table overview

Blind years (2018-19 and 2019-20) & forecast years (post 2020) (A1-E36)

Water Totex reduces by £40m over the reporting period from 2017-18 to 2024-25. This reflects a £71m increase in the annual other capital expenditure over the same period offset by a reduction in the maintenance capital programme and £54m of operating cost efficiencies. A more detailed analysis of the movements in the capital programme is included in the line narratives for B12 – B20 below.

Annual Operating Costs are planned to decrease by £54m by 2024-25. This is driven by the following:

- £29m annual reduction in IRE, which is driven in part by efficiencies in the maintenance capital programme – particularly cost efficiencies resulting from the renegotiation and rationalisation of our low risk mains repair/replacement contract (the ‘Network Alliance’). It is also driven by a change in mix of the work envisaged, which results in a lower proportional operating cost charge. Also, the re-classification of some lines of maintenance spend as

enhancement in AMP7, for example in Leakage, has also contributed to a proportionate decrease in the IRE charge.

- A £25m reduction in other operating expenditure, which reflects the net impact of our operating cost efficiency programme in Water. Some of the key elements of this include:
 - £7m reduction in labour as a result of our labour efficiency programme. See commentary for WS5 for more details.
 - £6m reduction in support services costs, as a result of the support services efficiency programme.
 - £4m increases in recharges for principal use of assets into other business units.
 - £5m related to reduced outsourced costs, resulting from renegotiated contracts with third party suppliers
- Overall capital investment is increasing from 2020 by £236m. Maintenance capital reduces by £158m (including £70m of efficiency savings) and other capital expenditure increases by £394m in order to meet our stretching performance targets.
- A summary of the key movements in maintenance capital expenditure is detailed below. The maintenance analysis is before adjusting Renewals expensed in the year - Infrastructure.

AMP 6 to AMP 7 - Key Movements in Maintenance Spend	£m
1) Capital Efficiencies	(70)
2) Increase Maintenance Expenditure	
Increase Maintenance on Trunk Mains	13
Increased Maintenance Water Pumping Stations	22
Automation-Telemetry	10
Health and Safety Improvements	<u>14</u>
Sub-total	59
3) Decreased Maintenance Expenditure	
Efficiency impact on Network Ancillaries	(16)
Efficiency impact on Distribution Mains Clusters	(19)
Reduced Energy Schemes	<u>(7)</u>
Sub-total	(42)
4) Net other movements	(25)
5) Changes in Classification (Leakage)	(80)
Total Movement	(158)

For blind years Leakage has been included as Renewals expensed in the year – non infra to align with our PR14 plan, but in AMP7 we are including this as enhancement spend due to the significant programme where we are proposing to make a 15% reduction in leakage.

AMP 6 to AMP 7 - Key Movements in Other Capital Expenditure	£m
1) Capital Efficiencies	(59)
2) New enhancement Investment Cases	
Water Resilience	63 43

3) Increased Enhancement Investments	
Merthyr Superworks	73
Impounding reservoirs	79
Brecon Mega Catchment-NEP-Interruptions-Pembroke (WR)	<u>66</u>
Sub-total	218
4) Change in classification	80
Leakage	
5) Net other movements	112

Total Movement 414-394

Other Capital investments increase by £394m ~~£394m~~ £414m from blind years to forecast years, which results in a £74m ~~£74m~~ £73m increase when comparing 2017-18 actuals with 2024-25. The significant movements are detailed in the line narratives on B12 to B20, below:

Efficiency Programmes

Our operating cost efficiency programme in the Water business delivers annual savings of £9m by 2024-25. The programme is based upon a number of work streams, designed to identify end to end process efficiencies in our Water Treatment cycle. The table below summarises the work streams that comprise that end to end process efficiency review.

Water Operational Efficiencies by Work Stream							
	18/19	19/20	20/21	21/22	22/23	23/24	24/25
	£'000	£'000	£'000	£'000	£'000	£'000	£'000
Energy Schemes	150	370	570	770	1,170	1,370	1,570
Water Treatment	52	581	1,234	1,881	2,356	2,571	2,838
Water Distribution	24	437	4,430	4,490	4,545	4,545	4,545
Total	226	1,388	6,233	7,141	8,070	8,485	8,953

Our Capital efficiency programme in Water delivers savings totalling £129m in forecast years when compared to blind years as a whole.

The level of efficiency is measured against the blind years out turn, and captures efficiencies relating to improved ways of working, innovation, processes, procurement and challenges relating to scope. We work with Alliance partners on the majority of our capital delivery and are currently tendering for a Network Alliance to deliver our networks activity. These Alliances allow us to benefit from best practice across our and other industries and the incentives we set up allow us to share responsibility for delivery of our commitments and efficiency savings and give us the opportunity to manage workload in a flexible and efficient manner.

Line A1 - 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.

Power costs increase by £1.5m per annum from £2m from 2017-18 to 2024-25. This comprises an 11% (£3m) forecast RPE relating to power (based on an external report commissioned by Cornwall), the impact of our energy efficiency initiatives, which will reduce electricity consumption by £1.2m per annum (£1.8m), increased renewable energy generation (£2m per year) and the impact of lost

energy derivative income which decreases by £1.7m by the end of AMP7 (we have no derivatives currently in place beyond 2022).

Line A2 – 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 National Grid 'STOR'.*
- *Renewables Obligation Certificates (ROCs) and payments made under the non-domestic RHI and Feed-in Tariff schemes.*

Income treated as negative operating costs comprise power income and recharges from the waste business for potable water (£2m per year).

Power income increases from £4.7m to £6.6m per annum from 2017-18 to 2024-25, which is driven by the RPE on power costs (described above) and increases in our hydrogenating capacity during AMP7

Line A3 - Service charges - Discharge Consents

Total cost of service charges (abstraction licences and permits to discharge) by the Environment Agency or Canal and River Trust.

Assuming no atypicals, please ensure total equals WS5 sum of lines 6 to 9.

We are forecasting that abstraction charges will move in line with inflation and have therefore modelled them at a flat cost. This includes NRW charges and discharge consent costs from Waste services.

Line A4 – Bulk discharge

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.

We are not anticipating any cost increases from 2018-19 relating to Bulk Supply from other Water companies and therefore have left this static.

Line A5- Renewals expensed in year (infrastructure)

Infrastructure Renewals which are expensed rather than capitalised in statutory accounts.

Infrastructure renewals expenditure in blind years is based upon actual spend incurred. Leakage has been included as Renewals expensed in the year – non infra to align with our PR14 plan, but in AMP7 we are including this as enhancement spend due to the significant programme where we are proposing to make a 15% reduction in leakage.

For forecast years the costs (excluding leakage) are budgeted on a historic average proportional basis, which equates to 25% of total spend on the relevant investment case lines. This results in a significantly different profile of spend in forecast years compared to blind years, but we believe that this is the likely outcome of our change in the mix of the work being forecast. [Our treatment has changed to expense all infrastructure maintenance expenditure in the year in which it occurs.](#)

Line A6 - Renewals expensed in year (non-infrastructure)

Non Infrastructure Renewals which are expensed rather than capitalised in statutory accounts.

We have not expensed any non-infrastructure renewals in our business plan (or in 2017-18 actuals). Our treatment of non-infrastructure maintenance activity is capitalised under IFRS in the statutory accounts.

Line A7 – Other operating expenditure excluding renewals

Any other operating costs.

The PR19 costs on line A7 differ from those submitted at line 4J.7 in the 2017-18 APR, due to the principal use adjustment. The effect on each price control is summarised in the table below;

			For the 12 months ended 31 March 2018				
Line description			Water resources	Raw water distribution	Water treatment	Treated water distribution	Total
4J.7	~ Other operating expenditure excluding renewals	APR	7.390	1.266	31.367	49.520	89.543
7	~ Other operating expenditure excluding renewals	PUA	0.223	0.003	0.105	-2.746	-2.415
7	~ Other operating expenditure excluding renewals	WS1	7.613	1.269	31.472	46.774	87.128

The increases in Water Resources and Treated Water distribution as a proportion of Other Operating expenditure excluding renewals is a reflection of the changed work mix since earlier in AMP6 with the injection of significant additional funding in these areas from the Dam Safety programme. These proportions remain fairly consistent over the blind years and into AMP7.

A breakdown of the costs in each year and the year on year movements is summarised in the table below.

Total Other Operating Expenditure Excluding Renewals									
			Outturn	Outturn	Outturn	CPIH	CPIH	CPIH	CPIH
			18-19	19-20	20-21	21-22	22-23	23-24	24-25
			£'m						
Manpower			40.2	41.1	34.7	33.8	33.0	32.7	32.7
Chemicals			5.5	5.0	3.9	4.0	3.7	3.3	4.6
Materials			2.1	2.1	1.5	1.5	1.5	1.5	1.5
Transport Charges			2.8	2.8	2.8	2.8	2.8	2.8	3.3
Bought in Services			5.1	5.1	3.5	3.7	3.7	3.1	3.6
Total Establishment Costs			0.9	0.9	0.9	0.9	0.9	0.9	0.9
Other IT & Telecommunications			0.4	0.4	0.4	0.4	0.4	0.4	0.4
Outsourced Contract Costs			10.1	9.3	7.8	7.3	7.3	6.9	6.7
Capitalisation & Transfers			(11.3)	(11.3)	(11.3)	(11.3)	(11.3)	(11.3)	(11.3)
Water Total			55.8	55.4	44.2	43.1	42.0	40.3	42.4
G&S and Other Water Direct			—34.6	—30.2	—32.7	—30.9	—30.6	—29.7	—28.6
G&S and Other Water Direct			34.6	30.2	32.7	31.4	31.1	30.2	29.1
Net Operating Costs (Before PUA)			—90.4	—85.6	—76.4	—74.0	—72.6	—70.0	—71.0
Net Operating Costs (Before PUA)			90.4	85.6	76.9	74.5	73.1	70.5	71.5

Principal Use Adjustment (PUA)	(4.1)	(6.0)	(7.1)	(8.3)	(9.1)	(9.1)	(8.8)
Principal Use Adjustment (PUA)	(4.1)	(6.0)	(7.3)	(8.8)	(9.8)	(9.9)	(9.8)
Total Net Operating Costs	86.3	79.6	69.3	65.7	63.5	60.9	62.2
Total Net Operating Costs	86.3	79.6	69.6	65.7	63.3	60.6	61.7

The table below shows the year on year movements by key category.

Key Movements Total Other Operating Expenditure Excluding Renewals									
			18-19	19-20	20-21	21-22	22-23	23-24	24-25
			£'m	£'m	£'m	£'m	£'m	£'m	£'m
Manpower			-	0.9	(6.4)	(0.9)	(0.8)	(0.3)	-
Chemicals			-	(0.5)	(1.1)	0.1	(0.3)	(0.4)	(1.3)
Materials			-	-	(0.6)	-	-	-	-
Transport Charges			-	-	-	-	-	-	0.5
Bought in Services			-	-	(1.6)	0.2	-	(0.6)	0.5
Total Establishment Costs			-	-	-	-	-	-	-
Other IT & Telecommunications			-	-	-	-	-	-	-
Outsourced Contract Costs			-	(0.8)	(1.5)	(0.5)	-	(0.4)	(0.2)
Capitalisation & Transfers			-	-	-	-	-	-	-
Water Total			-	(0.4)	(11.2)	(1.1)	(1.1)	(1.7)	2.1
G&S and Other Water Direct			-	(4.4)	2.0 2.5	(1.3)	(0.3)	(0.9)	(1.1)
Net Operating Costs (Before PUA)			-	(4.8)	(9.2) (8.7)	(2.4)	(1.4)	(2.6)	1.0
Principal Use Adjustment (PUA)			-	(1.9)	(1.1) (1.3)	(1.2) (1.5)	(0.8) (1.0)	— (0.1)	—0.3 0.1
Total Net Operating Costs			-	(6.7)	(10.3) (10.0)	(3.6) (3.9)	(2.2) (2.4)	(2.6) (2.7)	—1.3 1.1

- Direct Manpower** costs decrease by £7m by 2024-25 as a result of headcount reductions and the negotiation of a wider working window on standard rates of pay. See the commentary attached to WS5 for more details.
- Chemicals** - £1m of savings will be delivered through the Water Treatment Plant optimisation programme we are delivering with our partners Veolia.
- Transport**- Increase in costs of £0.5m in 2024-25 as a result of a fleet refurbishment programme that is designed to extend the life of the fleet, saving £1m on fleet replacement costs.
- Bought in Services** - £2m savings delivered through the AMP resulting from a number of minor savings initiative (deploying 4x4's instead of tankers, replacing long term hire of pumps, contract renewal of SRV cleaning contracts and our water sludge strategy). The increase in 2024-25 relates to ground and building maintenance cost which is being deferred to the end of the AMP.

5. **Outsourced contract work (including Minor Works)** - £3m of savings relating to our initiative to consolidate low risk reactive repair work with low risk planned capital maintenance, which combined with a rationalisation of the supplier base will deliver total savings of £10m per annum (£3m opex and £7m capex). The significant savings for the Network Alliance are generated in 2020-21, but there are further savings anticipated relating to this initiative in the remainder of the AMP.
6. **G&S** - £7m per annum relating to our efficiency programme targeted at support services. This comprises approximately 50% manpower reductions and 50% reductions in activity levels. This is front loaded to maximise the benefits throughout the forecast years period. The 2019-20 saving comprise the majority of the cost efficiencies relating to targeted activity level reductions in support services, with some headcount reductions. The savings from 2020 onwards largely relate to manpower related savings which require systems improvements and changes to ways of working to achieve. See the commentary on WS5 for more detail.
7. **Principal Use** - £4m Principal Use adjustments reflect a proportional charge relating to the use of an asset (or group of assets) by another part of the business, other than the part of the business where the asset 'resides'. The charge reflects the share of the depreciation and financing cost of that asset or group of assets proportional to the estimated use of that asset by the relevant business area. The assets attracting principal use adjustments are IT and Facility charges

Line A8 – Local authority and Cumulo rates

The cost of local authority rates. This should include both the local authority rates and cumulo rates.

The costs associated with business rates are impacted by a number of issues. In 2017-18 we adjusted rates to take out the recharge of £1.2m (relating to s20 agreements) to NRW. This is shown in the third party cost line in 2017-18, and a similar adjustment has been made in subsequent years. From 2018-19 to 2020, costs move in line with inflation and the drop in 2021 reflects the change in price base (from out turn to 17-18 (CPIH deflated prices). The revaluation in 2021-22 is negligible, resulting from very minor net changes in the RCV. We have not forecast any further rates increases in forecast years.

Line A9 – Total operating expenditure (excluding third party services)

Total operating costs excluding third party services. Calculated as the sum of WS1 lines 1 to 8.

Calculated as the sum of WS1 lines 1 to 8.

Line A10 – Third party services

Operating expenditure for providing third party services. See appendix 1 of RAG 4.

Third party services include charges for non-potable water, bulk supplies, NRW recharges for s20 agreements, rechargeable Fire services and various third party costs including standpipes and ships' water. We do not foresee changes in the nature of these costs over and above CPI inflation.

Line A11 – Total operating expenditure

Total operating expenditure for the wholesale business only within each business category.

Calculated as the sum of WS1 lines 9 and 10.

Calculated as the sum of WS1 lines 9 and 10.

Line B12 - 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.

Infrastructure maintenance capital reduces by ~~£12m~~ £22.045m from 2017-18 to 2024-25. The largest change is in 2020-21, which reflects a change in mix of the work performed, but also the impact of the change in classification of leakage work as in the forecast years we are including this as enhancement spend due to the significant programme where we are proposing to make a 15% reduction in leakage.

Our treatment has changed to expense all infrastructure maintenance expenditure in the year in which it occurs.

Line B13 - 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.

The PR19 costs on line B13 differ from those submitted at line 4J.13 in the 2017-18 APR, due to the principal use adjustment. The effect on each price control is summarised in the table below;

			For the 12 months ended 31 March 2018				
Line description			Water resources	Raw water distribution	Water treatment	Treated water distribution	Total
4J.13	Maintaining the long term capability of the assets - non-infra	APR	10.830	0.384	41.919	26.101	79.234
13	Maintaining the long term capability of the assets ~ non-infra	PUA	-1.178	-0.060	-0.161	11.546	10.147
13	Maintaining the long term capability of the assets ~ non-infra	WS1	9.652	0.324	41.758	37.647	89.381

The AMP7 maintenance spend is forecast to be comparable to the level of spend for the AMP6 blind years, c£33m per year. The forecast AMP7 schemes have been developed using a combination of deterioration modelling, bottom up assessment using our risk-based optimisation model to develop programmes of work for water pumping stations and water treatment works investments for example. Air valves, service reservoir programmes have been developed using a top down approach to budgeting supported by a review of the current age and where available condition of the current asset stock. The non-infrastructure maintenance schemes of work forecast to be undertaken are non-specific but significant investment programmes of work are planned at six water treatment works including Court Farm and Sluvad. We are also planning to undertake a programme of maintenance at our largest water pumping stations including SOR 1-2-3 and Bewdley Bank.

Line B14 - Other capital expenditure ~ infra

Any capital expenditure on infrastructure assets other than defined in WS1 line 12 excluding third party capex.

An increase in the AMP7 Impounding Reservoir work mix, due to the Dam safety investment accounts for the increased proportion of Infra work in Water Resources. Also the treatment of Leakage in AMP7 explains the Treated Water distribution increase between AMPs. Please see the commentary on WS2 for details of other capital expenditure for the forecast years.

Line B15 - Other capital expenditure non infra

Any capital expenditure on non-infrastructure assets other than defined in WS1 line 13 excluding third party capex.

Please see the commentary on WS2 for details of other capital expenditure for the forecast years.

Line B16 - Infrastructure network reinforcement

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 be made. Capital Expenditure in this line should be the same categories of expenditure that was used to calculate a water or sewerage undertakers infrastructure charges.

This reflects a steady state of spend based on the actual costs disclosed in the APR for Developer Services network reinforcement work which increases in AMP7 due to forecast increased activity. This increase in forecast years' activity is explained in the commentary for WS2.

We identified an error in allocation in the first two years of this line, which we have corrected.

Line B17 - Total gross capital expenditure excluding third party services

Total gross capital expenditure excluding third party services. Calculated as the sum of WS1 lines 12 to 16.

This is a calculated cell.

Line B18 - Third party services

Capital expenditure for providing third party services.

These charges relate to costs associated with supply of non-potable water, and also charges for Searches fees to developers etc. who ask for survey plans & searches etc. These are based upon 2017-18 actuals which are forecast to run at the same levels the end of this AMP with no capex spend forecasted in AMP7.

In forecast years the capex spend relates to s20 capital recharges to NRW as a result of the Dam Safety projects on s20 schemes.

Line B19- Total gross capital expenditure

Total gross capital expenditure. Calculated as the sum of WWS1 lines 17 and 18.

Calculated as the sum of WWS1 lines 17 and 18.

Line B20 and 21- Grants and contributions

Grants and contributions as reported in Table 4D-4E of RAG4. Input as a positive number. This will be equal to table App 28 line 13 for years 2015-2025.

Grants and Contributions are broadly flat (ignoring inflation in the blind years). This cost is mostly related to Developer Services activity, which we forecast to be maintained at current level of activity.

The capital income included in the September submission has been split between operating expenditure (C20) and capital expenditure (C21). The contributions allocated to operating expenditure covers new connections and diversions for which the respective costs are included in "Other operating expenditure ~ Renewals expensed in year (Infrastructure).

We have increased grants and contributions ~ capital expenditure by £2 million per year for AMP7 (2020-21 to 2024-25) associated with the Impounding Reservoirs NRW recharge to reflect the Draft Determination.

Line B22 - Totex

Totex. Calculated as the sum of WWS1 lines 11 and 19 minus 20.

Calculated as the sum of WWS1 lines 11 and 19 minus 20 and 21.

Line C23 - Pension deficit recovery payments

Actual pension deficit recovery payments including costs capitalised and any group recharges for pension deficit costs.

Pension deficit recovery payments represent Wastewater's share of forecast cash payments into the defined benefit DCWW Pension Scheme over and above normal contributions. Under our extant recovery plan we are committed to making payments totalling £6.7m in both 2017-18 and 2018-19, and thereafter a total of £3.5m per annum until 2029-30. Cash payments have been allocated to regulatory business units based on the parts of the business in which scheme members work or worked.

Line C24 - Other cash items

Other cash items not including in the accounting charge.

There are no cash items.

Line C25 - Totex including cash items

Totex including cash items. Calculated as the sum of WS1 lines 21 to 23.

Calculated as the sum of WS1 lines 21 to 24.

Line D26 - Item 1

Please specify atypical items in the lines below. 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 1-24 above

These costs arise from the severe weather experienced in February and March 2018 which caused significant disruption across our operating area. Extreme snowfall, high winds and a rapid thaw resulted in enormous challenges and, in ensuring that service to affected customers were restored as quickly as possible, significant costs were incurred. In addition, there was a record number of bursts as a result of the subsequent thaw with a resultant high level of repair costs being incurred.

These costs amounting to £7.3m arose from the severe weather experienced in February and March 2018 which caused significant disruption across our operating area. Extreme snowfall, high winds and a rapid thaw resulted in enormous challenges and, in ensuring that service to affected customers were restored as quickly as possible, significant costs were incurred. In addition, there was a record number of bursts as a result of the subsequent thaw with a resultant high level of repair costs being incurred. The costs have been 100% allocated to the Treated Water Distribution price control, in line with the allocation adopted in the APR submission. It is now recognised that additional Water treatment costs may have been incurred as a result of the additional water put into supply as a result of the March weather event, however, these costs have not been identified here. It is further recognised that there will be costs in 2018-19 associated with the summer extreme weather, but as this is on-going these costs are not yet available at this time.

Line D35- Total atypical expenditure)

Total atypical expenditure. Calculated as the sum of WS1 lines 25 to 3.

Calculated as the sum of WS1 lines 26 to 35.

Line E36 –Total expenditure

Total expenditure. Calculated as the sum of WS1 lines 24 and 35.

Calculated as the sum of WS1 lines 25 and 36.

WS2 – Wholesale water capital and operating enhancement expenditure by purpose

Table Validation

No validation errors appear in this table

We have altered this table to accept a number of elements of the draft determination and to reflect additional expenditure for our PR19 customer access and recreation case. A summary is given in the following two tables (all figures are £ million).

Welsh Water Wholesale Water Network Business Plan Commentaries

	April plan totex	Current Totex	DD accepted	Plan increased
A1 WINEP / NEP ~ Making ecological improvements at abstractions (Habitats Directive, SSSI, NERC, BAPs)	£ 0.227	£ 0.227	£ -	
A2 WINEP / NEP ~ Eels Regulations (measures at intakes)	£ 0.068	£ 0.068	£ -	
A3 WINEP / NEP ~ Invasive non-native species	£ 0.646	£ 0.646	£ -	
A4 Addressing low pressure	£ -	£ -	£ -	
A5 Improving taste / odour / colour	£ 27.219	£ 27.219	£ -	
A6 Meeting lead standards	£ 15.047	£ 14.000	£ 1.047	
A7 Supply side enhancements to the supply/demand balance (dry year critical / peak conditions)	£ -	£ -	£ -	
A8 Supply side enhancements to the supply/demand balance (dry year annual average conditions)	£ 27.843	£ 21.912	£ 5.931	
A9 Demand side enhancements to the supply/demand balance (dry year critical / peak conditions)	£ -	£ -	£ -	
A10 Demand side enhancements to the supply/demand balance (dry year annual average conditions)	£ -	£ -	£ -	
A11 New developments	£ -	£ -	£ -	
A12 New connections element of new development (CPs, meters)	£ -	£ -	£ -	
A13 Investment to address raw water deterioration (THM, nitrates, Crypto, pesticides, others)	£ 10.399	£ 9.879	£ 0.520	
A14 Resilience		£ -	£ -	
Network resilience schemes	£ 5.308	£ 3.610	£ 1.698	
Hereford	£ 13.601	£ 13.601	£ -	
South Wales Grid	£ 19.908	£ 19.908	£ -	
Other	£ 75.607	£ -	£ 75.067	
A15 SEMD	£ 9.884	£ 10.424	£ -	
A16 Non-SEMD related security enhancement	£ 9.501	£ 9.501	£ -	
A17 WINEP / NEP ~ Drinking Water Protected Areas (schemes)	£ 16.094	£ 12.231	£ 3.863	
A18 WINEP / NEP ~ Water Framework Directive measures	£ 2.545	£ 2.545	£ -	
A19 WINEP / NEP ~ Investigations	£ -	£ -	£ -	
A20 Improvements to river flows	£ 2.216	£ 2.216	£ -	
A21 Metering (excluding cost of providing metering to new service connections) for meters requested by optants	£ 12.926	£ 12.926	£ -	
A22 Metering (excluding cost of providing metering to new service connections) for meters introduced by companies	£ 0.738	£ 4.383	£ -	
A23 Metering (excluding cost of providing metering to new service connections) for businesses	£ 0.020	£ 0.020	£ -	
A24 Capital expenditure purpose ~ Cwm Taf Water Supply Strategy	£ 72.963	£ 13.562	£ 59.401	
A25 Capital expenditure purpose ~ Impounding Reservoirs	£ 69.497	£ 75.533	-£ 6.036	
A26 Capital expenditure purpose ~ Leakage	£ 37.501	£ 37.501	£ -	
A27 Capital expenditure purpose ~ Interruptions to Supply	£ 22.132	£ 22.132	£ -	
A28 Capital expenditure purpose ~ Network water quality (new legal obligations)	£ 90.712	£ 90.712	£ -	
A29 Capital expenditure purpose ~ Project Cartref	£ 32.800	£ 29.153	£ -	
A30 Capital expenditure purpose ~ Visitor Centres		£ 12.300	£ -	£ 12.300
Total Plan value	£ 575.402	£ 446.209	£ 141.491	£ 12.300
A31 Adjustment		£ 0.027		
A4, A11, A12 treated as botex+	£ 75.90	£ 75.90		
Total shown in tables	£ 651.302	£ 522.136	£ 141.491	£ 12.300

Welsh Water Wholesale Water Network Business Plan Commentaries

	DD allocated as per			
	DD	our tables	Current Totex	Gap to DD
A1 WINEP / NEP ~ Making ecological improvements at abstractions (Habitats Directive, SSSI, NERC, BAPs)	£ 0.227	£ 0.227	£ 0.227	£ -
A2 WINEP / NEP ~ Eels Regulations (measures at intakes)	£ 0.068	£ 0.068	£ 0.068	£ -
A3 WINEP / NEP ~ Invasive non-native species	£ 0.646	£ 0.646	£ 0.646	£ -
A4 Addressing low pressure	In Botex	In Botex	£ -	
A5 Improving taste / odour / colour	£ 27.219	£ 27.219	£ 27.219	£ -
A6 Meeting lead standards	£ 14.000	£ 14.000	£ 14.000	£ -
A7 Supply side enhancements to the supply/demand balance (dry year critical / peak conditions)		£ -	£ -	£ -
A8 Supply side enhancements to the supply/demand balance (dry year annual average conditions)	£ 34.494	£ 19.494	£ 21.912	£ 2.418
A9 Demand side enhancements to the supply/demand balance (dry year critical / peak conditions)		£ -	£ -	£ -
A10 Demand side enhancements to the supply/demand balance (dry year annual average conditions)		£ -	£ -	£ -
A11 New developments	In Botex	In Botex	£ -	£ -
A12 New connections element of new development (CPs, meters)			£ -	
A13 Investment to address raw water deterioration (THM, nitrates, Crypto, pesticides, others)	£ 9.879	£ 9.879	£ 9.879	£ -
A14 Resilience			£ -	
Network resilience schemes	£ 3.610	£ 3.610	£ 3.610	£ -
Hereford	£ -	£ -	£ 13.601	£ 13.601
South Wales Grid	£ -	£ -	£ 19.908	£ 19.908
Other	£ -	£ -	£ -	£ -
A15 SEMD	£ 9.963	£ 9.963	£ 10.424	£ 9.963
A16 Non-SEMD related security enhancement			£ 9.501	
A17 WINEP / NEP ~ Drinking Water Protected Areas (schemes)	£ 12.231	£ 12.231	£ 12.231	£ -
A18 WINEP / NEP ~ Water Framework Directive measures	£ 2.545	£ 2.545	£ 2.545	£ -
A19 WINEP / NEP ~ Investigations		£ -	£ -	£ -
A20 Improvements to river flows	£ 2.216	£ 2.216	£ 2.216	£ -
A21 Metering (excluding cost of providing metering to new service connections) for meters requested by optants			£ 12.926	
A22 Metering (excluding cost of providing metering to new service connections) for meters introduced by companies	£ 17.330	£ 17.330	£ 4.383	
A23 Metering (excluding cost of providing metering to new service connections) for businesses			£ 0.020	£ -
A24 Capital expenditure purpose ~ Cwm Taf Water Supply Strategy	£ 13.563	£ 13.563	£ 13.562	£ -
A25 Capital expenditure purpose ~ Impounding Reservoirs	£ 75.533	£ 75.533	£ 75.533	£ -
A26 Capital expenditure purpose ~ Leakage	£ -	£ -	£ 37.501	£ 37.501
A27 Capital expenditure purpose ~ Interruptions to Supply	£ -	£ -	£ 22.132	£ 22.132
A28 Capital expenditure purpose ~ Network water quality (new legal obligations)	£ 32.000	£ 32.000	£ 90.712	£ 58.712
A29 Capital expenditure purpose ~ Project Cartref		£ 15.000	£ 29.153	£ 14.153
A30 Capital expenditure purpose ~ Visitor Centres		£ -	£ 12.300	£ 12.300
Total Plan value	£ 255.524	£ 255.524	£ 446.209	£ 190.688
A31 Adjustment			£ 0.027	
A4, A11, A12 treated as botex+			£ 75.90	
Total shown in tables	£ 255.524	£ 255.524	£ 522.136	£ 190.688

General comments

Blind years (2018-19 and 2019-20): Categorisations, as used in the APR tables, of how specific areas of capital spend contribute to the delivery of defined outputs, have been applied consistently to the blind years' data. This is based on a project by project analysis undertaken by the company's Regulatory Analyst and as a result of numerous interviews and meetings with Asset Planners and Asset Managers across the business. Price control and Base/enhancement categorisations arrived at in the 2017-18 Annual Performance Review have been applied to the expenditure forecast for 2018-19 and 2019-20.

There is an increase in overall levels of spend over the blind years period. With the exception of the Impounding reservoir investment case (see supporting document 5.8B PR19 IC: Reservoir Safety), there is an underlying fall in overall enhancement schemes as some larger schemes at Bryn Cowlyd and Tynywaun are completed in 2018-19. The fact that overall levels of capital investment increases over the blind years of AMP6 is due to the introduction of £24m of additional Water Resources enhancement spend on reservoirs (explained at line 25 – below)

There is no transition programme identified for the water service.

Line A1-B40: WINEP - NEP ~ making ecological improvements at abstractions (Habitats Directive, SSSI, NERC, BAPs)

Capital - operating expenditure to deliver projects required to deal with the environmental impact of water abstraction during the report year.

Blind years (2018-19 and 2019-20): We have a number of schemes to address NEP - Making ecological improvements at abstractions (Habitats Directive, SSSI, NERC, BAPs). These investments primarily impact Water Resources, and include two major schemes at Mayhill Fish Screens and Prioress Mill Habitat Intake Screen which are due to be completed by the end of AMP6.

Forecast years (post 2020): WINEP and NEP have not stated any requirement to improve Habitats Directive, or BAPS sites during the forecast years, as a result there are no costs forecasted.

A SSSI driver requirement identified in the WINEP at Leintwardine is included within this line.

Line A2-B41: WINEP - NEP ~ Eels Regulations (measures at intakes)

Capital - operating expenditure on quality enhancement schemes listed in the NEP (or WINEP) either to improve intakes to prevent the entrainment of fish, provide eel or fish passes or take alternative measures to meet the requirements of the Eels Regulations or carry out investigations required to confirm the level of entrainment and-or the appropriate technical solution. For FORECAST YEARS these are the outputs required by the Environment Agency (or Natural Resources Wales) under driver codes EE_IMP and EE_INV.

Blind years: We have forecasted the same level of spend as incurred in 2017-18 of £0.030 in the blind years

Forecast years: WINEP3 has stated a requirement for an investigation relating to Eels regulations. We have shown one project in this line where the costs will be incurred in 2020-21 as part of the WINEP3 programme.

Line A3-B42: WINEP - NEP ~ Non-native invasive species

Capital - operating expenditure required to deal with invasive non-native species.

Blind years: There are no costs reported in this line for the blind years

Forecast years: The NEP has stated the requirement for investigation and options to manage or mitigate the impact from invasive non-native species (INNS). The INNS project will look at all sites across our operating area and sites where the highest risks are expected such as where water is transferred between water bodies. This line identifies the schemes that relate to NEP for INNS

identified from NRW, there are no WINEP INNS identified schemes. The company NEP 3 has stated under “options appraisal and investigations” two separate lines. These lines require the company to look at INNS in relation to transfer of water and biosecurity. INNS has been included here as an ongoing programme of work that will satisfy the delivery required by the NEP and continue after the deadline to continuously improve the investigation in readiness for any specified delivery required during AMP8.

Line A4-B43: Addressing low pressure

Capital - operating expenditure to reduce the number of properties with low pressure.

Blind years: The aim of this investment is to find solutions and reduce the number of customers who have long running low pressure issues with their water supply. Network hydraulic modelling and operational review has been used to assess which projects are more viable, and that all solutions will have a direct impact on the identified issue. We have assumed that the programme of work is a relatively even distribution of costs for the remainder of the AMP.

Forecast years: The aim of this programme of work is to find solutions and reduce the number of customers who have long running low pressure issues with their water supply. We have assumed that the programme of work is an even distribution across the forecast years. Network hydraulic modelling and operational review has been used to assess which projects are more viable, and that all solutions will have a direct impact on the identified issue. The rationale supporting this programme of work is detailed in the Customer Minutes Lost investment case. No material opex impact is expected from this investment.

Line A5-B44: Improving taste - odour - colour

Capital - operating expenditure to deliver improvements to consumer acceptability of the drinking water (relating to colour, taste and odour).

Blind years: We have a number of on-going schemes to address Improving taste - odour - colour which are due to complete later in the AMP. We have however, completed eight schemes this year see comments to the cumulative table (WS2a).

Forecast years: This programme has been detailed in the 5.8I Improving Acceptability of Water (AoW) improvement investment case. The investments will target the worst performing water quality zones for discolouration and water treatment works where manganese levels are below our internal target of 2 µg-l. This will result in improved levels of service to customers and lower levels of acceptability related complaints. The majority of the cases are prioritised to target those investments which will provide the largest benefits. The worst served customers AoW programme will target a small number of customers who have long term AoW issues. The spend profile has been targeted to achieve improvements at the WTW in particular during the first three years of AMP7. Linked with this programme of work is line B44 which includes an opex impact for these projects of £0.008m.

We have assumed that the programme of work is an even distribution of cost across the AMP cycle. Network hydraulic modelling and operational review has been used to assess which projects are more viable, and that all solutions will have a direct impact on the identified issue. All investment will have a direct beneficial impact on improving taste-odour-colour for customers, ultimately improving the metric for “Customer Acceptability”.

In our resubmission we have moved our investment to deliver our new network water quality legal obligations into Line 28. This is explained in the supplementary document ‘B2.16.WSH.CE.A1 Network quality – new legal obligations response’.

This line is made up of the following projects:

Project Name	Budget Post-Efficiency unless stated	WS2 Table Lines

Acceptability of Water Worst Served Customers	£3.056m	A5
Zonal Studies modelling projects to improve Acceptability of Water	£92.965m £2.253m	A5
Acceptability Strategy Improvement Projects	£5.033m	A5
Water Treatment Works Manganese Improvements	£16.837m	A5
Total AoW Programme post efficiency challenge	£117.891m £27.179m	

Table 1 – Summary of the Line A5 Investment Programme

Line A6-B45: Meeting lead standards

Capital - operating 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.

Blind years: There are no costs reported in this line for the blind years

Forecast years: The basis of this programme is to improve the Quality of water delivered to customers and focuses on improvements to the levels of lead by replacing service pipes as well as dis-infection by-products. This will include a Research and Development programme which will develop solutions to improve water treatment for new or existing substances which provides a challenge to our existing Water Treatment processes. The programme of work is detailed in the 5.8F Water Quality investment case and the investments within lines 6 and 13 summarised in Table 2 below.

The spend allocated here will improve water quality and where the service pipe results in regular interruptions to a single properties supply or reduces pressure there will be a secondary benefit by improving service in these areas.

The investments included in this line will improve the water quality but is judged not to be part of the AoW programme of work.

Project Name	Budget Post-Efficiency unless stated	WS2 Table Lines
Disinfection by-products R & D	£0.686m £0.650m	A13
Disinfection by-products Alaw WTW improvements	£0.713m £0.679m	A13
Replacement of supply pipes for an additional 3,500 customers	£10.013m £9.316m	A6
Replacement of lead supply pipes for disadvantaged customers	£5.034m £4.683m	A6
Total Quality Programme post efficiency challenge	£16.446m £15.328m	

Table 2 – Summary of the Lines A6 & A13 Investment Programme

We have reduced the overall total investment for Replacement of lead supply pipes by £1.047m, accepting the DD.

Line A7-B46: Supply side enhancements to the supply-demand balance (dry year critical - peak conditions)

Capital - operating 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.

Blind years: There are a couple of schemes associated with lines 7 and 8. One of these schemes concerns the transfer of raw water from Llys y Fran Reservoir to Preseli WTW, and here the costs have been split equally across these two lines, as it is deemed to address each output in equal measure.

The other spend here, relates to the development and production of the Water Resources Management Plan (WRMP) the costs of which have been split equally across all four lines of 7 – 10. Given the “planning” nature of these costs, which are incurred to determine if there is a need to

pursue further capital investment, the project will not in itself provide an output in the supply demand table.

Forecast years: The schemes identified within the WRMP are required for Annual Average conditions and provide sufficient benefit to meet critical period deficits without any additional cost therefore the value of these schemes are only shown on WS2 Line 8. There are no demand side schemes identified in our plan. The total opex impact associated with the production of the WRMP in AMP7 and Tywyn Aberdyfi investments are shown in line B47 at £0.996m pre-efficiency split between resource and raw water distribution. The programme of work is detailed in the 5.8A Water Resources investment case and the capex investments are summarised in Table 3 below.

Project Name	Budget Post Efficiency unless stated	WS2 Table Lines
Pembrokeshire Water Resource Zone Investments - 8206	£11.514m	A8
Production of the Drought Plan inc Environmental Studies	£0.699m	A8
Production of WRMP during FORECAST YEARS	£2.263m	A8
Tywyn Aberdyfi Water Resource Zone Investments - 8021 capex	£6.378m	A8
Vowchurch drought resilience scheme	£5.830m	A8
Total Water Resources Supply Side Enhancements Programme post efficiency challenge	£20.854m £26.684m	

Table 3 – Summary of the Line A8 Investment Programme

Line A8-B47: Supply side enhancements to the supply-demand balance (dry year annual average conditions)

Capital - operating 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.

Blind years: See Line A7.

Forecast years: The cost of producing WRMP and DP's have been included within this line plus the cost of any schemes to fulfil any deficits identified within these plans. It has been concluded that schemes to achieve the stated 1 in 200 year drought will be submitted as part of resilience and has been excluded here. There are two schemes with opex associated with them, line B47 two projects which are contributing to the Supply side enhancements to the supply-demand balance (dry year annual average conditions), the production of WRMP and enhancements in the Tywyn Aberdyfi resource zone.

We have moved the £5.8m associated with the Vowchurch drought resilience scheme into this line, as suggested in the IAP.

Line B47 now includes the opex for the Vowchurch scheme.

We have reduced the value of this line to accept some of the challenge made in the DD, although we have a small gap remaining relating to the Tywyn Aberdyfi scheme.

Line A9-B48: Demand side enhancements to the supply-demand balance (dry year critical - peak conditions)

Capital - operating 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.

Blind years: Lines 9 – 10 - In addition to the WRMP schemes above the two schemes below have been equally proportioned in these lines, namely the work on WRMP Demand forecast factors and also Smart metering project at Tywyn and Aberdyfi. Both of these schemes are deemed to address each of lines 9 and 10 equally.

Forecast years: The cost of producing WRMP and DP's have been included within line 8 as annual average scenario will be fulfilled prior to any critical period scenarios. It has been concluded that schemes to achieve the stated 1 in 200 year drought will be submitted as part of resilience and has been excluded here.

Line A10-B49: Demand side enhancements to the supply-demand balance (dry year annual average conditions)

Capital - operating 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

Blind years: See Line A9.

Forecast years: The cost of producing WRMP and DP's have been included within line 8 as Annual average scenario will be fulfilled prior to any critical period scenarios. It has been concluded that schemes to achieve the stated 1 in 200 year drought will be submitted as part of resilience and has been excluded here.

Line A11-B50: New developments

Capital - operating 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.

Blind years: Included in this line are schemes to address new developments and in addition we have included a Water Network Scheme - Hereford City 18, which is a growth scheme due to an increase in existing customers but does not satisfy the guidance for its inclusion on lines 7 – 10.

Forecast years: The programme of work associated with these lines has been developed using the forecast level of growth and development supported by targeted studies and using the blind years costs to develop the programme of work. The spend profile has been developed based on forecasts of locations and timescales of growth. We have included Infrastructure Network Reinforcement expenditure in this line with the associated opex for the Water Network Growth Programme reported in line B50.

We have assumed that this line is the water equivalent of line 25 in Wastewater's Table WWS2 'New Development and Growth'.

Further information can be found in our 5.8K Water Network plus Growth investment case and for the A11 capex projects within Table 4 below. Line B50 is a total pre efficiency opex of £0.040m associated with the cost of operating new network assets associated with growth.

Project Name	Budget Post-Efficiency unless stated	WS2 Table Lines
Water Network Growth Programme – CAPEX	£8.847m	A11
Water Requisitions (On-site - Site-specific)- CAPEX	£29.715m	A11
Infrastructure Network Reinforcement - CAPEX	£4.440m	A11
Total Water Network Growth Programme post efficiency challenge	£43.002m	

Table 4 – Summary of the Lines A11 Investment Programme

Line A12-B51: New connections element of new development (CPs, meters)

The capital - operating cost of connecting a new property (including the cost of a meter, communication pipe and boundary stop tap valve etc.).

Blind years: This is a new line for this year and we have identified several schemes which provide the new connections element of new development (CPs, meters).

Forecast years: The new connections element of growth has been defined as a separate investment line. This covers the opex and capex costs associated with new connections and detailed within the 5.8KWater Network plus Growth investment case. Line A12 is based on the forecast large diameter connections costs which are capitalised. We have shown the new connections costs for small diameter connections as enhancement opex in line B51.

Line A13-B52: Investment to address raw water deterioration (THM, nitrates, Crypto, pesticides, others)

Capital - operating expenditure to address raw water deterioration.

Blind years: There are several schemes in our programme of works to address raw water deterioration (THM, nitrates, Crypto, pesticides, others), However, also assigned to this line, are two major water treatment works schemes at Bryn Cowlyd and Tynywaun which complete in early 2018-19. The £9m spend planned for 2019-20 relates to the investment to address water quality issues in the Merthyr Tydfil area (£6.720m) and numerous disinfection by-product schemes (totalling £2.320m)

Forecast years: See commentary on line A6.

We have moved the £9m investment associated with the Brecon Beacons mega-catchment project into this line, as suggested in the IAP. We have reduced the total investment for the Brecon-Beacons mega-catchment in this line by £0.520m accepting the DD.

Line A14-B53: Resilience

Capital - operating 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. To include expenditure to meet new, more onerous requirements stemming from the National Flood Resilience Review. For AMP5 this is the capital - operating expenditure to deliver the outputs included in the supplementary report for improving resilience (e.g. under driver code ESL04).

Blind years: We have forecasted the same level of spend up to the end of this AMP as reported in 2017-18.

Forecast years: This line identifies the schemes that the company are delivering as part of resilience. We have included a new document with our resubmission, which identifies all the elements of spend associated with this resilience programme in more detail B2.11.WSH.CE.A1 Water resilience IAP response'. We have reallocated the investment associated with catchments and the Vowchurch drought scheme as suggested but we feel that the other reallocations were inappropriate and so have not replicated them. The line now includes £20.3m capital expenditure reallocated from the retail controls as described in the Retail tables commentary document 'B3.A.4 Business Plan Commentaries Retail'.

~~, new pipelines and additional clean water storage.~~

~~We have included the:~~

- ~~• Vowchurch Drought resilience scheme as there is added benefit to providing this scheme: this will link 2 WRZ together providing additional resilience to Vowchurch WRZ as part of a new requirement to ensure supplies during a 1 in 200 year drought event.~~
- ~~• Brecon Beacons Mega Catchment as a whole as this new approach which will provide more funding at our catchments and ultimately by reducing the need for treatment at our works.~~

- Emergency planning has moved to a more risk based approach and has identified schemes that are responding to the National Flood Resilience Review.
- WTW – sludge strategy and Contact tank bypass improvements.
- SRV enhancements to post tensioned steel tanks and Herefordshire volume contained with SRV's.

This line includes investment drawn from multiple investment areas to tackle resilience issues that we have identified. Line B53 includes the opex for the Vowchurch 1 in 200 Drought resilience project. A summary of the projects included within the £124.347m programme is shown below:

Investment Case where further detail can be found	Projects Overview	Budget Post-Efficiency unless stated
5.8A Water Resources	Phase 1 delivery of improvements for the development of the Brecon Beacons Mega catchment	£9.000m
5.8A Water Resources	Improvements to the Vowchurch water resource zone to achieve a 1 in 20 Drought resilience score	£5.831m
5.8A Water Resources	NRW NEP-SGZ	£16.299m
5.8F Water Quality	Installation of assets to facilitate Contact tank cleaning at Water Treatment Sites and improving Felindre WTW resilience	£12.883m
5.8H Customer Minutes Lost service improvement	Network Resilience Schemes	£5.308m
5.8H Customer Minutes Lost service improvement	Post tensioned Steel Tanks replacement	£13.581m
5.8H Customer Minutes Lost service improvement	Range of projects to install additional storage, strategic pipelines and plan future raw and treated water improvements and mitigation plans	£42.467m
5.8H Customer Minutes Lost service improvement	A range of projects to improve our emergency planning capability	£0.541m
5.8H Customer Minutes Lost service improvement	Range of IS projects to improve systems and provide greater resilience	£9.340m
	Principal use adjustment	£9.097m
	Total Resilience Programme post efficiency challenge	£124.347m

Table 5 – Line A14 Resilience Programme of Work

A summary of our revised proposed investment for resilience is summarised in the table below –

Projects Overview	Budget Post Efficiency unless stated
Network Resilience Schemes	£3.610m
Hereford supply resilience	£13.601m
Extending our South Wales Grid	£19.908m
Total Resilience Programme post efficiency challenge	£37.120m

We have reduced the overall total investment associated with this line by £76.765m accepting in part the DD to £37.210m.

Line A15-B54: SEMD

Capital - operating expenditure on schemes to protect CNI and NI assets and on assessments of potential further improvements to comply with the Security and Emergency Measures Direction 1998 including associated Advice Notes, and including emergency response and resilience requirements. For AMP5 this is the capital - operating expenditure to deliver the outputs included in the sewerage service quality enhancement schedule (Annex 4 - S) to comply with the SEMD (driver code SEMD).

Blind years: We have a number of SEMD schemes included for 2017-18 and the costs in this line is in line with our business plan programme of works for SEMD.

Forecast years: This line includes work that is required to meet our obligation under SEMD 1988. The investment includes sites that are of category 2H, 2L, 1H and 1L. The detail is included within the 5.8F Water Quality investment case which outlines the planned programme of work.

A risk assessment of the assets was carried out in previous years resulting in a programme of work which commenced during AMP5 to ensure compliance. This will continue until full compliance is achieved. In addition, the critical Assets scorecard has also been reviewed to inform the programme of sites to be included during AMP 7. The split between the price controls is our best estimate of the programme that will be delivered in AMP7, which is dealing with different types of assets from AMP6.

We have reallocated the total investment for Emergency Planning to the value of £0.540m from Line 14 to this line, accepting the DD.

Line A16-B55: Non-SEMD related security enhancement

Capital - operating expenditure on schemes driven by other (i.e. non-SEMD) security requirements, for example to improve cyber security or to enhance the security of network and information systems.

Forecast years: This line includes work that is required to meet our obligation under SEMD 1988. The investment includes sites that are of category 2H, 2L, 1H and 1L. The detail is included within the 5.8F Water Quality investment case which outlines the planned programme of work.

Line A17-B56: WINEP - NEP ~ Drinking Water Protected Areas (schemes)

Capital - operating expenditure on schemes to either avoid additional treatment or reduce current treatment (surface and ground-waters) in FORECAST YEARS and which is associated with Drinking Water Protected Areas under Article 7 of the Water Framework Directive.

Forecast years: This line includes the catchments improvement work that is required to be delivered to avoid the need for additional treatment and is required under the WINEP for the EA. The total enhancement value of the project costs for line A17 is £0.741m post efficiency.

We have reallocated £15.4m associated with catchments into this line. We note that this was reallocated to line 18 in the IAP but that there was a comment in the assessment spreadsheet that it would have fitted better in line 17.

We have reduced the total investment associated with catchments in this line by £3.86m, accepting the DD.

Line A18-B57: WINEP - NEP ~ Water Framework Directive measures

Capital - operating expenditure on WFD-driven measures to improve, protect or ensure no deterioration in the status or potential of surface water or groundwater where the measures arise from PR14 investigations or sustainable abstraction work.

Forecast years: This line includes work that is required under the NEP3 for NRW and WINEP for EA relating to sites that are artificial and heavily modified water bodies (A/HMWB) and causing barriers to fish migration. This is a study in the first instance which will define where fish barriers can be removed. Numbers of barriers removed will depend on the study and removal cost per site and will be prioritised using cost benefit and risk. The investment in this line does not include any schemes for sustainable abstractions.

More details regarding the projects that make up this programme of work can be found within the 5.8A Water Resources investment case. The total enhancement value of the project costs for line A18 £2.545m post efficiency.

Line A19-B58: WINEP - NEP ~ Investigations

Capital - operating expenditure on environmental investigations and options appraisals listed in the NEP (or WINEP) for AMP5, blind years or FORECAST YEARS except where line definitions require costs to be reported elsewhere in this table eg line 2.

Blind years: We have included in this line the schemes that we had identified as “NEP Drinking Water Protected Areas” in the Annual Performance Review and include such schemes as Catchment Reservoir Modelling.

Forecast years: There are no investigations currently agreed within the NEP or WINEP for input in this line.

Line A20-B59 Improvements to river flows

Capital - operating expenditure relating to reducing abstraction licences (unless captured elsewhere in this table, principally in WS2 line 1 or 14).

Forecast years: This line identifies the schemes that the company are delivering that will provide a benefit to flows within the catchment system and includes schemes at Intakes and Boreholes. One of the elements of abstraction reform will take effect by improving the standards required to monitor compliance due to changes in the EA-NRW best practice meter guide. As a result there will be some abstractions where it will be more cost beneficial to revoke the licence and return the water to its original water course than to invest in upgrading the abstraction site. The post efficiency capex for this line is £2.216m.

Line A21-B60: Metering (excluding cost of providing metering to new service connections) for meters requested by optants

Metering (excluding cost of providing metering to new service connections) for optants.

Blind years: The metering programme provides a continual programme of works and as a result we have provided the costs in each year to refer to completed in the year. The remaining years are based on forecast spends for new connections - metered properties on an annual basis.

Forecast years: Line 21 contains the investment for the domestic meter options programme of work. The programme is based on the current levels of work and is in response to customers requesting the installation of a meter. We do not plan to proactively or compulsorily install meters during AMP7. The proposed programme of work has been outlined in the 5.8K Water Network plus Growth investment case. The total enhancement budget for customer meters is planned to be £12.926m post-efficiency challenge.

Line A22-B61: 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).

Blind years: See Line A21.

Forecast years: Line 22 contains the investment for the selective metering. The programme has a flat profile because it is based on the current levels of work. The proposed programme of work is

outlined in the 5.8K Water Network plus Growth investment case. The total enhancement budget for customer meters is planned to be £0.738m post-efficiency challenge.

We have reallocated a proportion of the total investment for Project Cartref to the value of £3.645m from Line 29 to this line, accepting the reallocation made to metering in the in the DD.

Line A23-B62: Metering (excluding cost of providing metering to new service connections) for businesses

Metering (excluding cost of providing metering to new service connections) for businesses and other non-household customers.

Blind years: See Line A21.

Forecast years: Line 23 contains the investment for the business meters. The programme has a flat profile because it is based on the current levels of work and is in response to customers requesting the installation of a meter. We do not plan to proactively or compulsorily install meters during AMP7. The proposed programme of work is outlined in the 5.8K Water Network plus Growth investment case. The total enhancement budget for business optant meters is planned to be £0.020m post-efficiency challenge.

Line A24-B63: Capital expenditure purpose ~ Cwm Taf Water Supply Strategy

Other capital - operating expenditure by 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.

Forecast years: The spend profile has been estimated based on the feasibility and procurement work as well as purchase of the new site and obtaining planning permission. We have shown all the costs for this scheme as enhancement. Further details of this project can be found within the 5.8E Cwm Taf Water Supply Strategy investment case.

We have reduced the total investment associated with the Cwm Taf Water Supply Strategy by £59.401m to align with the treatment of Cwm Taf in the DD.

Line A25-B64: Capital expenditure purpose ~ Impounding Reservoirs

Other capital - operating expenditure by 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.

Blind years: Water Resources has a combined £24m of spend in 2018-19 and 2019-20, includes a programme of increasing spillway and pipework capacity, and enhancing asset resilience. This additional investment, partly necessitated by the introduction of the new guidelines arising out of the Reservoirs Act, continues into AMP7.

Forecast years: Some of the cost of the impounding reservoir programme is reported as enhancement. The impounding reservoirs programme is set out within the 5.8B Reservoir Safety investment case. We have increased the total investment associated with Impounding Reservoirs by £6m in line with the DD (this is a combination of including the proportion of the programme associated with the NRW recharge and accepting the haircut made by Ofwat).

Line A26-B65: Capital expenditure purpose ~ Leakage

Other capital - operating expenditure by 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.

Blind years: Leakage spend in the blind years is treated as either Renewals expensed in the year (infrastructure) or maintaining the long term capability of the asset infra in line with our PR14 business plan.

Forecast years: The spend profile has been estimated based on the forecast level of spend to achieve our leakage target. This investment is not required to meet our supply - demand balance but instead is aimed at our long-term sustainability targets and has therefore been separated from lines 7-10. Further details are set out in our 5.8J Leakage improvement investment case. As we are intending that our leakage will be below the Economic level of leakage in AMP7, we are treating the leakage costs as enhancement.

We have separated out the costs of our Project Cartref programme into line 29 as it has benefits across multiple drivers, more than just leakage.

Line A27-B66: Capital expenditure purpose ~ Interruptions to Supply

Other capital - operating expenditure by 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.

Forecast years: This investment is targeted at improving our performance on the key customer metric of water supply interruptions, which is a significant programme for us in AMP7, and does not fit with any of the other lines provided. The programme of work along with the benefits from other investment programmes will deliver the targeted CML target value of 8 mins/customer during AMP7.

The spend profile has been developed from several specific programmes of work, each of which is described in more detail through the 5.8H Customer Minutes Lost service improvement investment case. The three projects included within the Interruptions to Supply line are summarised in Table 7 below.

Investment Case	Project Overview	Cost
5.8H Customer Minutes Lost service improvement	Addressing Interruptions to supply for worst served customers	£7.131m
5.8H Customer Minutes Lost service improvement	Trunk mains flow metering, enhancements	£7.299m
5.8H Customer Minutes Lost service improvement	SMART (Water) improvements to network monitoring and control	£7.702m
Total Interruptions to supply Programme post efficiency challenge		£22.132m

Table 7 - Line A27 Interruptions to Supply Programme of work

Line A28-B67: Capital expenditure purpose ~ Network water quality (new legal obligations)

Other capital - operating expenditure by 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.

Forecast years: This investment is our programme for meeting the new legal obligations associated with DWI notices for improving customer acceptability of our water supply in 17 of our water supply zones. We have included detailed information regarding this investment in supporting document 'B2.16.WSH.CE.A1 Network quality – new legal obligations IAP response'

Line A29-B68: Capital expenditure purpose ~ Project Cartref

Other capital - operating expenditure by 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.

Forecast years: This investment is our innovative programme of reducing customer leakage in homes, which has benefits for leakage reduction, per capita consumption and the use of lead in plumbing and supply pipes. We have included detailed information regarding this investment in supporting document 'B2.18.WSH.CE.A1 Cartref IAP response'. We have reduced the total investment associated with Project Cartref by £3.645m by allocating to Line 22 from this line as in line with the DD.

Line A30-B69: Capital expenditure purpose ~ Visitor centres

Other capital - operating expenditure by 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.

Forecast years: We have added to our PR19 business plan a £12.3m investment relating to improving customer access and recreation during AMP7.

Line A31-B70: Capital expenditure purpose ~ Rounding adjustment

Other capital - operating expenditure by 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.

In our quality control checks prior to submitting these revised tables we found some minor errors in our allocation of enhancement expenditure in this table. Correcting these would have left a discrepancy between WS2 and WS1. We have included this line to explain the error. We intend that Ofwat remove this cost as part of the final determination.

WS13 - PR14 wholesale revenue forecast incentive mechanism for the water service

This table has been updated to reflect changes to Inflation.

Table Validation

No validation errors appear in this table

Line 1 - Company name

Company details for WRFIM model

Pre-populated.

Line 2 - Company type

Company details for WRFIM model

Pre-populated.

Line 3 - Company has accepted WRFIM licence modification

Company details for WRFIM model

We have accepted the licence modification.

Line 4 - Penalty rate scaling minimum threshold (+--)

WRFIM model parameters as defined in the PR14 reconciliation rulebook

Pre-populated.

Line 5 - Penalty rate scaling maximum threshold (+--)

WRFIM model parameters as defined in the PR14 reconciliation rulebook

Pre-populated.

Line 6 - Penalty rate (+--)

WRFIM model parameters as defined in the PR14 reconciliation rulebook

Pre-populated.

Line 7 - Specified discount rate

WRFIM model parameters as defined in the PR14 reconciliation rulebook

Pre-populated.

Line 8 - Threshold for additional variance analyses (+--)

WRFIM model parameters as defined in the PR14 reconciliation rulebook

Pre-populated.

Line 9 - Allowed revenue - water

2014-15 allowed revenue from company final determination letter, as adjusted for ODIs or IDoK in accordance with the licence

Pre-populated. Data from the PR14 Final Determination Letter.

Line 10 - Actual RPI: November index year on year change

Year on year increase in November RPI for the November prior to the start of the financial year
Calculation.

Line 11 - K ~ water

Annual K factor from the PR14 final determination, as adjusted for in-period ODIs or interim determination of K in accordance with the licence

Pre-populated and calculation. Data is from the PR14 Final Determination Letter.

Line 12 - Total revenue forecast ~ water

Total revenue forecasted in PR14. Calculated as 2014-15 allowed revenue (WS13 line 9) compounded by RPI (WS13 line 10) and K (WS13 line 11).

Calculation.

Line 13 - RCM blind year 14-15 adjustment for implementing via WRFIM ~ water

Revenue Correction Mechanism (RCM) 2014-15 blind year adjustment implemented via WRFIM. As published in December 2016

Pre-population. Data from Ofwat WRFIM Consultation in December 2016.

Line 14 - Percentage of RCM adjustment by year ~ water

Profile for applying the RCM adjustment. This should be in accordance with the choice made (as published) in December 2016.

Pre-population. Data from Ofwat WRFIM Consultation in December 2016.

Lines 15-20 Revenue recovered

Actual revenue recovered from metered and unmetered customers' water charges, household and non-household over the 2015-2020 price review period. Annual wholesale water charge revenue as reported in company's regulatory reporting 21.

Actual Revenue is obtained from Table 21 of the APR for 2015-16 to 2017-18. Revenue for 2018-19 and 2019-20 is set to achieve the allowed revenue less a planned under-recovery in 2018-19 to avoid significant incident effects at a time of high inflation. Our current assumption is that the abated revenue will be repeated in 2019-20 as outlined in section 4 of the supporting document submitted in July with the Reconciliation Rulebook. Revenue recovered from different customers is based on historical data and the expected rate of meter optants.

Line 21 - Water: Revenue collected from household and non-household

Calculated. Sum of WS13 lines 15 to 20.

Calculation.

Line 22 - Water: Grants and contributions

Actual water grants and contributions revenue recovered. As defined in the RAGs for 2017-18 21, total of price control grants and contributions irrespective of accounting treatment. We raised several queries on grants and contributions reporting in the 2016 APR or 2017 APR. As a result of these queries, if a company is aware that previous year's data has not been correctly reported, they should restate the figures in the pre-populated cells using the definition in the RAGs for 2017-18 reporting.

Data for 2015-16 to 2017-18 is based on the APR figures. In the Annual Performance Report new connections were allocated to third party to ensure the Grants and Contributions align new connections has been allocated to Grants and Contributions as outlined in section 4 of the supporting document submitted in July with the Reconciliation Rulebook.

Line 23 - Water: Revenue recovered

Calculated. Sum of WS13 lines 21 and 22

Calculation.

Line 24 - Water: Capital contributions from connection charges and revenue from infrastructure charges (PR14 FD)

Total grants and contributions that are included in the allowed water revenue totals.

Pre-populated. Data obtained from the Final Determination.

Line 25 - Water: Grants and contributions

Relevant water capital contributions from connection charges and revenue from infrastructure charges, defined in the final determination as covered by the price control. As defined in RAG 4.07 21 Calculation.

Line 26 - Water: Grants and contributions variance

Difference in outturn prices between line 24 and line 25 for water grants and contributions. Line 24 is adjusted to outturn prices using data in App23.

Calculation.

Line 27 - Main revenue adjustment as incurred ~ water

Main revenue adjustment as incurred. These values are calculated in the PR14 reconciliation WRFIM model on 'WRFIM - Water' sheet in row 41. The values are in outturn prices

Data obtained from the WRFIM Model in 'WRFIM-Water' sheet in row 49 (Row 41 in the previous version of the model).

Line 28 - Penalty adjustment as incurred ~ water

Penalty adjustment as incurred. These values are calculated in the PR14 reconciliation WRFIM model on 'WRFIM - Water' sheet in row 51. The values are in outturn prices.

Data obtained from the WRFIM Model in 'WRFIM-Water' sheet in row 59 (Row 51 in the previous version of the model).

Line 29 - WRFIM adjustment as incurred ~ water

WRFIM adjustment as incurred. These values are calculated in the PR14 reconciliation WRFIM model on 'WRFIM - Water' sheet in row 56. The values are in outturn prices.

Data obtained from the WRFIM Model in 'WRFIM-Water' sheet in row 64 (Row 56 in the previous version of the model).

Line 30 - WRFIM Total reward - (penalty) at the end of AMP6 ~ water

WRFIM Total reward - (penalty) at the end of AMP6. These values are calculated in the PR14 reconciliation WRFIM model on 'WRFIM - Water' sheet in row 73. The values are in outturn prices.

Data obtained from the WRFIM Model in 'WRFIM-Water' sheet in row 84 (Row 73 in the previous version of the model).

Line 31 - WRFIM Total reward - (penalty) at the end of AMP6 ~ water network plus

WRFIM Total reward - (penalty) at the end of AMP6 expressed in 2017-18 FYA (CPIH deflated) prices. This is an output item from the revenue adjustments feeder model. The value entered is prior to profiling.

Data obtained from the revenue feeder model.

WS15 - PR14 wholesale total expenditure outperformance sharing for the water service

This table has been updated to reflect changes to Inflation.

Table Validation

No validation errors appear in this table

Line 1 – Company type

Company type is either WaSC or WoC.

Pre-populated. WaSC.

Line 2 – Is the Company enhanced?

Enhanced or Non-enhanced status in PR14.

Pre-populated. Non-Enhanced at PR14.

Line 3 – Financing rate

Financing rate. The PR14 final determination weighted average cost of capital

Pre-populated. PR14 Wholesale Real WACC.

Line 4 – Water: Implied menu choice

The implied menu choice number for water from PR14 final determination company specific appendix.

Pre-populated. Ofwat PR14 Menu Model.

Line 5 – Water: FD pension deficit recovery costs allowance

The final determinations pension deficit recovery costs allowance for water from PR14 final determination – company specific appendix.

Pre-Populated. PR14 Final determination.

Line 6 – Water: Final menu choice

The submitted final menu choice for water from Menu choice confirmation letter 16th January 2015.

Pre-Populated. Final Menu choice confirmation letter.

Line 7 – Water: Baseline Totex

Ofwat's view of the menu cost baseline at final determinations from PR14 populated final determination menu model.

Pre-Populated. Ofwat PR14 Menu Model.

Line 8 - Water: FD allowed totex inclusive of menu cost exclusions, less PDRC allowance

The allowed expenditure in final determinations for input to PAYG from PR14 populated final determination menu model.

Pre-Populated. Ofwat PR14 populated final determination model.

Line 9 – Water: Actual Totex

Reported actual totex for water from annual regulatory reporting

Actual Totex for 2015-16 is obtained from the 2016-17 Cost Assessment Tables as this was restated from the published Annual Performance Report figure. Actual Totex for 2016-17 and 2017-18 are from the Annual Performance Report with 2017-18 amended for the Principal Use Adjustment (PUA) in table WWS1. Forecast Totex is in line with our business plan in WWS1, with the difference being the Principal Use Adjustment posted in respect of Head Office costs and ICT Assets. Expenditure for

Llanelli and Gowerton has been removed for 2016-17 and 2017-18 as detailed in section 3 of the support document submitted in July with the Reconciliation Rulebook.

We note there is an adjustment between WS1 and WS15 due to APR18-19 actuals and the treatment of principle use.

Lines 10 – 14 Adjustments to Totex

Totex exclusions. Actual totex line items to be excluded in menu totex: third party costs, pension deficit recovery costs, other cash items, disallowables as set out in the PR14 reconciliation rulebook guidance.

Actual Exclusions for 2015-16 to 2017-18 are obtained from the Annual Performance Report. Forecast exclusions are in line with our business plan.

Line 15 – Water: Transition expenditure

Totex inclusions – Transition expenditure in 2014-15 (confirmed in final 2010-15 reconciliation decision document)

Pre-Populated. Transition expenditure confirmed in the 2010-15 reconciliation publication. The pre-populated value has been updated see appendix H of the supporting document.

Line 16 – PAYG

The profile of PAYG ratio allowed in final determinations from PR14 final determination – company specific appendix.

Pre-populated. Obtained from the PR14 final determination.

Lines 17 – 23 - Business rates IDoK

Business rates IDoK. Mechanism to account for the notified item on business rates. Only activated if after successful IDoK. See Annex of company FD letters and section 5.1 of this report for further details.

N-A as there has been no IDoK during the period.

Line 24 – Water: Revenue adjustment from totex menu model

Output item from totex menu model as appears on the Totex menu adjustments sheet.

Output from the totex menu model 'Calc' tab line 197.

Line 25 – Water: RCV adjustment from totex menu model

Output item from totex menu model as appears on the Totex menu adjustments sheet.

Output from the totex menu model 'Calc' tab line 202.

Line 26 – Water: Totex menu revenue adjustment at 2017-18 FYA CPIH delated price base

Output item from revenue adjustments model. Totex menu revenue adjustment - Water network at 2017-18 FYA CPIH deflated price base. The value entered is prior to profiling.

Output from the revenue feeder model.

Line 27 - Water: Totex menu RCV adjustment at 2017-18 FYA CPIH deflated price base

Output item from RCV adjustments model. Water: Totex menu RCV adjustment at 2017-18 FYA CPIH deflated price base.

Output from the RCV feeder model.

WS18 – Explaining the 2019 Final Determination for the water service

Only line 9 in this table has been updated for changes as a result of our August Business Plan.

Table Validation

No validation errors appear in this table

Overview

This table provides an overview of the water services part of our business plan submission. Most of the lines are determined and calculated from elsewhere in the business plan tables. This table does not, however, provide a full picture of our water services business plan.

Line 1 Residential customers metered

The actual and forecast total percentage of residential customers receiving a metered water supply. This is a calculated line based on the total number of residential properties billed for measured water in lines 1 and 2 of WS3 divided by the total number of residential properties from lines 1, 2 and 4 in WS3.

Our reported figures exclude meters on void properties as per the WS18 definition and linked to table WS3.

The 2015-16 and 2016-17 numbers are as per those reported and published in CCWater “Quarterly report”.

The definitions of Residential & Business are the same as the APR. The company defines these categories based on the ‘Chapter 7’ Guidelines (Ofwat, 2011) and the Household / Non-household classifications. For the purpose of the APR and PR19, Household = Residential and Non-household = Business.

The increase in the number of residential customers metered is reflecting forecasts in WS3 Lines 1, 2 and 4. The level (%) of metering is due to development and in line with the company metering policy for new connections and meter optants.

Line 2 Number of contacts about drinking water (taste, odour and discolouration)

The actual and forecast total number of contacts from customers about the acceptability of their water includes contacts related to discoloured water, taste and odour. This information is consistent with the basis of reporting for Discover Water and so is on a calendar year basis.

We expect to reduce the number of contacts received year on year as a result of proposed enhancements made to our water treatment works and distribution network.

The end of AMP7 forecast is in line with our performance commitment Wt3 - Acceptability of drinking water but uses the Discover Water definition which is slightly different as the Discover Water definition includes contacts due to problems on customers’ private pipes, whereas our Wt3 performance commitment does not.

Line 3 Number of catchment management schemes

The actual and forecast number of catchment management schemes. Catchment management options are those which use changes in land use, larger scale changes in activities (eg agricultural practices) and/or larger scale natural processes to deliver outcomes for water/wastewater services for customers. Catchment management options can also be used to deliver other obligations or ambitions such as environmental improvements.

The nature of catchment management schemes means that they often require partnership working to be effective and may provide multiple benefits through a single scheme, some of which might be societal and intergenerational in nature. We expect catchment management, and other soft infrastructure options (local use of natural processes such as SUDs), to be assessed objectively and

our PR19 final methodology sets out further detail under sections on resilience, innovation and outcomes.

This line states the total number of schemes that will be delivered and includes schemes to meet our obligations under the NEP and WINEP, discussed within 5.8A Water Resources Investment case. The schemes identified have been limited to schemes that would improve raw water quality supplying our WTWs and for this submission schemes such as SUDS have not been included. Pilots of sustainable management of natural resources (SMNR) approaches are currently being considered but these have been excluded from this total until the approach is developed further. The high number of schemes during year 3 of AMP7 relate to outcomes expected at the end of stage 1 of our three major related campaigns, Pestsmart, Nutrismart and Animal Health (further information on these campaigns can be found in the 5.8A Water Resources Investment case). The stage 2 outcomes will not be expected until AMP8.

Line 4 Number of people receiving help paying their water bill

The actual and forecast number of customers receiving financial assistance through the company's special social tariffs and schemes such as Watersure to help them with paying their water bill.

The table below reconciles the number of customers receiving help paying their bills. The number includes those receiving assistance through our social tariff scheme "HelpU" and Watersure Wales. The reason the MOS B12, Vulnerable customers on social tariffs, does not reconcile to WS18/WWS18 entries (lines C4 and C5 respectively) is that the MOS (B12) presents the total number of unique customers receiving help with their bill. The sum of this is dual customers plus water only customers plus waste only customers. The entry for line C4 of WS18 is the unique number of dual service and water only customers receiving help with their bill. The entry for line C5 of WWS18 is the unique number of dual service and wastewater only customers receiving help with their bill.

Customers receiving help paying their bill	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	24-25	20-25
A Water only customers	526	633	984	1355	1515	1549	1584	1618	1652	1685	1618
B Dual customers (Water and wastewater)	36,540	52,703	89,241	117,588	131,520	134,485	137,449	140,414	143,378	146,244	140,394
C Wastewater only customers	43	31	34	57	64	66	67	69	70	71	69
MoS B12											
A+B+C Total number of "unique" customers receiving help paying their bill	37,109	53,368	90,259	119,000	133,100	136,100	139,100	142,100	145,100	148,000	142,080
WS18 C4											
A+B Number of people receiving help paying their water bill	37,066	53,337	90,225	118,943	133,036	136,034	139,033	142,031	145,030	147,929	142,011
WWS18 C5											
B+C Number of people receiving help paying their wastewater bill	36,583	52,735	89,275	117,645	131,585	134,551	137,516	140,482	143,448	146,315	140,462

Line 5 Number of direct procurement water service schemes

The number of direct procurement water schemes meeting the technical criteria for which expenditure is reported in App21.

We do not currently have any water schemes in AMP7 that meet the criteria for direct procurement with expenditure reported in App 21. Further information about our assessment of schemes for direct procurement can be found in the supporting information 5.7 Direct procurement report

Line 6 The volume of water traded

The actual and forecast volume of water traded. The volume of water traded should include the total volume of potable, non-potable, raw and partially treated water that is imported and exported

between incumbent water and sewerage and water only companies under both existing bulk supply arrangements and new trade agreements.

The total actual volumes input for 2015-16 and 2016-17 are taken from the published Bulk Supply templates, the volume for 2017-18 are taken from the APR18. The Bulk Supply templates differ slightly to the APR as the APR submission includes estimates for some supplies which are finalised by the time that the Bulk Supply Template is published.

There is no forecast change in the volumes from 2017-18 for the rest of the period. We have no new trade agreements at this time, although there is an application with Ofwat for a variation of our appointment for some of the sites currently supplied to SSE which could see a small drop in the volume of water traded (average bulk supply to SSE over the period is <0.1Mld).

Line 7 Length of rivers improved as a result of WINEP Water Resource schemes

The actual and forecast length of river improved as a result of WINEP Water Resource schemes. Figures entered in this line should be consistent with those recorded in the Environment Agency's 2020-25 WINEP spreadsheet. "Improved" shall have the same meaning as in the Environment Agency's technical guidance document "Completing the WINEP spreadsheet supplementary guidance: Environmental outcomes", November 2017. For transparency to customers and for regulatory confidence, companies should use the environmental outcome data in WINEP3 if they have an ODI for WINEP delivery.

We have assumed here that this line should include both our NEP (Wales) and WINEP (England) schemes.

The number has been defined as the length of river improved in kilometres based on the length quoted within the WINEP or NEP. Further information about our river improvement programme related to the water service can be found in 5.8A Water Resources Investment Case.

Line 8 Greenhouse gas emissions from water operations

The actual and forecast measurement of the annual operational GHG emissions from the company's water operations.

We are proposing a year on year energy consumption reduction that is supported by the 5.8T Energy investment case and 3.6 PR19 Costs efficiency, benchmarking and recovery

Until 2017-18 our operational carbon emissions were dominated by energy consumption from the grid. Our carbon emissions fell by 71% to 62 ktCO₂ (from 212kt in 16-17) against an internal target for 196 ktCO₂ by 2020.

This fall is largely due to a change in our electricity supply contract which changed on 1st April 2017 to Orsted and includes supply of "REGO backed" electricity. The REGO (Renewable Energy Guarantees of Origin) enables a company to show named sources for all its electricity and declare these supplies as being carbon free.

Our forecast for CO₂ emissions remain static at 10kt CO₂e for AMP7 as this accounts for our transport fleet fuel usage. We do not have plans in AMP7 to make our fleet less CO₂ intensive.

Line 9 Change in the average residential customer water bill over the period

The change in the average residential customer water bill over the period between 2024-25 and 2019-20 based on water bills calculated in 2017-18 prices (FYA CPIH deflated). The calculation of the average residential customer bill should be consistent with the calculation of the average bill as used in Discover Water.

The average residential customer water bill in 2024-25, calculated consistently with the average bill as used in Discover Water is ~~£168.96~~ ~~£171.23~~ 165.48 in 2017-18 FYA CPIH deflated prices. This is not the same as the average total bill – water in App7 of ~~£178.61~~ ~~£180.29~~ 173.13 also in FYA CPIH deflated prices, due to retail component of the latter being calculated as the retail single service revenue for water divided by water only customer in line with the Ofwat financial model. The

average residential customer water bill in 2019-20 is ~~£185.84~~ 187.99 in 2017-18 FYA CPIH deflated prices, giving a change of ~~-9.09%~~ ~~-7.86%~~ -11.97% over the period.

Line 10 Water totex including cash items and atypical expenditure

The actual and forecast total water expenditure (totex) including cash items and atypical expenditure. Totex for 2017-20 is calculated from line 36 of WS1 deflated to the 2017-18 prices using FYA CPIH as contained in App23. Totex for 2020-25 is copied from line 36 of WS1.

We have entered costs for years 2015-16 and 2016-17 all later years are calculated cells.

The costs have been inflated to 2017-18 CPIH price base.

The tables have been prepared on the same basis as the CAT tables and includes adjustments made to the reported APR figure as well as the principal use adjustment.

The adjustments are as follows:

	Water	
	2015-16	2016-17
	£m	£m
Water totex including cash items and atypical expenditure		
Per APR	232.562	312.04
Less grants and contribution not in price control that was not included in 2015-16 reports (as per guidance at that time)	-4.313	
	<u>228.249</u>	<u>312.04</u>
Customer side leaks- all treated as wholesale as this relates to a wholesale outcome (previously included as retail)	1.38	
CAT tables	<u>229.629</u>	<u>312.04</u>
Principal use adjustment		
Depreciation	-0.183	-0.958
Financing charge	-0.006	-0.050
Other operating expenditure	<u>-0.189</u>	<u>-1.008</u>
Principal use Capex adjustment	2.560	8.298
Revised TOTEX (after CAT and Principal use adjustment)	<u>232.000</u>	<u>319.330</u>
Restated to 2017-18 CPIH	<u><u>241.261</u></u>	<u><u>327.824</u></u>

The APR tables for AMP6 will be prepared on a different basis to the business plan tables regarding principal use. The APR only includes principal use in table 2A segmental income statement and not in the totex price control units (which is prepared on a causal basis). Ofwat is aware of this and have included this in their Q & A feedback.

The principal use adjustment included in APR table 2A has been prepared on an accelerated depreciation basis (such as, full cost recharge) whereas the business plan tables use depreciation and financing charge incurred in the year.

Line 11 Total number of residential and business customers who receive a water bill

The actual and forecast number of residential and business customers who receive a water bill. This is a calculated line from the sum of WS3 lines 1 to 5.

2015-16 and 2016-17 cells have been populated from previously submitted APR tables 2f and 2g. All other cells in this line are calculated.

Line 12 Amount of planned water investment per customer billed

The actual and forecast planned total water expenditure per customer. This is calculated from taking the total water expenditure in WS18 line 10 multiplied by 1000, divided by the total number of customers who receive a water bill in WS18 line 11.

This is a calculated line.

Line 13 Number of residential retail customers engaged with on the business plan

The actual total number of water and wastewater residential retail customers engaged with in developing the company's business plan up to submission i.e. in years 2015-16, 2016-17, 2017-18 and 2018-19. The engagement is through all forms of customer engagement such as focus groups, surveys etc.

The number reported is for only complete surveys i.e. more customers have been engaged but may have only completed part of a survey and so results have not been taken into account. The number of residential retail customers engaged with on Business plan includes; all household customers including those categorised as worst served and vulnerable. This excludes future customer's figure (175) as these individuals are not as yet retail customers.

Further information on our customer engagement can be found in 1.1 Customer Engagement report

	2016-17	2017-18	2018-19	Total
Residential Customers	1,640	23,560	2,340	27,540
Future Customers	36	15	124	175

Line 14 Number of business customers engaged with on the business plan (Wales only)

The actual total number of water and wastewater business customers engaged with in developing the company's business plan up to submission i.e. in years 2015-16, 2016-17, 2017-18 and 2018-19. The engagement is through all forms of customer engagement such as focus groups, surveys etc. This line only applies to Wales.

For the purposes of this line we have interpreted 'business customers' as including all respondents that were not household customers, so includes all non-household customers (most of whom are business customers) and other respondents from stakeholder organisations.. The number reported is for only complete surveys, for example more customers have been engaged but may have only completed part of a survey and so results have not been taken into account.

Further information on our customer engagement can be found in 1.1 Customer Engagement report.

The breakdown of the number of customers engaged by year is provided below:

	2016-17	2017-18	2018-19	Total
Business Customers	234	1100	232	1566

Wn3 - Wholesale revenue projections for the water network plus price control

Table Validation

There are no validation errors in this table

This table includes all revenue expected by us in provision of our wholesale water network plus activities at 2017-18 financial year average prices.

Line Commentary

Lines 1 - 12

These lines contain the wholesale revenue requirement aggregated by building blocks. The line in each sub-control tables Wr3, Wn3, WWn5 and Bio4 are calculated in the Ofwat financial model. The lines in App 17 are calculated lines from the individual income recorded in the sub-control tables Wholesale revenue projections for the price controls: Wr3, Wn3, WWn5 and Bio4.

Line 1 PAYG ~ wholesale water network plus

*Projected total pay as you go (PAYG) for wholesale water network plus costs. Equals WS1 line 21 * Wn4 line 14.*

Calculated.

Line 2 Pension deficit repair contributions ~ wholesale water network plus

Projected total cost of pension deficit repair contributions for wholesale water network plus.

In line with information notice IN 13/17 the final revenue allowance for pension deficit repair will be applied in 2019-20. We have not included a contribution from customers toward the pension deficit repair costs included in the plan during 2020-25. The company will bear the costs of the pension deficit repair costs included in WS1 and WWS1.

Line 3 Run off on post 2020 investment ~ wholesale water network plus

Projected run off (depreciation charge) on post 2020 wholesale water network plus totex additions incurred in the 2020-25 period and not recovered through PAYG.

These values are calculated in the Ofwat financial model.

Line 4 Return on post 2020 investment ~ wholesale water network plus

Projected return on post 2020 wholesale water network plus totex additions incurred in the 2020-25 period and not recovered through PAYG.

These values are calculated in the Ofwat financial model.

Line 5 Run off on RPI inflated 2020 RCV ~ wholesale water network plus

Projected run off (depreciation charge) on the proportion of the RCV at 1 April 2020 indexed by RPI.

These values are calculated in the Ofwat financial model.

Line 6 Return on RPI inflated 2020 RCV ~ wholesale water network plus

Projected return on the proportion of the RCV at 1 April 2020 indexed by RPI.

These values are calculated in the Ofwat financial model.

Line 7 Run off on CPIH inflated 2020 RCV ~ wholesale water network plus

Projected run off (depreciation charge) on the proportion of the RCV at 1 April 2020 indexed by CPIH.

These values are calculated in the Ofwat financial model.

Line 8 Return on CPIH inflated 2020 RCV ~ wholesale water network plus

Projected return on the proportion of the RCV at 1 April 2020 indexed by CPIH.

These values are calculated in the Ofwat financial model.

Line 9 Current tax ~ wholesale water network plus

Forecast current tax payable for wholesale water network plus.

These values are calculated in the Ofwat financial model and are nil for all wholesale price controls as the business generates a taxable loss in each year of the price control driven by capital allowances (see App 29 – Wholesale tax).

Line 10 Re-profiling of allowed revenue ~ wholesale water network plus

The impact of re-profiling the wholesale water network plus allowed revenue.

We have used the revenue re-profiling functionality in the Ofwat financial model to re-profile revenue on an NPV neutral basis to deliver a total combined residential bill which is broadly constant in real terms between 2020-21 and 2024-25. This is in line with a clear customer preference for a more or less constant bill profile evidenced on page 40 of the PR19 Customer Engagement: Bills and affordability research ref 1.1D.

We have used the revenue re-profiling functionality in the Ofwat financial model to re-profile revenue on an NPV neutral basis to deliver a total combined residential bill declines over AMP7 in real terms between 2020-21 and 2024-25 (see WSH.DD.OO.4 Social Tariffs).

Line 11 PR14 reconciliation revenue adjustments ~ wholesale water network plus

The PR14 reconciliation revenue adjustments associated with wholesale water network plus.

These values are obtained from the revenue adjustment feeder model and are profiled across 2020-21 to 2014-25 on a constant annuity basis.

Water Network Plus revenue adjustments (2017-18 CPIH deflated prices)	2020-2021 £m	2021-2022 £m	2022-2023 £m	2023-2024 £m	2024-2025 £m
End of Period ODIs	-2.298	-2.298	-2.298	-2.298	-2.298
Totex	4.958	4.958	4.958	4.958	4.958
WRFIM	-0.538	-0.538	-0.538	-0.538	-0.538
Blind year	-2.383	-2.383	-2.383	-2.383	-2.383
Total Revenue Adjustments	-0.261	-0.261	-0.261	-0.261	-0.261

Water Network Plus revenue adjustments (2017-18 CPIH deflated prices)	2020-2021 £m	2021-2022 £m	2022-2023 £m	2023-2024 £m	2024-2025 £m
End of Period ODIs	-2.50	-2.50	-2.50	-2.50	-2.50
Totex	6.318	6.318	6.318	6.318	6.318
WRFIM	-2.762	-2.762	-2.762	-2.762	-2.762
Blind year	-2.395	-2.395	-2.395	-2.395	-2.395
Total Revenue Adjustments	-1.339	-1.339	-1.339	-1.339	-1.339

Line 12 Total wholesale water network plus revenue requirement

The company's projected total wholesale water network plus revenue requirement. Equals the sum of Wn3 lines 1 to 11.

2020-21 to 2024-25 are calculated cells in 2017-18 FYA (CPIH) deflated price base.

2019-20 Value input in Outturn (nominal price base).

Revenue requirement for 2019-20

The FD14 revenue requirement was set at the wholesale level and, therefore, needs to be split for input into tables Wr3 Wholesale water resources and Wn3 Wholesale water network plus. For the purposes of completing this cell we have calculated the revenue requirement for 2019-20 from WS13 and the FD14 financial model as shown in the table below. This calculation ensures that the 2019-20 Revenue Requirement is comparable to the Revenue Requirement calculation for PR19 in the years 2020-21 to 2024-25. The wholesale water revenue requirement for 2019-20 has then been split between the sub-controls in proportion to the AMP7 weighted average split of revenue requirement also shown in the table below. This gives an outturn wholesale water revenue requirement of ~~£327.585m~~ **£327.585m** which has been split ~~16.9%~~ **16.79%** Water resources and ~~83.1%~~ **83.21%** Water network plus to give outturn revenue requirement for 2019-20 of ~~£55.282m~~ **£55.993m** for Water resources and ~~£272.303m~~ **£272.592m** for Water network plus.

Wholesale Water		2019-20						
WS13		2019-20						
Line 12	Allowed Revenue	317.96						
Line 25	G&C actual	10.087						
Line 26	G&C over recovery	1.47						
calc -(25-26)	G&C allowed	-8.617						
Fin Mod (FD14)	Other income (inc 3rd party)	15.227						<Water Real AR> row 56: Other income (incl 3rd party income)
		1.198						Inflation factor 2012-13 to 2019-20 outturn
	3rd Party income	<u>18.239</u>						
	Revenue Requirement	<u>327.581</u>						
	Revenue Requirement (£m)	2020-21	2021-22	2022-23	2023-24	2024-25	2020-25	
Wr3 Line 12	Water Resources	49	49	50	50	50	248	
Wn3 Line 12	Water network plus	239	241	244	247	250	1,221	
	Revenue Requirement	288	290	293	297	300	1,469	
		17.00%	16.90%	16.90%	16.80%	16.80%	16.90%	
		83.00%	83.10%	83.10%	83.20%	83.20%	83.10%	
A12 (2019-20)	Split of FD14 2019-20 Rev Req	2019-20						
Wr3	A12 (2019-20)	55.282			16.90%			
Wn3	A12 (2019-20)	<u>272.3</u>			83.10%			
		<u>327.581</u>						

Wholesale Water		2019-20						
WS13		2019-20						
Line 12	-Allowed Revenue	317.960						
Line 25	-G&C actual	9.333						
Line 26	-G&C over recovery	0.716						
calc -(25-26)	-G&C allowed	-8.617						
Fin Mod (FD14)	-Other income (inc 3rd party)	15.227						<Water Real AR> row 56: Other income (incl 3rd party income)
		1.198						Inflation factor 2012-13 to 2019-20 outturn
	-3rd Party income	<u>18.242</u>						

Welsh Water Wholesale Water Network Business Plan Commentaries

	-Revenue Requirement	<u>327.585</u>					
	Revenue Requirement (£m)	2020-21	2021-22	2022-23	2023-24	2024-25	2020-25
Wr3 Line 12	-Water Resources	45.47	47.35	49.37	52.08	54.24	248.51
Wn3 Line 12	-Water network plus	240.48	243.20	246.01	249.61	252.50	1231.80
	-Revenue Requirement	285.95	290.54	295.38	301.69	306.74	1480.31
		15.90%	16.30%	16.71%	17.26%	17.68%	16.79%
		84.10%	83.70%	83.29%	82.74%	82.32%	83.21%
A12 (2019-20)	-Split of FD14 2019-20 Rev Req	2019-20					
Wr3	-A12 (2019-20)	54.993		16.79%			
Wn3	-A12 (2019-20)	272.592		83.21%			
		<u>327.585</u>					

Lines 13 – 19

These lines contain the “miscellaneous” income received by the appointed business. The lines in App 17 are calculated lines from the individual income recorded in the sub-control tables Wholesale revenue projections for the price controls: Wr3, Wn3, WWn5 and Bio4. The total position and the entries in each of these tables together with the method of allocation is shown in Annex 1 at the end of this commentary. For ease of reference these tables are repeated at the end of the commentaries for each of the revenue projections tables

Line 13 Third party revenue wholesale water network plus

Projected third party revenue covered by the wholesale water network plus price control. Appendix 1 of RAG4.07 provides further information on the income to be categorised as third party.

The non-potable water income has been allocated to water network plus using the cost attribution model used to inform charge setting and the water resources RCV allocation work.

Line 14 Bulk supplies contract not qualifying for water trading incentives (signed before 1 April 2020) water network plus

Income from bulk supplies (for potable and non-potable supplies) to another water undertaker, where the contract does not qualify for water trading incentives or was signed before 1 April 2020.

The income from bulk supplies of water treated water bulk supplies have been allocated to water network plus using the cost attribution model used to inform charge setting and the water resources RCV allocation work.

Line 15 Bulk supplies contract qualifying for water trading incentives (to be signed on or after 1 April 2020) water network plus

Income from bulk supplies (for potable and non-potable supplies) to another water undertaker, where the contract qualifies for water trading incentives and will be signed on or after 1 April 2020.

No new bulk supplies during the period have been included in the Business Plan.

Line 16 Rechargeable works water network plus

Rechargeable works, as listed in Appendix 1 of RAG4.07.

All rechargeable works income for wholesale water has been allocated to the water network plus control.

Line 17 Other non-price control third party services water network plus

All other non-price control income for third party services e.g. excluded charges, as listed in Appendix 1 of RAG4.07.

Income from hire of water tankers and has been allocated 100% to the water network plus sub-control. There is no forecast income from the hire of stand pipes as we have recently outsourced this activity as part of the measures we are taking to improve network performance. The income now only comes from the volume of water supplied through the standpipes which is recorded in volumetric income.

Line 18 Total non-price control income (third party services) water network plus

Projected total income from third party services outside of the wholesale water network plus price control. Equals the sum of Wr3 lines 14 to 17.

Calculated.

Line 19 Wholesale water network plus non-price control income (principal services)

Projected income from principal services for which costs are not covered by the wholesale water network plus price control e.g. recreational use of protected land, as listed in Appendix 1 of RAG4.07.

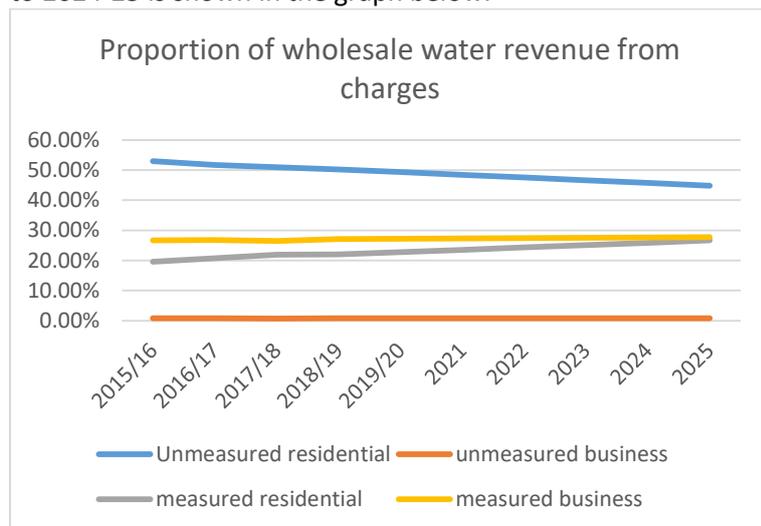
This is the rental income from mobile phone masts on appointed assets land. The income is allocated to sub-control in proportion to weighted average site income from 2015-16 to 2017-18.

Line 20 – 23 Water network plus charges (business & residential)

The proportional allocation of the projected wholesale water network plus allowed revenue to unmeasured residential customers (line 20) unmeasured business customers (line 21), measured residential customers (line 22) measured business customers (line 23), from wholesale water network plus charges.

Wholesale water change in proportion of residential revenue due to meter optants and new connections is calculated to be 0.9% from unmeasured residential which moves to 0.78 to measured wastewater and 0.12% to measured business. Unmeasured business remains static. It is assumed that the revenue from network plus and water resources charges change by the same amount annually.

The tables in Annex 2 show the analysis behind these forecasts. The level of recovery from 2015-16 to 2024-25 is shown in the graph below.



Line 24 Total wholesale wastewater water network plus allowed revenue

Projected total wholesale water network plus allowed revenue from wholesale water network plus charges. Charges income should be equal to building blocks income less price control income from other sources. Equals Wn3 line 11 minus line 12.

Calculated.

The business plan tables: Wr3, Wn3 and WWn5 have extra lines added to split out grants and contribution income into opex income and capex income as well as to price control (PC) and non-price control (Non-PC). The income has been split in accordance with the table below.

Allocation of income 2020-25	Wholesale water		Wholesale Wastewater	
	Opex	Capex	Opex	Capex
New connections (Water)	PC	PC		
Sewer adoption (s102 & s104)			Non-PC ¹	
Infrastructure charges		PC		PC
Requisitions		PC		PC
Diversions	PC ²		PC ²	
Other (inc. Grants and income from feasibility studies)		Non-PC		Non-PC

Notes

1. Charges for vetting and adoption of new sewers (s102 & s104) was treated as price control income during 2015-2020 in line with Appendix 1 of RAG4.
2. Income from diversions was treated outside of the price control during 2015-2020 in line with Appendix 1 of RAG4.

The impact of the change on the table is set out in the tables at the end of this section.

Line 25 Water network plus operating expenditure grants and contributions (price control)

Projected operating expenditure grants and contributions covered by the wholesale water network plus price control. The sum of lines 25 and 26 represents the wholesale water network plus element of the total grants and contributions received for the wholesale water service contained in App28 lines 7 to 10.

All grants or contributions within the price control have been allocated to the water network plus control.

Line 26 Water network plus capital expenditure grants and contributions (price control)

Projected capital expenditure grants and contributions covered by the wholesale water network plus price control. The sum of lines 25 and 26 represents the wholesale water network plus element of the total grants and contributions received for the wholesale water service contained in App28 lines 7 to 10.

All grants or contributions within the price control have been allocated to the water network plus control.

Line 267 Water network plus operating expenditure grants and contributions (non-price control)

Projected operating expenditure grants and contributions not covered by the wholesale water network plus price control. The sum of lines 27 and 28 represents the wholesale water network plus element of the total 'other' non-price control grants and contributions received for the wholesale water service contained in App28 line 12.

All non-price control contributions are expected for services provided by the water network plus control. No grants have been forecast to be received.

*Line 28 Water network plus operating expenditure grants and contributions (non-price control)
Projected capital expenditure grants and contributions not covered by the wholesale water network
plus price control. The sum of lines 27 and 28 represents the wholesale water network plus element
of the total 'other' non-price control grants and contributions received for the wholesale water
service contained in App28 line 12.*

All non-price control contributions are expected for services provided by the water network plus control. No grants have been forecast to be received.

Line 27~~9~~ Total revenue wholesale water network plus control

*Projected total wholesale water network plus revenue requirement for the wholesale water network
plus price control including projected grants and contributions covered by the wholesale water
network plus price control. Equals Wn3 line 12 minus line 18 minus line 19 plus line 25 plus 26.*

Calculated.

Annex 1 Lines 13 – 19 and 25 & 26

The total “miscellaneous” income in the Business plan is shown in the Summary table below:

Year ending Mar	2021	2022	2023	2024	2025
	£m	£m	£m	£m	£m
2017-18 FYA (CPIH deflated)					
Summary					
Total Grants & Contributions (price control)	21.36	21.589	21.809	21.88	21.92
Total Grants & Contributions (non-price control)	<u>3.04</u>	<u>1.185</u>	<u>1.198</u>	<u>1.201</u>	<u>1.204</u>
Total Grants & Contributions	24.4	22.774	23.007	23.081	23.124
Total Other Income (price control)	6.477	6.477	6.477	6.477	6.477
Total Other Income (non-price control)	<u>18.049</u>	<u>18.069</u>	<u>18.088</u>	<u>18.108</u>	<u>18.128</u>
Total Other income	24.526	24.546	24.565	24.585	24.605
Price control income	27.837	28.066	28.286	28.357	28.397
Non-price control	<u>21.089</u>	<u>19.254</u>	<u>19.286</u>	<u>19.31</u>	<u>19.333</u>
Total "miscellaneous" income	48.927	47.319	47.573	47.667	47.729

Year ending Mar	2021	2022	2023	2024	2025
	£m	£m	£m	£m	£m
2017-18 FYA (CPIH deflated)					
Summary					
Total Grants & Contributions (price control)	21.360	21.589	21.809	21.880	21.920
Total Grants & Contributions (non-price control)	<u>3.040</u>	<u>1.185</u>	<u>1.198</u>	<u>1.201</u>	<u>1.204</u>
Total Grants & Contributions	24.400	22.774	23.007	23.082	23.124
Total Other Income (price control)	6.477	6.477	6.477	6.477	6.477
Total Other Income (non-price control)	<u>18.040</u>	<u>18.060</u>	<u>18.080</u>	<u>18.099</u>	<u>18.120</u>
Total Other income	24.517	24.537	24.557	24.576	24.596
Price control income	27.837	28.066	28.286	28.357	28.397
Non-price control	<u>21.080</u>	<u>19.245</u>	<u>19.278</u>	<u>19.301</u>	<u>19.324</u>
Total "miscellaneous" income	48.918	47.311	47.564	47.658	47.720

The individual lines for App 17 and the method of apportionment between the sub-controls (and reported in tables Wr3, Wn3, WWn5, Bio4) are shown in the tables below:

	Year ending Mar	2021 £m	2022 £m	2023 £m	2024 £m	2025 £m	Apportionment to sub-controls
B	Wholesale - other price control income						
13	Third party revenue						
	<i>Consists of non-potable water (not bulk supplies):</i>						
	<i>Band A Raw <50 MI</i>						
	<i>Band A Partial < 50MI</i>						
	<i>Band B Raw >50 MI</i>						
	<i>Band B Partial >50 MI</i>						
	<i>Special agreements – (WSHNONPOT9, 10a and 10b)</i>						
Wr3	Third party revenue	-2.824	-2.824	-2.824	-2.824	-2.824	Split as per cost attribution model informing Scheme of Charges
Wn3	Third party revenue	-3.653	-3.653	-3.653	-3.653	-3.653	Split as per cost attribution model informing Scheme of Charges
WWn5	Third party revenue	-	-	-	-	-	
Bio4	Third party revenue	-	-	-	-	-	
App17	Third party revenue	-6.477	-6.477	-6.477	-6.477	-6.477	
C	Non-price control income (third party)						
14	Bulk supplies						
	<i>Consists of:</i>						
	<i>Bulk supplies water</i>						
	<i>Bulk supplies wastewater</i>						
Wr3	Bulk supplies	-8.174	-8.174	-8.174	-8.174	-8.174	Split as per cost attribution model informing Scheme of Charges
Wn3	Bulk supplies	-0.396	-0.396	-0.396	-0.396	-0.396	Split as per cost attribution model informing Scheme of Charges
WWn5	Bulk supplies	-0.015	-0.015	-0.015	-0.015	-0.015	Split 50:50 (not material)
Bio4	Bulk supplies	-0.015	-0.015	-0.015	-0.015	-0.015	Split 50:50 (not material)
App17	Bulk supplies	8.601	8.601	8.601	8.601	8.601	
16	Rechargeable works						
	<i>Consists of:</i>						
	<i>Fire hydrants</i>						
	<i>Repair of damage to Co apparatus</i>						
	<i>Build over sewers</i>						
	<i>Installing meter on unmeasured (Non-household)</i>						
	<i>Trade effluent consent revision</i>						
	<i>Non-primary charges from wholesale service centre</i>						
	<i>Provision of plan information of underground assets</i>						
	<i>Flow and pressure testing of customer supply</i>						
	<i>Meter testing</i>						

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	Year ending Mar	2021 £m	2022 £m	2023 £m	2024 £m	2025 £m	Apportionment to sub-controls
			2017-18 FYA (CPIH deflated)				
	<i>Relocating household meter</i>						
	<i>Private sewer cleaning</i>						
	<i>Disconnection / reconnection of supply</i>						
Wr3	Rechargeable works	-	-	-	-	-	
Wn3	Rechargeable works	-0.473	-0.473	-0.473	-0.473	-0.473	All allocated to network plus
WWn5	Rechargeable works	-0.464	-0.464	-0.464	-0.464	-0.464	All allocated to network plus
Bio4	Rechargeable works	-	-	-	-	-	
App17	Rechargeable works	-0.937	-0.937	-0.937	-0.937	-0.937	
17	Other non-price control (third party services) <i>Consists of "Excluded" charges (Li.Con B)</i> <i>s20 Reservoir operating agreements (NRW)</i> <i>s20 Reservoir operating agreements (additional capex) (NRW)</i>						
	<i>Stand pipes</i>						
	<i>Water tanks & water tankers</i>						
	<i>Reception and disposal of waste (costs & income in non-appointed)</i>						
Wr3	Other non-price control (third party services)	-7.607	-7.627	-7.647	-7.667	-7.687	s20 allocated 100% to Water Resources
Wn3	Other non-price control (third party services)	-0.026	-0.026	-0.026	-0.026	-0.026	Tankers allocate 100% to network plus
WWn5	Other non-price control (third party services)	-	-	-	-	-	
Bio4	Other non-price control (third party services)	-	-	-	-	-	
App17	Other non-price control (third party services)	7.633	7.653	7.672	7.692	7.712	
18	Total non-price control income (third party services)						
Wr3	Total non-price control income (third party services)	15.782	15.801	15.821	15.841	15.861	
Wn3	Total non-price control income (third party services)	0.894	0.894	0.894	0.894	0.894	
WWn5	Total non-price control income (third party services)	0.48	0.48	0.48	0.48	0.48	
Bio4	Total non-price control income (third party services)	0.015	0.015	0.015	0.015	0.015	
App17	Total non-price control income (third party services)	17.171	17.191	17.21	17.23	17.25	
D	Non-price control income (principal services)						
19	Other non-price control (principal services) <i>Consists of:</i>						
	<i>Rental income (mobile phone masts, wind turbines, solar panels)</i>						
Wr3	Other non-price control (principal services)	0.494	0.494	0.494	0.494	0.494	Allocated in proportion to weighted average site income from 15/16 to 17/18
Wn3	Other non-price control (principal services)	0.07	0.07	0.07	0.07	0.07	Allocated in proportion to weighted average site income from 15/16 to 17/18
WWn5	Other non-price control (principal services)	0.152	0.152	0.152	0.152	0.152	Allocated in proportion to weighted average site income from 15/16 to 17/18
Bio4	Other non-price control (principal services)	0.161	0.161	0.161	0.161	0.161	Allocated in proportion to weighted average site income from 15/16 to 17/18
App17	Other non-price control (principal services)	0.878	0.878	0.878	0.878	0.878	

Welsh Water Wholesale Water Network Business Plan Commentaries

		Year ending Mar	2021 £m	2022 £m	2023 £m	2024 £m	2025 £m	Apportionment to sub-controls
F	Grants & Contributions							
25	Wholesale grants and contributions (price control)							
	<u>Consists of capital income:</u>							
	Infrastructure charges							
	Requisitions and self-lay							
	Connection charges (s45—Water)							
	Diversions							
Wr3	Wholesale grants and contributions (price control)		-	-	-	-	-	
Wn3	Wholesale grants and contributions (price control)		12.789	12.939	13.084	13.127	13.155	All allocated to network plus
WWn5	Wholesale grants and contributions (price control)		8.571	8.650	8.725	8.753	8.765	All allocated to network plus
Bio4	Wholesale grants and contributions (price control)		-	-	-	-	-	
App17	Wholesale grants and contributions (price control)		21.360	21.589	21.809	21.880	21.920	
26	Wholesale grants and contributions (non-price control)							
	<u>Consists of capital income:</u>							
	Sewer vetting, adoption agreements (PR19)							
	Feasibilities							
	Grants							
Wr3	Wholesale grants and contributions (non-price control)		1.868	-	-	-	-	Non-grant income allocated to network plus, Grant income allocated by scheme
Wn3	Wholesale grants and contributions (non-price control)		0.053	0.053	0.053	0.053	0.053	As above
WWn5	Wholesale grants and contributions (non-price control)		1.119	1.132	1.145	1.148	1.151	As above
Bio4	Wholesale grants and contributions (non-price control)		-	-	-	-	-	As above
App17	Wholesale grants and contributions (non-price control)		3.040	1.185	1.198	1.201	1.204	

Welsh Water Wholesale Water Network Business Plan Commentaries

	Year ending Mar	2021 £m	2022 £m	2023 £m	2024 £m	2025 £m	Apportionment to sub-controls
B	Wholesale - other price control income						
13	Third party revenue						
	<u>Consists of non-potable water (not bulk supplies):</u>						
	<i>Band A Raw <50 MI</i>						
	<i>Band A Partial < 50MI</i>						
	<i>Band B Raw >50 MI</i>						
	<i>Band B Partial >50 MI</i>						
	<i>Special agreements – (WSHNONPOT9, 10a and 10b)</i>						
Wr3	Third party revenue	2.824	2.824	2.824	2.824	2.824	Split as per cost attribution model informing Scheme of Charges
Wn3	Third party revenue	3.653	3.653	3.653	3.653	3.653	Split as per cost attribution model informing Scheme of Charges
WWn5	Third party revenue	-	-	-	-	-	
Bio4	Third party revenue	-	-	-	-	-	
App17	Third party revenue	6.477	6.477	6.477	6.477	6.477	
C	Non-price control income (third party)						
14	Bulk supplies						
	<u>Consists of:</u>						
	<i>Bulk supplies water</i>						
	<i>Bulk supplies wastewater</i>						
Wr3	Bulk supplies	8.174	8.174	8.174	8.174	8.174	Split as per cost attribution model informing Scheme of Charges
Wn3	Bulk supplies	0.396	0.396	0.396	0.396	0.396	Split as per cost attribution model informing Scheme of Charges
WWn5	Bulk supplies	0.015	0.015	0.015	0.015	0.015	Split 50:50 (not material)
Bio4	Bulk supplies	0.015	0.015	0.015	0.015	0.015	Split 50:50 (not material)
App17	Bulk supplies	8.600	8.600	8.600	8.600	8.600	
16	Rechargeable works						
	<u>Consists of:</u>						
	<i>Fire hydrants</i>						
	<i>Repair of damage to Co apparatus</i>						
	<i>Build over sewers</i>						
	<i>Installing meter on unmeasured (Non-household)</i>						
	<i>Trade effluent consent revision</i>						
	<i>Non-primary charges from wholesale service centre</i>						
	<i>Provision of plan information of underground assets</i>						
	<i>Flow and pressure testing of customer supply</i>						
	<i>Meter testing</i>						
	<i>Relocating household meter</i>						

Welsh Water Wholesale Water Network Business Plan Commentaries

	Year ending Mar	2021 £m	2022 £m	2023 £m	2024 £m	2025 £m	Apportionment to sub-controls
			2017-18 FYA (CPIH deflated)				
	<i>Private sewer cleaning</i>						
	<i>Disconnection / reconnection of supply</i>						
Wr3	Rechargeable works	-	-	-	-	-	
Wn3	Rechargeable works	0.473	0.473	0.473	0.473	0.473	All allocated to network plus
WWn5	Rechargeable works	0.464	0.464	0.464	0.464	0.464	All allocated to network plus
Bio4	Rechargeable works	-	-	-	-	-	
App17	Rechargeable works	0.937	0.937	0.937	0.937	0.937	
17	Other non-price control (third party services)						
	<i>Consists of "Excluded" charges (Li.Con B)</i>						
	<i>s20 Reservoir operating agreements (NRW)</i>						
	<i>s20 Reservoir operating agreements (additional capex) (NRW)</i>						
	<i>Stand pipes</i>						
	<i>Water tanks & water tankers</i>						
	<i>Reception and disposal of waste (costs& income in non-appointed)</i>						
Wr3	Other non-price control (third party services)	7.607	7.627	7.647	7.667	7.687	s20 allocated 100% to Water Resources
Wn3	Other non-price control (third party services)	0.026	0.026	0.026	0.026	0.026	Tankers allocate 100% to network plus
WWn5	Other non-price control (third party services)	-	-	-	-	-	
Bio4	Other non-price control (third party services)	-	-	-	-	-	
App17	Other non-price control (third party services)	7.633	7.653	7.673	7.693	7.713	
18	Total non-price control income (third party services)						
Wr3	Total non-price control income (third party services)	15.782	15.801	15.821	15.841	15.861	
Wn3	Total non-price control income (third party services)	0.894	0.894	0.894	0.894	0.894	
WWn5	Total non-price control income (third party services)	0.480	0.480	0.480	0.480	0.480	
Bio4	Total non-price control income (third party services)	0.015	0.015	0.015	0.015	0.015	
App17	Total non-price control income (third party services)	17.171	17.190	17.210	17.230	17.250	
D	Non-price control income (principal services)						
19	Other non-price control (principal services)						
	<i>Consists of:</i>						
	<i>Rental income (mobile phone masts, wind turbines, solar panels)</i>						
Wr3	Other non-price control (principal services)	0.494	0.494	0.494	0.494	0.494	Allocated in proportion to weighted average site income from 15/16 to 17/18
Wn3	Other non-price control (principal services)	0.070	0.070	0.070	0.070	0.070	Allocated in proportion to weighted average site income from 15/16 to 17/18
WWn5	Other non-price control (principal services)	0.152	0.152	0.152	0.152	0.152	Allocated in proportion to weighted average site income from 15/16 to 17/18
Bio4	Other non-price control (principal services)	0.152	0.152	0.152	0.152	0.152	Allocated in proportion to weighted average site income from 15/16 to 17/18
App17	Other non-price control (principal services)	0.868	0.868	0.868	0.868	0.868	Allocated in proportion to weighted average site income from 15/16 to 17/18

Annex 2 - Analysis for lines 20 to 23 - Current period proportions from the analysis of wholesale revenues

Proportion of annual revenue by Wholesale control

	2015-16	2016-17	2017-18	2018-19	Average
	Measured	Measured	Measured	Measured	Measured
Water					
Household	19.61%	20.69%	21.84%	21.95%	21.02%
Non-Household	26.67%	26.80%	26.46%	27.08%	26.75%
	46%	47%	48%	49%	48%

	2015-16	2016-17	2017-18	2018-19	Average
	Unmeasured	Unmeasured	Unmeasured	Unmeasured	Unmeasured
Water					
Household	52.92%	51.73%	50.95%	50.22%	51.46%
Non-Household	0.80%	0.78%	0.74%	0.75%	0.77%
	54%	53%	52%	51%	52%

	2015-16	2016-17	2017-18	2018-19	Average
	Measured	Measured	Measured	Measured	Measured
Wastewater					
Household	25.20%	25.28%	26.75%	26.85%	26.02%
Non-Household	18.47%	19.07%	19.32%	18.95%	18.95%
	44%	44%	46%	46%	45%

	2015-16	2016-17	2017-18	2018-19	Average
	Unmeasured	Unmeasured	Unmeasured	Unmeasured	Unmeasured
Wastewater					
Household	55.59%	54.90%	53.23%	53.49%	54.30%
Non-Household	0.74%	0.75%	0.70%	0.70%	0.72%
	56%	56%	54%	54%	55%

	2015-16	2016-17	2017-18	2018-19	Average
	Measured	Measured	Measured	Measured	Measured
Wholesale					
Household	22.85%	23.34%	24.69%	24.78%	23.92%
Non-Household	21.92%	22.33%	22.31%	22.40%	22.24%
	45%	46%	47%	47%	46%

	2015-16	2016-17	2017-18	2018-19	Average
	Unmeasured	Unmeasured	Unmeasured	Unmeasured	Unmeasured
Wholesale					
Household	54.46%	53.57%	52.28%	52.11%	53.10%
Non-Household	0.77%	0.76%	0.72%	0.72%	0.74%
	55%	54%	53%	53%	54%

Welsh Water Wholesale Water Network Business Plan Commentaries

Annual Change on proportion

	2015-16	2016-17	2017-18	2018-19	Average
	Measured	Measured	Measured	Measured	Measured
Water					
Household		1.08%	1.16%	0.11%	0.78%
Non-Household		0.12%	-0.33%	0.61%	0.12%

	2015-16	2016-17	2017-18	2018-19	Average
	Unmeasured	Unmeasured	Unmeasured	Unmeasured	Unmeasured
Water					
Household		-1.18%	-0.78%	-0.73%	-0.90%
Non-Household		-0.02%	-0.04%	0.00%	-0.02%

	2015-16	2016-17	2017-18	2018-19	Average
	Measured	Measured	Measured	Measured	Measured
Wastewater					
Household		0.07%	1.47%	0.11%	0.55%
Non-Household		0.60%	0.25%	-0.37%	0.16%

	2015-16	2016-17	2017-18	2018-19	Average
	Unmeasured	Unmeasured	Unmeasured	Unmeasured	Unmeasured
Wastewater					
Household		-0.68%	-1.67%	0.26%	-0.70%
Non-Household		0.00%	-0.05%	0.01%	-0.01%

	2015-16	2016-17	2017-18	2018-19	Average
	Measured	Measured	Measured	Measured	Measured
Wholesale					
Household		0.49%	1.35%	0.08%	0.64%
Non-Household		0.41%	-0.01%	0.08%	0.16%

	2015-16	2016-17	2017-18	2018-19	Average
	Unmeasured	Unmeasured	Unmeasured	Unmeasured	Unmeasured
Wholesale					
Household		-0.90%	-1.29%	-0.17%	-0.79%
Non-Household		-0.01%	-0.05%	0.01%	-0.02%

Wn4 - Cost recovery for water network plus

Table Validation

There are no validation errors in this table

Line 1 – 14

We have treated the capital value created from post 2020 investment arising from non-PAYG totex the same as the 2020 RCV. We have treated the RPI linked RCV the same and the CPIH linked RCV. We have set the RCV run off rate to match the average expected useful lives of the underlying assets. We have applied the same “natural” RCV run off rate to each of the RPI linked 2020 RCV, CPI linked 2020 RCV and the post 2020 investment. The natural rate of RCV run off remains appropriate for 2025-30 period.

~~As a result we are not accelerating or decelerating the rate of recovery of expenditure added to the RCV between generations of customers.~~

~~For each price control the average expected useful lives have been generated using an assessment of the engineering lives of each asset class and weighted using the gross MEAV.~~

An increase of 0.29% to the natural RCV run off rate has been included to address financeability in the notional company.

Block A Lines 1 -5 RCV run off rate ~ RPI linked RCV

Line 1 “Natural” RCV run off rate

Proposed “natural” RCV run off rates (indexed by RPI) for wholesale water network plus. (The percentage of the RPI linked RCV that is depreciated annually). The “natural RCV rate” is a rate which reflects the economic reality of the expenditure which the company is incurring and the long term nature of its investments.

The average expected useful lives of Water Network Plus assets have been generated using an assessment of the engineering lives of each asset class and weighted using the gross MEAV. The resulting asset life for water network plus is 24.5 years, corresponding to a “natural” RCV run off rate of 4.08% (reciprocal of asset life) for each year across AMP7 and AMP8.

Line 2 Adjustments to RCV run off rate to address transition from RPI to CPI

Proposed adjustments to the RCV run off rates (indexed by RPI) for wholesale water network plus, that the company considers are required to address issues arising from the transition from RPI to CPIH as the primary inflation index.

We are not proposing an adjustment to the RCV run off rate to address the transition from RPI to CPIH.

Line 3 Other adjustments to RCV run off rate

Proposed adjustments to the RCV run off rates (indexed by RPI) for wholesale water network plus, that the company considers are required to address issues arising from the transition from RPI to CPIH as the primary inflation index.

~~We are not proposing an adjustment to the RCV run off rate to address other issues. We have smoothed bills within the 2020-25 period on an NPV neutral basis using the functionality in the Ofwat financial model.~~

An increase of 0.29% to the natural RCV run off rate has been included to address financeability in the notional company.

Line 4 Total RCV run off rate to be applied

Proposed total RCV run off rates (indexed by RPI) for wholesale water network plus. Equals the sum of Wr4 lines 1 to 3.

Calculated.

Line 5 Method used to apply run-off rate (straight line or reducing balance)

The method used to apply the RCV run off rates (indexed by RPI) either in a straight line or a reducing balance. (Description of the accounting method used to depreciate the RPI linked RCV). We expect the same method to be used in 2025-30 as for 2020-25.

We have used a reducing balance approach to apply the RCV run off rates.

Block B Lines 6 -10 RCV run off rate CPI/CPI(H) linked RCV

Line 6 "Natural" RCV run off rate

Proposed "natural" RCV run off rates (indexed by CPIH) for wholesale water network plus. (The percentage of the CPI(H) linked RCV that is depreciated annually). The "natural RCV rate" is a rate which reflects the economic reality of the expenditure which the company is incurring and the long term nature of its investments.

The average expected useful lives of Water Network Plus assets have been generated using an assessment of the engineering lives of each asset class and weighted using the gross MEAV.

The resulting asset life for water network plus is 24.5 years, corresponding to a "natural" RCV run off rate of 4.08% (reciprocal of asset life) for each year across AMP7 and AMP8.

Line 7 Adjustments to RCV run off rate to address transition from RPI to CPI

Proposed adjustments to the RCV run off rates (indexed by CPIH) for wholesale water network plus, that the company considers are required to address issues arising from the transition from RPI to CPIH as the primary inflation index.

We are not proposing an adjustment to the RCV run off rate to address the transition from RPI to CPIH.

Line 8 Other adjustments to RCV run off rate

Proposed other adjustments to the RCV run off rates (indexed by CPIH) for wholesale water network plus, that the company wishes to make to enable it address issues such as the smoothing of bills.

~~We are not proposing an adjustment to the RCV run off rate to address other issues. We have smoothed bills within the 2020-25 period on an NPV neutral basis using the functionality in the Ofwat financial model.~~

An increase of 0.29% to the natural RCV run off rate has been included to address financeability in the notional company.

Line 9 Total RCV run off rate to be applied

Proposed total RCV run off rates (indexed by CPIH) for wholesale water network plus. Equals the sum of Wr4 lines 6 to 8.

Calculated.

Line 10 Method used to apply run off rate (straight line or reducing balance)

The method used to apply the RCV run off rates (indexed by CPIH) either in a straight line or a reducing balance. (Description of the accounting method used to depreciate the CPI(H) linked RCV). We expect the same method to be used in 2025-30 as for 2020-25.

We have used a reducing balance approach to apply the RCV run off rates.

Block C Lines 11 -14 PAYG Rate – Water Network Plus

Line 11 “Natural” PAYG rate – water network plus

Proposed “natural” PAYG rates for wholesale water network plus relevant to the wholesale water network plus revenue / totex projected in Wn3. These should be expressed as a percentage of totex forecast in each year. The “natural PAYG rate” is a rate which reflects the economic reality of the expenditure which the company is incurring and the long term nature of its investments.

We have calculated the “natural” PAYG rate as the rate which recovers operating expenditure (inclusive of infrastructure renewal expenditure) in the year that it is incurred and capex net of grants and contributions is added to the RCV and recovered from both current and future customers over time.

The natural PAYG rate is Opex divided by Totex net of grants and contributions calculated on a year by year basis, as follows:

	2020-21	2021-22	2022-23	2023-24	2024-25
Opex (£m) WS1 line 11	119.4	115.6	112.4	109.8	111.7
Totex (net G&Cs) (£m) WS1 line 21	273.1	270	262.8	253.4	259
PAYG rate (%)	43.73%	42.80%	42.76%	43.33%	43.15%

	2025-26	2026-27	2027-28	2028-29	2029-30
Opex (£m)	98.4	97.4	96.4	95.4	94.4
Totex (net G&Cs) (£m)	227.3	224.9	222.4	219.9	217.4
PAYG rate (%)	43.29%	43.29%	43.33%	43.37%	43.41%

	2020-21	2021-22	2022-23	2023-24	2024-25
Opex (£m) WS1 line 11	122.214	117.675	114.337	111.594	113.412
Totex (net G&Cs) (£m) WS1 line 21	253.598	250.194	237.691	228.017	226.990
PAYG rate (%)	48.19%	47.03%	48.10%	48.94%	49.96%

Line 12 Adjustments to PAYG rate to address transition from RPI to CPI ~ water network plus

Proposed adjustments to the PAYG rates for wholesale water network plus, that the company considers are required to address issues arising from the transition from RPI to CPIH as the primary inflation index.

We are not proposing an adjustment to the PAYG rate to address the transition from RPI to CPIH.

Line 13 Other adjustments to PAYG rate water network plus

Proposed other adjustments to the PAYG rates for wholesale water network plus, that the company wishes to make to enable it address issues such as the smoothing of bills.

We are not proposing an adjustment to the PAYG rate to address other issues. We have smoothed bills within the 2020-25 period on an NPV neutral basis using the functionality in the Ofwat financial model.

We have adjusted the natural PAYG rate to address financeability in the notional company.

Line 14 Total PAYG rate ~ water network plus

Welsh Water - Water Network Tables Commentaries

Proposed total PAYG rates to be applied to wholesale water network plus totex. Equals the sum of Wn4 lines 11 to 13.

Calculated.

Wn6 - Wholesale water network plus special cost factors

Table Validation

There are no validation errors in this table

Overview

We are not submitting special factors for the econometric modelling at this time due to the on-going cost assessment working group. However, we are submitting two claims for atypically large investments.

Line 1 Description of special cost claim

Description of costs being put forward for a special cost claim. A separate table block should be filled in for each cost type that has been identified as requiring special treatment (adjustment / exclusion). This description will need to be able to identify the supporting evidence elsewhere in the business plan that sets out the case to the special treatment.

This claim relates to the investment relating to our major project to provide improved resilience and performance by replacing a number of existing works with a new large water treatment works in Merthyr Tydfil, to be completed across AMP7 and AMP8. It is planned to start in 2020-21 so there is no spend prior to AMP7. The AMP7 element of the project is to construct a new service reservoir and associated connections, which will provide resilience to a major part of our network against interruptions to supply. We do not anticipate commencing construction of the new treatment works until AMP8.

Line 2 Type of special cost claim

Type of special cost claim proposed. This will be one of 'atypically large investment', 'material new costs', 'regional operating circumstances' or 'other (specify)'. See final methodology document for identification of what can be considered as a special cost claim.

This claim is for an atypically large investment.

Line 3 Total expenditure used for the purpose of business plan

Company's total expenditure related to the proposed special cost claim. Costs in this line should be consistent with business plan costs and should be gross of any capital contributions or grants. Total expenditure is as set out in the Regulatory Accounting Guidelines.

The project is planned to start in 2020-21 so there is no spend prior to AMP7.

The programme of work and planned expenditure is detailed in Supporting Document 5.8F PR19 IC: Cwm Taf Water Supply. The whole of the total expenditure on this project within AMP7 is included in this line as a special cost factor claim.

We have updated this line from our previous submission to correct an error that created a misalignment with WS2. The figures in WS2 were correct and have not been updated.

We have reduced the overall total investment associated with the Cwm Taf Water Supply Strategy to £13.562m, as allowed in the DD.

Line 4 Historic total expenditure

Historic total expenditure related to the proposed special cost claim. This should be gross of any capital contributions or grants. Total expenditure is as set out in the Regulatory Accounting Guidelines.

We have not shown any historical expenditure on this line, as there is no pre-2021 expenditure on this specific project.

Naturally, we are spending botex to maintain the existing sites currently but this level of spend will continue through AMP7 until the new site is commissioned in AMP8. The business case for the

complete project reflects the expected reduction in both operating costs and capital maintenance costs, but this will not be seen until AMP8. The whole of the AMP7 project cost is related to resilience improvements and therefore it is not appropriate to compare historical costs with this investment level.

Line 5 Description of special cost claim

Description of costs being put forward for a special cost claim. A separate table block should be filled in for each cost type that has been identified as requiring special treatment (adjustment / exclusion). This description will need to be able to identify the supporting evidence elsewhere in the business plan that sets out the case to the special treatment.

This line relates to the expenditure on our major programme of investment to improve our performance relating to customer acceptability of water.

Line 6 Type of special cost claim

Type of special cost claim proposed. This will be one of 'atypically large investment', 'material new costs', 'regional operating circumstances' or 'other (specify)'. See final methodology document for identification of what can be considered as a special cost claim.

This claim is for an atypically large investment.

Line 7 Total expenditure used for the purpose of business plan

Company's total expenditure related to the proposed special cost claim. Costs in this line should be consistent with business plan costs and should be gross of any capital contributions or grants. Total expenditure is as set out in the Regulatory Accounting Guidelines.

This line relates to the expenditure on our major programme of investment to improve our performance relating to customer acceptability of water, which qualifies for a special cost factor as an 'atypically large investment'. As identified in our investment case we are not claiming the whole of the expenditure as a special cost factor, only the element that is enhancement expenditure. We have shown the relevant AMP6 enhancement expenditure in this line for 2018-19 and 2019-20 as a comparator. The programme of work and the breakdown of total expenditure is detailed in the Supporting Document 5.8I: PR19 IC: Acceptability of Water Service Improvement.

Since our Business Plan was submitted in September we have updated the presentation of our programme to improve customer acceptability of water and separated it out between requirements to meet our legal obligations under notices from the DWI and the remainder of our programme. This split is shown in our WS2 table. We are updating our special cost claim to reflect only those costs not covered by DWI notices. In reviewing the numbers we identified a slight discrepancy between the numbers in this table and the numbers in WS2. We have now corrected this so the two tables are aligned.

Line 8 Historic total expenditure

Historic total expenditure related to the proposed special cost claim. This should be gross of any capital contributions or grants. Total expenditure is as set out in the Regulatory Accounting Guidelines.

We have shown the relevant AMP6 enhancement expenditure in this line for 2018-19 and 2019-20 as a comparator. The proposed programme for AMP7 is a significant uplift on this level.

Since our Business Plan was submitted in September we have updated the presentation of our programme to improve customer acceptability of water and separated it out between requirements to meet our legal obligations under notices from the DWI and the remainder of our programme. This split is shown in our WS2 table. We are updating our special cost claim to reflect only those costs not covered by DWI notices. In reviewing the numbers we identified a slight discrepancy between the

numbers in this table and the numbers in WS2. We have now corrected this so the two tables are aligned.

Wr3 - Wholesale revenue projections for the water resources price control

Table Validation

No validation errors appear in this table

This table includes all our revenue expected for the provision of our wholesale water resources activities at 2017-18 financial year average prices.

Line Commentary

Lines 1 - 12

These lines contain the wholesale revenue requirement aggregated by building blocks. The line in each sub-control tables Wr3, Wn3, WWn5 and Bio4 are calculated in the Ofwat financial model. The lines in APP17 are calculated lines from the individual income recorded in the sub-control tables Wholesale revenue projections for the price controls: Wr3, Wn3, WWn5 and Bio4.

Line 1 PAYG ~ wholesale water resources

*Projected total pay as you go (PAYG) for wholesale water resources costs. Equals WS1 line 21 * Wr4 line 19.*

Calculated.

Line 2 Pension deficit repair contributions wholesale water resources

Projected total cost of pension deficit repair contributions for wholesale water resources.

In line with information notice IN 13/17 the final revenue allowance for pension deficit repair will be applied in 2019-20. We have not included a contribution from customers toward the pension deficit repair costs included in the plan during 2020-25. The company will bear the costs of the pension deficit repair costs included in WS1 and WWS1.

Line 3 Run off on post 2020 investment wholesale water resources

Projected run off (depreciation charge) on post 2020 wholesale water resources totex investment incurred in the 2020-25 period and not recovered through PAYG.

These values are calculated in the Ofwat financial model.

Line 4 Return on post 2020 investment wholesale water resources

Projected return on post 2020 wholesale water resources network plus totex additions incurred in the 2020-25 period and not recovered through PAYG.

These values are calculated in the Ofwat financial model.

Line 5 Run off on RPI inflated 2020 RCV wholesale water resources

Projected run off (depreciation charge) on the proportion of the RCV at 1 April 2020 indexed by RPI.

These values are calculated in the Ofwat financial model.

Line 6 Return on RPI inflated 2020 RCV wholesale water resources

Projected return on the proportion of the RCV at 1 April 2020 indexed by RPI.

These values are calculated in the Ofwat financial model.

Line 7 Run off on CPIH inflated 2020 RCV wholesale water resources

Projected run off (depreciation charge) on the proportion of the RCV at 1 April 2020 indexed by CPIH.

These values are calculated in the Ofwat financial model.

Line 8 Return on CPIH inflated 2020 RCV wholesale water resources

Projected return on the proportion of the RCV at 1 April 2020 indexed by CPIH.

These values are calculated in the Ofwat financial model.

Line 9 Current tax wholesale water resources

Forecast current tax payable for wholesale water resources.

These values are calculated in the Ofwat financial model and are nil for all wholesale price controls as the business generates a taxable loss in each year of the price control driven by capital allowances (see App29 – Wholesale tax).

Line 10 Re-profiling of allowed revenue wholesale water resources

The impact of re-profiling the wholesale water resources allowed revenue.

~~We have used the revenue re-profiling functionality in the Ofwat financial model to re-profile revenue on an NPV neutral basis to deliver a total combined residential bill which is broadly constant in real terms between 2020-21 and 2024-25. This is in line with a clear customer preference for a more or less constant bill profile evidenced on page 40 of the PR19 Customer Engagement: Bills and affordability research ref 1.1C.~~

We have used the revenue re-profiling functionality in the Ofwat financial model to re-profile revenue on an NPV neutral basis to deliver a total combined residential bill declines over AMP7 in real terms between 2020-21 and 2024-25 (see WSH.DD.OO.4 Social Tariffs).

Line 11 PR14 reconciliation revenue adjustments wholesale water resources

The PR14 reconciliation revenue adjustments associated with wholesale water resources.

These values are obtained from the revenue adjustment feeder model and are profiled across 2020-21 to 2014-25 on a constant annuity basis. There are no PR14 reconciliation revenue adjustments within water resources.

Line 12 Total wholesale water resources revenue requirement

The company's projected total wholesale water resources revenue requirement. Equals the sum of Wr3 lines 1 to 11.

2020-21 to 2024-25 are calculated cells in 2017-18 FYA (CPIH) deflated price base.

2019-20 Value input in Outturn (nominal price base).

Revenue requirement for 2019-20

The FD14 revenue requirement was set at the wholesale level and, therefore, needs to be split for input into tables Wr3 Wholesale water resources and Wn3 Wholesale water network plus. For the purposes of completing this cell we have calculated the revenue requirement for 2019-20 from WS13 and the FD14 financial model as shown in the table below. This calculation ensures that the 2019-20 Revenue Requirement is comparable to the Revenue Requirement calculation for PR19 in the years 2020-21 to 2024-25. The wholesale water revenue requirement for 2019-20 has then been split between the sub-controls in proportion to the AMP7 weighted average split of revenue requirement also shown in the table below. This gives an outturn wholesale water revenue requirement of ~~£327.581m~~ **£327.585m** which has been split ~~16.9%~~ **16.79%** Water resources and ~~83.1%~~ **83.21%** Water network plus to give outturn revenue requirement for 2019-20 of ~~£55.282m~~ **£54.993m** for Water resources and ~~£272.300m~~ **£272.592m** for Water network plus.

Welsh Water - Water Resources Table Commentaries

Wholesale Water

WS13		2019-20					
Line 12	Allowed Revenue	317.96					
Line 25	G&C actual		10.087				
Line 26	G&C over recovery		1.47				
calc -(25-26)	G&C allowed	-8.617					
Fin Mod (FD14)	Other income (inc 3rd party)		15.227				<Water Real AR> row 56: Other income (incl 3rd party income)
			1.198				Inflation factor 2012-13 to 2019-20 outturn
	3rd Party income	<u>18.239</u>					
	Revenue Requirement	<u>327.581</u>					
	Revenue Requirement (£m)	2020-21	2021-22	2022-23	2023-24	2024-25	2020-25
Wr3 Line 12	Water Resources	49	49	50	50	50	248
Wn3 Line 12	Water network plus	239	241	244	247	250	1,221
	Revenue Requirement	288	290	293	297	300	1,469
		17.00%	16.90%	16.90%	16.80%	16.80%	16.90%
		83.00%	83.10%	83.10%	83.20%	83.20%	83.10%
A12 (2019-20)	Split of FD14 2019-20 Rev Req	2019-20					
Wr3	A12 (2019-20)	55.282		16.90%			
Wn3	A12 (2019-20)	<u>272.3</u>		83.10%			
		<u>327.581</u>					

Wholesale Water

WS13		2019-20					
12	Allowed Revenue	317.960					
25	G&C actual		9.333				
26	G&C over recovery		0.716				
calc -(25-26)	G&C allowed	-8.617					
Fin Mod (FD14)	Other income (incl. 3rd party)		15.227				<Water Real AR> row 56: Other income (incl. 3rd party income)
			1.198				Inflation factor 12/13 to 19/20 outturn
	3rd Party income	18.242					
	Revenue Requirement	327.585					
A12 (2019-20)	Split of FD14 19/20 Rev Req	2019-20					
Wr3	A12 (2019-20)	54.993		16.79%			
Wn3	A12 (2019-20)	272.592		83.21%			
		327.585					
	Revenue Requirement (£m)	20-21	21-22	22-23	23-24	24-25	20-25
Wr3 Line 12	Water Resources	45.47	47.35	49.37	52.08	54.24	248.51
Wn3 Line 12	Water network plus	240.48	243.20	246.01	249.61	252.50	1231.80
	Revenue Requirement	285.95	290.54	295.38	301.69	306.74	1480.31
		15.90%	16.30%	16.71%	17.26%	17.68%	16.79%
		84.10%	83.70%	83.29%	82.74%	82.32%	83.21%

Lines 13 – 19

These lines contain the “miscellaneous” income received by the appointed business. The lines in APP17 are calculated lines from the individual income recorded in the sub-control tables Wholesale revenue projections for the price controls: Wr3, Wn3, WWn5 and Bio4. The total position and the entries in each of these tables together with the method of allocation is shown in Annex 1 at the end of this commentary. For ease of reference these tables are repeated at the end of the commentaries for each of the revenue projections tables.

Line 13 Third party revenue wholesale water resources

Projected third party revenue covered by the wholesale water resources price control. Appendix 1 of RAG4.07 provides further information on the income to be categorised as third party.

The non-potable water income has been allocated to water resources using the cost attribution model used to inform charge setting and the water resources RCV allocation work.

Line 14 Bulk supplies contract not qualifying for water trading incentives (signed before 1 April 2020) water resources

Income from bulk supplies (for potable and non-potable supplies) to another water undertaker, where the contract does not qualify for water trading incentives or was signed before 1 April 2020.

The main source of income from Bulk supplies is from the Elan Valley supply to Severn Trent water this has been allocated 100% to Water Resources. The income from bulk supplies of treated water bulk supplies have been allocated to water resources using the cost attribution model used to inform charge setting and the water resources RCV allocation work. The income from the Elan Valley bulk supply includes a share of distribution from the Trust Fund set up when the original agreement was established therefore the actual trend of income is a factor of the performance of the fund as well as the amount of water provided. The methodology employed to forecast the expected income is considered reasonable given the uncertainty around the trust fund income.

Line 15 Bulk supplies contract qualifying for water trading incentives (to be signed on or after 1 April 2020) water resources

Income from bulk supplies (for potable and non-potable supplies) to another water undertaker, where the contract qualifies for water trading incentives and will be signed on or after 1 April 2020.

No new bulk supplies during the period have been included in the Business Plan.

Line 16 Rechargeable works water resources

Rechargeable works, as listed in Appendix 1 of RAG4.07

No rechargeable works income relates to services provided from the water resources sub-control.

Line 17 Other non-price control third party services water resources

All other non-price control income for third party services e.g excluded charges, as listed in Appendix 1 of RAG4.07.

The s20 reservoir operating agreement income has been allocated to the water resources sub-control. A new agreement has been made to reflect the increased capital expenditure for dam safety. The charges in this agreement increase annually by CPIH + 1% so the forecast expenditure at 2017-18 prices is increasing to reflect this.

Line 18 Total non-price control income (third party services) water resources

Projected total income from third party services outside of the wholesale water resources price control. Equals the sum of Wr3 lines 14 to 17.

Calculated.

Line 19 Wholesale water resources non-price control income (principal services)

Projected income from principal services for which costs are not covered by the wholesale water resources price control e.g. recreational use of protected land, as listed in Appendix 1 of RAG4.07.

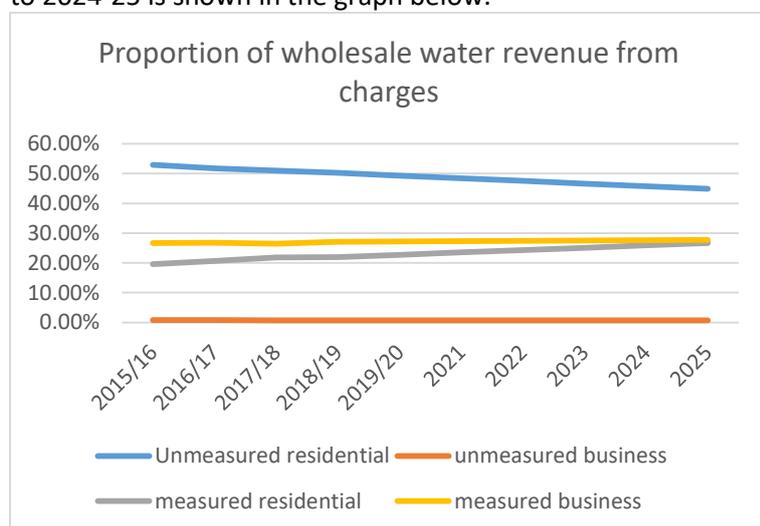
This is the rental income from mobile phone masts on appointed assets land. The income is allocated to sub-control in proportion to weighted average site income from 2015-16 to 2017-18.

Line 20 – 23 Water resources charges (business & residential)

The proportional allocation of the projected wholesale water resources allowed revenue to unmeasured residential customers (line 20) unmeasured business customers (line 21), measured residential customers (line 22) measured business customers (line 23), from wholesale water resources charges.

Wholesale water change in proportion of residential revenue due to meter optants and new connections is calculated to be 0.9% from unmeasured residential which moves to 0.78% to measured wastewater and 0.12% to measured business. Unmeasured business remains static. It is assumed that the revenue from network plus and water resources charges change by the same amount annually.

The tables in Annex 2 show the analysis behind these forecasts. The level of recovery from 2015-16 to 2024-25 is shown in the graph below.



Line 24 Total wholesale water resources allowed revenue

Projected total wholesale water resources allowed revenue from wholesale water resources charges. Charges income should be equal to building blocks income less price control income from other sources. Equals Wr3 line 11 minus line 12.

Calculated.

The business plan tables: Wr3, Wn3 and WWn5 have extra lines added to split out grants and contribution income into opex income and capex income as well as to price control (PC) and non-price control (Non-PC). The income has been split in accordance with the table below.

Allocation of income 2020-25	Wholesale water		Wholesale Wastewater	
	Opex	Capex	Opex	Capex
New connections (Water)	PC	PC		
Sewer adoption (s102 & s104)			Non-PC ¹	

Infrastructure charges		PC		PC
Requisitions		PC		PC
Diversions	PC ²		PC ²	
Other (inc. Grants and income from feasibility studies)		Non-PC		Non-PC

Notes

1. Charges for vetting and adoption of new sewers (s102 & s104) was treated as price control income during 2015-2020 in line with Appendix 1 of RAG4.
2. Income from diversions was treated outside of the price control during 2015-2020 in line with Appendix 1 of RAG4.

The impact of the change on the table is set out in the tables at the end of this section.

Line 25 Water resources **operating expenditure** grants and contributions (price control)

*Projected **operating expenditure** grants and contributions covered by the wholesale water resources price control. This represents the wholesale water resources element of the total grants and contributions received for the wholesale water service contained in App28 lines 7 to 10.*

No grants or contributions for this line.

Line 26 Water resources **Capital expenditure** grants and contributions (price control)

*Projected **capital expenditure** grants and contributions covered by the wholesale water resources price control. The sum of lines 25 and 26 represents the wholesale water resources element of the total grants and contributions received for the wholesale water service contained in App28 lines 7 to 10.*

~~No grants or contributions for this line.~~

An income of £10m in outturn over AMP7 to reflect Ofwat's DD for Reservoir Safety enhancement expenditure.

Line 267 Water resources **operating expenditure** grants and contributions (non-price control)

*Projected **operating expenditure** grants and contributions not covered by the wholesale water resources price control. This represents the wholesale water resources element of the total 'other' non-price control grants and contributions received for the wholesale water service contained in App28 line 12.*

No grants or contributions for this line.

Line 28 Water resources **Capital expenditure** grants and contributions (non-price control)

*Projected **capital expenditure** grants and contributions not covered by the wholesale water resources price control. The sum of lines 27 and 28 represents the wholesale water resources element of the total 'other' non-price control grants and contributions received for the wholesale water service contained in App28 line 12.*

A grant for work undertaken at Llys-y-Fran reservoir that is expected to be received in 2020-21 has been included in the water resources sub-control. No other capital income is forecast for this sub-control.

Line 279 Total revenue wholesale water resources control

*Projected total wholesale water resources revenue requirement for the wholesale water resources price control including projected grants and contributions covered by the wholesale water resources price control. Equals Wr3 line 12 minus line 18 minus line 19 plus line 25 **plus line 26**. Calculated.*

Annex 1 Lines 13 – 19 and 25 & 26

The total “miscellaneous” income in the Business plan is shown in the Summary table below:

	Year ending Mar	2021 £m	2022 £m	2023 £m	2024 £m	2025 £m
		2017-18 FYA (CPIH deflated)				
Summary						
Total Grants & Contributions (price control)		21.36	21.589	21.809	21.88	21.92
Total Grants & Contributions (non-price control)		<u>3.04</u>	<u>1.185</u>	<u>1.198</u>	<u>1.201</u>	<u>1.204</u>
Total Grants & Contributions		24.4	22.774	23.007	23.081	23.124
Total Other Income (price control)		6.477	6.477	6.477	6.477	6.477
Total Other Income (non-price control)		<u>18.049</u>	<u>18.069</u>	<u>18.088</u>	<u>18.108</u>	<u>18.128</u>
Total Other income		24.526	24.546	24.565	24.585	24.605
Price control income		27.837	28.066	28.286	28.357	28.397
Non-price control		<u>21.089</u>	<u>19.254</u>	<u>19.286</u>	<u>19.31</u>	<u>19.333</u>
Total "miscellaneous" income		48.927	47.319	47.573	47.667	47.729

	Year ending Mar	2021 £m	2022 £m	2023 £m	2024 £m	2025 £m
		2017-18 FYA (CPIH deflated)				
Summary						
Total Grants & Contributions (price control)		21.360	21.589	21.809	21.880	21.920
Total Grants & Contributions (non-price control)		<u>3.040</u>	<u>1.185</u>	<u>1.198</u>	<u>1.201</u>	<u>1.204</u>
Total Grants & Contributions		24.400	22.774	23.007	23.082	23.124
Total Other Income (price control)		6.477	6.477	6.477	6.477	6.477
Total Other Income (non-price control)		<u>18.040</u>	<u>18.060</u>	<u>18.080</u>	<u>18.099</u>	<u>18.120</u>
Total Other income		24.517	24.537	24.557	24.576	24.596
Price control income		27.837	28.066	28.286	28.357	28.397
Non-price control		<u>21.080</u>	<u>19.245</u>	<u>19.278</u>	<u>19.301</u>	<u>19.324</u>
Total "miscellaneous" income		48.918	47.311	47.564	47.658	47.720

The individual lines for App 17 and the method of apportionment between the sub-controls (and reported in tables Wr3, Wn3, WWn5, Bio4) are shown in the tables below:

	Year ending Mar	2021 £m	2022 £m	2023 £m	2024 £m	2025 £m	Apportionment to sub-controls
B	Wholesale - other price control income						
13	Third party revenue						
	<i>Consists of non-potable water (not bulk supplies):</i>						
	<i>Band A Raw <50 MI</i>						
	<i>Band A Partial < 50MI</i>						
	<i>Band B Raw >50 MI</i>						
	<i>Band B Partial >50 MI</i>						
	<i>Special agreements – (WSHNONPOT9, 10a and 10b)</i>						
Wr3	Third party revenue	-2.824	-2.824	-2.824	-2.824	-2.824	Split as per cost attribution model informing Scheme of Charges
Wn3	Third party revenue	-3.653	-3.653	-3.653	-3.653	-3.653	Split as per cost attribution model informing Scheme of Charges
WWn5	Third party revenue	-	-	-	-	-	
Bio4	Third party revenue	-	-	-	-	-	
App17	Third party revenue	-6.477	-6.477	-6.477	-6.477	-6.477	
C	Non-price control income (third party)						
14	Bulk supplies						
	<i>Consists of:</i>						
	<i>Bulk supplies water</i>						
	<i>Bulk supplies wastewater</i>						
Wr3	Bulk supplies	-8.174	-8.174	-8.174	-8.174	-8.174	Split as per cost attribution model informing Scheme of Charges
Wn3	Bulk supplies	-0.396	-0.396	-0.396	-0.396	-0.396	Split as per cost attribution model informing Scheme of Charges
WWn5	Bulk supplies	-0.015	-0.015	-0.015	-0.015	-0.015	Split 50:50 (not material)
Bio4	Bulk supplies	-0.015	-0.015	-0.015	-0.015	-0.015	Split 50:50 (not material)
App17	Bulk supplies	8.601	8.601	8.601	8.601	8.601	
16	Rechargeable works						
	<i>Consists of:</i>						
	<i>Fire hydrants</i>						
	<i>Repair of damage to Co apparatus</i>						
	<i>Build over sewers</i>						
	<i>Installing meter on unmeasured (Non-household)</i>						
	<i>Trade effluent consent revision</i>						
	<i>Non-primary charges from wholesale service centre</i>						
	<i>Provision of plan information of underground assets</i>						
	<i>Flow and pressure testing of customer supply</i>						
	<i>Meter testing</i>						

Welsh Water - Water Resources Table Commentaries

	Year ending Mar	2021 £m	2022 £m	2023 £m	2024 £m	2025 £m	Apportionment to sub-controls
			2017-18 FYA (CPIH deflated)				
	<i>Relocating household meter</i>						
	<i>Private sewer cleaning</i>						
	<i>Disconnection / reconnection of supply</i>						
Wr3	Rechargeable works	-	-	-	-	-	
Wn3	Rechargeable works	-0.473	-0.473	-0.473	-0.473	-0.473	All allocated to network plus
WWn5	Rechargeable works	-0.464	-0.464	-0.464	-0.464	-0.464	All allocated to network plus
Bio4	Rechargeable works	-	-	-	-	-	
App17	Rechargeable works	-0.937	-0.937	-0.937	-0.937	-0.937	
17	Other non-price control (third party services)						
	<i>Consists of "Excluded" charges (Li.Con B)</i>						
	<i>s20 Reservoir operating agreements (NRW)</i>						
	<i>s20 Reservoir operating agreements (additional capex) (NRW)</i>						
	<i>Stand pipes</i>						
	<i>Water tanks & water tankers</i>						
	<i>Reception and disposal of waste (costs & income in non-appointed)</i>						
Wr3	Other non-price control (third party services)	-7.607	-7.627	-7.647	-7.667	-7.687	s20 allocated 100% to Water Resources
Wn3	Other non-price control (third party services)	-0.026	-0.026	-0.026	-0.026	-0.026	Tankers allocate 100% to network plus
WWn5	Other non-price control (third party services)	-	-	-	-	-	
Bio4	Other non-price control (third party services)	-	-	-	-	-	
App17	Other non-price control (third party services)	-7.633	-7.653	-7.672	-7.692	-7.712	
18	Total non-price control income (third party services)						
Wr3	Total non-price control income (third party services)	15.782	15.801	15.821	15.841	15.861	
Wn3	Total non-price control income (third party services)	0.894	0.894	0.894	0.894	0.894	
WWn5	Total non-price control income (third party services)	0.48	0.48	0.48	0.48	0.48	
Bio4	Total non-price control income (third party services)	0.015	0.015	0.015	0.015	0.015	
App17	Total non-price control income (third party services)	17.174	17.191	17.21	17.23	17.25	
D	Non-price control income (principal services)						
19	Other non-price control (principal services)						
	<i>Consists of:</i>						
	<i>Rental income (mobile phone masts, wind turbines, solar panels)</i>						
Wr3	Other non-price control (principal services)	0.494	0.494	0.494	0.494	0.494	Allocated in proportion to weighted average site income from 15/16 to 17/18
Wn3	Other non-price control (principal services)	0.07	0.07	0.07	0.07	0.07	Allocated in proportion to weighted average site income from 15/16 to 17/18
WWn5	Other non-price control (principal services)	0.152	0.152	0.152	0.152	0.152	Allocated in proportion to weighted average site income from 15/16 to 17/18
Bio4	Other non-price control (principal services)	0.161	0.161	0.161	0.161	0.161	Allocated in proportion to weighted average site income from 15/16 to 17/18
App17	Other non-price control (principal services)	0.878	0.878	0.878	0.878	0.878	

Welsh Water - Water Resources Table Commentaries

		Year ending Mar	2021 £m	2022 £m	2023 £m	2024 £m	2025 £m	Apportionment to sub-controls
F	Grants & Contributions							
25	Wholesale grants and contributions (price control)							
	<u>Consists of capital income:</u>							
	Infrastructure charges							
	Requisitions and self-lay							
	Connection charges (s45—Water)							
	Diversions							
Wr3	Wholesale grants and contributions (price control)		-	-	-	-	-	
Wn3	Wholesale grants and contributions (price control)		12.789	12.939	13.084	13.127	13.155	All allocated to network plus
WWn5	Wholesale grants and contributions (price control)		8.571	8.650	8.725	8.753	8.765	All allocated to network plus
Bio4	Wholesale grants and contributions (price control)		-	-	-	-	-	
App17	Wholesale grants and contributions (price control)		21.360	21.589	21.809	21.880	21.920	
26	Wholesale grants and contributions (non-price control)							
	<u>Consists of capital income:</u>							
	Sewer vetting, adoption agreements (PR19)							
	Feasibilities							
	Grants							
Wr3	Wholesale grants and contributions (non-price control)		1.868	-	-	-	-	Non-grant income allocated to network plus, Grant income allocated by scheme
Wn3	Wholesale grants and contributions (non-price control)		0.053	0.053	0.053	0.053	0.053	As above
WWn5	Wholesale grants and contributions (non-price control)		1.119	1.132	1.145	1.148	1.151	As above
Bio4	Wholesale grants and contributions (non-price control)		-	-	-	-	-	As above
App17	Wholesale grants and contributions (non-price control)		3.040	1.185	1.198	1.201	1.204	

Welsh Water - Water Resources Table Commentaries

	Year ending Mar	2021 £m	2022 £m	2023 £m	2024 £m	2025 £m	Apportionment to sub-controls
B	Wholesale - other price control income						
13	Third party revenue						
	<u>Consists of non-potable water (not bulk supplies):</u>						
	<i>Band A Raw <50 MI</i>						
	<i>Band A Partial < 50MI</i>						
	<i>Band B Raw >50 MI</i>						
	<i>Band B Partial >50 MI</i>						
	<i>Special agreements – (WSHNONPOT9, 10a and 10b)</i>						
Wr3	Third party revenue	2.824	2.824	2.824	2.824	2.824	Split as per cost attribution model informing Scheme of Charges
Wn3	Third party revenue	3.653	3.653	3.653	3.653	3.653	Split as per cost attribution model informing Scheme of Charges
WWn5	Third party revenue	-	-	-	-	-	
Bio4	Third party revenue	-	-	-	-	-	
App17	Third party revenue	6.477	6.477	6.477	6.477	6.477	
C	Non-price control income (third party)						
14	Bulk supplies						
	<u>Consists of:</u>						
	<i>Bulk supplies water</i>						
	<i>Bulk supplies wastewater</i>						
Wr3	Bulk supplies	8.174	8.174	8.174	8.174	8.174	Split as per cost attribution model informing Scheme of Charges
Wn3	Bulk supplies	0.396	0.396	0.396	0.396	0.396	Split as per cost attribution model informing Scheme of Charges
WWn5	Bulk supplies	0.015	0.015	0.015	0.015	0.015	Split 50:50 (not material)
Bio4	Bulk supplies	0.015	0.015	0.015	0.015	0.015	Split 50:50 (not material)
App17	Bulk supplies	8.600	8.600	8.600	8.600	8.600	
16	Rechargeable works						
	<u>Consists of:</u>						
	<i>Fire hydrants</i>						
	<i>Repair of damage to Co apparatus</i>						
	<i>Build over sewers</i>						
	<i>Installing meter on unmeasured (Non-household)</i>						
	<i>Trade effluent consent revision</i>						
	<i>Non-primary charges from wholesale service centre</i>						
	<i>Provision of plan information of underground assets</i>						
	<i>Flow and pressure testing of customer supply</i>						
	<i>Meter testing</i>						
	<i>Relocating household meter</i>						

Welsh Water - Water Resources Table Commentaries

	Year ending Mar	2021 £m	2022 £m	2023 £m	2024 £m	2025 £m	Apportionment to sub-controls
			2017-18 FYA (CPIH deflated)				
	<i>Private sewer cleaning</i>						
	<i>Disconnection / reconnection of supply</i>						
Wr3	Rechargeable works	-	-	-	-	-	
Wn3	Rechargeable works	0.473	0.473	0.473	0.473	0.473	All allocated to network plus
WWn5	Rechargeable works	0.464	0.464	0.464	0.464	0.464	All allocated to network plus
Bio4	Rechargeable works	-	-	-	-	-	
App17	Rechargeable works	0.937	0.937	0.937	0.937	0.937	
17	Other non-price control (third party services)						
	<i>Consists of "Excluded" charges (Li.Con B)</i>						
	<i>s20 Reservoir operating agreements (NRW)</i>						
	<i>s20 Reservoir operating agreements (additional capex) (NRW)</i>						
	<i>Stand pipes</i>						
	<i>Water tanks & water tankers</i>						
	<i>Reception and disposal of waste (costs& income in non-appointed)</i>						
Wr3	Other non-price control (third party services)	7.607	7.627	7.647	7.667	7.687	s20 allocated 100% to Water Resources
Wn3	Other non-price control (third party services)	0.026	0.026	0.026	0.026	0.026	Tankers allocate 100% to network plus
WWn5	Other non-price control (third party services)	-	-	-	-	-	
Bio4	Other non-price control (third party services)	-	-	-	-	-	
App17	Other non-price control (third party services)	7.633	7.653	7.673	7.693	7.713	
18	Total non-price control income (third party services)						
Wr3	Total non-price control income (third party services)	15.782	15.801	15.821	15.841	15.861	
Wn3	Total non-price control income (third party services)	0.894	0.894	0.894	0.894	0.894	
WWn5	Total non-price control income (third party services)	0.480	0.480	0.480	0.480	0.480	
Bio4	Total non-price control income (third party services)	0.015	0.015	0.015	0.015	0.015	
App17	Total non-price control income (third party services)	17.171	17.190	17.210	17.230	17.250	
D	Non-price control income (principal services)						
19	Other non-price control (principal services)						
	<i>Consists of:</i>						
	<i>Rental income (mobile phone masts, wind turbines, solar panels)</i>						
Wr3	Other non-price control (principal services)	0.494	0.494	0.494	0.494	0.494	Allocated in proportion to weighted average site income from 15/16 to 17/18
Wn3	Other non-price control (principal services)	0.070	0.070	0.070	0.070	0.070	Allocated in proportion to weighted average site income from 15/16 to 17/18
WWn5	Other non-price control (principal services)	0.152	0.152	0.152	0.152	0.152	Allocated in proportion to weighted average site income from 15/16 to 17/18
Bio4	Other non-price control (principal services)	0.152	0.152	0.152	0.152	0.152	Allocated in proportion to weighted average site income from 15/16 to 17/18
App17	Other non-price control (principal services)	0.868	0.868	0.868	0.868	0.868	Allocated in proportion to weighted average site income from 15/16 to 17/18

Welsh Water - Water Resources Table Commentaries

The table below shows the recalculated grants and contributions and the change from the September submission

	Year ending Mar	units	2021	2022	2023	2024	2025	2021	2022	2023	2024	2025	2021	2022	2023	2024	2025	
								October submission					Difference					
Table Wr3																		
F	Grants & Contributions																	
25	Opex G&C (price control)	£m	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
26	Capex G&C (price control)	£m	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
27	Opex G&C (non-price control)	£m	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
28	Capex G&C (non-price control)	£m	(1.868)	-	-	-	-	(1.868)	-	-	-	-	-	-	-	-	-	
Table Wn3																		
F	Grants & Contributions																	
25	Opex G&C (price control)	£m	(6.955)	(6.876)	(6.798)	(6.722)	(6.648)											Diversions & New Conns (opex) reallocated to G&C (Opex)
26	Capex G&C (price control)	£m	(5.834)	(6.063)	(6.286)	(6.405)	(6.507)	(12.789)	(12.939)	(13.084)	(13.127)	(13.155)	(6.955)	(6.876)	(6.798)	(6.722)	(6.648)	6.955 6.876 6.798 6.722 6.648
27	Opex G&C (non-price control)	£m	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	Capex G&C (non-price control)	£m	(0.053)	(0.053)	(0.053)	(0.053)	(0.053)	(0.053)	(0.053)	(0.053)	(0.053)	(0.053)	-	-	-	-	-	-
Table WWn5																		
F	Grants & Contributions																	
25	Opex G&C (price control)	£m	(2.202)	(2.202)	(2.202)	(2.202)	(2.202)											Diversions & New Conns (opex) reallocated to G&C Opex (pc)
26	Capex G&C (price control)	£m	(6.369)	(6.447)	(6.523)	(6.550)	(6.562)	(8.571)	(8.650)	(8.725)	(8.753)	(8.765)	(2.202)	(2.202)	(2.202)	(2.202)	(2.202)	Adoption Charges reallocated to G&C Opex (non-pc)
27	Opex G&C (non-price control)	£m	(0.814)	(0.827)	(0.840)	(0.844)	(0.847)						0.814	0.827	0.840	0.844	0.847	
28	Capex G&C (non-price control)	£m	(0.305)	(0.305)	(0.305)	(0.305)	(0.305)	(1.119)	(1.132)	(1.145)	(1.148)	(1.151)	(0.814)	(0.827)	(0.840)	(0.844)	(0.847)	
Total																		
F	Grants & Contributions																	
25	Opex G&C (price control)		(9.158)	(9.078)	(9.001)	(8.925)	(8.850)						9.158	9.078	9.001	8.925	8.850	
26	Capex G&C (price control)		(12.203)	(12.510)	(12.808)	(12.955)	(13.069)	(21.360)	(21.589)	(21.809)	(21.880)	(21.920)	(9.158)	(9.078)	(9.001)	(8.925)	(8.850)	
27	Opex G&C (non-price control)	£m	(0.814)	(0.827)	(0.840)	(0.844)	(0.847)						0.814	0.827	0.840	0.844	0.847	
28	Capex G&C (non-price control)	£m	(2.226)	(0.358)	(0.358)	(0.358)	(0.358)	(3.040)	(1.185)	(1.198)	(1.201)	(1.204)	(0.814)	(0.827)	(0.840)	(0.844)	(0.847)	
Total Grants & Contributions			(24.400)	(22.774)	(23.007)	(23.081)	(23.124)	(24.400)	(22.774)	(23.007)	(23.081)	(23.124)	-	-	-	-	-	

Annex 2 - Analysis for lines 20 to 23 - Current period proportions from the analysis of wholesale revenues

Proportion of annual revenue by Wholesale control

	2015-16	2016-17	2017-18	2018-19	Average
	Measured	Measured	Measured	Measured	Measured
Water					
Household	19.61%	20.69%	21.84%	21.95%	21.02%
Non-Household	26.67%	26.80%	26.46%	27.08%	26.75%
	46%	47%	48%	49%	48%

	2015-16	2016-17	2017-18	2018-19	Average
	Measured	Measured	Measured	Measured	Measured
Wastewater					
Household	25.20%	25.28%	26.75%	26.85%	26.02%
Non-Household	18.47%	19.07%	19.32%	18.95%	18.95%
	44%	44%	46%	46%	45%

	2015-16	2016-17	2017-18	2018-19	Average
	Measured	Measured	Measured	Measured	Measured
Wholesale					
Household	22.85%	23.34%	24.69%	24.78%	23.92%
Non-Household	21.92%	22.33%	22.31%	22.40%	22.24%
	45%	46%	47%	47%	46%

	2015-16	2016-17	2017-18	2018-19	Average
	Unmeasured	Unmeasured	Unmeasured	Unmeasured	Unmeasured
Water					
Household	52.92%	51.73%	50.95%	50.22%	51.46%
Non-Household	0.80%	0.78%	0.74%	0.75%	0.77%
	54%	53%	52%	51%	52%

	2015-16	2016-17	2017-18	2018-19	Average
	Unmeasured	Unmeasured	Unmeasured	Unmeasured	Unmeasured
Wastewater					
Household	55.59%	54.90%	53.23%	53.49%	54.30%
Non-Household	0.74%	0.75%	0.70%	0.70%	0.72%
	56%	56%	54%	54%	55%

	2015-16	2016-17	2017-18	2018-19	Average
	Unmeasured	Unmeasured	Unmeasured	Unmeasured	Unmeasured
Wholesale					
Household	54.46%	53.57%	52.28%	52.11%	53.10%
Non-Household	0.77%	0.76%	0.72%	0.72%	0.74%
	55%	54%	53%	53%	54%

Welsh Water - Water Resources Table Commentaries

Annual Change on proportion

	2015-16	2016-17	2017-18	2018-19	Average
	Measured	Measured	Measured	Measured	Measured
Water					
Household		1.08%	1.16%	0.11%	0.78%
Non-Household		0.12%	-0.33%	0.61%	0.12%

	2015-16	2016-17	2017-18	2018-19	Average
	Unmeasured	Unmeasured	Unmeasured	Unmeasured	Unmeasured
Water					
Household		-1.18%	-0.78%	-0.73%	-0.90%
Non-Household		-0.02%	-0.04%	0.00%	-0.02%

	2015-16	2016-17	2017-18	2018-19	Average
	Measured	Measured	Measured	Measured	Measured
Wastewater					
Household		0.07%	1.47%	0.11%	0.55%
Non-Household		0.60%	0.25%	-0.37%	0.16%

	2015-16	2016-17	2017-18	2018-19	Average
	Unmeasured	Unmeasured	Unmeasured	Unmeasured	Unmeasured
Wastewater					
Household		-0.68%	-1.67%	0.26%	-0.70%
Non-Household		0.00%	-0.05%	0.01%	-0.01%

	2015-16	2016-17	2017-18	2018-19	Average
	Measured	Measured	Measured	Measured	Measured
Wholesale					
Household		0.49%	1.35%	0.08%	0.64%
Non-Household		0.41%	-0.01%	0.08%	0.16%

	2015-16	2016-17	2017-18	2018-19	Average
	Unmeasured	Unmeasured	Unmeasured	Unmeasured	Unmeasured
Wholesale					
Household		-0.90%	-1.29%	-0.17%	-0.79%
Non-Household		-0.01%	-0.05%	0.01%	-0.02%

Wr4 - Cost recovery for water resources

Table Validation

No validation errors appear in this table

Lines 1 – 15

We have treated the capital value created from post 2020 investment arising from non-PAYG totex the same as the 2020 RCV. We have treated the RPI linked RCV the same and the CPIH linked RCV. We have set the RCV run off rate to match the average expected useful lives of the underlying assets. We have applied the same “natural” RCV run off rate to each of the RPI linked 2020 RCV, CPI linked 2020 RCV and the post 2020 investment. The natural rate of RCV run off remains appropriate for 2025-30 period.

~~As a result we are not accelerating or decelerating the rate of recovery of expenditure added to the RCV between generations of customers.~~

~~For each price control the average expected useful lives have been generated using an assessment of the engineering lives of each asset class and weighted using the gross MEAV.~~

An increase of 0.25% to the natural RCV run off rate has been included to address financeability in the notional company.

Block A Lines 1 -5 RCV run off rate RPI linked RCV

Line 1 “Natural” RCV run off rate

Proposed “natural” RCV run off rates (indexed by RPI) for wholesale water resources. (The percentage of the RPI linked RCV that is depreciated annually). The “natural RCV rate” is a rate which reflects the economic reality of the expenditure which the company is incurring and the long term nature of its investments.

The average expected useful lives of Water Resources assets have been generated using an assessment of the engineering lives of each asset class and weighted using the gross MEAV. The resulting asset life for water resources is 29.0 years, corresponding to a “natural” RCV run off rate of 3.45% (reciprocal of asset life) for each year across AMP7 and AMP8.

Line 2 Adjustments to RCV run off rate to address transition from RPI to CPI

Proposed adjustments to the RCV run off rates (indexed by CPIH) for wholesale water resources that the company considers are required to address issues arising from the transition from RPI to CPIH as the primary inflation index.

We are not proposing an adjustment to the RCV run off rate to address the transition from RPI to CPIH.

Line 3 Other adjustments to RCV run off rate

Proposed other adjustments to the RCV run off rates (indexed by RPI) for wholesale water resources that the company wishes to make to enable it address issues such as the smoothing of bills.

~~We are not proposing an adjustment to the RCV run off rate to address other issues. We have smoothed bills within the 2020-25 period on an NPV neutral basis using the functionality in the Ofwat financial model.~~

An increase of 0.25% to the natural RCV run off rate has been included to address financeability in the notional company.

Line 4 Total RCV run off rate to be applied

Proposed total RCV run off rates (indexed by RPI) for wholesale water resources. Equals the sum of Wr4 lines 1 to 3.

Calculated.

Line 5 Method used to apply run-off rate (straight line or reducing balance)

The method used to apply the RCV run off rates (indexed by RPI) either in a straight line or a reducing balance. (Description of the accounting method used to depreciate the RPI linked RCV). We expect the same method to be used in 2025-30 as for 2020-25.

We have used a reducing balance approach to apply the RCV run off rates.

Block B Lines 6 -10 RCV run off rate ~ CPI/CPI(H) linked RCV

Line 6 “Natural” RCV run off rate

Proposed "natural" RCV run off rates (indexed by CPIH) for wholesale water resources. (The percentage of the CPI(H) linked RCV that is depreciated annually). The “natural RCV rate” is a rate which reflects the economic reality of the expenditure which the company is incurring and the long term nature of its investments.

The average expected useful lives of Water Resources assets have been generated using an assessment of the engineering lives of each asset class and weighted using the gross MEAV.

The resulting asset life for water resources is 29.0 years, corresponding to a “natural” RCV run off rate of 3.45% (reciprocal of asset life) for each year across AMP7 and AMP8.

Line 7 Adjustments to RCV run off rate to address transition from RPI to CPI

Proposed adjustments to the RCV run off rates (indexed by CPIH) for wholesale water resources that the company considers are required to address issues arising from the transition from RPI to CPIH as the primary inflation index.

We are not proposing an adjustment to the RCV run off rate to address the transition from RPI to CPIH.

Line 8 Other adjustments to RCV run off rate

Proposed other adjustments to the RCV run off rates (indexed by CPIH) for wholesale water resources that the company wishes to make to enable it address issues such as the smoothing of bills.

~~We are not proposing an adjustment to the RCV run off rate to address other issues. We have smoothed bills within the 2020-25 period on an NPV neutral basis using the functionality in the Ofwat financial model.~~

An increase of 0.25% to the natural RCV run off rate has been included to address financeability in the notional company.

Line 9 Total RCV run off rate to be applied

Proposed total RCV run off rates (indexed by CPIH) for wholesale water resources. Equals the sum of Wr4 lines 6 to 8.

Calculated.

Line 10 Method used to apply run off rate (straight line or reducing balance)

The method used to apply the RCV run off rates (indexed by CPIH) either in a straight line or a reducing balance. (Description of the accounting method used to depreciate the CPI(H) linked RCV). We expect the same method to be used in 2025-30 as for 2020-25.

We have used a reducing balance approach to apply the RCV run off rates.

Block C Line 11 -15 Post 2020 Investment Run Off Rate

Line 11 “Natural” post 2020 investment run off rate

Proposed "natural" post 2020 investment run off rates (indexed by CPIH) for wholesale water resources. The "natural RCV rate" is a rate which reflects the economic reality of the expenditure which the company is incurring and the long term nature of its investments. Totex expenditure which is not recovered in the period through PAYG is to be added to "Post 2020 Investment."

The average expected useful lives of Water Resources assets have been generated using an assessment of the engineering lives of each asset class and weighted using the gross MEAV. The resulting asset life for water resources is 29.0 years, corresponding to a "natural" RCV run off rate of 3.45% (reciprocal of asset life) for each year across AMP7 and AMP8.

Line 12 Adjustments to post 2020 investment run off rate to address transition from RPI to CPI

Proposed adjustments to the post 2020 investment run off rates (indexed by CPIH) for wholesale water resources, that the company considers are required to address issues arising from the transition from RPI to CPIH as the primary inflation index.

We are not proposing an adjustment to the RCV run off rate to address the transition from RPI to CPIH.

Line 13 Other adjustments to post 2020 investment run off rate

Proposed other adjustments to the post 2020 investment run off rates (indexed by CPIH) for wholesale water resources, that the company wishes to make to enable it address issues such as the smoothing of bills.

~~We are not proposing an adjustment to the RCV run off rate to address other issues. We have smoothed bills within the 2020-25 period on an NPV neutral basis using the functionality in the Ofwat financial model.~~

An increase of 0.25% to the natural RCV run off rate has been included to address financeability in the notional company.

Line 14 Total post 2020 investment run off rate to be applied

Proposed total post 2020 investment run off rates (indexed by CPIH) for wholesale water resources. Equals the sum of Wr4 lines 11 to 13.

Calculated.

Line 15 Method used to apply run off rate (straight line or reducing balance)

The method used to apply the post 2020 investment run off rates (indexed by CPIH) either in a straight line or a reducing balance. We expect the same method to be used in 2025-30 as for 2020-25.

We have used a reducing balance approach to apply the RCV run off rates.

Block D Lines 16 -19 PAYG Rate – Water Resources

Line 16 "Natural" PAYG rate – Water Resources

Proposed "natural" PAYG rates for wholesale water resources relevant to the wholesale water resources revenue / totex projected in Wr3. These should be expressed as a percentage of totex forecast in each year. The "natural PAYG rate" is a rate which reflects the economic reality of the expenditure which the company is incurring and the long term nature of its investments.

We have calculated the "natural" PAYG rate as the rate which recovers operating expenditure (inclusive of infrastructure renewal expenditure) in the year that it is incurred and capex net of grants and contributions is added to the RCV and recovered from both current and future customers over time.

The natural PAYG rate is Opex divided by Totex net of grants and contributions calculated on a year by year basis, as follows:

	2020-21	2021-22	2022-23	2023-24	2024-25
Opex (£m) <i>WS1 line 11</i>	32.3	33.6	34.3	34.4	31.6
Totex (net G&Cs) (£m) <i>WS1 line 21</i>	55.2	72.1	71.5	67.2	54.2
PAYG rate (%)	58.59%	46.53%	48.04%	51.23%	58.42%

	2025-26	2026-27	2027-28	2028-29	2029-30
Opex (£m)	36.82	36.46	36.09	35.73	35.37
Totex (net G&Cs) (£m)	62.5	61.9	61.3	60.7	60.1
PAYG rate (%)	58.88%	58.88%	58.88%	58.88%	58.88%

	2020-21	2021-22	2022-23	2023-24	2024-25
Opex (£m) <i>WS1 line 11</i>	34.202	35.398	36.059	36.094	33.244
Totex (net G&Cs) (£m) <i>WS1 line 21</i>	63.202	72.836	69.252	64.774	52.207
PAYG rate (%)	54.12%	48.60%	52.07%	55.72%	63.68%

Line 17 Adjustments to PAYG rate to address transition from RPI to CPI water resources

Proposed adjustments to the PAYG rates for wholesale water resources that the company considers are required to address issues arising from the transition from RPI to CPIH as the primary inflation index.

We are not proposing an adjustment to the PAYG rate to address the transition from RPI to CPIH.

Line 18 Other adjustments to PAYG rate water resources

Proposed other adjustments to the PAYG rates for wholesale water resources that the company wishes to make to enable it address issues such as the smoothing of bills.

We are not proposing an adjustment to the PAYG rate to address other issues. We have smoothed bills within the 2020-25 period on an NPV neutral basis using the functionality in the Ofwat financial model.

We have adjusted the natural PAYG rate to address financeability in the notional company.

Line 19 Total PAYG rate water resources

Proposed total PAYG rates to be applied to wholesale water resources totex. Equals the sum of Wr4 lines 16 to 18.

Calculated.

Wr8 - Wholesale water resources special cost factors

Table Validation

No validation errors appear in this table

Overview

This table should capture any costs that the company considers should be excluded from comparative cost modelling (special cost claims) for the wholesale water resources price control. We are not submitting special factors for the econometric modelling at this time due to the on-going cost assessment working group. However, we are submitting a claim for an atypically large investment programme.

Line 1 Description of special cost claim

Description of costs being put forward for a special cost claim. A separate table block should be filled in for each cost type that has been identified as requiring special treatment (adjustment / exclusion). This description will need to be able to identify the supporting evidence elsewhere in the business plan that sets out the case to the special treatment.

This special cost claim relates to the investment driven by our statutory responsibilities under the Reservoirs Act 1975. In AMP7 we will see increased investment due to new regulations introduced in Wales in 2016 driven by the Floods and Water Management Act 2010. It is this substantially increased investment that we are submitting as a special cost factor. We have not included our full reservoirs programme as a special cost factor, only the additional element that is required by the new legislation.

Line 2 Type of special cost claim

Type of special cost claim proposed. This will be one of 'atypically large investment', 'material new costs', 'regional operating circumstances' or 'other (specify)'. See final methodology document for identification of what can be considered as a special cost claim.

A description of the type of cost claim has been provided.

Line 3 Total expenditure used for the purpose of business plan

Company's total expenditure related to the proposed special cost claim. Costs in this line should be consistent with business plan costs and should be gross of any capital contributions or grants. Total expenditure is as set out in the Regulatory Accounting Guidelines.

We have not included our full reservoirs programme as a special cost factor, only the additional element that is required by the new legislation. We have shown expenditure in this line for 2018-19 and 2019-20, which is the AMP6 enhancement expenditure we have shown for reservoirs in table WS2. The programme of work and the breakdown of total expenditure for AMP7 is detailed in Supporting Document 5.8B PR19 IC: Reservoir Safety.

We have updated this line from our previous submission to correct an error that created a misalignment with WS2. The figures in WS2 were correct and have not been updated.

We have updated this line from our IAP response submission to include the costs that are recovered from NRW and to align with the allowance made in the draft determination.

Line 4 Historic total expenditure

Historic total expenditure related to the proposed special cost claim. This should be gross of any capital contributions or grants. Total expenditure is as set out in the Regulatory Accounting Guidelines.

Although naturally we have invested in maintenance of reservoirs and dams historically, we have not shown this expenditure in the table. We have taken the approach – our interpretation of the guidance - that because we are only showing the additional “atypically large investment”

expenditure in line 3, and not the total expenditure, we should not include the historical total expenditure on dam maintenance in line 4, otherwise the two lines would be inconsistent. Details of the total historical expenditure on dams and maintenance for AMP6 is included in Supporting Document 5.8B PR19 IC: Reservoir Safety.

Line 5 Description of special cost claim

Description of costs being put forward for a special cost claim. A separate table block should be filled in for each cost type that has been identified as requiring special treatment (adjustment / exclusion). This description will need to be able to identify the supporting evidence elsewhere in the business plan that sets out the case to the special treatment.

This special cost claim relates to the investment driven under s3(5) of the Water Industry Act 1991 “to ensure that (the) water or land is made available for recreational purposes and is so made available in the best manner”. The Draft Determination by Ofwat, and in particular the need to significantly reduce customer bills, means that return of value to customers will be severely constrained in AMP7. For this reason, we are now proposing to Ofwat that provision should be made in PR19 to support commitments that have been made to our customers.

Line 6 Type of special cost claim

Type of special cost claim proposed. This will be one of 'atypically large investment', 'material new costs', 'regional operating circumstances' or 'other (specify)'. See final methodology document for identification of what can be considered as a special cost claim.

A description of the type of cost claim has been provided.

Line 7 Total expenditure used for the purpose of business plan

Company's total expenditure related to the proposed special cost claim. Costs in this line should be consistent with business plan costs and should be gross of any capital contributions or grants. Total expenditure is as set out in the Regulatory Accounting Guidelines.

We propose to invest £12.3m of expenditure in AMP7 to provide enhanced access and recreation for our customers, particularly at a new site in the centre of Cardiff, and in so doing make a significant contribution to development of the regional visitor economies and the health & wellbeing of the people of Wales.

Line 8 Historic total expenditure

Historic total expenditure related to the proposed special cost claim. This should be gross of any capital contributions or grants. Total expenditure is as set out in the Regulatory Accounting Guidelines.

In recent years capital investment in our access and recreation offering to customers has been funded from return of value to customers, i.e. from funds that in any other company would be used to provide shareholder dividends.