
PR24

NORTHUMBRIAN
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PAST DELIVERY TABLES AND RECONCILIATION & FEEDER MODELS COMMENTARY

A large, stylized graphic of water flowing over a hill, rendered in white and light green, occupies the right and bottom portions of the page. The water is depicted as a thick, white stream that curves over a rounded hill shape, with several parallel lines suggesting the flow and texture of the water. The background is a solid, vibrant green.

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1. PR19 RECONCILIATION MODELS & FEEDER MODELS

This section sets out a summary of the past performance PR19 reconciliation & feeder models we have submitted and their projected outputs for the full period 2020-25. For all **end of period models**, we used actual performance data for 2020-23 and central forecast projections for 2023-25. The models will thus need updating for actual data from 2023/24 in the FD and a blind year adjustment for actual 2024/25 data.

For **in period revenue models**, we assume that 2022/23 performance is reflected in 2024/25 revenue allowances. For these models, we have thus included an estimate of 2023/24 and 2024/25 performance for inclusion in 2025/26 and 2026/27 revenue allowances respectively. We anticipate the actual 2023/24 performance adjustments to be used for the Final Determination and for 2024/25 performance variances from forecast to be adjusted for in the 2026/27 Final Determination.

£m, 2022/23 FYA prices	Rev/RCV adjustment	Feeder model forecast for 31/3/2025		
		Revenue	RCV	Total
End of Period models (2020-25 forecast)				
Blind year adjustments	Both Rev/RCV		6.911	6.911
Cost reconciliation model	Both Rev/RCV	90.371	49.588	139.960
Developer services	Revenue	31.026		31.026
Cost of new debt	Revenue	30.649		30.649
Tax	Revenue	-11.418		-11.418
RPI-CPIH true up	Both Rev/RCV	17.021	68.473	85.494
Residential retail	Revenue	-0.577	0.000	-0.577
WINEP	RCV		-0.716	-0.716
Land sales	RCV		-5.123	-5.123
Other adjustments - rechargeable income	Revenue	2.237		2.237
Transition expenditure	RCV		100.788	
In Period models 23-25				
Bioresources	Revenue	-0.926		
RFI	Revenue	0.618		
CMEX	Revenue	8.775		
DMEX	Revenue	1.169		
ODIs	Revenue	-24.083		
Total Adjustment pre smoothing		144.863	219.923	278.445

Given the scale of the revenue adjustment, we have applied the smoothing mechanism in the revenue feeder model to spread the impact on customer bills evenly over 2025-30. The RCV adjustment is an automatic midnight adjustment as at 31/3/25. We have included our 23-25 AMP8 transition expenditure in the RCV adjustment.

We have provided our models with our business plan (NES_M_03 to NES_M_15).

We have not submitted a water trading model, strategic regional resource model or green economic recovery model as these were not applicable or were zero return for ourselves in 2020-25. The CMA disallowed the GOSM mechanism for NWL¹. We have not submitted a bilateral entry adjustment model as this was not applicable for ourselves in 2020-25.

We have submitted the revenue adjustments and RCV adjustments feeder models that take the outputs from these models. These generate values for Tables RR3 and RR6 which then feed into the Financial Model.

We do not anticipate any material areas of dispute in the models we submit. We have followed the guidance and used the published models and tables without adjustment.

1.1. DETAILED EVIDENCE

1.1.1. PR24 Revenue and RCV Adjustments Feeder model

Revenue Feeder Model²

We have smoothed the PR24 revenue allowance evenly over the five years using the revenue feeder model profiling option. Our customers tell us that they prefer smoothed bills rather than 'lumpy' or 'spiky' bill profiles and this follows the approaches taken by ourselves, Ofwat and the CMA in PR19 (we describe our evidence for this in [appendix A1 – affordability](#), NES02).

We have populated PD11 and PD12 tables from the outputs from the Revenue and RCV feeder models.

Revenue Feeder model – we have followed the Ofwat guidance on tax adjustments for this model:

TAX UPLIFT ELIGIBILITY SWITCHES	Revenue Feeder model, InpS tab, line283 onwards
Model	Yes / No
BYA	No

¹ CMA FD para 9.1222

² <https://www.ofwat.gov.uk/wp-content/uploads/2023/04/PR24-Revenue-adjustments-feeder-model-v2.0.xlsx>

Cost reconciliation model	No
Developer services	No
Cost of new debt	No
Tax	Yes
RPI-CPIH true up	Yes
WINEP	Yes
Residential retail	No
Other adjustments – rechargeable	Yes
In period models	Yes
RCV adjustments	Yes

We have added the rechargeable income adjustment under ‘other revenue adjustments’ – see section 1.2.10.

RCV Feeder model³

All RCV balance inputs are taken from the Financial Model PR19 CMA FD – ‘RCV Closing Balances’ at 31/3/25 in real 2017/18 average CPIH prices.

RCV adjustments	£m, 2017/18 FYA prices	£m, 2022/23 FYA prices
RCV - Closing balance at 31 March 2025 pre midnight adjustments	4,284.626	5,058.572
Midnight adjustments		
Blind Year Adj	5.854	6.911
WINEP	-	-
Costs	42.002	49.588
Land sales	(4.339)	(5.123)
RPI-CPIH wedge	57.997	68.473
Transition expenditure	85.368	100.788
Total midnight adjustments	186.882	220.639
Opening RCV at 1 April 2025 post-midnight adjustments	4,471.508	5,279.211

³ <https://www.ofwat.gov.uk/wp-content/uploads/2023/04/PR24-RCV-adjustments-feeder-model-v2.0.xlsx>

All values are taken from the feeder models and are consistent with PD11. The RCV feeder model feeds into Table RR3, which in turn feeds the financial model inputs.

Note – although we are forecasting a small WINEP adjustment, as it is included as part of the costs reconciliation model (NES_M_10), and so we have not included it in the RCV feeder model PD11.12 as this would be double counting the adjustment.

1.2. END OF PERIOD MODELS

1.2.1. Blind Year Adjustments (BYA) – RCV only

£m, 2022-23 FYA prices	Rev/RCV adjustment	Revenue	RCV	Total
Blind year adjustments	RCV	-	6.911	6.911

Note – the BYA for revenue was applied to RFI price controls in period 2020-25.

Our data is consistent with the Ofwat blind year publications⁴ and model⁵.

Blind Year Adjustments					
£m, 2017/18 FYA prices	Water Res	Water Net +	Waste Net +	Bio	Total
Totex		1.236	0.237		1.473
Land sales		(0.080)			(0.080)
ODIS RCV		1.578	(0.515)		1.063
19-20 CPIH/RPI wedge	0.258	1.466	1.557	0.116	3.398
RCV BYA adjustments	0.258	4.200	1.279	0.116	5.854
In 2022/23 FYA prices	0.305	4.959	1.510	0.137	6.911

These values have been fed into the RCV adjustments feeder model and thus the financial model.

1.2.2. Cost Reconciliation – Cost Sharing Rates and Financing Inputs

Cost-sharing-&-total-costs-Reconciliation-Mar-2023 v4e

Model Version used: Cost-sharing-&-total-costs-Reconciliation-Mar-2023 v4e⁶

For actual totex data from 2022/23 onwards, we have supplied Business Plan Tables PD9 and PD1. These have been completed up to 2024/25. We have completed the financial tables in 22/23 FYA prices (CPIH deflated), as per the Business Plan Tables guidance.

We have no inputs for Green Recovery or Thames Tideway data, so have not supplied PD7, SUP4, SUP5, SUP10.

⁴ November 2020 Northumbrian Water – Adjusting for actual performance in 2019/20: Blind year adjustment, final decisions

⁵ PR19 blind year adjustments model_NES_BYRun2_Revised

⁶ <https://www.ofwat.gov.uk/wp-content/uploads/2023/07/Cost-sharing-total-costs-Reconciliation-v4e.xlsm>

Analysis of model inputs for the Inpactive tab are set out below:

Cost Reconciliation – Modelled Costs

Input Line	Source of data
Base Costs	CMA FD Opex-Capex Model ⁷ , lines 85-89
Opex & Capex split profiles %	CMA FD Opex-Capex Model, lines 115-119
Opex & Capex cost sharing %	CMA FD Opex-Capex Model, lines 126-130 as % of total
Net totex for cost reconciliation - Actual	Total actual totex (net of business rates, abstraction licence fees and grants and contributions), APR Line 4C.5, see below for projections
Net totex available for cost sharing	Financial Flows update (Ofwat) ⁸ , as sourced from FD opex-capex model
Weighted average PAYG rate	CMA FD PAYG model ⁹ , summary tab, column N, lines (40-43)/(33-36)
Ex ante allowance above Ofwat forecast	Zero values used
Business retail bad debt liability due to covid liquidity measures	Zero values used
Total final WINEP reconciliation	Zero values used
Performance related pay recovery mechanism adjustment	Zero values used

Actual Net totex for cost reconciliation (Also PD8 & PD9)

Although we have used actual totex for years 1-3¹⁰, we have projected years 4 & 5 based on our current capital and operating plans¹¹. We anticipate Ofwat will use actual data from APR24 for the year 4 data. Alongside the APR24 data, we will provide a final capital plan for year 5 as approved by the Board for a final resubmission.

Per the guidance in query 343 and subsequent email (27/7/23), we have **excluded** transition and accelerated programme expenditure from the PD9 table that feeds into this model.

We have updated PD8 and PD9 from the submission of July 2023 due to changes in forecast totex.

FD Net Totex Available for Cost Sharing – data sources (data in yellow used for inputs)

20-25, FD Cost Sharing, 17-18p	WR	WN+	WWN+	BIO	Total	Sources: F Flows Allowances
Allowed gross totex	325	1,384	986	83	2,778	Lines 94-101
Unmodelled Abstraction Charges	-198	-2	0	0	-200	Lines 18-29 – B Rates & Abs Charges
Unmodelled Business Rates	-19	-125	-33	-7	-184	Lines 18-29 – B Rates & Abs Charges
Grants & Contributions	-	-96	-18	-	-114	Lines 86-92 – G&Cs
Net totex available for cost sharing	107	1,161	935	77	2,280	Lines 18-29 Allowed totex

⁷ https://www.ofwat.gov.uk/wp-content/uploads/2021/06/Opex-capex-split_CMA-FINAL.xlsx

⁸ <https://www.ofwat.gov.uk/wp-content/uploads/2023/05/Financial-Flows-Data-Source-new-2022-23v8.xlsx>

⁹ https://www.ofwat.gov.uk/wp-content/uploads/2021/06/PAYG-model_NES_CMA-FINAL.xlsx

¹⁰ Table 4C.5

¹¹ Accompanying BP table PD9

Cost Reconciliation – Splitting Abstraction Charges & Business Rates

Input Line	Source of data
Abstraction charges - Actual - Nominal	APR Table 4J lines 4J.8, 9 & 10.
Abstraction charges - Forecast - Real	CMA FD ¹² Table 4.32 has a value of £200m. We split 99% to water resources based on Business Plan splits
Business Rates & Abstraction Charges forecast profile	The CMA profile appears to be evenly spread, so we have assumed 20% each year, per Ofwat guidance
Business Rates - Actual - Nominal	Water: Table 4J.7, Waste: Table 4K.7
Business rates - Forecast - Real	CMA FD Table 4.32 has a value of £184m. Split across the four controls using F Flows (wastewater)
Abstraction & Business Rates - Forecast	All combined values for each control are consistent with F Flows lines 18-29

CMA Exclusions

The only CMA exclusion we have modelled is the allowance and spend on industrial emissions Directive (IED). In PR19, the CMA awarded £12m of funding with a 75% cost sharing rate.¹³

We assumed an even funding spread over 2020-25 and have projected actual IED spend in 23/24 and 24/25.

Cost Reconciliation – Cost Sharing Rates & Financing Inputs

The differential sharing rates between abstraction charges, business rates and industrial emissions directive set by the CMA requires some manual adjustment to the input to the Ofwat cost sharing model.

Input Line	Source of data (customer sharing rate)
Totex cost sharing rates	CMA Final Determination, para 14.32, 45% 55%
Abstraction cost sharing rates – Kielder abstractions	CMA FD 14.14 (a) set a 100% sharing rate
Abstraction cost sharing rates – non Kielder	CMA FD 14.17 set a 75% sharing rate
Business rate cost sharing rates	CMA FD 4.1072 set a 90% sharing rate

To apply the mix of abstraction cost sharing rates in the model, we have used a weighted average of cost sharing rates for a single input into the model. We have split the abstraction charges between Kielder and non Kielder charges to do so. The CMA FD Kielder allocation is calculated as £20.602m¹⁴ pa * 5 years plus the £60.88m uplift allowed by the CMA¹⁵

Combined cost sharing	FD CMA Table 4-32 £m	Proportion of costs	Sharing rate	Weighted
Abstraction - Non Kielder	36	18%	25%	4.5%
Abstraction - Kielder	164	82%	0%	0.0%
Total	200	100%		4.5%

Note – Abstraction charges FD still totals £200m, per CMA Table 4-32

¹² https://assets.publishing.service.gov.uk/media/60702370e90e076f5589bb8f/Final_Report_---_web_version_-_CMA.pdf

¹³ CMA FD para 14.14

¹⁴ Email to Ofwat Cost Assessment (Beckie) on 26/10/2022

¹⁵ CMA FD para 4.1037

Cost Reconciliation - Wages

Wages Growth Inputs

OBR Forecast wage growth for PR19 FD – taken from Cost Efficiency Appendix Table A3.10¹⁶, real hourly wage growth.

ASHE Gross Hourly Wage All – Nominal

	19/20	20/21	21/22	22/23	23/24	24/25
Wage Growth						
ASHE Gross Hourly Wage All - Nominal	17.06	17.54	18.33	20.15	21.77	22.35

We took the ASHE data¹⁷ from *Table 4.5a, Manufacturing mean, SIC2007 Table 4.5a Hourly pay - Gross (£) - For all employee jobs: United Kingdom*. We used final values for 19/20 and 20/21 & provisional for 21/22. Our projections for years 2022-25 are based on the FD real growth plus forecast inflation.

Percentage totex linked to wage growth – we used 38.6% as per the FD (p202).

FD Metering (excluding new connections) for meters requested by optants, customers and businesses: £42.115m per Ofwat enhancement allocations for APR - water networks only¹⁸

Financing Inputs

We used the CMA Real WACC CPIH Deflated of 3.12% (CMA FD para 95) for these inputs.

Inflation

We used actual CPI indices up to 2022/23. From that point onwards, we used the inflation forecasts as set out in the MPC report for May 2023¹⁹:

Year	23/24	24/25
Annual Inflation	6.30%	3.27%

These have been input into Table PD1 up to 2024/25. See later for details on Table PD1.

1.2.3 Bioresources Revenue Reconciliation Model²⁰

We have used version 2 for our early submission.

Our inputs are sourced as per the guidance:

Input line	Source of data
Discount rate	Real CPIH stripped WACC: 3.12% per CMA19
Forecast volume of sludge (FTDS)	CMA PR19 FD, Financial model ²¹ , Ref: MP05611
Actual volume of sludge (ATDS)	APR Table 8A.3, BIO1

¹⁶ <https://www.ofwat.gov.uk/publication/pr19-final-determinations-securing-cost-efficiency-technical-appendix/>

¹⁷ Earnings and hours worked, industry by two-digit SIC: ASHE Table 4 - Office for National Statistics (ons.gov.uk)

¹⁸ Per Ofwat email APR enhancement assessment by year 7-4-22

¹⁹ <https://www.bankofengland.co.uk/monetary-policy-report/2023/may-2023>

²⁰ <https://www.ofwat.gov.uk/wp-content/uploads/2020/12/Bioresources-Revenue-Reconciliation-Model-Dec-2020-v2.0.xlsx>

²¹ https://www.ofwat.gov.uk/wp-content/uploads/2021/06/Financial-model_NES_CMA-FD_POST_FINAL.xlsx

Revised unadjusted revenue (URt) - 2017-18 FYA (CPIH deflated)	CMA FD Financial model, Exec summary line 31
Recovered revenue for bioresources (outturn)	APR Table 2M.10, Table PD5 for years 4& 5
Profit from bioresources trading	NWL workings – very low values as any trading was temporary and low volume, we have no contracts in place currently

For bioresources, our volume variations do not exceed 6% for 2020-25, so we do not anticipate any forecasting penalties. Actual data is sourced from APR for 2020-23. For 2023-25, Bioresources Volume forecasts are from Table BIO1, Revenue forecasts from Table PD5.

1.2.4 Developer Services²²

We have taken the forecast number of actual properties for years 2023/24 and 2024/25 from the property forecasts in Table DS4.

The DSRA model inputs are per below:

Input line	Source of data
Water service	
Forecast number of properties	PR19 final determinations: Our approach to regulating developer services, Table A1 Annual APR, Table 4Q.
Actual number of properties	Per rule book guidance, Line 4Q.11 (includes NAVs & SLPs) 23/24 and 24/25: Table DS4
Unit rate per connection	PR19 final determinations: Our approach to regulating developer services, Table A1 (same values are in CMA determination Table 4-25)
Wastewater service	
Forecast number of properties	PR19 final determinations: Our approach to regulating developer services, Table A4 Annual APR, Table 4Q.
Actual number of properties	Per rule book guidance, Line 4Q.11 (includes NAVs & SLPs) 23/24 and 24/25: Table DS4
Unit rate per connection	CMA Determination, Table 4-25

For the actual number of properties input, the PR19 Final Determination²³ set out the DSRA calculation to include NAVs and SLPs:

²² <https://www.ofwat.gov.uk/wp-content/uploads/2020/12/Developer-services-reconciliation-model-Dec-2020-v2.0.xlsx>

²³ <https://www.ofwat.gov.uk/publication/pr19-final-determinations-our-approach-to-regulating-developer-services/>, page 17

PR19 final determinations: Our approach to regulating developer services

$$DSRA = \sum_{t=1}^5 (AC_t - FC_t) \times \text{Unit Rate}_t$$

Where:

t = each charging year of the price control period with the first year starting on 1 April 2020 and the last year starting on 1 April 2024;

AC_t = the actual number of new properties connected for the relevant service occurring in charging year **t** - this includes properties connected by NAVs and SLPs so that the full impact of local infrastructure reinforcement is matched with the total new properties connected;

FC_t = our forecast number of new properties connected for the relevant service occurring in charging year **t** as set out in the annex - this includes properties connected by NAVs and SLPs so that the full impact of local infrastructure reinforcement is matched with the total new properties connected; and

Unit Rate = a number relating to the relevant service in charging year **t**. This number is calculated by Ofwat and set out in the annex.

We will apply this adjustment to companies' allowed revenue at PR24.

1.2.5 Cost of new debt²⁴

For the input lines, we have shown the areas where the CMA Determination²⁵ superseded the original Ofwat FD assumptions:

Input line	Source of data
InpC	
Notional % of 'new' debt over period	CMA assumed 17% new debt proportion: CMA FD 9.879
Ex-ante 'outperformance wedge' for notional company vs. average A/BBB iBoXX 10+ non-financial index (new debt only)	CMA assumed no 15bps reduction to the cost of new debt: CMA FD 9.824
PR19 appointee allowed return on capital (CPIH-deflated using long-term assumption)	CMA set a CPIH deflated cost of capital of 3.20%: CMA FD 9.1406
Allowed sector new debt cost (not inc. CSA) - final determination (CPIH real)	CMA set a CPIH real cost of new debt of 0.19%: CMA FD 9.1405
InpR	

²⁴ <https://www.ofwat.gov.uk/wp-content/uploads/2020/12/Cost-of-new-debt-indexation-model-Dec-2020-v6.3.xlsm>

²⁵ https://assets.publishing.service.gov.uk/media/60702370e90e076f5589bb8f/Final_Report_-_web_version_-_CMA.pdf

Opening and Closing RCV values, 17/18 prices	CMA Financial Model ²⁶ , RCV balance tab, RCV balance real
Allowed sector new debt cost (not inc. CSA) - final determination (CPIH real)	CMA FD 0.19% Table 9.37
Allowed sector embedded debt cost (not inc. CSA) - final determination (CPIH real)	CMA FD 2.47% Table 9.37
Allowed sector issuance and liquidity costs - final determinations	CMA FD 0.10% Table 9.37

For the indices, we have used the IBOXX data up to 30/6/23, with future projections held at the same values. Per the CMA FD, we have not applied an outperformance wedge adjustment.

1.2.6 Tax reconciliation (also PD10)

We have used the Ofwat tax rec model²⁷ to calculate the adjustment required.

Inputs	2020-21	2021-22	2022-23	2023-24	2024-25
PR19 CMA FD					
Statutory Corporation tax rate	19.0%	19.0%	19.0%	19.0%	19.0%
Adjusted to actuals					
Statutory Corporation tax rate	19.0%	19.0%	19.0%	25.0%	25.0%

We completed Table PD10 as per the guidance, but we believe a further adjustment is required to amend the inputs for the tax model. The percentages in PD10 are for the total wholesale capex pool, while the Tax model requires these to be a percentage for each individual control.

Stage 1: Allocations in line with Financial Model F Inputs – Table PD10

PD10 Super-deduction first-year capital allowances	2020-21	2021-22	2022-23	2023-24	2024-25
Proportion of expenditure qualifying for 130% super-deduction - WR	-	9.11%	12.70%	-	-
Proportion of expenditure qualifying for 50% super-deduction - WR	-	-	-	-	-
Proportion of expenditure qualifying for 130% super-deduction - WN	-	11.64%	17.64%	-	-
Proportion of expenditure qualifying for 50% super-deduction - WN	-	23.82%	32.00%	-	-
Proportion of expenditure qualifying for 130% super-deduction - WWN	-	11.62%	20.20%	-	-
Proportion of expenditure qualifying for 50% super-deduction - WWN	-	17.46%	32.68%	-	-
Proportion of expenditure qualifying for 130% super-deduction - BR	-	9.37%	14.82%	-	-
Proportion of expenditure qualifying for 50% super-deduction - BR	-	1.66%	2.26%	-	-

Stage 2: Using the CMA FD19 Allocations on the same basis

F Inputs allocations	20-21	21-22	22-23	23-24	24-25
New capital expenditure - Proportion of new capital expenditure qualifying for the general (18%) pool ~ Water resources	16.46%	16.52%	14.56%	11.53%	11.57%
Proportion of new capital expenditure qualifying for the longlife (6%) pool ~ Water resources	-	-	-	-	-
New capital expenditure - Proportion of new capital expenditure qualifying for the general (18%) pool ~ Water network plus	24.17%	21.10%	20.23%	22.76%	25.10%

²⁶ https://www.ofwat.gov.uk/wp-content/uploads/2021/06/Financial-model_NES_CMA-FD_POST_FINAL.xlsb

²⁷ https://www.ofwat.gov.uk/wp-content/uploads/2023/04/Financial-model_NES_CMA-FD_POST_FINAL-Capital-allowance-update.xlsb

Proportion of new capital expenditure qualifying for the longlife (6%) pool ~ Water network plus	30.14%	38.15%	37.65%	29.42%	18.82%
New capital expenditure - Proportion of new capital expenditure qualifying for the general (18%) pool ~ Wastewater network plus	18.84%	21.07%	23.16%	25.13%	29.08%
Proportion of new capital expenditure qualifying for the longlife (6%) pool ~ Wastewater network plus	25.05%	27.96%	38.45%	47.89%	37.05%
New capital expenditure - Proportion of new capital expenditure qualifying for the general (18%) pool ~ Bioresources	16.99%	16.99%	16.99%	16.99%	16.99%
Proportion of new capital expenditure qualifying for the longlife (6%) pool ~ Bioresources	2.66%	2.66%	2.66%	2.66%	2.66%

Stage 3: Calculating the inputs for the tax rec model

We then apply the percentages in Stage 1 to adjust Stage 2. For 21-22, 130% WR, we have $9.11\%/16.52\% = 55.15\%$. These values generate the correct calculations for the Tax rec model.

Super deduction / pool %

PD10 Super-deduction first-year capital allowances	2020-21	2021-22	2022-23	2023-24	2024-25
Proportion of expenditure qualifying for 130% super-deduction - WR	-	55.15%	87.22%	-	-
Proportion of expenditure qualifying for 50% super-deduction - WR	-	-	-	-	-
Proportion of expenditure qualifying for 130% super-deduction - WN	-	55.15%	87.22%	-	-
Proportion of expenditure qualifying for 50% super-deduction - WN	-	62.43%	84.99%	-	-
Proportion of expenditure qualifying for 130% super-deduction - WWN	-	55.15%	87.22%	-	-
Proportion of expenditure qualifying for 50% super-deduction - WWN	-	62.43%	84.99%	-	-
Proportion of expenditure qualifying for 130% super-deduction - BR	-	55.15%	87.22%	-	-
Proportion of expenditure qualifying for 50% super-deduction - BR	-	62.43%	84.99%	-	-

Note – we could input the percentages in Stage 3 directly into PD10 if that was Ofwat’s intention.

In 2021/22 we had a lower proportion of capital investment that would qualify for the enhanced capital allowance rates than in 2022/23 and even in the second year not all of the investment qualified. This is because the super deduction was only available for contracts entered into after 3 March 2021, even if the expenditure was incurred after 1 April 2021. A high proportion of capital expenditure in 2021/22 was in relation to contracts entered into prior to 3 March 2021 and for some of the larger scale projects where expenditure was incurred in 2022/23 this related to contracts entered into pre 3 March 2021. Chandler KBS provided assurance on the contract dates.

Chandler KBS also prepared our capital allowance claims that are included in the computations that are submitted to HMRC. An appropriate amount of detail in relation to the capital allowance claim is included in the submitted computations and we would be willing to share the detailed calculations if HMRC were to request them.

Finally, to calculate the change in taxation, we compared the Exec Summary Wholesale Allowed revenue lines for Tax – Real between the CMA PR19 Model and the Ofwat capital allowances model.

Exec summary, 17-18 prices	2020-21	2021-22	2022-23	2023-24	2024-25	
Tax Rec Post Changes						
Tax WR - real	-	-	-	5.9	8.5	
Tax WN - real	5.7	-	-	7.1	11.8	
Tax WWN - real	5.8	0.5	-	9.0	10.7	
Tax BR - real	1.5	0.4	-	2.6	2.0	
	13.0	0.9	-	24.6	33.1	
CMA FD19 Pre Changes						
Tax WR - real	-	-	0.9	3.7	6.0	
Tax WN - real	5.7	5.8	6.3	6.4	7.1	
Tax WWN - real	5.8	6.1	7.6	6.3	6.4	
Tax BR - real	1.5	1.5	1.5	1.4	1.3	
	13.0	13.4	16.3	17.8	20.8	
Change in tax allowance						Total
Tax WR - real	-	-	(0.9)	2.2	2.6	3.921
Tax WN - real	-	(5.8)	(6.3)	0.7	4.7	(6.707)
Tax WWN - real	-	(5.6)	(7.6)	2.7	4.3	(6.156)
Tax BR - real	-	(1.1)	(1.5)	1.2	0.7	(0.729)
Adjustment to allowed revenue	-	(12.4)	(16.3)	6.8	12.3	(9.671)

We thus generate an overall £9.7m tax reduction (£11.4m in 22/23 prices) from the models that we feed into the Revenue Feeder model.

1.2.7 RPI-CPIH wedge true up²⁸

Our forecasts for 2023/24 and 2024/25 assume a RPI-CPIH wedge of 1% pa. We expect the actual indices to be used for 2023/24 in the FD and the 2024/25 variances to be included as a BYA post 2025. Our inflation forecasts are taken from Table PD1.

For the input lines, we have shown the areas where the CMA Determination superseded the original Ofwat FD assumptions.

Input Line	Source of data
Inflation – Final Determination Assumptions	We used the same references from the CMA FD financial model rather than the Ofwat FD
2020 RCV RPI inflated - initial balance - nominal	We used the same reference (cell K23) from the CMA FD financial model rather than the Ofwat FD

²⁸ <https://www.ofwat.gov.uk/wp-content/uploads/2020/12/RPI-CPIH-wedge-true-up-model-Dec-2020-v5.xlsx>

2020 RCV RPI inflated - run-off rate	We used the same references from the CMA FD financial model rather than the Ofwat FD
Real RPI based wholesale WACC	We used the same references from the CMA FD financial model rather than the Ofwat FD, an RPI stripped WACC of 2.22% rather than the 1.92% per the Ofwat FD
Real CPIH based wholesale WACC	We used the same references from the CMA FD financial model rather than the Ofwat FD, a CPIH stripped WACC of 3.12% rather than the 2.92% per the Ofwat FD

We take the values from the adjustments tab (column H) and feed them into the Revenue and RCV feeder models.

1.2.8 Residential Retail²⁹

The inputs are consistent with Table RET2 for 2023-25.

We do not forecast triggering the 2% materiality threshold for a financing adjustment.

The model includes a BYA inflated to 2019/20 prices: £1.542m, from the BYA model³⁰:

C_R9046_PR19PD016	Residential retail revenue adjustment at 2017/18 FYA CPIH deflated price base - BY Adjustment	1.484
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Inputs & Sources

Residential Retail Rec Model Inputs	Source
Forecast customers (FC)	CMA FM model ³¹ , Residential Retail Tab, Lines 39-34
Reforecast customers	APR Table 2F.8
Actual customers (AC)	APR Table 2F.7
Revised total revenue (TRt)	PR19 in-period adjustments model IPD2022-FD C_PR19FM1922POST_PD020_OUT, In Period Adjustment Model ³²
Revenue Recovered (RR)	APR Table 2F.6

The revised total revenue for retail is as adjustment by in-period determinations. We have used the IPD2022-FD data for inputs. We take actual customer numbers for 23/24 and 24/25 from Table SUP1A. We assume for 23/24 and 24/25 that revenue recovered equals revised total revenue.

²⁹ <https://www.ofwat.gov.uk/wp-content/uploads/2020/12/Residential-Retail-Reconciliation-Model-Dec-2020-v2.0.xlsx>

³⁰ https://www.ofwat.gov.uk/wp-content/uploads/2021/02/PR19-blind-year-adjustments-model_NES_BYRun2_Revised.xlsm

³¹ https://www.ofwat.gov.uk/wp-content/uploads/2021/06/Financial-model_NES_CMA-FD_POST_FINAL.xlsm

³² https://www.ofwat.gov.uk/wp-content/uploads/2022/10/NES_PR19IPD04-in-period-adjustments-model-IPD2022-FD.xlsx

1.1.1. WINEP³³

We have used the version shared by Ofwat and checked by NWL³⁴. We have identified one scheme on the schemes in the WINEP uncertainty mechanism³⁵ that is currently not likely to be delivered this AMP.

7NW10005: Barrasford raw water pumping station - Rede to Gunnerton Burn, Barrasford to S Tyne, Watersmeet to Tidal Limit - Eels Regs and MM3.

This scheme is likely to be delivered in 2025/26. We have classed it as ‘not delivered’ in the WINEP reconciliation model, resulting in a negative adjustment, although a more accurate regulatory adjustment would be for a smaller time value of money adjustment with a PCD requiring delivery in 2025/26. The final position will be confirmed in early 2024.

1.2.9 Land Sales³⁶ (Table PD4)

We have supplied a land sales model including disposals for years one to three. All data is taken from APR Table 2L.21.

In 2022/23, there was a large one-off disposal of Boldon House, a former head office. The forecasts for 23/24 and 24/25 revert to the underlying trend.

1.2.10 Other Revenue Adjustments: Rechargeable income

In RAG4.09, Ofwat reallocated rechargeable works from outside the price control to inside the control. This offset rechargeable income against the fixed revenue allowances that had excluded it from the calculations.

Ofwat acknowledged this in a RAG4 query response³⁷ per below;

United Utilities	16	Choose an item.	RAG 4.09 App 1	Within RAG 4.09 App 1 - The list of rechargeable works has moved from third party not governed by price control (in AMP6), to third party governed by price control. This reclassification is inconsistent with the FD.	18/03/2021	24	We acknowledge that amounts for rechargeable works were wrongly excluded when we set price controls at PR19. Revenue for such activities is within the scope of price controls unless there is a specific exclusion such as an Excluded Charge (as, for example, is the case during the 2020-25 price control period for diversion work required under the New Roads and Streets Works Act 1991 or any other statutory provision except a provision of the Water Industry Act 1991). We will address this issue at PR24 as part of the revenue reconciliation.
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We have used the ‘Other revenue adjustments’ line to add back the rechargeable income of £1.895m that was in our Business Plan (and Ofwat fed directly into the third party FD income). This returns NWL to the position it would have been in were the correct allocation made in PR19.

³³ <https://www.ofwat.gov.uk/wp-content/uploads/2020/12/WINEP-Reconciliation-Model-Dec-2020-v1n.xlsm>

³⁴ Email Sent: Friday, July 7, 2023 9:55 am

³⁵ PR19 final determinations: Northumbrian Water - Cost efficiency final determination appendix

³⁶ <https://www.ofwat.gov.uk/wp-content/uploads/2020/12/Land-sales-model-Dec-2020-v3.0.xlsx>

³⁷ Query log 2020-21 batch 3, page 3

					2020-21	2021-22	2022-23	2023-24	2024-25	2020-25
Table	Line	NES Business Plan April 2019	Item reference		2017-18 FYA (CPIH deflated)					
		Wholesale water network plus ~ non-price control income (third party services)								
WN3	16	Rechargeable works ~ water network plus	A19042WN	£m	0.309	0.309	0.309	0.309	0.309	1.545
		Wholesale wastewater network plus ~ non-price control income (third party services)								
WWN5	16	Rechargeable works ~ wastewater network plus	A19042WWN	£m	0.070	0.070	0.070	0.070	0.070	0.350

1.3 IN PERIOD MODELS

For in period revenue models, we assume that 2022/23 performance is reflected in 2024/25 revenue allowances. For these models, we have as a result included an estimate of 2023/24 and 2024/25 performance for inclusion in 2025/26 and 2026/27 revenue allowances respectively. We anticipate the actual 2023/24 performance adjustments to be used for the Final Determination and for 2024/25 performance variances from forecast to be adjusted for in the 2026/27 Final Determination using a blind year adjustment.

1.3.1 Bioresources³⁸

Our inputs are sourced as per the guidance:

Input line	Source of data
Discount rate	Real CPIH stripped WACC: 3.12% per CMA19
Variable revenue	PR19 Price Control Table 5 ³⁹
Forecast volume of sludge (FTDS)	CMA PR19 FD F Inputs, MP05611
Actual volume of sludge (ATDS)	APR Table 8A.3, Table BIO1 2023-25
Revised unadjusted revenue (URt) – 2017/18 FYA (CPIH deflated)	CMA Final Determination ⁴⁰ , exec summary line 31
Recovered revenue for bioresources (outturn)	APR Table 2M.10, Table PD5 2023-25
Profit from bioresources trading	NWL workings – very low values as any trading was temporary and low volume

For bioresources, our volume variations do not exceed 6% for 2020-25, so we do not anticipate any penalties.

³⁸ <https://www.ofwat.gov.uk/wp-content/uploads/2020/12/Bioresources-Revenue-Reconciliation-Model-Dec-2020-v2.0.xlsx>

³⁹ <https://www.ofwat.gov.uk/publication/notification-of-the-pr19-final-determination-of-price-controls-for-northumbrian-water/>

⁴⁰ https://www.ofwat.gov.uk/wp-content/uploads/2021/06/Financial-model_NES_CMA-FD_POST_FINAL.xlsx

1.3.2 Revenue Forecasting Incentive⁴¹ (Table PD5)

Our inputs are sourced as per the guidance:

Input line	Source of data
Discount rate	Real CPIH stripped WACC: 3.12% per CMA19
Allowed revenue - (base year 2019/20)	CMA Final Determination, also PR19 in-period adjustments model
Revised K	PR19 in-period adjustments model (company version – July 2023)
Actual Revenue	APR Table 2M.10
Total blind year adjustment - (base year 2019/20)	BYA model ⁴² – water & waste networks: C518_PR19PD016,
November 2018 prices	C536_PR19PD016
Blind year profiling factor	Evenly spread, sum to 100%

For water, our RFI variations do not exceed 2% for any given year, so we do not anticipate any penalties.

For wastewater, our RFI variation in 20/21 was 4%, exceeding the 2% threshold. This was due to Teesside industrial users shutdowns during the peak of the Covid-19 lockdowns, with manufacturing falling by 54% in 2020⁴³. While the penalty is relatively minor, we understand Ofwat is considering increasing the penalty threshold for the Covid-19 period⁴⁴. To make an accurate forecast for 20/21, we would have had to forecast the shutdowns in early January 2020, before the first Covid cases had even reached the UK.

We believe that a temporary threshold increase to 6% for 2020/21 would be a reasonable adjustment. To illustrate this, **we have made that adjustment in the model** as a proposal (Inputs, cell F57 = 6%).

The forecast RFI adjustments from the model at the end of the period are very low, our aim is to set our annual tariffs to achieve this.

Note – we have not made an adjustment for the reclassification of rechargeable works income during 2020-25 in this model. We have instead made a direct adjustment in the financial model for the additional revenue that would have been allowed were the original rechargeable income included in the revenue allowance.

1.3.3 CMEX

We have a history of top CMEX performance (for example third in 2020/21, second in 2021/22, first in 2022/23), so our central case for our business plan is that we continue to earn CMEX rewards for 2023/24 and 2024/25. We have assumed the same rewards as in 2021/22⁴⁵, for each year.

⁴¹ <https://www.ofwat.gov.uk/wp-content/uploads/2023/05/RFI-model-Apr-2023-v1.0a.xlsb>

⁴² https://www.ofwat.gov.uk/wp-content/uploads/2021/02/PR19-blind-year-adjustments-model_NES_BYRun2_Revised.xlsm

⁴³ <https://www.business-live.co.uk/economic-development/huge-damage-north-east-economy-18482534>

⁴⁴ PR19 reconciliation rulebook consultation – final policy approach and response document – Section 1.3.1

⁴⁵ <https://www.ofwat.gov.uk/wp-content/uploads/2022/10/C-MeX-model-IPD2022-FD.xlsx>

1.3.4 DMEX

We have a history of DMEX rewards (2020/21, 2021/22, 2022/23), so our central case for our business plan is that we continue to earn DMEX rewards for 2023/24 and 2024/25. We have assumed the same rewards as in 2021/22⁴⁶, for each year.

1.3.5 Other ODIs (excluding CMEX & DMEX)⁴⁷

We have supplied the ODI performance models for 23/24 and 24/25. The outputs from Table 3H from these models feeds into the revenue feeder model.

The ODIs are summarised in Table OUT6.

1.4 PAST DELIVERY TABLES NOT COVERED BY RECONCILIATION MODELS

1.4.1 PD1 – INFLATION

Inflation

We used actual CPI indices up to 2022/23. From that point onwards, we used the inflation forecasts as set out in the MPC report for May 2023⁴⁸:

Year	23/24	24/25	26/27
Annual Average CPIH Inflation	6.30%	3.27%	1.84%

We forecast an RPI-CPIH wedge of 1% pa (per RR1.74). The values in PD1.37 are incorrect as the Table does not allow RPI forecasts from 25-26 onwards. This makes lines PD31-33 invalid.

We forecast 2.0% CPIH from 26-27 onwards. Small variations from those values are due to the 1dp roundings in the indices.

Our forecast inflation data to 2026 is sourced from the [May 2023 MPC inflation forecast](#).

The specific dataset used is the [Current Fan Chart Data, Numerical Parameters of Monetary Policy Report Probability Distribution, May 2023](#), mean values:

⁴⁶ <https://www.ofwat.gov.uk/wp-content/uploads/2022/10/D-MeX-model-IPD2022-FD.xlsx>

⁴⁷ https://www.ofwat.gov.uk/wp-content/uploads/2023/04/For-Business-Plan-use_PR19IPD01_ODI-performance-model-v1.11.xlsx

⁴⁸ <https://www.bankofengland.co.uk/monetary-policy-report/2023/may-2023>

MEAN CPI inflation projections based on market interest rate expectations, other policy measures as announced												
2023 Q2	2023 Q3	2023 Q4	2024 Q1	2024 Q2	2024 Q3	2024 Q4	2025 Q1	2025 Q2	2025 Q3	2025 Q4	2026 Q1	2026 Q2
8.22	6.97	5.32	4.81	3.98	3.71	3.08	2.32	1.9	1.81	1.82	1.87	2.0

PD1. 27-28: For index linked debt, we assumed a July – July inflation rate, in line with our own index linked debt accretions. For 2025-30 we used 2.9% for RPI up to 2030 and 2.0% post 2030, in line with Ofwat Appendix 11 (page 20).

PD1.38 For long term CPIH we assumed a 2% rate, in line with the Bank of England Targets. We applied this rate for 2026 onwards.

To avoid using a mix of actuals and forecast indices mid 23/24 year, we have not used actual indices for April to Sept 2023, although we would expect to replace the full 23/24 year with actual indices in April 2024.

1.4.2 PD6 – BULK SUPPLIES

While the number of bulk supplies increases annually due the growth in the NAV market, none of our bulk supply exports appear to qualify for the water trading incentive, the criteria of which is restricted for exports to small ‘cross border’ NAVs and third parties. Trades between appointed companies no longer qualify.

The number of bulk supplies is greater than the lines available, so we have submitted an aggregated subtotal line in the PD6 table and a separate stand-alone PD6 submission with more lines. We will resubmit this table if Ofwat would prefer to issue a new, extended table for bulk supplies.