Anglian Water

DRAFT DETERMINATION: DATA TABLES COMMENTARY

August 2019

RESPONSIBLE BUSINESS OF THE YEAR 2017
BUSINESS IN THE COMMUNITY

THE QUEEN'S AWARDS FOR ENTERPRISE: SUSTAINABLE DEVELOPMENT 2015

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SUMMARY OF CHANGES - APRIL 2019 TO AUGUST 2019

All changes to the input cells in the data tables are formatted red as requested by Ofwat. We only include table commentary in this document to explain the change in numbers. We do not repeat table commentary from September 2018 plan and April IAP Response 2019 Tables Commentary which remains unchanged.

The main drivers of change are revisions to our totex expenditure set out above which we have flowed through the tables.

We have updated data to:

- Reflect answers to Ofwat queries since 1 April 2019;
- Align to PR14 Reconciliation submission made in July 2019;
- Align to APR where appropriate and to update forecasts reflecting 2018-19 actuals;
- Reflect changes in non-financial data as a result of a change in investment; and
- Reflect changes in our totex expenditure.

WHOLESALE TOTEX CHANGES - IAP TO DD

WS1a, WS2, WWS1a, WWS2

These tables have been updated to reflect the totex changes made in our DD response. The table below summarises all of the movements. As shown in the table, we have used individual lines for specific changes we've made to portfolios of work so that the movement in totex associated with that change is visible. We have separately updated our RPE assumptions reflected in App24a, and shown the impact of this on a separate line.

The movements explained are relevant to the following lines:

- Reflect changes to WINEP published after 1 April
- For capital maintenance it explains the movement between our IAP Response tables to our DD tables for lines 12 and 13 in WS1a and WWS1a
- For enhancement capex it explains the movement between our IAP Response tables to our DD tables for lines 14, 15 and 16 in WS1a and WWS1a
- For opex it explains the movements in our IAP Response tables to our DD tables for Block A of WS1a and WWS1a, and block B of WS2 and WWS2
- The Totals have been adjusted to account for lease changes between WS1a and WS1 And WWS1a and WWS1

Table 1 Wholesale Totex Changes

Table reference	Description of area of change	Rationale	Capex movement IAP-DD (£m)		Opex movement IAP-DD (£m)	
			Wholesale Water	Wholesale Water Recycling	Wholesale Water	Wholesale Water Recycling
Botex						
WWS1a line 13 Sewage Collection	Water Recycling capital maintenance	We have reduced funding for our pollutions programme whilst maintaining the same performance commitment		-7.254		
WWS1a line 13 Sewage Treatment	Water Recycling capital maintenance	We have reduced funding for our programme to improve Water Recycling centres moving to numeric consents based on the latest monitoring		-7.751		
WS1a and WWS1a line 13	Capital Maintenance - Energy optimisation	We have challenged ourselves to achieve further self-funding efficiencies and therefore reduced expenditure in this area	-10.658	-14.602		
WS1a and WWS1a line 12 & 13	Capital Maintenance profiling	We have challenged ourselves to work with our alliances to reduce any carry-over into AMP7 of AMP6 capital maintenance work, and have smoothed delivery profiles in some portfolios	-6.725	-10.071		
WS1a and WWS1a block A	Base opex	We have further challenged ourselves to achieve stretch efficiencies in this area and removed expenditure from our plan			-9.979	-16.188
WS1a and WWS1a line 12 & 13 and block A	M&G costs	We have reviewed the build up of funding for M&G based on the latest requirements for AMP7 and reduced funding accordingly	-0.182	-4.524	-2.065	-3.685
WS1a and WWS1a line 13 Treated Water Distribution	Smart Metering	As explained elsewhere we have moved enhancement capex into capital maintenance for dumb to smart meter replacement	+42.387			
WS1a and WWS1a line 12 & 19	Diversions	Changes to reflect query response ANH-DD-CE-002. We have moved wastewater diversions spend from enhancement to maintenance	-1.583	+2.442		

Table reference	Description of area of change	Rationale	Capex movement IAP-DD (£m)		Opex movement IAP-DD (£m)	
Sub-total botex changes			**+23.239**	**-41.760**	**-12.044**	**-19.873**
<u>Enhancement</u>						
WS1a/WWS1a line 19, WS2 line 27, WWS2 line 36	Third party services adjustments	We have reviewed the allocation of spend to third party services and moved expenditure from line 19 to lines 14/15. This is reflected in the negative adjustment freeform line	+0.133	+0.031		
All the below impact on WS1a line 14-16	**Water**					
WS2 line 8 & 68 multiple price controls	Strategic Regional solutions	We have re-classified spend on DPC schemes as opex and added the funding for strategic regional solutions	-9.764		+24.795	
WS2 line 8 Water Resources	WRMP24	We have accepted Ofwat's assessment of capex for WRMP24 is included in our botex run rate	-3.210			
WS2 lines 14 & 18 Treated Water Distribution	East Ruston	We have included additional funding for a new obligation EAN02423 that was not in previous versions of the WINEP	+7.274		+0.120	
WS2 lines 14, 18, 53 & 58 Water Treatment and Treated Water Distribution	DPC	We have accepted Ofwat's proposal to Directly Procure three investments at Elsham and removed this from our Plan. We have included the £8.3m development allowance as opex within our plan to comply with IFRS accounting rules	-129.524		+7.751	
WS2 line 10 Treated Water Distribution	Smart Metering	As explained elsewhere we have moved enhancment capex into capital maintenance for dumb to smart meter replacement.	-42.387			
WS2 line 11 Treated Water Distribution	New Development	In line with the new charging rules, we have removed expenditure for self-lay asset payments and instead treated this as a credit to infrastructure charges reflected in App28	-50.381			

Table reference	Description of area of change	Rationale	Capex movement IAP-DD (£m)		Opex movement IAP-DD (£m)	
WS2 lines 11 & 12 Treated Water Distribution	New Development	In line with charging rules - movement of £15.340m of self-lay payments from line 11 to line 12 in WS2 (no net change)				
WS2 line 14 & 53 Water Resources, Water Treatment and Treated Water Distribution	Resilience	Based on Ofwat's challenge at IAP and DD on this programme we have reduced funding for some resilience investment which Ofwat believe should be funded from capital maintenance. We have not increased base costs.	-25.507		-0.140	
WS2 line 14, 15, 53 & 54 Water Treatment	Security / SEMD	Based on Ofwat's challenge at IAP and DD on this programme we have reduced funding for some resilience investment which Ofwat believes should be funded from capital maintenance. We have not increased base costs.	-10.685		-0.616	
WS2 line 6 Treated Water Distribution	Lead	We have reviewed other companies' plans and reduced the number of customer side lead replacements assumed in our plan	-6.866			
WS2 line 52 Treated Water Distribution	Nitrates raw water deterioration	We have accepted Ofwat's argument that their botex model allows some opex for this programme of spend and therefore removed the associated WTW opex. We also moved TWD opex which was incorrectly allocated from this line to line 47			-1.646	
All the below impact on WWS1a line 14-16	**Wastewater**					
WWS2 line 26 and 73 Sewage Treatment	Water Recycling Centre Growth - capacity	As explained elsewhere we have removed funding based on large programme efficiencies and re-profiled our spend		-2.430		+0.454
WWS2 line 25 Sewage Collection	Growth (Diversions)	We have transferred funding for supervision of developer diversions on wastewater from enhancement to base		-2.441		
WWS2 lines 18,19, 65 & 66 Sewage Treatment	Phosphorus removal	As explained elsewhere we have removed funding based on large programme efficiencies and re-profiled our spend		-12.575		-3.336

Table reference	Description of area of change	Rationale	Capex movement IAP-DD (£m)		Opex movement IAP-DD (£m)	
WWS2 lines 10 & 57 Sewage Treatment	WINEP storage schemes at STWs to increase capacity	As explained elsewhere we have removed funding based on large programme efficiencies and re-profiled our spend		-18.846		+0.142
WWS2 lines 9 & 56 Sewage Treatment	WINEP schemes - increase FFT Addressing flow at WRCs	As explained elsewhere we have removed funding based on large programme efficiencies		-3.949		-0.052
WWS2 lines 1 and 48 Sewage Collection and Sewage Treatment	First time sewerage	We have reduced totex based on better information on number of connectable properties and a new option at one village		-3.129		-0.008
WWS2 line 6 & 53 Sewage Collection and Sewage Treatment	EDMs Addresing flow at WRCs	We have challenged costs based on justification of permit costs and duplication with other investments		-6.384		-0.002
WWS2 line 80 Sewage Collection	Pluvial and Fluvial Flooding (partnership funding)	We have reviewed Ofwat's guidance issued at DD on resilience investment and reduced funding for certain partnership schemes				-2.154
WWS2 line 30 & 77 Sewage Collection	Flooding	We have updated our flooding programme to reflect the latest information from transition and smoothing of the delivery profile		-0.441		+0.036
WWS2 line 2, 3, 32, 49, & 50 Sewage Treatment and Sludge Treatment	Bioresources & MCPD	We have removed funding for MCPD compliance and input monitoring as well as the new digester at Pyewipe WRC		-18.724		-0.388
WWS2 lines 49 & 50 Sludge Treatment	Bioresources market exploitation	We have included funding as Ofwat requested at DD				+0.500
Sub-total of enhancement changes			**-270.917**	**-68.888**	**+30.264**	**-4.808**
RPE / Other changes						
WS1/WS1a/WS2 WWS1/WWS1a/WWS2	RPE - applied to all capex and opex in the plan both base and enhancement[1]	We have reviewed the latest evidence on real price effects and updated our view. This has lead to small changes in totex, with a net increase in capex mainly due to labour movements, and a net decrease in opex.	+3.593	+5.334	-7.676	-8.453

Table reference	Description of area of change	Rationale	Capex movement IAP-DD (£m)		Opex movement IAP-DD (£m)	
WS1/WS1a/WS2 WWS1/WWS1a/WWS2	Other programme changes	This includes bill smoothing, lease adjustment variances and impact on productivity of a smaller programme	-2.006	-2.988	+2.123	-4.844
Sub-total RPE / Other changes			**+1.587**	**+2.346**	**-5.553**	**-13.297**
TOTAL OF CHANGES			**-246.091**	**-108.302**	**+12.667**	**-37.978**

1 The figures shown here represent the movement within the DD programme associated with the change in RPE rates, and do not account for the RPE that was built into the reductions taken since IAP

APPOINTEE TABLES COMMENTARY

APP5 - PR14 RECONCILIATION - PERFORMANCE COMMITMENTS

Updated to align to July 2019 PR14 Reconciliation submission.

APP6 - PR14 RECONCILIATION - SUB-MEASURES

Updated to align to July 2019 PR14 Reconciliation submission.

APP7 - PROPOSED PRICE LIMITS AND AVERAGE BILLS

Line 39: Average total bill - water

Report year 2018/19

The average bill value for 2018/19 is based on reported revenue and connections set out in our APR.

Report year 2019/20

The average bill value for 2019/19 is calculated based on a latest forecast of charge multipliers (customer numbers by service and demand) and our published charges. This is in line with average bill information provided to Ofwat in January 2019.

Line 40: Average total bill - wastewater

Report year 2018/19

The average bill value for 2018/19 is based on reported revenue and connections set out in our APR.

Report year 2019/20

The average bill value for 2019/20 is as calculated based on a latest forecast of charge multipliers (customer numbers by service and demand) and our published charges. This is in line with average bill information provided to Ofwat in January 2019.

Line 41: Average total combined bill

Report year 2018/19

The average bill value for 2018/19 is based on reported revenue and connections set out in our APR.

Report year 2019/20

The average bill value for 2019/20 is as calculated based on a latest forecast of charge multipliers (customer numbers by service and demand) and our published charges. This is in line with average bill information provided to Ofwat in January 2019.

APP8 - APPOINTEE FINANCING

Line 3: Cash inflow from equity financing

Equity dividends are sized to cover the minimum of three times interest cover at a parent company, Osprey Acquisitions Ltd (OAL) and are at a level consistent with reducing gearing.

Over the remainder of AMP6 and into AMP7, it is expected that Anglian Water will receive equity injections from its owners, thus helping to reduce its level of gearing.

Previously our Plan showed equity injections offsetting dividends paid as we were assessing the mechanism to deliver these injections. The current approach shown within the March 2019 Annual Performance Report has been to inject this equity as share capital, we have therefore updated the treatment in the Plan to be consistent with this approach.

APP9 - ADJUSTMENTS TO RCV FROM DISPOSALS OF INTEREST IN LAND

Updated to align to July 2019 PR14 Reconciliation submission

Line 11 and 22 updated for revised output from RCV adjustments model

APP10 - FINANCIAL RATIOS

Ratios

Our September plan used Ofwat's early view WACC and was barely financeable, only after our Board had agreed to significantly reduce their ultimate dividends from the base plan and taking into account expected legacy rewards. Ofwat has proposed a reduction to the appointee WACC (to 2.19% RPI) in the Draft Determination. This reduces actual company AICR ratios well below the recommended range of 1.3x-1.5x for the Baa1 level, as the tables show.

In the context of the overall balance of risk presented in the Draft Determination, at the level of WACC that Ofwat has set out in its Draft Determination, and in circumstances where the company is required to deliver a plan which is consistent with the Draft determination, it cannot be financeable.

Line 23: Gearing

Our plan percentage target for gearing is circa mid 70's by the end of AMP7. This is being achieved through external shareholders receiving significantly reduced dividends from the Group. Excess cash will be recycled back into AWS Anglian Water via permanent equity financing.

We are forecasting gearing ratios (debt to RCV) to open at c. 80% on 1 April 2020, with RCV reduced by c. £108m compared to our previous business plans submissions; a difference of 1.4% of RCV and a cashflow increase of c. £30m reflecting higher tax payments following changes in accounting standards. Inflation has caused 1.1% of the RCV difference, c. £80m , and relates to RPI inflation outturn at 30 March 2019 (3.4% forecast, 2.4% actual). RPI has increased since March 2019 to 3% although market forecasts expect this to fall over the rest of this year. Anglian Water has inflation linked debt to help mitigate the gearing impact of inflation but as the level of debt does not equal RCV, there is only a partial offset and consequently the business is exposed to these risks; a fall in inflation increases gearing and an increase in inflation reduces gearing. The majority of our inflation linked debt resets semi-annually in May and November to ensure we are matching the cashflow of our interest repayments with customer bills, which are calculated using November RPI.

The remainder of the reduction in RCV at March 2020 reflects the updated clawback for totex outperformance, and should be offset by the lower capex spend in the gearing calculations. However with £30m early start capex spend, this is not being reflected in the cash expectations and consequently gearing is increased.

By March 2025, we are forecasting a 1% increase in our gearing compared to our previous submissions, with the difference at the end of AMP6 continuing through to the end of AMP7.

APP11 – INCOME STATEMENT BASED ON THE ACTUAL COMPANY STRUCTURE

Consistent with our Plan, revenue from developer contributions is recognised on a deferred basis.

Line 17: Dividends

Equity dividends are sized to cover the minimum of three times interest cover at a parent company, Osprey Acquisitions Ltd (OAL) and are at a level consistent with reducing gearing.

Over the remainder of AMP6 and into AMP7, it is expected that Anglian Water will receive equity injections from its owners, thus helping to reduce its level of gearing.

Previously our Plan showed equity injections offsetting dividends paid as we were assessing the mechanism to deliver these injections. The current approach shown within the March 2019 Annual Performance Report has been to inject this equity as share capital, we have therefore updated the treatment in the Plan to be consistent with this approach.

APP11A – INCOME STATEMENT BASED ON A NOTIONAL COMPANY STRUCTURE

Line 17: Dividends - actual dividends

Notional dividends are based on outputs from Ofwat's PR19 financial model in which borrowings is set at a level which achieves an opening 60% notional gearing ratio.

APP12 – BALANCE SHEET BASED ON THE ACTUAL COMPANY STRUCTURE

As answered by Summary of Changes

APP12A – BALANCE SHEET BASED ON A NOTIONAL COMPANY STRUCTURE

Previously our Plan showed equity injections offsetting dividends paid, as we were assessing the mechanism to deliver these injections. The current approach shown within the March 2019 Annual Performance Report has been to inject this equity as share capital. We have therefore updated the treatment in the Plan to be consistent with this approach.

Line 33 (Called up share capital (including any share premium))

This line picks up the movement in share capital from the companies actual structure (line 6 App18) rather the notional structure. As the financial model assumes no change in share capital, line 33 should be £75m for all years.

The erroneous share values in line 33 are responsible for the difference between lines 30 (Net assets before deferred tax ~ notional company structure) and line 32 (Net assets ~ notional company structure).

APP13 – TRADE RECEIVABLES

As answered by Summary of Changes

APP14 - TRADE AND OTHER PAYABLES

As answered by Summary of Changes

APP15 - CASHFLOW BASED ON THE ACTUAL COMPANY STRUCTURE

As answered by Summary of Changes

APP15A - CASHFLOW BASED ON A NOTIONAL COMPANY STRUCTURE

As answered by Summary of Changes

APP16 - TANGIBLE FIXED ASSETS

App16 has been updated to reflect the revised capex submissions included in tables WS1a and WWS1a. For full details of these changes, please see the commentaries for WS1a and WWS1a.

No other changes have been made to the assumptions used in populating this table.

This table provides forecasts of fixed asset values and depreciation charges by price control. These forecasts are based on planned depreciation on both existing fixed assets held in SAP and on planned asset commissioning of the forecast capital programme for the remainder of AMP6 and all of AMP7.

A key number of assumptions have been made in compiling these forecasts as set out in our table commentary in our IAP Response.

APP17 - APPOINTEE REVENUE SUMMARY

No commentary is required for this table as all cells are calculated.

APP18 - SHARE CAPITAL AND DIVIDENDS

Section A: Equity shares

Equity dividends are sized to cover the minimum of three times interest cover at a parent company, Osprey Acquisitions Ltd (OAL) and are at a level consistent with reducing gearing.

Over the remainder of AMP6 and into AMP7, it is expected that Anglian Water will receive equity injections from its owners, thus helping to reduce its level of gearing.

Previously our Plan showed equity injections offsetting dividends paid, as we were assessing the mechanism to deliver these injections. The current approach shown within the March 2019 Annual Performance Report has been to inject this equity as share capital. We have therefore updated the treatment in the Plan to be consistent with this approach

APP19 - DEBT AND INTEREST COSTS

Lines 12, 14: Interest rate for new debt

Our updated plan removes the 25bp downward adjustment to the cost of new debt assumed by Ofwat in the draft determinations.

We also update the cost of new debt to reflect changes in market conditions since 28 February 2019. We believe it is in the customers' interest to reduce the assumed cost of new debt below that assumed in the Draft Determinations, but that any assumption of a 'halo' effect should be removed.

Consideration should be given to retaining some headroom above the forward rates given the extreme uncertainty in the debt markets. With Ofwat's new indexation mechanism, any difference between assumed and actual will be returned back to customers in full.

The cost of new debt we used in our updated plan is therefore 0% (RPI-deflated) compared with the 0.34% assumed by Ofwat in the draft determination.

APP21 - DIRECT PROCUREMENT FOR CUSTOMERS

We have revised our proposal for projects to be considered under the Direct Procurement for Customers delivery route, following feedback in the DD.

Elsham Treatment and Transfer Scheme

In the DD Response we have allowed the development costs for the Elsham Treatment and Transfer Scheme as detailed in Model Ref FM_E_WW_SDB_ST_DD, tab Deep Dive ANH.

Included within this table is the £8.262m identified in the Draft Determination. We have not included the further 1% for tender costs identified by Ofwat that will be added in the Final Determination. This is estimated to be £1.728m.

The costs of this project have been included in WS1, WS1a and WS2, and are opex costs under IFRS accounting rules.

In the Direct procurement chapter of our representation we give further details of the timescales and gateway process.

South Lincolnshire Reservoir – Strategic Solution

The Draft Determination allows for £19.3m of expenditure. The same amount has been allowed in Affinity Water's plan for the joint development of the scheme.

We have assumed the South Lincolnshire Reservoir will be a DPC contract, and is included within the table. This is consistent with our September 2018 Plan. The overall scheme costs have been modified to align with the extended scope cover by the Strategic Solutions.

The development costs have been included within WS1, WS1a and WS2 under the strategic solution lines as requested. These are opex costs under IFRS accounting rules.

APP23 - INFLATION MEASURES

The 2020-21 to 2029-30 values reflect the update to the 2018-19 and 2019-20 values. The annual inflation forecasts remain unchanged from the IAP response.

APP24 - INPUT PROPORTIONS

Changes from our September Plan and IAP response

We have not revised our assessments of the relative weights of the five cost categories within opex and capex, as we would not expect these to change in the medium term. We have also not revised the figures in this table to reflect the change in the proportional split between opex and capex in our DD Response, because we have assumed the changes in this proportional split to be immaterial.

APP24A - REAL PRICE EFFECTS AND EFFICIENCY GAINS

Section A: General

Changes from our September Plan and IAP response

We have not revised our assessments of the relative weights of the five cost categories within opex and capex as we would not expect these to change in the medium term.

We have reviewed our price effect estimates for the five specified cost types for opex and capex for our DD Response Plan to reflect changes in economic data and forecasts since we made our first estimates in 2018. We have not revised our projections for continuing productivity improvement. The figures in Blocks B-F of App24a have therefore changed from our September 2018 Plan.

Following this review, we propose changes to nominal price change forecasts for the following cost types: Labour, Energy, Business Rates and Abstraction Charges.

Opex costs

Opex labour costs

Compared to the March 2018 'Economic and Fiscal Outlook', which we used for our September 2018 Plan, forecasts now reflect an expectation that labour costs will be higher in the five years of AMP7.

Opex energy costs

For this DD Response, we have used the electricity price forecasts in the 2019 Energy and Emissions Projections of the Department of Business, Energy and Industrial Strategy (BEIS). These have changed quite considerably from the figures we took from the 2017 release for our September 2018 Plan: the first two years of the AMP are lower; the mid year is almost the same; the last two years are higher.

Other opex costs

Other opex costs is one of the two categories of cost for which the IPIs and therefore the RPEs vary from price control to price control. As such, it is described in the sections below.

Capex costs

Capex labour costs

Compared to the March 2018 'Economic and Fiscal Outlook', which we used for our September 2018 Plan, forecasts now reflect an expectation that labour costs will be higher in the five years of AMP7.

Section B: Real Price Effects included in Wholesale Water Resources

Opex costs

Our RPE calculations for Water Resources assume nominal annual changes in the costs of key cost elements for opex which are set out in the table below.

Table 1

Inputs - nominal cost change - opex	2020/21	2021/22	2022/23	2023/24	2024/25
Labour	3.1%	3.1%	3.3%	3.3%	3.3%

Inputs - nominal cost change - opex	2020/21	2021/22	2022/23	2023/24	2024/25
Energy	0.8%	-0.2%	0.1%	2.4%	5.1%
Chemicals	2.5%	2.5%	2.5%	2.5%	2.5%
Materials, plant and equipment	2.5%	2.5%	2.5%	2.5%	2.5%
Other	1.3%	1.3%	1.3%	1.3%	1.3%

Other opex costs

As mentioned in Section A, the IPI and thus RPE for Other opex costs is price control specific. The main elements in other opex for Water Resources are shown in the table below.

Table 2

Water Resources	Cost share	Input price change
Business rates	67.0%	2.0%
Abstraction charges	33.0%	0.0%
Weighted average PE		1.3%

From April 2018 business rates are indexed to CPI, so we use an input price equivalent to the long-run CPI forecast, which we take to be 2.0%, in line with the OBR's current long term forecast.

Environment Agency (EA) charges for abstraction licence fees are typically not increased on an annual basis. We have therefore set the price effect to 0% for these costs.

These figures for rates and abstraction charges are both changes from our September Plan.

Capex costs

Our RPE calculations for Water Resources assume nominal annual changes in the costs of key cost elements for capex which are set out in the table below.

Table 3

Inputs - nominal cost change - capex	2020/21	2021/22	2022/23	2023/24	2024/25
Labour	3.1%	3.1%	3.3%	3.3%	3.3%
Materials, plant and equipment (capital maintenance infra)	3.4%	3.4%	3.4%	3.4%	3.4%
Materials, plant and equipment (capital maintenance non infra)	3.7%	3.7%	3.7%	3.7%	3.7%
Materials, plant and equipment (capital enhancement infra)	3.4%	3.4%	3.4%	3.4%	3.4%
Materials, plant and equipment (capital enhancement non infra)	3.7%	3.7%	3.7%	3.7%	3.7%
Other	3.1%	3.1%	3.3%	3.3%	3.3%

Section C: Real Price Effects included in Wholesale Water Network Plus

Our RPE calculations for Water Network Plus assume nominal annual changes in the costs of key cost elements for opex which are set out in the table below:

Table 4

Inputs - nominal cost change - opex	2020/21	2021/22	2022/23	2023/24	2024/25
Labour	3.1%	3.1%	3.3%	3.3%	3.3%
Energy	0.8%	-0.2%	0.1%	2.4%	5.1%
Chemicals	2.5%	2.5%	2.5%	2.5%	2.5%
Materials, plant and equipment	2.5%	2.5%	2.5%	2.5%	2.5%
Other	2.0%	2.0%	2.0%	2.0%	2.0%

Other opex costs

As mentioned in Section A, the IPI and thus RPE for Other opex costs is price control specific.

The only item in Other opex for Water Network Plus is business rates. These are indexed to CPI, so we use an input price equivalent to the long-run CPI forecast, which we take to be 2.0%, in line with the OBR's current long term forecast.

Capex costs

Our RPE calculations for Water Network Plus assume nominal annual changes in the costs of key cost elements for capex which are set out in the table below.

Table 5

Inputs - nominal cost change - capex	2020/21	2021/22	2022/23	2023/24	2024/25
Labour	3.1%	3.1%	3.3%	3.3%	3.3%
Materials, plant and equipment (capital maintenance infra)	3.4%	3.4%	3.4%	3.4%	3.4%
Materials, plant and equipment (capital maintenance non infra)	3.7%	3.7%	3.7%	3.7%	3.7%
Materials, plant and equipment (enhancement infra)	3.4%	3.4%	3.4%	3.4%	3.4%
Materials, plant and equipment (enhancement non infra)	3.7%	3.7%	3.7%	3.7%	3.7%
Other	3.1%	3.1%	3.3%	3.3%	3.3%

SECTION D: Real Price Effects included in Wholesale Wastewater Network Plus

Opex costs

Our RPE calculations for Water Recycling Network Plus assume nominal annual changes in the costs of key cost elements for opex which are set out in the table below.

Table 6

Inputs - nominal cost change - opex	2020/21	2021/22	2022/23	2023/24	2024/24
Labour	3.1%	3.1%	3.3%	3.3%	3.3%
Energy	0.8%	-0.2%	0.1%	2.4%	5.1%
Chemicals	2.5%	2.5%	2.5%	2.5%	2.5%
Materials, plant and equipment	2.5%	2.5%	2.5%	2.5%	2.5%
Other	2.2%	2.2%	2.2%	2.2%	2.2%

Other opex costs

We assume that the Environment Agency (EA) discharge permit fees will be held at current nominal levels over the forecasting period.

Capex costs

Our RPE calculations for Water Recycling Network Plus assume nominal annual changes in the costs of key cost elements for capex which are set out in the table below.

Table 7

Inputs - nominal cost change - capex	2020/21	2021/22	2022/23	2023/24	2024/25
Labour	3.1%	3.1%	3.3%	3.3%	3.3%
Materials, plant and equipment (capital maintenance infra)	3.7%	3.7%	3.7%	3.7%	3.7%
Materials, plant and equipment (capital maintenance non infra)	3.6%	3.6%	3.6%	3.6%	3.6%
Materials, plant and equipment (enhancement infra)	3.6%	3.6%	3.6%	3.6%	3.6%
Materials, plant and equipment (enhancement non infra)	3.6%	3.6%	3.6%	3.6%	3.6%
Other	3.1%	3.1%	3.3%	3.3%	3.3%

Section E: Real Price Effects included in Wholesale Bioresources

Opex costs

Our RPE calculations for Water Network Plus assume nominal annual changes in the costs of key cost elements for opex which are shown in the table below.

Table 8

Inputs - nominal cost change - opex	2020/21	2021/22	2022/23	2023/24	2024/25
Labour	3.1%	3.1%	3.3%	3.3%	3.3%
Energy	0.8%	-0.2%	0.1%	2.4%	5.1%
Chemicals	2.5%	2.5%	2.5%	2.5%	2.5%
Materials, plant and equipment	2.5%	2.5%	2.5%	2.5%	2.5%
Other	2.8%	2.8%	2.8%	2.8%	2.8%

Other opex costs

As mentioned in Section A, the IPI and thus RPE for Other opex costs is price control specific. The main elements in other opex for Bioresources are shown below in the table below.

Table 9

Bioresources	Cost share	Input price change
Business rates	20.0%	2.0%
Service contracts	80.0%	3.0%
Weighted average PS		2.8%

Business rates are indexed to CPI so we use an input price equivalent to the long-run CPI forecast, which we take to be 2.0%, in line with the OBR's current long term forecast.

Capex costs

Our RPE calculations for Bioresources assume nominal annual changes in the costs of key cost elements for capex which are set out in the table below.

Table 10

Inputs - nominal cost change - capex	2020/21	2021/22	2022/23	2023/24	2024/25
Labour	3.1%	3.1%	3.3%	3.3%	3.3%
Materials, plant and equipment (capital maintenance infra)	3.7%	3.7%	3.7%	3.7%	3.7%
Materials, plant and equipment (capital maintenance non infra)	3.6%	3.6%	3.6%	3.6%	3.6%
Materials, plant and equipment enhancement infra)	3.6%	3.6%	3.6%	3.6%	3.6%
Materials, plant and equipment enhancement non infra)	3.6%	3.6%	3.6%	3.6%	3.6%
Other	3.1%	3.1%	3.3%	3.3%	3.3%

Section F: Input Price Pressures included in Residential Retail

Our IPI calculations for residential retail assume nominal annual changes in the costs of key cost elements as set out in the table below:

Table 11

	2020/21	2021/22	2022/23	2023/24	2024/25
Labour	3.1%	3.1%	3.3%	3.3%	3.3%
Doubtful debt	1.0%	1.0%	1.0%	1.0%	1.0%
Other	2.0%	2.0%	2.0%	2.0%	2.0%

The labour cost increases are in line with the assumptions used for wholesale.

The logic behind the doubtful debt figures is that the level of doubtful debts will fall in real terms over the price control period as a result of the strategies in our plan to assist customers with payment of their bills. 'Other' costs are also assumed to move in line with CPIH.

Section H: Assumed Efficiency Gains

The continuing productivity assumptions we have set for AMP7 are 1.0% per annum for opex and 1.0% per annum for capex. This is higher than the base productivity assumption we built into our PR14 plans (0.7% for capex and 1.0% for opex) and at a rate higher than the UK economy as a whole. It is also in line with assumptions which have been made by utility regulators in a range of other price reviews.

These assumptions represent a step change improvement on recent levels of productivity in the sector. In the Water UK report on Total Factor Productivity (TFP) published in September 2017, the quality adjusted TFP from 2009-2017 was estimated to be 0.1% per annum. All of our expenditure in botex and enhancement has been adjusted to take account of our continuing 1% productivity assumption.

Beyond this, we have given ourselves a further efficiency challenge of £176m (our stretch efficiency in our September 2018 Business Plan was £199m. The £176m figure results from the reduction in overall totex we have made in this Representation).

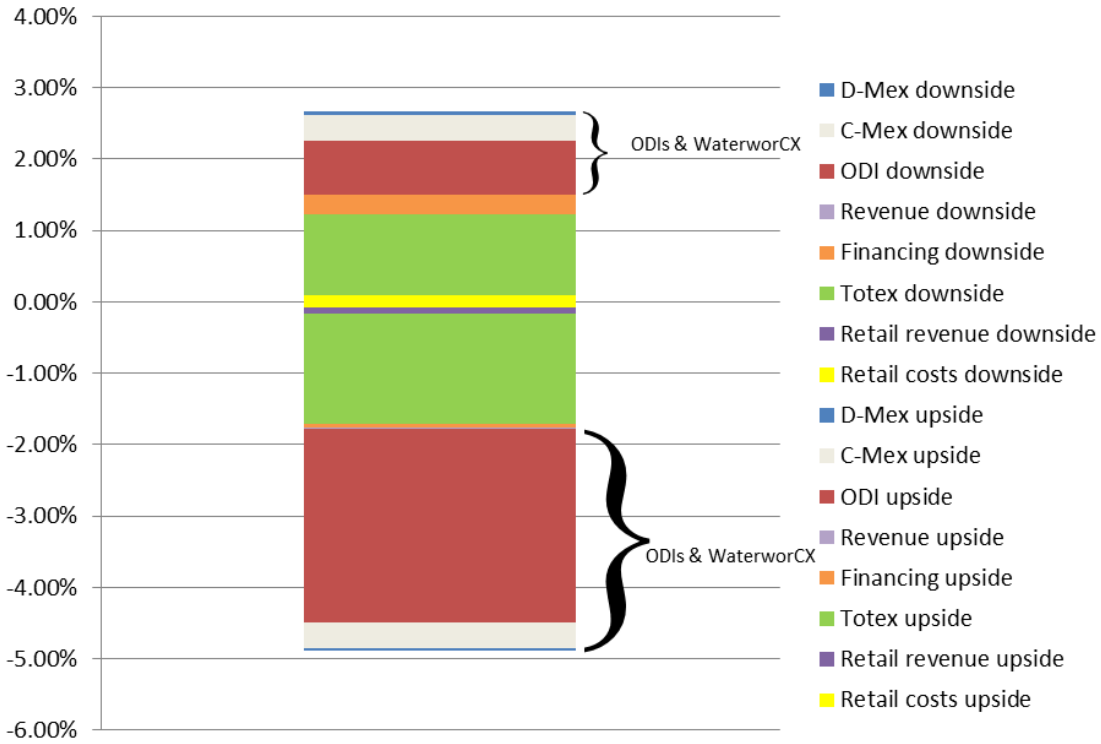
APP25 - PR14 RECONCILIATION ADJUSTMENTS SUMMARY

Updated to reflect changes in the July 2019 PR14 Reconciliation Submission and updates to the August Representation legacy mechanisms.

APP26 - RORE SCENARIOS

Summary

Figure 1 Appointee RoRE impact inc ODIs



The potential impact on the appointee RORE of the six Ofwat scenarios we have considered is +2.7% to -4.9%. If the impacts of ODIs and WaterworCX are excluded, then the appointee RORE impact at P10 is +1.9% and at P90 -2.1%.

The outcomes which we have set out in our Business Plan were designed and agreed with our customers so as to meet our obligations and improve our resilience both in the coming AMP and beyond. As such, the RoRE assessment encapsulates the results of our systems approach to resilience.

On both the upside and the downside (P10 and P90), the three largest impacts on RoRE come from totex cost movements, WaterworCX and ODIs. In terms of the cost movements, mitigation comes through hedging and forward trading where feasible. The P10 and P90 scenarios can be thought of as being net of any mitigating actions. The key driver to the ODI scenarios is the severity of meteorological conditions. While clearly the weather is outside management control, the freeze-thaw incident in early 2018 clearly indicated that Anglian Water both can and does cope with extremes of weather (at least as well as any other water company in the UK). As such, we believe that we have demonstrated our capacity to mitigate the impacts of weather extremes for customers. The ODI downside can thus also be taken as being net of mitigation.

Introduction

As part of the Business Plan development, we have undertaken detailed scenario analysis, including the scenarios prescribed by App26 in the PR19 Final Methodology. We have taken into account the detailed position set out in Appendix 12 section 3 (Scenario analysis and risk assessment) and in the updated guidance for the final business plan data tables, dated 31 May 2018.

We have modelled the following six of the prescribed scenarios set out in Appendix 12, section 3.3:

- Movements in revenue
- Movements in wholesale totex
- Movements in residential retail botex
- ODI performance excluding C-Mex and D-Mex
- C-Mex and D-Mex (collectively referred to as WaterworCX)
- Financing performance – the cost of new debt.

We have not constructed a scenario for business retail costs as Anglian has exited the business retail market. Neither have we constructed a scenario for water trading as we are not forecasting any such trading during AMP7.

We considered carefully whether there were any other key risks highlighted in our business plan which it was incumbent on us to model in addition to the six specified scenarios. The conclusion we came to was that there are no other material company-specific risks which should be highlighted in further scenarios. Consequently we have neither used the dummy scenarios set out in App26 nor developed any separate bespoke impact models.

The financial impacts of these scenarios are set out in App26. The impacts on the base case for Return on Regulated Equity (RORE) are set out below for each individual scenario and then summarised above in the table summary. These impacts on RORE were computed using the Ofwat financial model.

High (P10) and low (P90) scenarios

Tables 1 and 2 below set out our key assumptions for the scenarios set out by Ofwat in its PR19 Methodology. Section 4 in turn sets out the consequences of these assumptions.

Table 1 Key P10 assumptions

Impact	Driver	Assumption
Revenue	New customer numbers	The new customer numbers used in the business plan are those required by WRMP.
	Water trading	No new water trading is expected in AMP7.
	Bioresources revenue	Bioresources wholesale revenue control is set on an average revenue control basis, using tonnes for dry solids (tds) as the volume measure. As customer numbers vary, so tds will also change.
Wholesale totex	Salaries	Process: i. We assume that the difference between actual RPE and expected RPE is distributed normally. ii. Analysing the last 10 years' RPEs (as defined below in Table 3), we calculated the sample standard deviation for each cost category. iii. We then computed the P10 and P90 values for the distributions using those standard
	Chemicals	
	Power	
	Plant & equipment	

Impact	Driver	Assumption
		iv. deviations. v. Finally, using the P10 and P90 values, we computed the impact on overall costs for the coming AMP.
Major totex programmes	eg WRMP, WINEP	WINEP has already been subject to changes in phasing of some elements of between AMP7 and AMP8. In P10 we consider the potential for these elements being delayed.
Residential retail botex	Doubtful debt & debt management	At P10, we expect doubtful debt and debt management costs to outturn below the figures included in the BP. We have assumed that the distribution of possible outturns centred on the figures in the BP is normally distributed with a mean of zero. To estimate the standard deviation, we have computed the standard deviation for doubtful debt and debt management costs from 2009/10 to 2017/18 and used that to compute the P10 and P90 figures.
	Other retail costs	Customer service and metering costs are driven by customer numbers and, in particular, by new customer numbers (new customers are more prone to contact us than long-standing customers).
ODIs other than WaterworCX	Non WaterworCX ODIs	Table 4 sets out the detailed P10 assumptions for all of our financial penalty / reward ODIs. This is a scenario in which our out-performance is most marked on the water side of the business with outperformance against our WRMP assumptions. Whilst we also incorporate wastewater outperformance, this is not as marked as the level of water out-performance. This is on the basis that both the WRMP and WINEP are significantly larger than they have been in the past, and strong outperformance of both is unlikely.
WaterworCX	C-Mex	The P10 assumption is that we achieve the maximum potential reward in each year of the AMP (including the enhanced element for outperformance cross sector service benchmarks).
	D-Mex	The P10 assumption is that we achieve the maximum potential reward in each year of the AMP.
Financing	Cost of new debt	We have based our Financing scenario on Ofwat's figures set out in the Aligning Risk and Return Technical Appendix page 22

Table 2 Key P90 assumptions

Impact	Driver	Assumption
Revenue	New customer numbers	To estimate the P90 figure for new customer numbers, we have taken the tenth percentile for new connections over the last five years. This was 15,078. This figure is assumed to be the P90 figure for each year of the AMP.

Impact	Driver	Assumption
	Water trading	No new water trading is expected in AMP7. Hence there is no expected down-side risk.
	Bioresources revenue	Bioresources wholesale revenue control is set on an average revenue control basis, using tonnes dry solids (tds) as the volume measure. As customer numbers very, tds will also change. At P90, tds is expected to be lower as a consequence of the reduction in new customer numbers.
Wholesale totex	Salaries	Process: i. We assume that the difference between actual RPE compared to expected RPE is distributed normally. ii. Analysing the last 10 years' RPEs (as defined below in Table 3), we calculated the sample standard deviation for each cost category. iii. We then computed the P10 and P90 values for the distributions using those standard deviations. iv. Finally, using the P10 and P90 values, we computed the impact on overall costs for the coming AMP.
	Chemicals	
	Power	
	Plant & equipment	
Major totex programmes	eg Growth WINEP	We have included in the P90 scenario the possibility that Brexit may lead to a 2% increase in all totex costs across the AMP. We have also taken into account the impact of the specification for the Reinstatement of Highways.
Residential retail botex	Doubtful debt & debt management	At P90, we expect doubtful debt and debt management costs to out-turn above the figures included in the BP. We have assumed that the distribution of possible out-turns centred on the figures in the BP is normally distributed with a mean of zero. To estimate the standard deviation, we have computed the standard deviation for doubtful debt and debt management costs from 2009/10 to 2017/18 and used that to compute the P10 and P90 figures.
	Other retail costs	Customer service and metering costs are driven by customer numbers and in particular by new customer numbers (new customers are more prone to contact us than long-standing customers). At P90, we assume a reduced number of new connections which will reduce customer service and metering costs. These reductions attenuate the increase from the doubtful debt and debt management costs.
ODIs other than WaterworCX	Wholesale ODIs	Table 5 sets out the detailed P90 assumptions for all of our financial penalty / reward ODIs. This is informed by the weather conditions in the most difficult year for Anglian over the last decade – that was 2012-13. We have used this extreme year to observe the covariance between performance commitments, and apply this to the down-side scenario.

Impact	Driver	Assumption
WaterworCX	C-Mex	The P90 assumption is that our outturn results in the maximum potential penalty in each year of the AMP. Given our P90 assumption for new customer numbers, the retail revenue assumed at P90 is lower than the BP figure as retail revenue is computed on a cost to serve basis.
	D-Mex	The P90 assumption is that our outturn results in the maximum potential penalty in each year of the AMP. Given our P90 assumption for new customer numbers, grants and contributions (G&C) are assumed at P90 is lower than the BP figure.
Financing	Cost of new debt	We have based our Financing scenario on Ofwat's figures set out in the Aligning Risk and Return Technical Appendix page 22.

As set out in Tables 1 and 2 above, the upside and downside scenarios for totex are based on the impact of differing RPE impacts. To compute the variability of prices for the key elements of costs in our business, we have used the following data sets from the Office for National Statistics.

Table 3 RPE base data definitions: 2008/2018

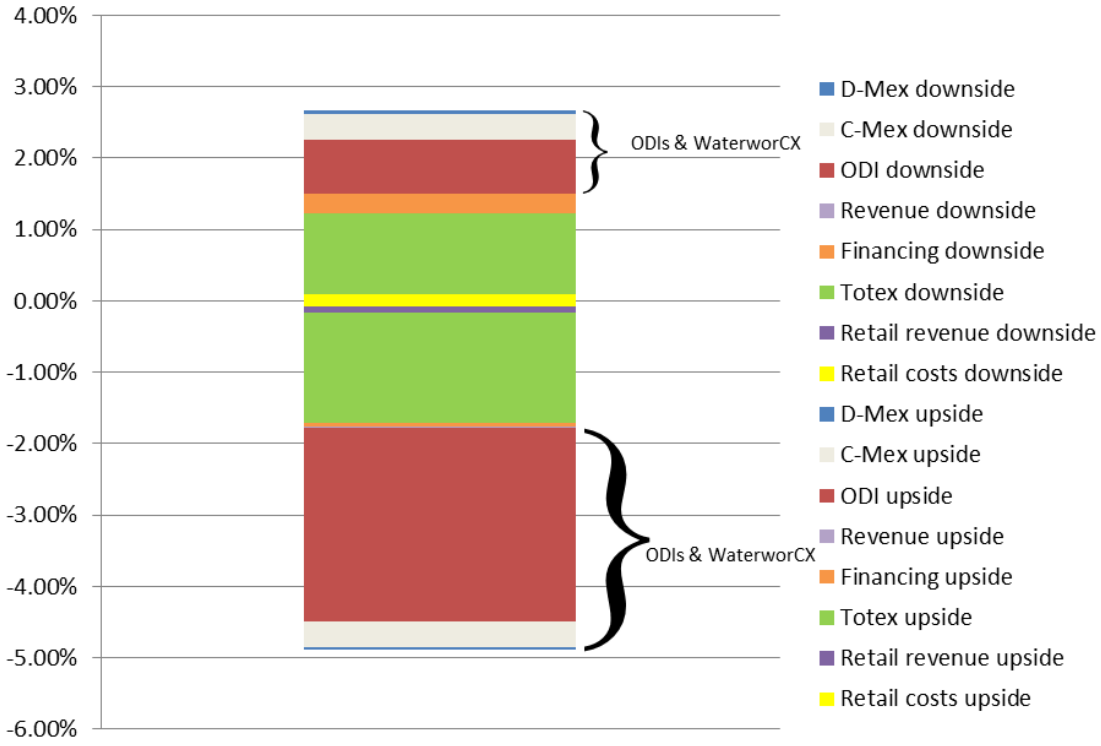
Cost category			ONS designation
Salaries	Unit labour cost ONS code DMWN	Minus	CPIH ONS code L550
Power	Energy cost ONS code D79U		
Chemicals	Chemicals cost ONS code K37Z		
Plant & Equipment	Plant & Eqpt cost ONS code K389		

Impacts

The detailed financial impacts of our assumptions as set out above can be found in App26. The consequences of these impacts are set out in Table 4, taken from the Ofwat financial model dashboard.

At the appointee level, Table 4 can be shown graphically in the below.

Figure 2 Appointee RoRE impact inc ODIs



This graph takes into account the corrections made in the financial model and which are explained in the second section of the Financial Model Appendix.

The total potential impact on the appointee RORE of the scenarios we have considered is +2.7% to -4.9%. It can be seen that if the impact of ODIs and WaterworCX are excluded, then the range of RoRE impact is between +1.9% to -2.1% at the appointee level.

Table 4 RoRE impacts

Sensi cases	Appointee	WR	WN	WWN	BR	Dummy
Base case	4.63%	4.36%	4.36%	4.35%	4.34%	-
Financing upside	0.27%	0.27%	0.28%	0.27%	0.26%	-
Financing downside	-0.05%	-0.05%	-0.05%	-0.05%	-0.05%	-
Revenue upside	-	-	-	-	-	-
Revenue downside	-0.01%	-	-	-	-0.27%	-
Water trading incentive revenue impact upside	-	-	-			
Water trading incentive revenue impact downside	-	-	-			

Sensi cases	Appointee	WR	WN	WWN	BR	Dummy
Water trading incentive export revenue impact upside	-	-	-			
Water trading incentive export revenue impact downside	-	-	-			
ODI upside	0.76%	2.46%	1.09%	0.52%	-	-
ODI downside	-2.72%	-3.56%	-4.72%	-1.56%	-	-
Wholesale costs after uncertainty mechanism upside	1.14%	1.40%	1.06%	1.10%	2.23%	-
Wholesale costs after uncertainty mechanism downside	-1.55%	-2.13%	-2.13%	-1.05%	-3.06%	-
Water trading export costs impact upside	-	-	-			
Water trading export costs impact downside	-	-	-			
D-Mex upside	0.05%		0.06%	0.04%		
D-Mex downside	-0.04%		-0.05%	-0.04%		
Retail revenue upside	-					
Retail revenue downside	-0.09%					
Retail costs upside	0.09%					
Retail costs downside	-0.07%					
Retail ODI upside	-					
Retail ODI	-					
C-Mex upside	0.36%					
C-Mex downside	-0.35%					

Revenue Impact

Given the mechanism for calculating allowed wholesale revenue for Water Resources, Water Network Plus and Water Recycling Network Plus will be set out in our Final Determination, the only potential impact (up or down) on reported revenues in these price controls will be from changes in customer numbers or the levels of customer usage compared to the forecasts used when setting charges for the relevant charging year/reporting year.

Wholesale charges are published three months prior to the relevant charging year, and therefore are based on forecasts of charge multipliers (customer numbers and demand) that are likely to be on average nine months out of date when published charges are operative. The difference in customer numbers from forecast is therefore unlikely to be material. Forecasting errors on usage could be more material if there is a significant variation in the normal summer/winter weather

pattern, but these are infrequent events and therefore generally usage is expected to be stable year on year, and therefore approximate to the forecast when setting charges. Therefore, whilst variations in revenue can arise they are not expected to be material. They can also be characterised as timing differences, given the Revenue Forecasting Incentive Mechanism ("RFIM") to be applied to each of these controls. The RFIM means that where variations in revenue do arise in any given year (year t) they will be corrected when charges are set for year t+2, or in the PR24 process. For example, an over-recovery of allowed revenue in reporting year 2020/21 of £10 million will be corrected through a reduction of allowed revenue for reporting year 2022/23 (with appropriate financing and indexation adjustments). Given this self-correcting nature of these timing differences, we have made the simplifying assumption that the net impact on revenue arising from any changes in customer numbers or usage is zero.

Bioresources revenue is calculated on an average revenue approach based on cost per ton of dry solids (tds), with the company at risk of revenue changes should sludge production differ from assumed levels. The price control uses the expected unit revenue based on forecast volumes. As tds is dependent on customer numbers, a reduction in customer numbers as a result of lower growth numbers feeds through to lower tds and hence lower revenues. Ofwat has developed a revenue adjustment factor, to apply where outturn sludge volumes differ sufficiently from forecast volumes. The volumes involved in the App26 adjustments do not trigger this adjustment.

From Table 4, the revenue downside for RORE for Bioresources is 0.3%.

From Table 4, the wholesale impact of the Bioresources downside on Appointee Revenue is 0.01%.

Retail revenue is computed on a cost to serve basis. As such, it does flex with customer numbers. Consequently there is a downside impact from lower customer numbers which we compute leads to the 0.09% RORE impact shown in Table 4.

Wholesale totex impact

At the appointee level, the aggregate upside impact of wholesale totex costs is 1.1%. The aggregate downside is 1.6%.

The detailed upside impacts for wholesale totex by price control are set out in Table 5 below and the detailed downside impacts for wholesale totex by price control are set out in Table 6 below.

Table 5 P10 Totex RoRE impacts

£m	2020/21	2021/22	2022/23	2023/24	2024/25
Water Network + cost impact: P10 (pre tax adjustment)	11.3	14.1	14.5	13.7	11.6
Water resources cost impact: P10 (pre tax adjustment)	2.1	2.4	2.6	2.3	2.1
Wastewater Network + cost impact: P10 (pre tax adjustment)	12.0	16.6	16.1	16.7	14.8
Bioresources cost impact: P10 (pre tax adjustment)	2.0	2.2	2.1	2.0	1.9

Table 6 Net P90 Totex RoRE impacts

£m	2020/21	2021/22	2022/23	2023/24	2024/25
Water Network + cost impact: P90 (pre tax adjustment)	-12.8	-16.1	-16.6	-15.6	-13.0

£m	2020/21	2021/22	2022/23	2023/24	2024/25
Water resources cost impact: P90 (pre tax adjustment)	-2.1	-2.5	-2.6	-2.3	-2.1
Wastewater Network + cost impact: P90 (pre tax adjustment)	-13.6	-19.3	-18.7	-19.4	-17.1
Bioresources cost impact: P90 (pre tax adjustment)	-2.5	-2.9	-2.7	-2.6	-2.5

Retail botex impact

The P10 retail cost impact is set out in Table 7.

Table 7 P10 retail cost impact

£m	2020/21	2021/22	2022/23	2023/24	2024/25
Customer services	0.0	0.0	0.0	0.0	0.0
Debt management	-0.8	-0.8	-0.8	-0.9	-0.9
Doubtful debts	-1.9	-1.9	-2.0	-2.1	-2.2
Meter reading	0.0	0.0	0.0	0.0	0.0
Other operating expenditure	0.0	0.0	0.0	0.0	0.0
Local authority and Cumulo rates	0.0	0.0	0.0	0.0	0.0
Pension deficit repair costs	0.0	0.0	0.0	0.0	0.0
Total operating expenditure (excluding third party services)	-2.7	-2.7	-2.8	-3.0	-3.1

As set out in Table 1, the P10 retail costs benefit from lower doubtful debt and debt management costs.

The P90 retail cost impact is set out in Table 8.

Table 8 P90 retail cost impact

£m	2020/21	2021/22	2022/23	2023/24	2024/25
Customer services	-0.2	-0.4	-0.6	-0.8	-0.9
Debt management	0.8	0.8	0.8	0.9	0.9
Doubtful debts	1.9	1.9	2.0	2.1	2.2
Meter reading	0.0	0.1	0.1	0.1	0.2
Other operating expenditure	0.0	0.0	0.0	0.0	0.0
Local authority and Cumulo rate	0.0	0.0	0.0	0.0	0.0

£m	2020/21	2021/22	2022/23	2023/24	2024/25
Pension deficit repair costs	0.0	0.0	0.0	0.0	0.0
Total operating expenditure (excluding third party services)	2.5	2.4	2.3	2.3	2.3

As set out in Table 8, the P90 retail costs suffer from higher doubtful debt and debt management costs. This increase is attenuated by lower customer service and meter reading costs as a result of lower customer additions in the P90 scenario.

As can be seen in Table 4, the RORE impact at the appointee level of retail costs is very small for both the P10 and P90 assumptions.

ODI Impact

The impact of the ODIs on the down-side is informed by the weather conditions in the most difficult year for Anglian over the last decade – that was 2012-13. We have used this extreme year to observe the covariance between performance commitments, and apply this to the down-side scenario. On

the upside, we have considered a scenario in which our out-performance is most marked on the water side of the business with outperformance against our WRMP assumptions. Whilst we also incorporate wastewater outperformance, this is not as marked as the level of water out-performance. This is on the basis that both the WRMP and WINEP are significantly larger than they have been in the past, and strong outperformance of both is unlikely.

We have not included potential outperformance for our two vulnerability performance commitments within the ODI impact. Any outperformance for these performance commitments will be ring-fenced and re-invested.

The impact of these assumptions is set out in the following tables.

Table 9 sets out how each individual ODI is categorised for the purposes of the five price controls.

Tables 10 and 11 set out the detailed assumptions for each ODI based upon the upside and downside scenarios. The tables present the upside and downside for this macro scenario and cross refer to the upside and downside for each performance commitment in isolation. The upside and downside for each performance commitment in isolation are shown in the commentary for table App1.

Tables 12 and 13 set out the financial impacts of the individual ODIs.

Tables 14 and 15 summarise the results by price control. These equate to a RORE impact of +0.8% on the upside and -2.7% on the downside, excluding CMex and DMex; 1.2% and 3.1% including CMex and DMex.

Table 9 ODI impact by price control

	WR	WN+	WWN+	Bio	Res
Customer Measure of Experience (C-Mex)	0%	0%	0%	0%	100%
Developer Measure of Experience (D-Mex)	0%	56%	44%	0%	0%
Compliance Risk Index (CRI)	0%	100%	0%	0%	0%
Water supply interruptions	0%	100%	0%	0%	0%
Leakage (Three year average)	0%	100%	0%	0%	0%
Per Capita Consumption	0%	100%	0%	0%	0%

	WR	WN+	WWN+	Bio	Res
Internal Sewer Flooding	0%	0%	100%	0%	0%
Number of pollution incidents (cat 1-3)	0%	0%	100%	0%	0%
Common asset health measure 2: unplanned outage	0%	100%	0%	0%	0%
Common asset health measure 3: sewer collapses per 1,000km	0%	0%	100%	0%	0%
Common asset health measure 4: Treatment Works Compliance	0%	31%	61%	0%	0%
Percentage of population supplied by single supply system	0%	100%	0%	0%	0%
Properties at risk of persistent low pressure	0%	100%	0%	0%	0%
Number of properties flooded externally	0%	0%	100%	0%	0%
Reactive mains bursts	0%	100%	0%	0%	0%
% of bathing waters attaining excellent status	0%	0%	100%	0%	0%
Abstraction Incentive Mechanism	100%	0%	0%	0%	0%
Vulnerability measure - judgment by independent panel against our strategy	0%	0%	0%	0%	100%
Gap Sites and Voids	0%	0%	0%	0%	100%
Operational carbon (% reduction from 2015 baseline)	20%	20%	20%	20%	20%
Embodied carbon (% reduction from 2010 baseline)	20%	20%	20%	20%	20%
Compliance Risk Index (1) - WTWs	0%	100%	0%	0%	0%
Compliance Risk Index (2) - Supply Points	0%	100%	0%	0%	0%
Compliance Risk Index (3) - Service Reservoirs	0%	100%	0%	0%	0%
Compliance Risk Index (4) - Water Supply Zones	0%	100%	0%	0%	0%
R-MeX	0%	51%	49%	0%	0%

	WR	WN+	WWN+	Bio	Res
Measure on natural capital	25%	25%	25%	25%	0%
Measure on social capital	20%	20%	20%	20%	20%
WINEP	15%	0%	85%	0%	0%
Water Quality Complaints	0%	100%	0%	0%	0%
Vulnerability measure - number of customers on Priority Services Register (PSR)	0%	0%	0%	0%	100%
Event Risk Index	0%	100%	0%	0%	0%
Smart metering delivery	0%	100%	0%	0%	0%
Internal interconnection delivery	0%	100%	0%	0%	0%
Cyber	0%	100%	0%	0%	0%
Water housing and estate mains	0%	100%	0%	0%	0%
Surface water drainage	0%	0%	100%	0%	0%
Growth at water recycling centres	0%	0%	100%	0%	0%

C-Mex impact

The P10 and P90 C-Mex impacts are set out in table 12 below in accordance with the assumptions set out in Tables 1 and 2.

Table 10 C-Mex RoRE impacts

£m	2020/21	2021/22	2022/23	2023/24	2024/25
C-Mex P10	11.9	11.9	11.9	11.9	11.9
C-Mex P90	-11.5	-11.5	-11.5	-11.5	-11.5

As can be seen from Table 4, the upside RORE impact of C-Mex at the appointee level is 0.4% and the downside is -0.4%.

D-Mex impact

The P10 and P90 D-Mex impacts are set out in Table 13 below in accordance with the assumptions set out in Tables 1 and 2.

Table 11 D-Mex RoRE impacts

£m	2020/21	2021/22	2022/23	2023/24	2024/25
D-Mex Water Network+ P10	0.7	0.7	0.7	0.7	0.7
D-Mex Wastewater Network+ P10	0.8	0.8	0.9	0.8	0.8
D-Mex total P10	1.5	1.6	1.6	1.5	1.5

£m	2020/21	2021/22	2022/23	2023/24	2024/25
D-Mex Water Network+ P90	-0.7	-0.6	-0.6	-0.5	-0.6
D-Mex Wastewater Network+ P90	-0.7	-0.7	-0.7	-0.7	-0.7
D-Mex total P90	-1.3	-1.3	-1.2	-1.2	-1.2

As can be seen from Table 4, the upside RORE impact of D-Mex at the appointee level is 0.05% and the downside - 0.03%.

Financing impact

The P10 RoRE impact of the new debt financing assumptions set out in Table 1 and Table 3 is shown in Table 18 below.

The upside at the appointee level is 0.3% and the downside -0.1%

Table 12 P10 new debt financing RoRE impact

£m	2020/21	2021/22	2022/23	2023/24	2024/25
Water Network+ financing impact: P10 (pre tax adjustment)	0.8	1.8	3.1	4.6	6.1
Water Resources financing impact: P10 (pre tax adjustment)	0.1	0.1	0.2	0.3	0.4
Wastewater Network+ financing impact: P10 (pre tax adjustment)	1.3	2.8	4.6	6.8	9.1
Bioresources financing impact P10 (pre tax adjustment)	0.1	0.2	0.3	0.4	0.6
Total P10	2.3	5.0	8.3	12.1	16.1

Table 13 P90 new debt financing RoRE impact

£m	2020/21	2021/22	2022/23	2023/24	2024/25
Water Network+ financing impact: P10 (pre tax adjustment)	-0.2	-0.3	-0.6	-0.9	-1.2
Water Resources financing impact: P10 (pre tax adjustment)	0.0	0.0	0.0	0.0	0.0
Wastewater Network+ financing impact: P10 (pre tax adjustment)	-0.2	-0.5	-0.9	-1.3	-1.7
Bioresources financing impact P10 (pre tax adjustment)	0.0	0.0	-0.1	-0.1	-0.1
Total P90	-0.4	-0.9	-1.6	-2.3	-3.1

APP27 - PR14 RECONCILIATION - FINANCIAL OUTCOME DELIVERY INCENTIVES SUMMARY

Lines 1,5,16 and 31, total to be applied at PR19

We have made two changes to table App 27 which effects line 1, 5, 16 and 31 in the "Total to be applied at PR19" to align with Ofwat's decision to allow 2019-20 outperformance payments to be recovered through the PR14 reconciliation mechanism.

Line 35, 42 to 45

Outputs from revenue adjustments feeder model.

APP28 - DEVELOPER SERVICES (WHOLESALE)

For AMP6 - The data for 2018/19 has been updated to reflect the APR. The forecast for 2019/20 has been updated based on our Q1 data.

SECTION B: INFRASTRUCTURE NETWORK REINFORCEMENT EXPENDITURE FORECASTS - WHOLESALE WATER SERVICE

Line 3: Distribution and trunk mains

Local Planning Authorities have provided Anglian Water with their planned growth sites. Using this data (both polygon and spot data), we have undertaken both 2D and 3D modelling. This has provided us with the data to determine those growth sites and zones that would cause the most detrimental impact to our existing network.

Modelling software was used to determine the network reinforcement necessary to enable the growth without impacting on the services provided to existing or new customers.

This line provides the data on the distribution and trunk mains required to reinforce the network. This expenditure is upstream of the connection point of proposed detrimental growth points. This data was provided solely through network hydraulic modelling.

For AMP6 - The actuals for 2018/19 have been updated to reflect better information. We have separated out the AMP6 Pumping and Storage expenditure into Line 4 as it had not previously been reported in this line. This is a simple extraction of costs and does not impact the Total Infrastructure Network reinforcement in Line 6.

Line 4: Pumping and storage networks

Through hydraulic modelling, we were able to determine which growth zones would require additional pumping to achieve the required pressure in the network. A hierarchy was set out that would look at network rejoining prior to considering the need for additional pumping. In AMP6, the costs related to this line are set out as part of line 3. In AMP7, we have set out the costs separately.

We are not considering the need for new storage to meet the needs for Developer Driven Growth schemes.

For AMP6 - The actuals for 2018/19 have been updated to reflect better information. We have included the AMP6 Pumping and Storage expenditure into this line as it had been misreported in Line 3. This is a simple extraction of costs and does not impact the Total Infrastructure Network reinforcement in Line 6.

SECTION C: GRANTS AND CONTRIBUTIONS RECEIVED - WHOLESALE WATER SERVICE

This section has been assessed in line with the requirements under RAG 4.08.

Line 7: Connection charges (s45)

The contribution from developers for new water connection (communication) is directly attributable to the cost of providing that service. This charge is as defined in RAG 4.08.

The actual charge to the developer is based on the type of connection requested and can vary from premise-type and the size of water main. The charges are provided annually in our Developer Services Charges booklet.

In calculating this element, we have used AMP6 (years 1 to 3) to provide a proportional connection cost per connected house. This cost per house value has been used to forecast costs.

We are forecasting an increase in new houses in AMP7, and as a result the number of new connections will also increase. Contributions are received from developers when they connect to the water main.

For AMP6 - The data for 2018/19 has been updated. The forecast for 2019/20 has been updated based on our Q1 data.

We have received an updated line definition for the APR. The previous definition stated that the line was for "Connection Charges covered under s45 Water Industry Act", which excluded Self-lay fees.

The new definition now allows for Self-lay fees and we have therefore moved the fees on to this line. For clarity, the Self-lay fees include Underground Water Regulations Inspection (pre-connection), internal water regulations inspection and meter installation (post connection).

Moving Self-lay fees from Line 9 to Connection Charges (s45) has added £15m to Line 7 across AMP7. This line therefore includes the recovery of our costs for New Connections and Self-lay fees. We have removed the £15m from Line 9. This change is reflected in the corresponding lines in WS2 lines 11/12.

Line 8: Infrastructure charges (s146)

For AMP7 - We have changed the costs within Line 8 to take into account Ofwat's "Charging rules for new connections and new developments for English companies from April 2020 – decision document" published on 22 July 2019. This decision substantially changes the data in this line. As explained in the summary of totex changes earlier in this document, this change in policy is reflected in the corresponding line in WS2 line 11.

The Infrastructure Charge is the recoverable contribution against the Network Reinforcement. We seek to recover the overall cost based on our historic costs. The new rules also provide a provision to offset income beyond the Infrastructure Charge.

The offsetting value is greater than the forecasted Infrastructure Charge and therefore shows a negative contribution towards Network Reinforcement. For clarity, the income offset used is provided separately in Line 14.

For AMP6 - The data for 2018/19 has been updated. The forecast for 2019/20 has been updated based on our Q1 data.

Line 9: Requisitioned mains (s43, s55 & s56)

This represents the contribution received from third parties for providing a requisitioned main on a single site and is therefore "Site-Specific Work". In this case, site-specific means "work on, or the provision of, water structures or facilities located on a Development as well as work to provide and connect a requested water main on, or in the immediate vicinity of the Development".

AMP7 - We have changed the costs within Line 9 to take into account Ofwat's "Charging rules for new connections and new developments for English companies from April 2020 – decision document" published on 22 July 2019. This decision substantially changes the data in this line.

The previous rules allowed for an income offset from Requisitioned Mains, whereas the new rules require us to recover 100% of the costs. Predictably this has resulted in an increase in AMP7 contribution. The data in this line is therefore to cover our expenditure on Requisitioned Mains.

For AMP6 - The data for 2018/19 has been updated. The forecast for 2019/20 has been updated based on our Q1 data.

Line 13: Total grants and contributions - wholesale water service

This is the sum of Lines 7 to 12.

The overall line has changed due to the changes made to Lines 7, 8 and 9 which are in line with the changes to the Rules for New Connections and Developments.

SECTION D: INFRASTRUCTURE CHARGES / ADOPTED ASSETS

Line 14: Total value of income offset allowances included within a company's redefined water infrastructure charge

We have changed the data within Line 14 to take into account Ofwat's "Charging rules for new connections and new developments for English companies from April 2020 – decision document" published on 22 July 2019. This decision substantially changes the data in this line.

The income in this line provides our Income Offset, which is the forecast for the amount that we will credit against the Infrastructure Charges. The costs are associated with the historic offsetting against onsite Requisitioned Mains and Asset Payments. We are using the Income Offset to maintain the balance of customer charges as per Defra's guidance.

Line 15: Total value of any discounts included within a company's redefined water infrastructure charge

Our previous submission provided a water efficiency incentive for developers. Our incentive was based on the waiving of Infrastructure Charges. With the new charging process there is no longer an incentive and we have therefore removed all the costs from this line.

Line 16: Total value of any adopted water assets

We have changed the data within Line 16 to take into account Ofwat's "Charging rules for new connections and new developments for English companies from April 2020 – decision document" published on 22 July 2019. This decision substantially changes the data in this line.

The removal of Asset Payments from Self-lay companies will result in Anglian Water starting to adopt Self-laid assets at nil value. We have therefore added in the forecasted value of these mains.

SECTION G: GRANTS AND CONTRIBUTIONS RECEIVED - WHOLESALE WASTEWATER SERVICE

This table has been assessed following the requirements set out in RAG 4.08.

Line 24: Infrastructure charges receipts (s146)

We have changed the data within Line 24 to take into account Ofwat's "Charging rules for new connections and new developments for English companies from April 2020 – decision document" published on 22 July 2019. This decision substantially changes the data in this line.

In applying the Infrastructure Charge, we have considered Network Reinforcement areas where we can recover costs. This has included Line 19 and 21, but excluded Line 20 and 22.

The infrastructure Charge is based on the recovery of 96.83% of applicable Network Reinforcement. This is based on our historic recovery rate and is within the guidelines of Defra's guidance on balancing the contribution from each customer type.

We have offset income from the overall Network Reinforcement. This is shown in Line 30.

For AMP6 - The data for 2018/19 has been updated. The forecast for 2019/20 has been updated based on our Q1 data.

Line 25: Requisitioned sewers (s100)

This line is for new public sewers that have been provided following a s98 requisition.

The charging regime has changed since April 2018 because the Water Act 2014 amended how contributions are made by third parties towards infrastructure. Any costs under the previous contribution regime are now shown in line 24 under the variable charge element.

As a result, we are not forecasting any new offsite requisitions between 2019/20 and 2024/25 and do not expect any sewers will be requisitioned. We anticipate that all network reinforcement schemes, downstream of a developer's connection point, will be undertaken through the zonal charge.

We expect that all sewer conveyance schemes upstream of a connection point will be undertaken under s104 Water Industry Act or s30 Anglian Water Authority Act.

For AMP6 - The data for 2018/19 has been updated. The forecast for 2019/20 has been updated based on our Q1 data.

Line 26: Other contributions (price control)

This line includes the fees from developers for enabling new sewerage connections. The fee covers the cost for providing that service. This is as discussed in the Final Methodology Queries and Answers under Reference number 59, published by Ofwat.

For AMP6 - The data for 2018/19 has been updated. The forecast for 2019/20 has been updated based on our Q1 data.

In calculating this element, we have used the average cost per property in years 1 to 3 of AMP6. This provides a cost of £106.03 (2017/18) per connected new house. An efficiency / productivity has then been provided across AMP7. The costs given in this line are the average cost for enabling new sewerage connections in any given year multiplied by the forecast number of houses in that year.

We are forecasting an increase in new houses in AMP7 and as a result the value of other contributions (price control) will also increase.

Line 28: Other contributions (non-price control)

This section only includes the fees for undertaking a self lay under s104 Water Industry Act. This is in line with the Final Methodology Queries and Answers under Reference number 59, published by Ofwat.

In calculating the fees, we have used historic outturn apportioned across the forecasted number of new premises connecting to our network.

We are forecasting an increase in new houses in AMP7 and as a result the value of other contributions (non-price control) will also increase.

For AMP6 - The data for 2018/19 has been updated. The forecast for 2019/20 has been updated based on our Q1 data.

Line 29: Total grants and contributions - wholesale wastewater service

This is taken as the sum of the total grants and contributions and provided inline with our annual performance reporting.

The overall line has changed due to the changes made to Lines 24, 25, 26 and 28, which are in line with the changes to the Rules for New Connections and Developments and to reflect changes to 2018/19 and 2019/20.

SECTION H: INFRASTRUCTURE CHARGES / ADOPTED ASSETS

Line 30: Total value of income offset allowances included within a company's redefined wastewater infrastructure charge.

We have changed the data within Line 30 to reflect Ofwat's "Charging rules for new connections and new developments for English companies from April 2020 – decision document" published on 22 July 2019. This decision substantially changes the data in this line.

SECTION I: REVENUE CORRECTION INPUTS – WHOLESALE WATER SERVICES

Line 33: Definition of Band A – wholesale water services

We have relooked at this Table and realigned the data based on the changes to the Charging rules.

In Table I below, we can show the expenditure and revenue balance. Note that this includes diversions.

[Expenditure]=	[G&Cs]	+[Income Offset]
Line 38 + 39=	Line 36+37	+ Line 14
£243.68m=	£141.57m	+ £102.11m

Line 34: Number of properties connected during the year

We note that this line states "Number of properties" but this line leads into an Ofwat formula which is "forecast revenue per connection. We have therefore updated this line with the number of connections.

The number of Properties is provided in the table below.

Properties (000s)	2020-21	2021-22	2022-23	2023-24	2024-25	2020-25
Total	33.314	37.162	38.912	38.713	35.708	183.810

Line 35: Number of properties to which contestable services were provided during the year

We note that this line states "Number of properties" but this line leads into an Ofwat formula which is "forecast revenue per connection". We have therefore updated this line with the total number of connections that we forecast we will make.

We have also provided a breakdown in the table below on how we see the Self-lay market in AMP7 compared to the work that we will undertake. As can be seen, we are expecting the contestable market to remain buoyant in AMP7.

Connections (000s)	2020-21	2021-22	2022-23	2023-24	2024-25	2020-25
Self-lay	13.134	14.647	15.337	15.258	14.075	72451
Incumbent (Line 35)	18.974	21.167	22.162	22.048	20.339	104690
Total	32.108	35.814	37.499	37.306	34.414	177141

We have provided the number of properties in the contestable market in the table below. This has been split between self-lay and ourselves based on a formula that takes the same ratio as self-lay to incumbent connections.

Properties (000s)	2020-21	2021-22	2022-23	2023-24	2024-25	2020-25
Self- lay	13.628	15.198	15.915	15.833	14.604	74179
Incumbent	19.687	21.964	22.997	22.880	21.104	108631
Total	33.315	37.162	38.912	98.713	35.708	183810

Line 36: Grants and contributions received during the year – for non-contestable works

This data provides the contributions that we receive for non-contestable works. This line provides the contributions received against the network reinforcement works.

The data shows the impact of transferring asset payments and income offset from requisitioned mains and crediting them against the infrastructure charges.

Line 37: Grants and contributions received during the year – for contestable works

This data provides the Contributions that we receive for contestable works that includes Connection Charge, Requisitioned Mains and Diversions.

G&Cs - Cons (£m)	2020-21	2021-22	2022-23	2023-24	2024-25	2020-25
New connections (minus self-lay fees)	14.254	15.928	16.703	16.642	15.331	78.858
Self-Lay fees (inc in New Conns in App28)	2.719	3.074	3.262	3.278	3.044	15.377
Requisitioned Mains	13.433	14.979	15.703	15.561	14.769	74.445
Diversions	3.478	3.855	4.030	4.017	3.721	19.101
Totals	**33.884**	**37.835**	**39.699**	**39.497**	**36.865**	187.780

Line 38: Forecast contestable services expenditure

Note that this line provides the contestable expenditure as per the line description and not the Non-contestable data as per the line definition.

The data on this line includes the New Connection expenditure, Self-lay Support costs, Requisitioned Mains expenditure and Diversion expenditure.

Expenditure - Cons (£m)	2020-21	2021-22	2022-23	2023-24	2024-25	2020-25
New connections	14.254	15.928	16.703	16.642	15.331	78.858
Requisitioned mains	13.433	14.979	15.703	15.561	14.769	74.445

Expenditure - Cons (£m)	2020-21	2021-22	2022-23	2023-24	2024-25	2020-25
Diversions	3.478	3.855	4.030	4.017	3.721	19.101
Self-Lay	2.719	3.074	3.262	3.278	3.044	15.377
Total	**33.884**	**37.835**	**39.699**	**39.497**	**36.865**	187.780

Line 39: Infrastructure expenditure forecast

Note that this line provides the Non-Contestible expenditure as per the line description and not the Contestable data as per the line definition.

This line provides the expenditure for Network Reinforcement.

SECTION J: REVENUE CORRECTION INPUTS – WHOLESALE WASTEWATER SERVICES

We have realigned the lines based on the changes to the Charging rules. We had previously provided the number of properties and following the conference call with Ofwat on 16th August we have readjusted this data for number of Connections.

Below, we can show the expenditure and revenue balance

Table 1

[Expenditure] =	[G&Cs]	+ [Income Offset]
Line 83 + 84 =	Line 81 + 82	+ Line 30
£225.60m	£163.59m	+ £62.01m

Line 78: Definition of Band A - wholesale wastewater services

This data is for all connections and properties connected to our wastewater infrastructure.

Line 79: Number of properties connected during the year

We note that this line states "Number of properties" but this line leads into an Ofwat formula which is "forecast revenue per connection. We have therefore updated this line with the number of connections.

Please note that we do not record the number of wastewater connections per year. We have therefore forecasted the connections based on the number of forecasted properties per year (Table E, Line 17 & 18) and used a similar ratio of connections to property that we see with Water.

The number of properties (line 17 & 18) is:

Properties (000s)	2020-21	2021-22	2022-23	2023-24	2024-25	2020-24
Properties	39.195	43.126	44.215	43.879	41.393	211.808

Line 80: Number of properties to which contestable services were provided during the year

We have updated this line with the number of contestable connections during the year that we make and not the total.

Please note that we do not record the number of contestable connections per year. We have therefore forecasted the connections based on the number of forecasted properties per year (Table E, Line 17 & 18) and used a similar ratio of water connections to property.

Connections (000s)	2020-21	2021-22	2022-23	2023-24	2024-25	2020-25
Self-lay (>75%)	38.353	42.278	43.373	43.075	40.567	207.646
Self-lay (25% - 75%)	0	0	0	0	0	0
Self-lay (<25%) Line 80	0	0	0	0	0	0

The number of contestable propertiesS we are forecasting in AMP7 is:

Properties (000s)	2020-21	2021-22	2022-23	2023-24	2024-25	2020-25
Self-lay (>75%)	39.195	43.126	44.215	43.879	41.393	211808
Self-lay (25% - 75%)	0	0	0	0	0	0
Self-lay (<25%) Line 80	0	0	0	0	0	0

Line 81: Grants and contributions received during the year – for non-contestable works

This is equal to the contribution received for providing non-contestable services, which includes Network Reinforcement (recovered through Infrastructure Charges), and fees for vetting and inspecting work covered under s104 adoptions, s30 works type agreements, s185 and other diversions, and s106 connections.

We have provided a breakdown of the data provided in this line for G&Cs received for non-contestable services.

G&Cs - Non-con (£m)	2020-21	2021-22	2022-23	2023-24	2024-25	2020-25
Infrastructure Charge Receipt (s146)	26.302	20.633	14.240	26.441	44.023	131.639
Requisitioned sewers (s100)	0	0	0	0	0	0
Other contributions (price control)	4.027	4.442	4.564	4.534	4.274	21.841
Diversions (s185)	0.450	0.497	0.510	0.507	0.478	2.441
Other contributions (non-price control)	1.413	1.559	1.602	1.591	1.500	7.665
Total in Line 81	32.193	27.130	20.916	33.073	50.274	163.586

Line 82: Grants and contributions received during the year – for contestable works

We are not anticipating any contestable contribution.

Line 83: Forecast contestable services expenditure

We are not anticipating any contestable expenditure.

Line 84: Infrastructure expenditure forecast

This is equal to the expenditure for new Network reinforcement and undertaking the vetting and inspections for s104 adoptions, vetting and inspections of s185 diversions and s106 connection.

Expenditure (£m)	2020-21	2021-22	2022-23	2023-24	2024-25	2020-25
Network reinforcement	29.455	33.018	31.718	41.137	58.320	193.648
Vetting and inspections of s104 adoptions	4.027	4.442	4.564	4.534	4.274	21.841
Diversions (s185)	0.450	0.497	0.510	0.507	0.478	2.441
Vetting and inspections of s106 connections and s30 Agreements	1.413	1.559	1.602	1.591	1.500	7.665
Total	35.346	39.515	38.394	47.769	64.571	225.595

APP29 WHOLESALE TAX

The calculations have been updated following changes in totex expenditure.

APP32 - WEIGHTED AVERAGE COST OF CAPITAL FOR THE APPOINTEE

The DD introduces significant new risks with cost challenges across the sector, an increased assumption of the 'halo' effect, methodological changes along with asymmetric downside risks due to RORE ranges along with a WACC which achieves the bottom half of the Baa2 credit rating range (1.30x-1.50x).

A lower WACC of 2.4%, as used in our September 2018 Plan and supported by legacy rewards, could be feasible, but only if the balance of risk in the Draft Determination can be improved for the Final Determination. If this is not possible, a higher WACC would be required, within the range of 2.5% to 2.8% to address the increased overall level of risk

Cost of new debt reduced to 0% (RPI-real) compared with 0.34% in the draft determination, to reflect lower yields in the market and removal of the 'halo' effect

Cost of embedded debt maintained at 1.59% (RPI-real) as assumed in our business plan, notwithstanding that the exclusion of swaps by Ofwat means that the weighted average cost of debt for the sector is higher than 1.59%

We note that the evidence submitted in company business plans of around 20% of the debt of the notional company will be issued during AMP7. However, based on the lower RCV growth in the DD relative to business plans, this proportion would decrease to 15%.

Our updated plan continues to use a 20:80 ratio of new to embedded debt.

APP33 - WHOLESALE OPERATING LEASES RECLASSIFIED UNDER IFRS16

Line 110: Capex value of leases reclassified under IFRS16 included in other operating expenditure

The figure of £33.377 million for 2019/20 is the total value of the operating leases reclassified on adoption of IFRS 16 on 1 April 2019. This value has increased from the previous submission due to additional leases being identified during the Company wide review of leases in preparation for the implementation of IFRS 16. The figure of £1.128 million for 2021/22 is the renewal of vehicle leases on expiration of previous leases held. The lease payments in relation to these additional leases in AMP 7 are not reflected in sections A to D as per Ofwat guidance. There are no additional planned leases to be taken out during the period.

WATER TABLES COMMENTARY

WS1 WHOLESALE WATER OPERATING AND CAPITAL EXPENDITURE BY BUSINESS UNIT

Please see table in Wholesale totex changes at the beginning of this document for a descriptor of the changes to this table.

For 2019/20 we have reviewed and revised our forecasts to complete our AMP6 delivery obligations. Having passed through the Spring and most of the Summer without significant additional cost pressure, our confidence in delivery has increased and risk has reduced (for example avoiding a long dry summer). This has allowed us, across Water and Wastewater as a whole, to reduce our forecast totex expenditure and pass these efficiencies to customers. Our RCV has also been updated (lower) to reflect this change.

Line 12 Diversions

In order to provide consistency with prior PR19 submissions, and across all years in AMP6, water diversions expenditure and the corresponding income for 2015/16 through to 2019/20 is shown net in line 12 of WS1.

This is consistent with our treatment of diversions expenditure and income prior to the adoption of IFRS15 - revenue recognition (the basis on which this submission has been prepared) and aligns with the regulatory treatment of diversions revenue as being outside of the price control until 1 April 2020.

For 2018/19 this represents a difference to the approach taken to reporting diversions in the 2018/19 APR. Following the adoption of IFRS 15 on 1 April 2018, water diversions expenditure of £3.1 million was shown gross in row 18 of APR table 4D and the corresponding income of £6.8 million was included in the income shown on row 20 of the same table.

For the years 2020/21 through to 2024/25, diversions expenditure is shown gross in WS1 row 18 and diversions income is shown in row 21.

Full details of all diversions expenditure and income in the years 2011/12 through to 2024/25 on a gross basis can be found in the additional Developer Services data request included as part of this resubmission.

WS1A - WHOLESALE WATER OPERATING AND CAPITAL EXPENDITURE BY BUSINESS UNIT INCLUDING OPERATING LEASES RECLASSIFIED UNDER IFRS16

Please see table in Wholesale totex changes at the beginning of this document for a descriptor of the changes to this table.

WS2 - WHOLESALE WATER CAPITAL AND OPERATING ENHANCEMENT EXPENDITURE BY PURPOSE

Please see table in Wholesale totex changes at the beginning of this document for a descriptor of the changes to this table.

WS2 line 27 and 66 and WWS2 line 36 and 83

Negative adjustment for third party enhancement spend – as we have updated costs in portfolios where a proportion of the enhancement spend is chargeable to third parties we have updated this line to reflect the change in costs. The same change is reflected in line 18 of WS1a and WWS1a. In addition to providing the updated tables, we have taken the opportunity to provide Ofwat with an updated table from query ANH_IAP_CA_001 which will enable Ofwat to complete reallocations to enhancement feeder models at FD.

WS2 line 28 and 67

Medium Combustion Plant Directive (MCPD) – we have created a new freeform line following Ofwat's comment regarding the allocation of MCPD spend to water. However, in our DD response we have decided to remove spend on MCPD and have intentionally left this line blank on both WS2 and WWS2 to demonstrate the spend has been removed.

WS2 line 29 and 68

Strategic Regional Solutions – as requested by Ofwat, we have created a new freeform line and ensured that the only spend on this line is expenditure associated with schemes within the Strategic Regional Solutions programme.

Breakdown of shared lines in WS2

In order to complete re-allocations to enhancement models for FD, Ofwat will require the breakdown of investment where enhancement areas share the same line in WS2. Where we are aware that an Ofwat model requires a re-allocation we have provided the split of investment by line in the table below:

		2020-25			
		Water resources	Raw water distribution	Water treatment	Treated water distribution
A	**Enhancement expenditure by purpose - capital**				
8	Supply side enhancements to the supply/demand balance (dry year annual average conditions)	5.735	-	-	55.916
8a	Supply Demand (Long Term Enhancement)	5.735	-	-	-
8b	Growth (Infrastructure Network Reinforcement)	-	-	-	55.916
10	Demand side enhancements to the supply/demand balance (dry year annual average conditions)	-	-	-	126.623
10a	Supply Demand (Leakage)	-	-	-	70.675
10b	Smart Metering	-	-	-	55.948
14	Resilience	0.200	-	40.425	190.427

		2020-25			
		Water resources	Raw water distribution	Water treatment	Treated water distribution
14a	Supply Demand (Treatment works and Interconnectors)	-	-	13.515	186.750
14b	Resilience programme	0.200	-	26.243	2.840
14c	Security	-	-	0.667	0.837
18	WINEP / NEP ~ Water Framework Directive measures	19.794	-	11.985	171.772
18a	Supply Demand (Treatment works and Interconnectors)	-	-	11.985	171.772
18b	Water Framework Directive	19.794	-	-	-
B	**Enhancement Expenditure by Purpose ~ operating**				
49	Demand side enhancements to the supply/demand balance (dry year annual average conditions)	-	-	-	66.695
49a	Supply Demand (Leakage)	-	-	-	6.022
49b	Smart Metering	-	-	-	60.673
53	Resilience	0.448	-	3.022	6.430
53a	Supply Demand (Treatment works and Interconnectors)	0.061	-	2.616	6.305
53b	Resilience programme	0.387	-	0.406	0.001
53c	Security	-	-	-	0.124
57	WINEP / NEP ~ Water Framework Directive measures	8.405	-	2.056	5.671
57a	Supply Demand (Treatment works and Interconnectors)	-	-	2.056	5.671
57b	Water Framework Directive	8.405	-	-	-

WS3 - WHOLESALE WATER PROPERTIES AND POPULATION

Line 1 and 2

2017/18 and 2018/19 data is based on recorded property numbers.

The split between external and internal meters has been re-derived based upon updated APR data and has been forecast to maintain a similar proportionality over time to that at present.

The 2019/20 forecast has been updated to reflect better information now that we are further through the report year.

Line 4

2017/18 and 2018/19 data has been based on recorded property numbers receiving unmeasured bills.

The 2019/20 forecast has been updated to reflect better information now that we are further through the report year.

Line 9-12

2020/2021 to 2024/25 in line with our response to Ofwat's query ANH-DD-CE-007

Line 14

Updates to align to APR. The 2019/20 forecast has been updated to reflect better information now that we are further through the report year.

WS5 - OTHER WHOLESALE WATER EXPENDITURE

As answered by Summary of Changes

WS10 - TRANSITIONAL SPENDING IN THE WHOLESALE WATER SERVICE

We have updated the data table to reflect Ofwat's DD position which we have accepted.

WS13 - PR14 WHOLESALE REVENUE FORECAST INCENTIVE MECHANISM FOR THE WATER SERVICE

Updated to align to July 2019 PR14 Reconciliation submission.

WS15 - PR14 WHOLESALE TOTAL EXPENDITURE OUTPERFORMANCE SHARING FOR THE WATER SERVICE

For 2019/20 we have reviewed and revised our forecasts to complete our AMP6 delivery obligations. Having passed through the Spring and most of the Summer without significant additional cost pressure, our confidence in delivery has increased and risk has reduced (for example avoiding a long dry summer). This has allowed us, across Water and Wastewater as a whole, to reduce our forecast totex expenditure and pass these efficiencies to customers.

For 2018/19 alignment to APR with the exception of Diversions as detailed in the commentary for WS1.

Line 9 2018-19 and 2019-20

Alignment to APR and reforecast

Line 10, 11, 12 2018-19

Alignment to APR

Line 15 2018-19

Alignment to APR

WR1 - WHOLESALE WATER RESOURCES (EXPLANATORY VARIABLES)

Line 22

As answered by Summary of Changes

WR2 - WHOLESALE WATER RESOURCES OPEX

As answered by Summary of Changes

WR3 - WHOLESALE REVENUE PROJECTIONS FOR THE WATER RESOURCES PRICE CONTROL

As answered by Summary of Changes

WR4 - COST RECOVERY FOR WATER RESOURCES

As answered by Summary of Changes

WR5 - WEIGHTED AVERAGE COST OF CAPITAL FOR THE WATER RESOURCES CONTROL

Aligned to App32.

WN1 - WHOLESALE NETWORK PLUS RAW WATER TRANSPORT AND WATER TREATMENT (EXPLANATORY VARIABLES)

Lines 33-35

Updated due to impacts from investments

WN2 - WHOLESALE WATER NETWORK PLUS WATER DISTRIBUTION (EXPLANATORY VARIABLES)

Line 1 Total length of potable mains as at 31 March

There have also been adjustments made to years 2020-21 and 2021-22, due to the removal of 2.6km of main for a scheme in Thorston, Hartlepool and the addition of 11.4km of main for a sustainability scheme in East Ruston.

There has been a slight change to the length reported in year 2024-25, Line 8. This is due to a scheme for 55km of trunk main now being a candidate for Direct Procurement for Customers.

Line 5 to 6 Potable mains by diameter band

There has been a slight change to the length reported in year 2024-25, Line 8. This is due to a scheme for 55km of trunk main now being a candidate for Direct Procurement for Customers.

Further adjustments have been made to line 5, 2020-21 for the addition of a sustainability scheme in East Ruston, and to line 6, 2021-22 for the removal of a 2.6km scheme in Thorston Hartlepool.

Line 34 and 41 Total length of mains laid or structurally refurbished

There has been a slight change to the length reported in year 2024-25, Line 41. This is due to a scheme for 55km of trunk main now being a candidate for Direct Procurement for Customers.

There have also been adjustments made to years 2020-21 and 2021-22, due to the removal of 2.6km of main for a scheme in Thorston, Hartlepool and the addition of 11.4km of main for a sustainability scheme in East Ruston.

WN3 – WHOLESALE REVENUE PROJECTIONS FOR THE WATER NETWORK PLUS PRICE CONTROL

As answered by Summary of Changes

WN4 – COST RECOVERY FOR WATER NETWORK PLUS

As answered by Summary of Changes

WN5 – WEIGHTED AVERAGE COST OF CAPITAL FOR THE WATER NETWORK PLUS CONTROL

Aligned to App32.

WASTEWATER TABLES COMMENTARY

WWS1 - WHOLESALE WASTEWATER OPERATING AND CAPITAL EXPENDITURE BY BUSINESS UNIT

Please see table in Wholesale totex changes at the beginning of this document for a descriptor of the changes to this table.

For 2019/20 we have reviewed and revised our forecasts to complete our AMP6 delivery obligations. Having passed through the Spring and most of the Summer without significant additional cost pressure, our confidence in delivery has increased and risk has reduced (for example avoiding a long dry summer). This has allowed us, across Water and Wastewater as a whole, to reduce our forecast totex expenditure and pass these efficiencies to customers. Our RCV has also been updated (lower) to reflect this change.

Line 12 Diversions note

In order to provide consistency with prior PR19 submissions, and across all years in AMP6, waste water diversions expenditure and the corresponding income for 2015/16 through to 2019/20 is shown net in line 12 of WWS1.

This is consistent with our treatment of diversions expenditure and income prior to the adoption of IFRS15 - revenue recognition (the basis on which this submission has been prepared) and aligns with the regulatory treatment of diversions revenue as being outside of the price control until 1 April 2020.

For 2018/19 this represents a difference to the approach taken to reporting diversions in the 2018/19 APR. Following the adoption of IFRS 15 on 1 April 2018, waste water diversions expenditure of £4.4 million was shown gross in row 18 of APR table 4E and the corresponding income of £3.1 million was included in the income shown on row 20 of the same table.

For the years 2020/21 through to 2024/25, diversions expenditure is shown gross in WWS1 row 18 and diversions income is shown in row 21.

Full details of all diversions expenditure and income in the years 2011/12 through to 2024/25 on a gross basis can be found in the additional Developer Services data request included as part of this resubmission.

WWS1A - WHOLESALE WASTEWATER OPERATING AND CAPITAL EXPENDITURE BY BUSINESS UNIT INCLUDING OPERATING LEASES RECLASSIFIED UNDER IFRS1

Please see table in Wholesale totex changes at the beginning of this document for a descriptor of the changes to this table.

WWS2 - WHOLESALE WASTEWATER CAPITAL AND OPERATING EXPENDITURE BY PURPOSE

Please see table in Wholesale totex changes at the beginning of this document for a descriptor of the changes to this table.

Line 27 and 66 and line 36 and 83 -

Negative adjustment for third party enhancement spend – as we have updated costs in portfolios where a proportion of the enhancement spend is chargeable to third parties we have updated this line to reflect the change in costs. The same change is reflected in line 18 of WS1a and WWS1a. In addition to providing the updated tables, we have taken the opportunity to provide Ofwat with an updated table from query ANH_IAP_CA_001 which will enable Ofwat to complete reallocations to enhancement feeder models in FD.

WWS3 - WHOLESALE WASTEWATER PROPERTIES AND POPULATION

Updates to align to APR. The 2019/20 forecast has been updated to reflect better information now that we are further through the report year.

WWS4 - WHOLESALE WASTEWATER OTHER (EXPLANATORY VARIABLES)

Line 10 2020-21 to 2024-25 have been updated to reflect the re profiling of scheme delivery dates, latest population data and the latest version of the WINEP (June 2019). All other aspects of methodologies remain unchanged.

WWS5 - OTHER WHOLESALE WASTEWATER EXPENDITURE

As answered by Summary of Changes

WWS7 - WHOLESALE WASTEWATER LOCAL AUTHORITY RATES

As answered by Summary of Changes

WWS10 - TRANSITIONAL SPENDING IN THE WHOLESALE WASTEWATER SERVICE

This table has been updated to reflect the Draft Determination Assessment of Ofwat.

WWS13 - PR14 WHOLESALE REVENUE FORECAST INCENTIVE MECHANISM FOR THE WASTEWATER SERVICE

Updated to align to July 2019 PR14 Reconciliation submission.

WWS15 - PR14 WHOLESALE TOTAL EXPENDITURE OUTPERFORMANCE SHARING FOR THE WASTEWATER SERVICE

For 2019/20 we have reviewed and revised our forecasts to complete our AMP6 delivery obligations. Having passed through the Spring and most of the Summer without significant additional cost pressure, our confidence in delivery has increased and risk has reduced (for example avoiding a long dry summer). This has allowed us, across Water and Wastewater as a whole, to reduce our forecast totex expenditure and pass these efficiencies to customers.

For 2018/19 alignment to APR with the exception of Diversions as detailed in the commentary for WS1.

Line 9 2018-19 and 2019-20

Alignment to APR and reforecast

Line 10, 11, 12 2018-19

Alignment to APR

Line 15 2018-19

Alignment to APR

WWN1 - WHOLESALE WASTEWATER SEWAGE TREATMENT OPERATING EXPENDITURE

As answered by Summary of changes

WWN3 - WHOLESALE WASTEWATER NETWORK (EXPLANATORY VARIABLES)

Line 1 2022-23 to 2024-25

The number of connectable properties has been updated by reviewing each scheme by either site visits or by the use of online maps. This has resulted in an increase in connectable properties.

Line 2 2024-25

The Little Bealings scheme has been deferred by 1 year which effectively defers the actual delivery into AMP8.

Line 8: Number of combined sewer overflows

Our data for this line includes an allowance for a number of unpermitted overflows. When the original figure was provided for this line we believed that we had 130 unpermitted overflows, based upon the best information that we had at that time. Subsequent investigations however have reduced this number to 48. We have also surrendered a significant number of permits for overflows that no longer exist.

Table 1

Change in forecast number of CSO's	
Original number of CSO's	1,428
Change in estimate of number of unpermitted CSO's (130 in 2017/18 to 48 in 2018/19)	-82
Reduction due to surrender of permits for CSO's that no longer exists	-86
Reduction due to interpretaion of wording of very old Environmental Permits	-3
Revised number of CSO's	1,257

WWN4 - WHOLESALE WASTEWATER SEWAGE TREATMENT (POTENTIAL EXPLANATORY VARIABLES)

Line 18 and 19

We have updated these lines to reflect the re profiling of scheme delivery dates, latest population data and the latest version of the WINEP (June 2019). All other aspects of methodologies remained unchanged.

WWN5 - WHOLESALE REVENUE PROJECTIONS FOR THE WASTEWATER NETWORK PLUS PRICE CONTROL

As answered by Summary of changes

WWN6 - COST RECOVERY FOR WASTEWATER NETWORK PLUS

As answered by Summary of Changes

WWN7 - WEIGHTED AVERAGE COST OF CAPITAL FOR THE WASTEWATER NETWORK PLUS CONTROL

Aligned to App32.

RETAIL TABLES COMMENTARY

R1 - RESIDENTIAL RETAIL

Line 11 to 12 and 14 to 16

The capital expenditure and the subsequent depreciation has been updated to reflect 2018-19 actuals.

R9 - PR14 RECONCILIATION OF HOUSEHOLD RETAIL REVENUE

Updated to align to July 2019 PR14 Reconciliation submission.

R10 - PR14 SERVICE INCENTIVE MECHANISM

Line 9

We have updated the forecast SIM revenue adjustment based on companies' reported SIM performance in 2018/19. We have followed Ofwat's methodology and the updated revenue adjustment is 3.86%.

BIORESOURCES TABLES COMMENTARY

BIO3 - WHOLESALE WASTEWATER SLUDGE OPEX

Line 7 Historical cost depreciation

The historical cost depreciation charge on sludge treatment assets increases from £34.9 million in 2017/18 to £48.9 million in 2019/20. This increase is primarily the result of accelerated depreciation on a number of conventional digestion and other assets which do not form part of our sludge treatment strategy after 1 April 2020. These assets will be depreciated to zero net book value by 31 March 2020 and decommissioned at this time.

The historical cost depreciation charge subsequently falls from £48.9 million in 2019/20 to £22.1 million in 2020/21 as a result of these assets having been decommissioned.

BIO4 - WHOLESALE REVENUE PROJECTIONS FOR THE WASTEWATER BIORESOURCES PRICE CONTROL

Line 30

The costs reflect the Ofwat position on fixed and variable costs as set out in the Draft Determination.

BIO5 - COST RECOVERY FOR BIORESOURCES

As answered by Summary of changes.

BIO6 - WEIGHTED AVERAGE COST OF CAPITAL FOR THE BIORESOURCES CONTROL

Aligns to App32.

1 DEVELOPER SERVICES DATA REQUEST - WATER

SECTION A1: Diversions expenditure – water

We are now aware that some companies split their expenditure into three groups. Within our own accounting structure we do not differentiate between them and we have routinely reported diversions as s185 and on a net basis.

In your conference call notes, you have specified where diversions are shown in WS1. This has previously been provided in Question 3 of ANH-DD-CE-002 and it is also provided in the table below:

Table 1 Water diversions in table WS1

BP Line Title	Table / Line	2020-21	2021-22	2022-23	2023-24	2024-25	Total 2020-25	Comments
[water] Third party services	WS1, Line 18	3.476	3.852	4.027	4.009	3.705	19.069	Total water diversion expenditure
[water] Grants and contributions	WS1, Line 21	3.478	3.855	4.030	4.017	3.721	19.101	Total water diversion income

Line 1: s185

The data in this line is for the s185 developer diversions. There is an increase in costs at the end of AMP6 and into AMP7. This is relating to diversions for the new A14 which is due to be completed shortly.

We have included all the diversions up to end AMP 6 in this line. Onsite developer driven diversions are regularly incurred and we have used a unit cost to help build up the forecast. We recover 100% of Developer diversion costs.

Line 2: NRSWA

This line is the forecasted data for major diversionary schemes at the request of third parties. This area is extremely difficult to forecast in AMP7.

Line 3: Other non-s185

We would classify this line as being for diversions covered under large national infrastructure works and other major schemes that fit outside of NRSWA and s185.

This would include diversion works on Development Control Order (DCOs) sites with provisions under the Water Industry Act. We routinely work with developers ahead of DCOs to understand the impact of work and protect our assets under s185 WIA.

In AMP7, we have looked at what is likely to be non-developer driven schemes and included the costs in this line.

Line 4: Total diversions

This is the sum of Lines 1, 2 and 3.

SECTION A2: Diversions income – water

We are now aware that some companies split their expenditure into three groups. Within our own accounting structure we do not differentiate between them and we have routinely reported diversions as s185 and on a net basis.

Line 5: s185

This line is the income line for s185 Diversions. We would work to a 100% recovery for developer driven schemes and deep-dive into any schemes where there are NRSWA elements to understand our commitments. As per the expenditure, we have provided all the income for s185 in this line.

Line 6: NRSWA

This line is the income line for Diversions under NRSWA for third parties.

Line 7: Other non-s185

We would work to a 100% recovery. This line is the income line for Diversions under non-NRSWA or non-s185 elements.

Line 8: Total diversions

This is the sum of Lines 5, 6 and 7 and is equal to Line 9 in App28.

SECTION B: Connections volume data – water

Line 9: New connections (residential)

This data provides the number of New Connections for residential properties.

Line 10: New connections (business - excluding NAV connection)

This data provides the number of New Connections for Business premises. As requested, we have not included NAV connections in this line.

Line 11: Total new connections served by incumbent

This is the total for Lines 9 and 10. This line equals Line 34 in App28.

Line 12: New bulk supply connections into NAV sites

This is the data for the number of bulk connections we have made for NAV sites.

Line 13: Total new connections

This is the total for Lines 11 and 12.

Line 14: New connections where self-lay providers/developers a significant proportion of contestable activity (more than 75% of contestable activity)

This data is for the number of connections where a self-lay provider or developer will provide the majority of the contestable activity.

In AMP7, we have forecast that Self-lay companies will remain active in our area and they will connect circa 40%.

Line 15: New connections where self-lay providers/developers will undertake some contestable activity (25% to 75% of contestable activity)

This data is for the number of connections where a self-lay provider or developer will provide 25% to 75% of the activity.

We are not forecasting any connections in this area. When we undertake contestable works, our costs include the excavation cost, laying of the water main, backfilling and reinstating the area. We therefore do not predict schemes where we will partially undertake the work.

Line 16: New connections where self-lay providers/developers will undertake little to no contestable activity (less than 25% of contestable activity)

This data is for the number of connections where we will provide the majority of the contestable activity. In AMP7, we have forecast that we will connect circa 60% of the works in our region. This is equivalent to the current percentage of work we undertake.

Line 17: Total new connections (excluding NAVs)

This data is equal to the total of Line 14, 15 and 16. This line equals Line 34 in App28.

SECTION C: Properties volume data - water

Line 18: New properties (residential)

This data provides the number of New Properties for residential properties. This data is equal to Line 1 in App28.

Line 19: New properties (business)

This data provides the number of New Properties for businesses. We have not included NAV connections. This data is equal to Line 2 in App28.

Line 20: Total new properties served by incumbent

This is equal to Line 1 and 2 in App28.

Line 21: New properties on NAV sites (residential)

We have populated this line based on your response to our question on 16 August 2019 where you set out:

> *"It is equal to the total number of properties on the NAV site as detailed under a bulk supply/discharge agreement."*

This data therefore includes the total number of domestic properties included in a bulk agreement. Please note that these properties can take years before being built and occupied. We do not record the annual connection numbers and are unable to provide a reliable forecast. In AMP7 we have provided data based on the known properties that NAV companies are advising us that they are likely to progress to a Bulk Supply agreement

Line 22: New properties on NAV sites (business)

We have populated this line based on your response to our question on 16 August 2019 where you set out:

> *"It is equal to the total number of properties on the NAV site as detailed under a bulk supply/discharge agreement."*

This data includes the number of business properties included in our bulk agreements with NAV companies. Please note that these premises can take years before being built and occupied. We do not record the annual connection numbers and unable to provide a forecast. In AMP7 we have provided data based on the known properties that NAV companies are advising us that they are likely to progress ti a Bulk Supply agreement

Line 23: Total new properties supplied on NAV sites

This line is equal to Line 21 and 22.

Line 24: Total new properties

This line is equal to Line 20 and 23. Please note that Line 23 does not provide properties occupied or connected in a given year but it sets out the number of properties included in an agreement, which may take many years to be built and occupied.

Line 25: New properties where self-lay providers/developers will undertake a significant proportion of contestable activity (more than 75% of contestable activity)

This is the total number of properties where the Self-lay provider will provide the activity. We are assuming that all Self-lay developments and the properties on those developments will fall under this category.

Line 26: New properties where self-lay providers/developers will undertake some contestable activity (25% to 75% of contestable activity)

We are not forecasting any properties in this area.

When we undertake contestable works, our costs include the excavation cost, laying of the water main, backfilling and reinstating the area. We therefore do not forecast schemes where our expenditure is for only constructing the main or indeed excavating and/or backfill.

When a self-lay company is working on a development, other than minor expenditure on water regulations inspections, we do not undertake any works that would raise the expenditure to 25% of the total cost of the scheme.

Line 27: New properties where self-lay providers/developers will undertake little to no contestable activity (less than 25% of contestable activity)

This data is for the number of properties where we will provide the majority of the contestable activity.

Line 28: Total new properties served by incumbent

This is the total of Lines 25, 26 and 27. This line is equal to Lines 1 and 2 in App28.

SECTION D: Total cost of contestable activities (£m)

In AMP5 and early AMP6, our accounting records did not separate out a number of these lines and we have therefore had to rely on various bottom-up checks against known schemes.

We have also had to rely on various assumptions to provide the data. Where we have assumptions, we have provided the detail below.

Line 29: Total direct costs of contestable activities for new connections where self-lay providers/developers will undertake a significant proportion of contestable activity (more than 75% of contestable activity)

This line provides the costs for supporting self-lay companies.

Line 30: Total direct costs of contestable activities for new connections where self-lay providers/developers will undertake some contestable activity (25% to 75% of contestable activity)

We are not including any contestable costs in this row.

Line 31: Total direct costs of contestable activities for new connections where self-lay providers/developers will undertake little to no contestable activity (less than 25% of contestable activity)

These costs include the Connection and Requisitioned Mains costs.

AMP5: In years 2 to 5, our capital accounting system provides a centralised view of Requisitions and Asset Payments. Therefore, we have used an assumption to remove the asset payments from the requisitional costs.

In this case, we have used the assumption that we made an Asset Payment of 88% and that it was based on the same ratio of self-lay connections to total connections. The remaining amount is for Requisitioned Mains and this data has been entered into this line.

Connections are separately accounted for and have been slotted directly into this line.

Line 32: Asset value payments for new connections where self-lay providers/developers a significant proportion of contestable activity (more than 75% of contestable activity)

AMP5: In years 2 to 5, our capital accounting system provides a centralised view of Requisitions and Asset Payments. We have used an assumption to differentiate Requisitioned Mains from Asset Payments. In this case, we have used the assumption that we made an Asset Payment of 88% towards requisitioned mains and used the same annual ratio of self-lay connections to total connections. We have entered this number into the line.

AMP7: Following the new charges rules, we will not be paying Asset Payments and this has been left as zero.

Line 33: Asset value payments for new connections where self-lay providers/developers will undertake some contestable activity (25% to 75% of contestable activity)

We are not expecting any Asset payments on this line

Line 34: Asset value payments for new connections where self-lay providers/developers will undertake little to no contestable activity (less than 25% of contestable activity)

We are not expecting any Asset payments on this line

Line 35: Total cost of contestable activities (excluding NAVs)

This is total cost for Lines 29 and 35.

SECTION E: App 28 data (£m)

Line 36: Infrastructure charge receipts (s146)

These are the Infrastructure Charges received from developers. The contribution on this line is equal to Line 8 in APP28

The impact of the new charging regime can be seen in the crediting of the income offset against the Infrastructure Charge. This shows a decrease in Infrastructure Receipts.

Line 37: Requisitioned mains (s43, s55 & s56)

This is the contribution received towards requisitioned mains. The contribution on this line is equal to Line 9 in App28.

In AMP7, we will look to recover 100% of the cost for requisitioned mains. This will be on a site specific basis. We will not apply any income offset and this can be seen in the increase in contribution between AMP7 over previous AMP periods.

Line 38: Total value of income offset allowances

This line provides the details on the income offset against the Infrastructure Charges in AMP7 and Requisitioned Mains in AMP6 and AMP5. Note that the data on this line is equal to Line 14 in App28.

Under the new AMP7 Charging rules, the income deficit balance between charges and different customer groups will be maintained broadly the same as per Rule 19 in “Charging Rules for New Connection Services (English Undertakers)”.

The income offset will be used as a credit against the Infrastructure Charge.

Summary

We note that the new data request is focusing on contestable data and this excludes some of the other expenditure and contribution. To show how we have balanced AMP7, we have provided data from this data request and App28.

Table 2 Water - summary table

	2020-21	2021-22	2022-23	2023-24	2024-25	AMP total
Expenditure						
Contestable activities (Post-DD –la v1 Line 35)	30.406	33.980	35.669	35.480	33.144	168.679
Network reinforcement (App 28 Line 6)	9.948	13.289	11.606	10.983	10.013	55.839
Total	**40.354**	**47.269**	**47.275**	**46.463**	**43.157**	**224.518**
G&Cs & Offsets						
Self-lay Support (App 28 Line 7)	2.719	3.074	3.262	3.278	3.044	15.377
Connection Charges (App 28 Line 7)	14.254	15.928	16.703	16.642	15.331	78.858
Infrastructure charges (Post-DD –la v1 Line 36)	-4.956	-7.953	-10.802	-11.711	-10.788	-46.210
Requisitioned mains (Post-DD –la v1 Line 37)	13.433	14.979	15.703	15.561	14.769	74.445
Income offset (Post-DD –la v1 Line 38)	18.462	20.391	21.571	21.463	20.225	102.111
Total	**43.911**	**46.417**	**46.438**	**45.232**	**42.581**	**224.580**
Balance over AMP7						
Expenditure	40.393	47.302	47.287	46.459	43.139	224.580
G&Cs	43.911	46.417	46.438	45.232	42.581	224.580

2 DEVELOPER SERVICES DATA REQUEST - WASTEWATER

In your conference call notes, you have specified where diversions are shown in WWS1. This has previously been provided in Question 3 of ANH-DD-CE-002 and it is also provided in the table below:

Table 1 Wastewater diversions in table WS1

BP Line Title	Table / Line	2020-21	2021-22	2022-23	2023-24	2024-25	Total 2020-25	Comments
[wastewater] Third party services	WWS1, Line 18	0.450	0.497	0.510	0.507	0.478	2.441	Total wastewater diversion expenditure
[wastewater] Grant and contributions	WWS1, Line 21	0.450	0.497	0.510	0.507	0.478	2.441	Total wastewater diversion income

SECTION A1: Diversions expenditure – wastewater

We are now aware that some companies split their expenditure into three groups. Within our own accounting structure we do not differentiate between them and we have routinely reported diversions as s185 and on a net basis.

Line 1: s185

We are forecasting that all developer diversions will be undertaken by the developer. We are therefore only forecasting Diversion fees for vetting and inspections.

Line 2: NRSWA

This line is the forecasted data for major diversionary schemes at the request of third parties. This area is extremely difficult to forecast in AMP7.

Line 3: Other non-s185

This would include diversion works on Development Control Order sites with provisions under the Water Industry Act. We make representations at hearings to ensure that this type of work is covered under s185 WIA.

Line 4: Total diversions

This is the sum of Lines 1, 2 and 3.

SECTION A2: Diversions income – wastewater

We are aware that some companies sub-divide their income into three diversion groups. Within our accounting structure we have not separated these divisions out and within the timeframes we have not separated data.

Line 5: s185

This line is the income for s185 Diversions. We would work to a 100% recovery for developer driven schemes.

Line 6: NRSWA

This line is the income for Diversions under NRSWA for third parties.

Line 7: Other non-s185

This line is the income for Diversions under non-NRSWA or s185.

Line 8: Total diversions

This is the sum of Lines 5, 6 and 7. This line is equal to Line 27 in app28.

SECTION B: Connections volume data – wastewater

We do not record the number of wastewater connections and therefore we applied a formula to provide data in this area.

Line 9: New connections (residential)

This data has therefore been calculated using the same ratio between water connections and water properties and then taking the ratio of water to wastewater properties to provide an approximation for the number of connections.

Line 10: New connections (business - excluding NAV connection)

This data has therefore been calculated using the same ratio between water connections and water properties and then taking the ratio of water to wastewater properties to provide an approximation for the number of connections.

Line 11: Total new connections served by incumbent

This is the total for Lines 9 and 10. This line is equal to Line 79 in App28.

Line 12: New bulk supply connections into NAV sites

This is the data for the number of bulk connections we have made for NAV sites.

Line 13: Total new connections

This is the total for Lines 11 and 12.

Line 14: New connections where self-lay providers/developers a significant proportion of contestable activity (more than 75% of contestable activity)

This data is for the number of connections where a self-lay provider or developer will provide the majority of the contestable activity. We do not provide onsite wastewater connections and therefore all the New Connections are in this category.

Line 15: New connections where self-lay providers/developers will undertake some contestable activity (25% to 75% of contestable activity)

We do not provide onsite wastewater connections and therefore there is no New Connections in this category.

Line 16: New connections where self-lay providers/developers will undertake little to no contestable activity (less than 25% of contestable activity)

We do not provide onsite wastewater connections and therefore there are no New Connections in this category.

Line 17: Total new connections (excluding NAVs)

This data is equal to the total of Line 14, 15 and 16. This line equals Line 79 in App28.

SECTION C: Properties volume data - wastewater

Line 18: New properties (residential)

This data provides the number of New Properties for residential properties that connect to our infrastructure.

This data is equal to Line 17 in App28.

Line 19: New properties (business)

This data provides the number of New Properties for businesses that connect to our wastewater infrastructure. We have not included NAV connections in this line.

This data is equal to Line 18 in App28.

Line 20: Total new properties served by incumbent

This line equals line 17 and 18 in App28

Line 21: New properties on NAV sites (residential)

We have populated this line based on your response to our question on 16 August 2019, where you set out that this line :

> *"It is equal to the total number of properties on the NAV site as detailed under a bulk supply/discharge agreement."*

This data includes the number of domestic properties included in the bulk discharge agreement. Please note that these properties can take years before being built and occupied. We do not record the annual connection numbers and unable to provide a forecast for the number of new properties.

In AMP7, we have provided data based on the known properties that NAV companies are advising us that they are likely to progress to a Bulk Discharge agreement.

Line 22: New properties on NAV sites (business)

We have populated this line based on your response to our question on 16 August 2019.

This data includes the number of business properties included in our bulk discharge agreements with NAV companies. Please note that these premises can take years before being built and occupied. We do not record the annual connection numbers and unable to provide a forecast.

In AMP7, we have provided data based on the known properties that NAV companies are advising us that they are likely to progress to a Bulk Discharge agreement

Line 23: Total new properties supplied on NAV sites

This line is equal to Line 21 and 22.

Line 24: Total new properties

This line is equal to Line 20 and 23. Please note that Line 23 does not give you properties occupied or connected in a given year but it holds the number of properties included in an agreement and may take many years to be built and occupied.

Line 25: New properties where self-lay providers/developers will undertake a significant proportion of contestable activity (more than 75% of contestable activity)

This is the total number of properties where the Self-lay will provide the activity. We do not provide onsite wastewater connections and therefore all the New Properties are in this category.

Line 26: New properties where self-lay providers/developers will undertake some contestable activity (25% to 75% of contestable activity)

We do not provide onsite wastewater connections and therefore there is no New Properties are in this category.

Line 27: New properties where self-lay providers/developers will undertake little to no contestable activity (less than 25% of contestable activity)

We do not provide onsite wastewater connections and therefore there is no New Properties are in this category.

Line 28: Total new properties served by incumbent

This is the total of Lines 25, 26 and 27. This line is equal to Lines 17 and 18 in App28.

SECTION D: Total costs of contestable activities (£m)

We do not provide onsite sewers or connect new properties. All the expenditure in this section is therefore to support Developers and their drainage contractors.

Line 29: Total direct costs of contestable activities for new connections where self-lay providers/developers will undertake a significant proportion of contestable activity (more than 75% of contestable activity)

This line includes the expenditure for the vetting ad inspection we undertook on s30 Work Type Agreements, s104 adoptions and s106 connections. This line equals App 28 Lines 26 and 28.

Line 30: Total direct costs of contestable activities for new connections where self-lay providers/developers will undertake some contestable activity (25% to 75% of contestable activity)

We are not expecting any contestable costs in this area.

Line 31: Total direct costs of contestable activities for new connections where self-lay providers/developers will undertake little to no contestable activity (less than 25% of contestable activity)

We are not expecting any contestable costs in this area.

Line 32: Asset value payments for new connections where self-lay providers/developers a significant proportion of contestable activity (more than 75% of contestable activity)

We do not provide any Asset Payments for sewers.

Line 33: Asset value payments for new connections where self-lay providers/developers will undertake some contestable activity (25% to 75% of contestable activity)

We do not provide any Asset Payments for sewers.

Line 34: Asset value payments for new connections where self-lay providers/developers will undertake little to no contestable activity (less than 25% of contestable activity)

We do not provide any Asset Payments for sewers.

Line 35: Total cost of contestable activities (excluding NAVs)

This is total cost for Lines 29 and 35.

SECTION E: App 28 data (£m)

Line 36: Infrastructure charge receipts (s146)

These are the Infrastructure Charges received from developers. The contribution on this line is equal to App28 Line 24.

Line 37: Requisitioned sewers (s100)

This is the contribution received towards requisitioned sewers. With the new charging rules we are not anticipating any Requisitioned Sewers. This line is equal to Line 25 in App 28.

Line 38: Total value of income offset allowances

This line provides the details on the income offset against the Infrastructure Charges in AMP7. This line is equal to Line 30 in App28.

Summary

We note that the new data request is focusing on contestable data and this excludes some of the other expenditure and contributions. To show how we have balanced AMP7, we have provided data from this data request and App28. We have not included Diversions in this table.

Table 2 Wastewater - summary table

	2020-21	2021-22	2022-23	2023-24	2024-25	AMP total
Contestable activities (Post-DD –la v1 Line 35)	5.441	6.000	6.166	6.125	5.773	29.506
Network reinforcement (App 28 Line 23)	29.455	33.018	31.718	41.137	58.320	193.648
Total	**34.896**	**39.018**	**37.884**	**47.262**	**64.093**	**223.154**
G&Cs & Offsets						
Infrastructure charges (Post-DD –la v1 Line 36)	26.302	20.633	14.240	26.441	44.023	131.639
Requisitioned Sewers (Post-DD –la v1 Line 37)	0.000	0.000	0.000	0.000	0.000	0.000
Income offset (Post-DD –la v1 Line 38)	3.153	12.285	17.478	14.696	14.297	62.009
Other contributions (price control) (App 28 Line 26)	4.027	4.442	4.564	4.534	4.274	21.841
Other contributions (non-price control) (App 28 Line 28)	1.413	1.559	1.602	1.591	1.500	7.665

	2020-21	2021-22	2022-23	2023-24	2024-25	AMP total
Total	**34.896**	**39.018**	**37.884**	**47.262**	**64.093**	**223.154**
Balance over AMP7						
Expenditure	34.896	39.018	37.884	47.262	64.093	223.154
G&Cs	34.896	39.018	37.884	47.262	64.093	223.154

1 FINANCIAL MODEL CHANGES

Table 1 Defined benefit pension deficit recovery

F_Input row	Defined benefit pension deficit recovery per IN13/17	Movement in Pensions (+ve = increase in provision) nominal
WR	203	123
WN	247	251
WWN	204	124
BR	306	320

The defined benefit pension deficit recovery values have been obtained from the Draft Determination spreadsheet [FM_UC_PDRC_ST_DD.xlsx]. In line with our approach at submission, these have been smoothed over 5 years to minimise impact on customer bills.

Also, a relevant movement in pension provision has been applied in the Balance sheet for each price control lines, tab "appointee" row "541-545".

Dividend

Our business plan assumed that 70% of allowed cost of equity to be paid out as yield; this resulted in a dividend yield of 3.15%. This was in line with the Ofwat guidance at the IAP. However, given tight notional AICR ratios in the plan, we have taken the decision to further reduce the dividend yield in the business plan from 3.15% to 2.70% (InpOverride F893); as a result the assumed 'dividend growth' increases to 1.80%.

In our Representation, we have kept the same cost of equity as was assumed in the Ofwat "early view" WACC.

Dividend growth override (InpOverride L900 – U900) has been increase to 1.8%.