31 May 2018

Trust in water

Delivering Water 2020: Our methodology for the 2019 price review
Updated guidance for the final business plan data tables

Supporting document to the final data tables issued 18 May 2018

Ofwat

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Contents

1. Summary

This document sets out our updated guidance for the final business planning data tables we intend to use to set price controls at the 2019 price review (PR19) published 18 May 2018. The data tables reflect our final methodology for PR19 published on 13 December 2017.

Our final methodology was determined following full consideration of views expressed by respondents to our draft methodology proposals published in July 2017.

The final data tables, not only reflect our final methodology but also a full consideration of specific issues, that were:

- Raised by respondents in their consultation response templates. We published a complete list of these issues and our response to them with our final methodology;

- Raised by stakeholders during the agreed query and clarification process between January and May 2018. We published batches of these queries and our responses to them on our website; and

- Identified by us during the query and clarification process.

Contained within the data table Excel spreadsheet is a change control sheet to provide a record of all the changes we have made for the final version of the data tables.

This document should therefore be read in conjunction with the final version of data tables, the change control sheet and where relevant, the published query responses.

Applicability to England and Wales

Our updated guidance on the final business plan data tables **applies to both** companies whose areas are wholly or mainly in England and companies whose areas are wholly or mainly in Wales. Tables related to the business retail control are only relevant to Wales and non-exited companies operating in England.

This guidance document is structured around the four groups of business plan data tables we have identified for the appointee business, water and wastewater services and the retail service. There is also a section on the information submissions planned before business plans are due on 3 September 2018.

For ease of reference, we have highlighted in red text where there have been notable changes to guidance and /or where we have included the requirement for new information.

2. Introduction

Companies' business plan narratives will provide us, customers and stakeholders with a detailed explanation of what companies' proposals are for the 2020-2025 period.

We also need consistent and reliable data to carry out our initial assessment of their plans, assess their costs and outcomes and set different price controls through the use of our published updated financial model and other feeder models.

We will collect this data along with associated commentaries, using the 115[1] data tables identified in this document and contained in the accompanying Excel spreadsheet.

This updated guidance document provides a guide to the final business planning data tables we will use to set price controls in PR19. It includes specific descriptions of the data tables we consider are needed to set price controls for:

- water resources;
- water network plus;
- wastewater network plus;
- bioresources;
- residential retail activities for English and Welsh companies[2]; and
- business retail activities for non-exited English companies and Welsh companies

For PR19, we are setting two additional price controls and our proposed cost assessment approach requires more information than in PR14. Although we are collecting more information than at PR14, we have sought to minimise data requests and focus the business plan data requirements to only that which we need. We appreciate the extensive input and involvement from the water companies and other stakeholders in developing and refining the data tables and information requirements for PR19.

Some tables contain historical cost and other information. This data has already been sent to us in various submissions and we will not ask again for this information in the business plans. When we reviewed recent data collection processes, we found

[1] 106 tables for a water and sewerage company (115 for Thames Water), 77 for a water only company,

[2] English companies are companies whose area of appointment is wholly or mainly in England, Welsh companies are companies whose area of appointment is wholly or mainly in Wales.

that company information may fall well short of business plan requirements and expectations[3]. This includes companies' 2017 cost assessment submissions.

We expect companies to complete a full set of data tables that are in-line with the guidance and line definitions for each table. If a company restates previously reported historic data in its business plan, we expect it to clearly highlight and explain this in its commentary.

We expect consistency between models and business plan tables, and between data tables. We expect companies' submissions on 3 September 2018 to be complete, accurate and final. We expect companies' assurance processes to ensure their information is consistent and accurate and can be relied upon.

We discuss the tables within key policy areas of costs, outcomes and customer engagement, risk and return, financeability and past delivery reflecting some of the main chapters of our final methodology.

There are a number of tables that collect information specific to reconciling companies' performance during 2015-20. These tables are consistent with the data requirements set out in the PR14 reconciliation rulebook published on our website.

For the first time we are including two specific tables that explain the 2019 Final Determination across the water and wastewater services. These tables collect some specific information across a range of environmental and customer focussed metrics, in a consistent way. This information, in addition to the information provided in other parts of the business plans, will allow us to explain what, at an industry level, the 2019 Final Determination will deliver for customers and the environment over the 2020-25 period.

2.1 Basis of financial reporting

For 2017-18 and all subsequent years, we require the use of the regulatory accounting guidelines (RAGs) prevailing for that reporting year for companies' annual performance reports. This means that the 2017-18 RAGs that we published in autumn 2017 should be used for all forecast years in the business plans.

For 2015-16 and 2016-17 the boundaries for price control units should reflect the latest version set out in the RAGs for 2017-18. Where we have introduced additional granularity over the period 2015-18 in the annual performance report, then companies should follow these requirements for all years.

[3] Letter to companies on PR19 information quality, from David Black 15 March 2018.

For 2014-15 and earlier data, we expect the underlying financial data to follow whichever basis of reporting companies were using under the UKGAAP[4] regime in force at that time.

2.2 Reporting of operating leases in PR19 business plans

The International Accounting Standards Board (IASB) issued IFRS16[5] Leases in January 2016. IFRS16 will impact on reporting periods from 1 January 2019.

Changes to accounting standards mean that operating leases, whose costs were previously expensed, will be brought onto company balance sheets for statutory accounting purposes.

The new accounting standard requires companies to capitalise leased assets and record both an asset and a liability in the balance sheet. Water companies with existing operating leases that remain in place will see an increase in debt liabilities once the new accounting standard takes effect and a reduction in operating expenses.

We propose to address these issues by following the IFRS16 accounting treatment for the purposes of price setting for operating leases that will remain in place for all or part of 2020-25. This will require adjustments to be made to the RCV and cost allowances. On 21 May 2018, we issued IN 18/09 Guidance for reporting operating leases in PR19 business plans which set out in more detail how companies should treat operating leases in the PR19 business plans. We have also included 3 new tables (App33, WS1a and WWS1a) to capture the required information in this area.

2.3 Information relating to the 2025-30 period and beyond

Some tables capture cost and other information for the 2025-30 period and beyond. We want to understand companies' long term ambitions and to assess the impact of companies' proposals on both current and future customers. This information will allow us to assess the affordability of the expected change in bills after 2025.

Being able to take a long-term view is important where incentives and cost recovery ratios in the current period can affect bills in future periods. Although we will not hold companies to account for the information they provide in these future years, we are

[4] UKGAAP stands for the Generally Accepted Accounting Practice in the UK (UK GAAP) and is the body of accounting standards and other guidance published by the UK's Financial Reporting Council (FRC). A new financial reporting framework in the UK came into effect on 1 January 2015.
[5] IFRS stands for the International Financial Reporting Standards. These are accounting standards issued by the IFRS Foundation and the International Accounting Standards Board (IASB) to provide a common global language for business affairs so that company accounts are understandable and comparable across international boundaries.

seeking evidence that companies' business plans consider these impacts in the longer term.

2.4 Small companies

As described in **Chapter 13 Securing confidence and assurance** of our methodology for the 2019 price review, small companies with annual turnovers of less than £10.2 million, are not required to complete and submit the tables set out in this document.

2.5 Merged companies

We expect a single business plan from South West Water who acquired Bournemouth Water on 1 April 2016. But to carry out the reconciliations of the PR14 incentives, we will require those specific tables to be completed for the two former companies. This will ensure that the right outperformance payments and underperformance penalties are applied, for example, from the different menu choices and Pay As You Go (PAYG) rates made at the time of the 2014 final determination.

For Severn Trent Water and Dee Valley Water, we require two separate business plans supported by separate data tables and commentaries. In March 2018, we consulted on a conditional decision to grant Severn Trent Water a variation to the water supply area in its existing Appointment to enable it to supply water services to the Chester site from 1 July 2018 and also to grant Dee Valley Water a new Appointment and a variation to its supply area in its existing Appointment to enable it to supply water and waste water services to the Powys site from 1 July 2018.

This decision is conditional on Severn Trent and Dee Valley Water consenting to changes to the conditions of their Appointment which Ofwat considers to be necessary or desirable.

There are implications for the PR14 reconciliations for these two companies, which we will discuss with those companies. It will also have implications for the business plans that should be submitted by those companies, which will need to be consistent with how the companies intend the future price control to be set.

2.6 Thames Tideway Tunnel

The Thames Tideway Tunnel (TTT) control that is within Thames Water to deliver its activities on the Tideway, requires the same inputs to the financial model as the wastewater network plus control.

The financial model contains inputs to enable a separate spare wholesale price control to be modelled such as for the Thames Tideway Tunnel. In the financial model this is referred to a dummy control.

We have included specific dummy control lines within relevant tables and have also identified nine specific tables that Thames Water will need to complete and submit separately for the TTT. We clearly indicate these in the relevant summary tables.

2.7 Publication of populated tables

We want companies to make their business plans accessible to us, customers, stakeholders and other regulators. We therefore expect them to publish the whole of their business plans including their populated tables at the same as they submit their plans to us. If a company considers some information should not be published – because it is commercially sensitive information, for example - then the company will need to provide its stakeholders and us with strong, robust reasons for this that are specific to the type of information concerned.

If a company chooses to submit its plan to us early, then to preserve confidentiality, it does not have to publish its plan on the date of submission, but must publish its plan by 3 September at which time all other plans will have been submitted.

2.8 Price base

The base year for the business plan is 2017-18.

The price base for financial cost information is either outturn (nominal) prices or base year prices indexed using the financial year average Consumer Price Index (including housing costs) i.e. 2017-18 prices FYA (CPIH deflated) as shown in the table below.

Table 1 Price base principles applied

Cost type	Actuals up to 2018-19	Forecast blind year 2019-20	Forecasts 2020-21 onwards
Wholesale	Outturn (nominal)	Outturn (nominal)	Real (2017-18 prices)
Retail	Outturn (nominal)	Outturn (nominal)	Outturn (nominal)
Appointee financial	Outturn (nominal)	Outturn (nominal)	Outturn (nominal)
Past delivery	Mixed as necessary	Mixed as necessary	Mixed as necessary

Each table clearly confirms the price base of cost information contained within it.

3. The appointed business tables

There are 37 data tables for the appointed business.

Table 2 Appointed business tables

Policy area	Table number	Contents	Purpose
Outcomes and customer engagement	App1	Performance commitments (PCs) and outcome delivery incentives (ODIs)	Assessing outcomes and performance commitments
	App2	Leakage additional information and old definition reporting	
	App3	Abstraction Incentive Mechanism - surface and ground water abstractions under the AIM threshold	
	App4	Customer metrics	
Summary	App7	Proposed price limits and average bills	Comparison with bill impacts
Risk and return and financeability	App8	Appointee financing	Financial modelling assumptions (financing)
	App10	Financial ratios	
	App33	Wholesale operating leases reclassified under IFRS16	
	App11, 11a	Income statement based on the actual and a notional company structure	Financial modelling assumptions (accounting information)
	App12, 12a	Balance sheet based on the actual and a notional company structure	
	App13	Trade receivables	
	App14	Trade and other payables	
	App15, 15a	Cashflow based on the actual and a notional company structure	
	App16	Tangible fixed assets	
	App17	Appointee revenue summary	
	App18	Share capital and dividends	
	App19	Debt and interest costs	
	App20	Cost of debt / analysis of debt	
	App23	Inflation measures	Input to cost, risk, reconciliation and financial models
	App26	RoRE scenarios	Risk modelling
	App28	Developer services (wholesale)	Financial modelling assumptions
	App29	Wholesale tax	

	App32	Weighted average cost of capital for the Appointee	Financeability tests
Costs	App21	Direct procurement for customers	Project cost assessment
	App22	Pensions	Setting baselines (wholesale and retail cost assessment)
	App24 / App 24a	Input proportions, real price effects (RPEs) and efficiency gains	
Past delivery	App5	PR14 reconciliation - performance commitments	Reconciling 2015-20 performance
	App6	PR14 reconciliation - sub-measures	
	App9	Adjustments to RCV from disposals of interest in land	
	App25	PR14 reconciliation adjustments summary	
	App27	PR14 reconciliation – financial outcome delivery incentives summary	
	App31	Past performance	
Targeted controls, markets and innovation	App30	Void properties	Input into our assessment of companies' approach to voids.

Notes
Tables App1, App7, App8, App14, App16, App22, App24, App24a, App26, App29 and App33 require information associated with the Thames Tideway Tunnel control (Dummy control).

3.1 Outcomes and customer engagement

The outcomes and customer engagement tables, App1 to App4, collect relevant information on outcomes, performance commitments (PCs), outcome delivery incentives (ODIs) and supporting data, relating to all the price controls. At the last price review (PR14), we collected this information in tables at price control level. For PR19 we are collecting this information in appointee-level tables.

Data table	Contents
AppValidation	No data should be amended in this worksheet – it contains the values used in the drop-down lists in tables App1 to App6.
AppPCview	Displays values for a single, specified PC. When the company PC reference is entered in cell A3, the worksheet will auto fill the PC and ODI data from table App1. This is followed by company-level PC and ODI totals. The worksheet defaults to printing on two pages (A3 landscape).
App1	Outcomes, PCs and ODIs
App1 guide	Outcomes, PCs and ODIs guidance

App2	Leakage additional information and old definition reporting
App3	Abstraction Incentive Mechanism (AIM)
App4	Common customer metrics on affordability and vulnerability

App1 – Performance commitments and outcome delivery incentives

This table collects information on the companies' proposed outcomes, performance commitments and ODIs from April 2020 onwards. Companies can include as many outcomes as they need to and each outcome can have as many performance commitments as required. Companies should not make structural changes to the table.

The table has been designed to hold the detail for a single performance commitment on one row. It is a similar format to the companies' outcomes, performance commitments and outcome delivery incentives spreadsheet that we publish each year, so companies should be familiar with the format. We have included a 'performance commitment viewer' worksheet, to allow the details for a single performance commitment/ODI to be viewed on one page. The viewer also includes some basic graphs and charts of the data.

Companies should provide a definition of their outcomes and performance commitments as part of their business plans, as well as demonstrate that the proposed performance commitments are appropriate for the outcome.

For each performance commitment, companies should identify the appropriate unit used to measure performance and set out the historic performance (where data is available), proposed PR19 performance commitment levels, and also their longer-term projections. For the common performance commitments, companies should use the measurement units that apply to the standard definitions.

Companies should include their performance commitment levels for each performance commitment, until the end of the next price control period (2024-25). Companies do not have to commit to a level of performance in each year (and so do not need to complete every cell), but each performance commitment should have at least one performance commitment level within the period. Companies should not set 'indicative only' performance commitment levels – that is, performance commitment levels that are not considered to be either met or not met at the end of the financial year. We expect companies to demonstrate that their performance commitment levels are sufficiently stretching and reflect engagement with their customers and challenge from their CCGs as set out in the chapter and appendix on outcomes in the final methodology.

Companies' performance commitments for 2020-25 should be supported by long-term projections for at least a further ten years. These projections will encourage companies to consider their long-term ambitions and will help customers and stakeholders engage on longer-term issues.

Allocation across price controls

Companies need to demonstrate how their performance commitments cover all the price controls that apply to them[6]. A performance commitment may be allocated over more than one price control, for example if performance delivery involves contributions from resources covered by more than one price control.

Where a performance commitment is allocated over more than one price control companies should explain clearly in the business plan commentary how the allocation has been derived. If performance levels are different at a price control level, there should be separate performance commitments.

The total allocation across the relevant price controls must equal 100%. For performance commitments with associated financial ODIs, these percentages will be used to allocate outperformance payments and underperformance penalties across the price controls.

Retail performance commitments

We do not expect companies to propose any retail performance commitments for business customers that are able to choose their retail supplier. This applies to water companies operating wholly or mainly in England. For water companies operating wholly or mainly in Wales we expect those companies to propose performance commitments for their business retail price controls.

Outcome delivery incentives

Companies should propose the ODIs associated with delivering each performance commitment in table App1 (and table App3 for AIM performance commitments). We require companies to provide information on the strength, form and duration of the proposed ODIs, as well as the frequency of performance assessment.

[6] These can include: Water resources, Water network plus, Wastewater network plus, Bioresources (sludge), Residential retail, Business retail and Direct procurement for customers controls.

Incentive types

For each performance commitment, the company should select which of the four incentive types applies:

- no financial incentive;
- underperformance penalty-only financial incentive;
- outperformance payment-only financial incentive; or
- outperformance payment and underperformance penalty financial incentive.

For non-financial ODIs, companies are required to provide a reason why a financial underperformance penalty and/or outperformance payment is not appropriate.

ODIs usually apply to performance commitments so different incentive types can be used for different performance commitments within a single outcome.

In-period versus end-of-period ODIs

For each financial ODI companies will need to propose whether the ODI will operate in-period or end-of-period. We expect companies to use in-period ODIs as a default position for financial ODIs. Companies who propose using an end-of-period ODI will need to justify why this is appropriate. Companies will also need to explain their overall balance between in-period and end-of-period ODIs in their business plans.

Frequency of assessment and application

Companies need to complete table App1 for the frequency with which performance will be measured, as well as the frequency that the associated ODIs will be applied.

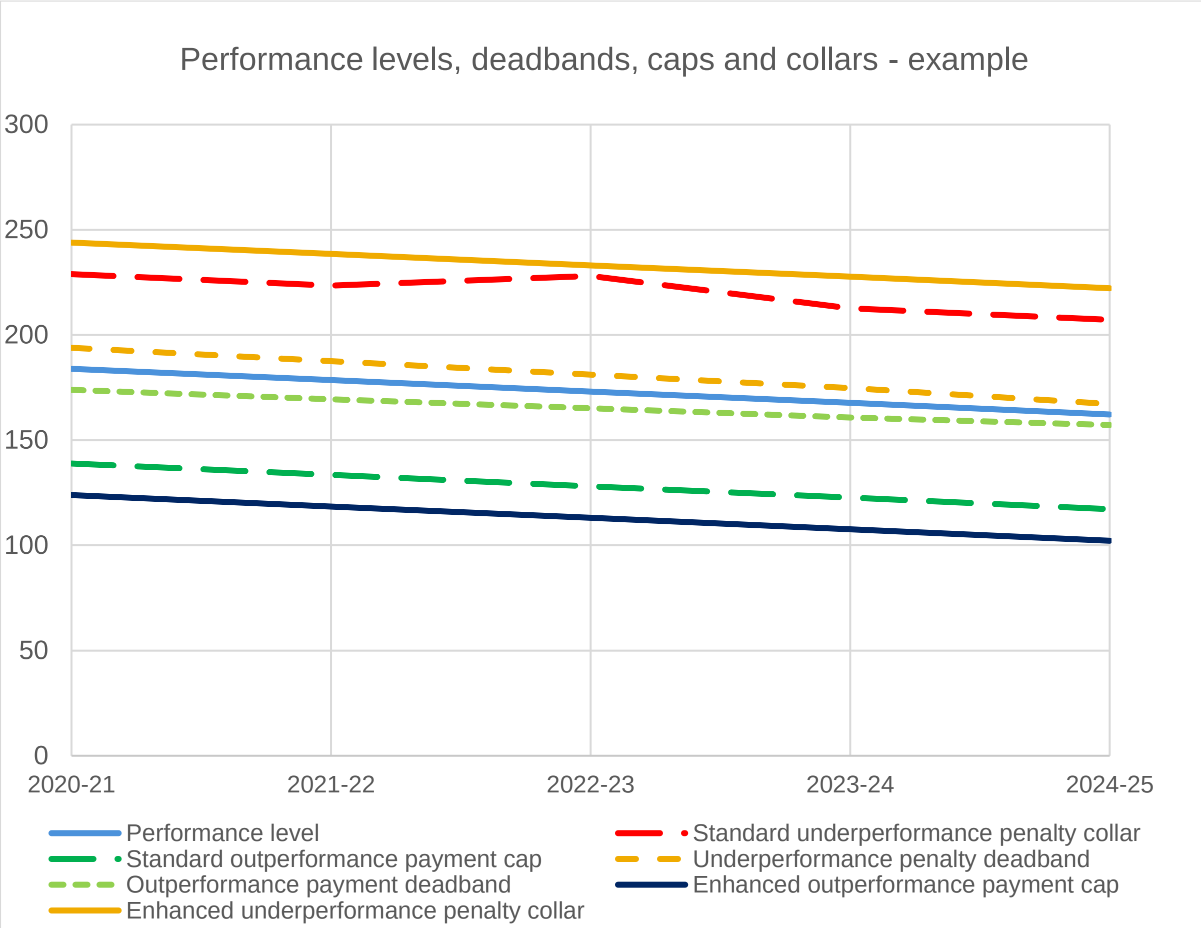
Companies should set out over which years, performance will be assessed and the performance commitment levels in each of these years. Where performance is only proposed to be determined in one particular year of the price control period, companies should leave the performance commitment fields blank in the other years. Companies should justify their approaches in such cases given that the default position is that companies should have financial ODIs and that these should apply in-period.

Deadbands and caps and collars

Companies can propose deadbands i.e. a range around the performance commitment level in which no incentive rates apply. Companies will need to set out why their proposed approach is in the best interest of customers.

Outside the deadband range, the proposed incentives should apply automatically based on performance during the next price control period – subject to any limits on incentive size proposed by companies.

Companies can propose limits on the performance range over which the individual ODI incentives apply: a cap on outperformance payments and a collar on underperformance penalties. Appendix 2 Delivering outcomes for customers of our methodology for the 2019 price review, provides more detail on when individual ODI caps and collars might be appropriate.



Incentive rates

Companies complete table App1 with the financial incentive rates (if any) they are proposing for their ODIs over different ranges of service performance.

Table App1 allows for four types of incentive rates:

- Standard underperformance penalty rate – this applies between the underperformance penalty deadband and the standard underperformance penalty collar;

- Standard outperformance payment rate - this applies between the outperformance payment deadband and the outperformance payment cap;
- Enhanced underperformance penalty rate - this applies between the standard underperformance penalty collar and the enhanced underperformance penalty collar; and
- Enhanced outperformance payment rate - this applies between the standard outperformance payment cap and the enhanced outperformance payment cap.

We are assuming that companies' enhanced outperformance payments and underperformance penalties apply from the performance level at which the standard outperformance payments and underperformance penalties stop applying respectively.

Appendix 2 Delivering outcomes for customers of our methodology for the 2019 price review, provides guidance on how companies should calculate these underperformance penalty and outperformance payment rates. Companies should explain how they have calculated their underperformance penalty and outperformance payment rates taking account of our guidance.

Incentive units

Companies should set out the proposed incentive units for each performance commitment for which a financial ODI is proposed to apply. Where the incentive rate applies only where there are discrete changes in service, such as for every 10 incidents, companies should also explain this.

Marginal cost and marginal customer valuation methods

We are encouraging companies to use a wide set of customer information when setting their performance commitments and ODIs. In table App1 companies provide information on any marginal cost and marginal benefit valuation methods they have used to set their performance commitments and ODIs to help with our assessment.

Where companies have used customer preference information in setting their performance commitments and ODIs this should be explained in their business plan commentary.

App2 Leakage additional information and old definition reporting
Leakage additional information

The table captures additional information on leakage and other common performance commitments where the definition is changing at PR19 to a more consistent definition across companies.

At PR19 all companies will need to propose stretching performance commitment levels for leakage based on the new consistent definition. The information in this table will help us to assess whether companies have proposed stretching performance commitments for leakage over the price control period. Companies will need to follow our approach, set out in the Appendix 2 Delivering outcomes for customers of our methodology for the 2019 price review, when proposing their leakage performance commitments.

Our leakage approach requires companies to propose leakage performance commitment levels at either over a company area or a regional area. Companies must provide leakage information at the same geographic area as its proposed leakage service levels. Companies must justify why it has chosen regional or company areas for its performance commitments.

Table App2 requires companies to provide additional information to support their proposed leakage performance commitments using the new consistent metric. This includes:

- Water Resource Management Plan (WRMP) leakage projections;
- Lower, central and upper estimates of companies' sustainable economic levels of leakage (SELL);
- Leakage per property per day; and
- Leakage per km of main per day.

We expect the move to reporting leakage using the new metric will have an impact on both the reported levels of leakage as well as companies' SELLs. Therefore we require companies also to provide this information using their old definition.

Companies will need to explain what impact moving to the new consistent measure of leakage has on its reported leakage performance and trend. This will help us to understand the impact that moving to the new metric has had on companies' reported performance.

Reporting against old definitions

The table also includes additional information on common performance commitments for per capita consumption, supply interruptions and internal sewer flooding data based on old definitions. The information in this table will help us to assess whether companies have proposed stretching performance commitment levels on their common performance commitments over the price control period.

Companies have been working together, co-ordinated by Water UK and supported by Ofwat, to develop consistent reporting guidance for a number of the common performance commitments, including per capita consumption, supply interruptions and sewer flooding.

Companies calculated the data for the first time against this consistent reporting guidance for 2016-17. We will have limited historical data on the new consistent data to understand how performance is likely to change over time. Therefore, we require companies to provide us with information using their old definitions as well. We also require companies to explain what impact moving to the new definition has had on its performance trend compared to its old definition. This will help us to assess whether companies have proposed stretching performance commitments for the metrics with new consistent definitions.

App3 Abstraction Incentive Mechanism - surface and ground water abstractions under the AIM threshold

The abstraction incentive mechanism (AIM) has the objective of encouraging water companies to reduce the environmental impact of abstracting water at environmentally sensitive sites at times of low flows. The AIM started in reputational form from **1 April 2016**.

The Guidelines on the abstraction incentive mechanism (Ofwat, February 2016) explain that in order for water companies to operate the AIM they need to:

- Identify the abstractions sites to which the AIM applies;
- Identify the trigger points for each AIM site;
- Identify the abstraction baseline for each AIM site;
- Capture abstraction data at each AIM site; and
- Report the data through their annual performance report.

Appendix 2 Delivering outcomes for customers of our methodology for the 2019 price review, provides further details on how companies should complete the steps above, including guidance on financial incentives for the AIM for 2020-21 to 2024-25.

Companies should complete table App3 with the required information for the AIM. This will provide stakeholders with transparent information on each company's proposed approach to the AIM for 2020-25.

App4 Customer metrics

Table App4 is used to collect metrics on affordability and vulnerability.

Following feedback from stakeholders on our proposed set of common metrics of affordability and vulnerability, our stakeholder workshop on 25 October 2017 and input from CCG Chairs, we amended the proposed set of metrics in table App4 to focus more on the impact of companies' support on their customers. Please see Appendix 15 section 2 (addressing affordability and vulnerability) of our methodology for the 2019 price review for further details.

We have also added additional clarification to our guidance and definitions in App4 following the queries we have received through the query and clarification process.

We are considering common metrics in the round alongside other qualitative and quantitative information provided by companies in our assessment of companies' approaches to addressing affordability and vulnerability.

Affordability

In Appendix 1 Addressing affordability and vulnerability of our methodology for the 2019 price review, we have described the common metrics for addressing affordability. Table App4 collects data on these common metrics.

Vulnerability

In Appendix 1 Addressing affordability and vulnerability of our methodology for the 2019 price review, we have described the common metrics for addressing vulnerability. Table App4 collects data on these common metrics.

3.2 Risk and return and financeability

We need to consider some elements of the business plans for each appointed company as a whole to enable us to meet our duties under Section 2 of the Water Industry Act 1991.

This includes the ability of efficient companies to finance their functions and the impact of company proposals on both the affordability and profile of customer bills.

To enable us to do this we are asking companies to provide us with certain information using both the Ofwat designated notional capital structure (including both gearing and financing costs) and their actual capital and financing structure.

We will test financeability at the level of the appointed business along with the impact on total customer bills, taking into account the overall outcomes for customers. We will also carry out a cross-check to make sure there is enough cash flow headroom in each wholesale and retail price control to allow each one to operate on a stand-alone basis.

We have a primary duty to ensure that efficient companies can finance their functions. When setting price controls, we interpret this duty as having two parts:

- to allow an efficient company a return consistent with a cost of capital that takes into account the risk in a given price limit package; and
- to allow price controls that provide an efficient company the revenues, profits and cash flows that are sufficient to allow it to raise finance on reasonable terms.

Our approach to financeability will assess whether revenues, relative to allowed costs, are sufficient for a company to finance its investment on reasonable terms, while securing the interests of customers now and in the long term.

This section explains the business plan table information we propose to collect to confirm that each company has a financeable business plan in the context of:

- risks being allocated to those best able to manage them; and
- risks being borne by the company and its investors being rewarded at rates commensurate with the risks concerned.

We will consider a company’s view of the potential risks facing its business. And we will make use of scenario analysis to look at the impact on the returns which the company may earn.

App7 Proposed price limits and average bills

This table shows the impact of the company’s business plan on residential customers, across all the price controls.

Block A contains a company's proposed revenues in each year from 2020-21 to 2024-25 calculated from the associated revenue projection tables for each price control. The financial model does not require forecast revenue figures for 2019-20, so we have removed this requirement for the final methodology.

New Block B contains a company's proposed revenues in each year from 2020-21 to 2024-25, calculated from the associated revenue projection tables for each price control. The re-profiling of revenue between years is included.

New Block C contains a company's total wholesale allowed revenues. These figures are copied directly from the revenue projection tables for each price control.

Block D contains a company's revenues but with the company's PR14 reconciliation adjustments included. These figures are copied directly from the revenue projection tables for each price control.

In Block E companies should input their proposed wholesale K factors for each wholesale price control and for bioresources, the average revenue requirement per tonne of dry solids.

Block F shows the average wholesale bills for residential customers for each price control. These figures are calculated from the revenue projection tables for each price control.

Block G shows the average residential retail bill for water and wastewater services and combined. These figures are derived from retail tables R1 and R7.

Block H calculates the average total residential bill for water and wastewater services and combined.

Block I provides a breakdown summary of revenue at the total appointee level.

To meet our statutory duties, including our duty to have regard to the interests of customers with low incomes, we will evaluate whether companies' proposed total residential bills are affordable. To help in this assessment, companies should provide evidence showing that the proposed total residential bills are affordable for customers, including those on low incomes. They should also describe any efforts to mitigate affordability risks, including any social tariff scheme or schemes that currently apply or that they intend to apply during 2020-25.

In addition to this evidence, companies should provide information on the implications of their current spending plans for the affordability of future customers' bills after the current price control period. Several of the tables include information for 2025-30, which will use to examine the impact of choices made at this price review on bills beyond 2020.

App8 Appointee financing

This table contains a summary of financial information for which the majority is either copied from other PR19 business plan tables or is a calculated cell.

The table provides information about the opening net debt, equity dividends payable over the price control period and any cash flows relating to equity issues for use in the financial model.

We use this table to calculate the water and wastewater RCV closing balances at 31 March 2020 post-midnight adjustments and establish the 1 April 2020 opening balances for each wholesale price control. Thereafter the table summarises how the RCV develops over the price control period.

The RCV adjustments feeder model is used to prepare the 2019-20 inputs in the required price base for the table.

App10 Financial ratios

This table sets out the information that we are asking companies to provide regarding their forecast financial metrics. These metrics are defined in **Chapter 11 Aligning risk and return: financeability** of our methodology for the 2019 price review. Detailed calculations of each metric are also included in the published financial model.

We are asking companies to use these metrics to demonstrate how they are consistent with the target credit rating that underpins the business plan.

Companies should provide this information on both the notional capital structure and each company's projected actual capital structure.

Companies may also provide further information to us, which may include the use of alternative financial ratio calculations in support of their plan and proposed target credit rating where appropriate. We have included an additional ten lines in the table to facilitate this but companies can also provide further data in their business plan commentaries.

For the avoidance of doubt, "funds from operations" is defined as cash flows from operating activities excluding working capital movements.

App11/11a Income statements based on the actual and a notional company structure

These tables contain the income statements based on the actual and a notional company structure. Companies will use their financial projections to populate these tables.

The terms and lines definitions are similar to those set out in the ‘Income statement’ and Segmental income statement contained in the Annual Performance Report (APR).

Companies’ financial projections should be based on the RAGs that exist for the base year 2017-18 annual performance report. We published these on the 16 November 2017.

Signage should follow accounting conventions in that income should be positive and expenditure should be negative.

App12/12a Balance sheet based on the actual and a notional company structure

These tables contain the balance sheet in an IFRS format based on the actual and a notional company structure. They comprise companies’ projected positions for 31 March 2020, with the remaining years coming from financial modelling projections. Balances should be as at 31 March.

The terms and lines definitions are the same as those set out in the ‘Statement of financial position’ in the APR. As a result of the query and clarification process, we have included new lines in these tables to align with the reporting in the APR.

Companies’ financial projections should be based on the RAGs that exist for the base year 2017-18 annual performance report. We published these on the 16 November 2017. This means that we expect companies to follow UKGAAP (unless the RAGs specify otherwise) and adopt any changes that arise over future periods. In particular this means that IFRS companies will adopt the new IFRS16 standard from 1 April 2019.

Signage should follow accounting conventions in that assets should be positive and liabilities should be negative.

App13 Trade receivables

This table is the analysis of the trade receivables figure from the balance sheet. It comprises companies' projected positions for 31 March 2020, with the remaining years from their financial projections. The total retail and wholesale trade receivables included in this table should match the trade and other receivables line in the balance sheet. The 'debtor days' figures for all years entered in lines 19-24 should be the same as companies have used to calculate the receivables figures.

Signage should follow accounting conventions in that assets should be positive and liabilities should be negative.

App14 Trade and other payables

This table contains an analysis of the trade and other payables and other working capital assumptions based on the actual company structure.

This table contains the company's projected position at 31 March 2020, with financial projections for 2020-25. The total sum of trade and other payables included in this table should match the sum of current liabilities in the balance sheet.

As a result of the query and clarification process, we have updated the definitions for lines 1 and 2 and included two new lines in block A for wholesale creditors and a new block D for dividend creditors.

Signage should follow accounting conventions in that assets should be positive and liabilities should be negative.

App15/15a Cashflow based on the actual and a notional company structure

These tables are the cash flow statements based on the actual and a notional company structure. They are in part an IFRS format, but have been tailored to give categories that are commonly used in the water and sewerage sectors. Companies' will use their financial projections to populate these tables. Our financial model only requires a single capex figure, so we have removed the requirement for companies to provide investing activities across categories of capital expenditure.

App16 Tangible fixed assets

This table contains the tangible fixed asset closing position for each year in the 2020-25 period, broken down between each wholesale and retail price control. It contains the company's projected position at 31 March 2020, with financial projections for 2020-25. Our financial model only requires a single capex figure, so we have removed the requirement for companies to provide the value of wholesale fixed assets split between infrastructure and non-infrastructure assets.

App17 Appointee revenue summary

This table automatically calculates appointee level revenue based on revenues for the different price controls input in other tables within the business plan. The definitions for each line can be found in the appropriate lines in tables Wr3, Wn3, WWn5, Bio4 and R7.

We have included a new line in block A that calculates the overall impact of re-profiling allowed wholesale revenue based on the individual re-profiling of revenue included for each price control in tables Wr3, Wn3, WWn5, Bio4 and Dmmy7.

RAG4, appendix 1 contains further detail on the basis of reporting of third party revenue, non-price control income from third parties and non-price control income from principal services. The income from charges calculated in this table should equal the wholesale revenue requirement less price control income from other sources.

App18 Share capital and dividends

This table contains information regarding the companies' share structure and its anticipated dividend policy which need to be input into the financial model. The financial model permits companies to apply three methods for calculating ordinary dividends as follows.

1. The growth method: the previous year's dividends multiplied by inflation plus real growth. In this method, companies should complete the opening ordinary dividend figure in line 8 for 2019-20 and the real dividend growth rate in line 10.
2. The distribution method: distributable profit for the year multiplied by percentage distributed. In this method, companies should complete line 11.
3. Ordinary dividends payable in each year are entered directly in line 8.

Companies can set interim dividends as a proportion of ordinary dividends by inputting a rate into line 13 or entering direct into line 8.

This table should be completed in nominal prices except for line 10 'Real dividend growth' which should be entered on real price basis i.e. 2017-18 Financial Year Average (CPIH adjusted).

If there is more than one type of share in issue, the nominal share value should be the weighted average nominal value of all the shares in issue at the year end.

Total equity dividends paid in the year as described in section B of the table should reconcile to line 2 of App8 Appointee Financing allowing for indexation.

We are treating preference shares as debt.

App19 Debt and interest costs

Companies are required to complete this table with their assumptions regarding the type and level of debt held and the associated interest costs which are reflected in their financial model. Debt should be categorised as fixed rate, floating rate or index-linked. The interest rates reported for the fixed rate and index-linked debt should be the coupon rate before indexation.

This table should reconcile to the borrowing figures entered in App12 Balance sheet and should exclude any amounts which have been reported as derivative financial instruments. If companies have capitalised any interest in any year, then this should be reported as debt issued during the year.

The interest rates reported for the fixed rate debt should be the coupon rate and for index linked debt should be the coupon rate (before indexation). They should reflect the cash rates that are payable in the period. This might include the impact of derivatives but would exclude any market to market adjustments.

As a result of the query and clarification process, we have included two new lines in block B to capture the weighted interest rate for new and existing fixed and index-linked debt. We have also included a new block C for companies to input debt adjustments to show how the values reconcile with those contained in the balance sheet in table App12.

App20 Cost of debt / analysis of debt

This table updates our previous information request from May 2017 on companies' debt instruments. Our guidance and the template are largely unchanged. Companies should update the information provided alongside the 2017 APR for debt instruments issued between 01 April 2017 and 31 March 2018, and debt instruments that have matured.

Basis of reporting

Companies should classify each item of debt on its statement of financial position as:

- fixed rate (block A);
- floating rate (block B);
- RPI index linked (block C); or
- CPI index linked (block D).

Companies should include a brief description alongside each item of debt to make it possible to identify the specific debt instrument used. In each case this description should provide the following details as a minimum:

- where available the instrument identifier (ISIN);
- where available the credit rating of each instrument;
- the remaining years to maturity;
- the coupon, and for floating rate instruments details of the market index to which the instrument is tied;
- the currency in which the debt is designated (if not in sterling), as well as any assumptions used around exchange rates to derive the instrument's sterling cost;
- whether the debt is subordinated (class A/class B); and
- any other significant information regarding the structure of the debt which is required to enable the nature of the debt instrument to be fully understood (for example, mezzanine funding).

For floating rate debt companies should report in the 'Reference Interest Rate' column the relevant reference rate as of 31 March 2018. Companies should also report separately what the reference rate is (e.g. LIBOR).

We have included 200 lines for companies to report all relevant debt instruments under each classification. Companies should not add any columns to the table.

Derivatives

We expect companies to provide details of all relevant financial derivatives. Where companies have used financial derivatives in a designated hedging arrangement (or economic hedging arrangement), we expect companies to report these together with the debt instruments to which the derivative(s) relate (i.e. report the debt instrument details net of the impact of the hedging arrangement). If companies are using any other financial derivatives, including for example interest rate swaps, inflation swaps or forex swaps not as part of a designated (or economic) hedging arrangement, we expect companies to report these separately.

Companies should include these swaps in the table by reporting both the paid and received legs separately in the appropriate lines. For all financial derivatives we expect companies to clearly report all relevant information, for example the date at which any derivatives expire, as well as any credit breaks and the frequency thereof.

Companies may (but are not required to) combine derivatives to simplify reporting where derivatives are of the same type and nature (e.g. two interest rate swaps with the same maturity). For the avoidance of doubt if companies are unclear or unsure as to whether combining derivatives is appropriate, companies should report each instrument individually.

Index linked debt and inflation

We have separated index linked instruments into RPI and CPI linked issuance.

We have included columns ('Real RPI coupon' and 'Real CPI coupon') for companies to report the relevant real CPI or real RPI coupon rate. Companies should also convert the rates of fixed and floating rate instruments into both real CPI and real RPI terms. For the purposes of these calculations we expect companies to use an assumption for RPI of 2.8% per year and CPI of 2% per year.

For the avoidance of doubt, by asking companies to report CPI linked instruments we are not indicating a preference for moving to CPI instead of CPIH for PR19. We are aware of some CPI linked issuance in the sector; we are unaware of any CPIH linked issuance. Therefore we do not consider it would be efficient to include space in the data table for companies to report CPIH linked issuance.

Additional clarifications

Companies should report all current (as of 31 March 2018) debt instruments (issued between 01 April 2017 and 31 March 2018) irrespective of maturity date. Where companies have forward starting instruments we expect companies to report these. Companies should report the start date in the start date column. Please note that this column only applies to forward starting instruments – we do not expect companies to report the start date of existing instruments.

Companies should also report all quasi-debt, including, for example, finance leases or preference shares. Operational leases that will be categorised as finance leases under IFRS16 should also be reported. As with forward starting instruments, companies should also report the date at which these leases will become debt instruments. Companies should indicate clearly using the 'Further Information' column if the debt instrument is an operational lease etc.

We do not require companies to report cash in this table.

We expect companies to report any revolving credit facilities in the relevant part of the table. Companies should report the interest rate of any such facilities; any additional ‘commitment costs’ can be captured in the column for unamortised issuance costs. The principal sum outstanding for any revolving credit facilities should reflect the amount drawn as of 31 March 2018.

If companies have any unamortised debt issuance costs which are included on the statement of financial position, and which are being amortised over the period of the debt, companies should include these in the relevant column and provide detail to explain these. Companies should also report any unamortised debt issue premiums or discounts alongside unamortised issuance costs.

If companies are using instantly callable debt instruments, they should classify these as loans due in less than one year (e.g. 0.1 years to maturity) and clearly indicate that the instrument is instantly callable.

Instruments with no fixed maturity date that are not instantly callable should be reported with a maturity of 25 years. Companies should also clearly indicate that this instrument has no fixed maturity date.

Companies should report all debt relevant to regulated company, even where this has been taken out by an associate or financing subsidiary. Inter-company loans should be matched with the relevant instrument at group level at the external borrowing rate (i.e. companies should report the relevant external rate not the intra-group rate). Companies should also report the relevant ISIN of the external debt instrument associated with the inter-company loan.

If it is not obvious how the instruments reported in this table align with a company’s annual performance report or statement of financial position, we expect companies to clearly reconcile the two in the information they provide. In particular, we expect that the figures provided in Block F (Indicative weighted average nominal interest rate, and indicative weighted average cash interest rates) should be the same as table 1E of the 2017-18 Annual Performance Report (‘Net Debt Analysis’). Where these figures differ, we will expect companies to provide a reconciliation showing why the figures differ.

For amortising debt, companies should report the weighted average time to maturity, rather than the final maturity. Companies should clearly indicate where the debt instrument is amortising.

If companies have debt instruments where the interest payable is not directly based on the principal sum outstanding (e.g. commitment fees payable on undrawn amounts in relation to a capex facility, or where interest payments are based on the notional amount indexed and not the principal sum outstanding), companies should indicate the principal sum outstanding in column K and the figure on which annualised interest costs are based in column L. If interest payments are based on the principal sum outstanding, companies should simply ensure that this figure is entered in both columns K and L.

App23 Inflation measures

We confirmed in our May 2016 decision document Water 2020: Our regulatory approach for water and wastewater services in England and Wales that we will be changing our indexation for customer bills and companies' assets to a more legitimate measure of inflation, the consumer price index (CPI, or CPIH).

This table contains companies' assumptions about CPIH and RPI inflation during the current price control period and for the ten years 2020-30. This allows us to adjust the price base of business plans and compare across companies on a consistent basis – without prescribing assumptions about inflation.

We will provide published index numbers for each year from 2011-12.

App26 RoRE scenarios

As discussed in **Chapter 10 Aligning risk and return** of our final methodology for the 2019 price review, companies should have a good understanding of the key upside and downside risks affecting their business and how to model the impact of these. One way for companies to develop and demonstrate this understanding is through scenario analysis.

This table requests the minimum level of scenario data required as a result of running both a high and low case as variants of the main business plan. Companies may choose to model further scenarios as part of their business planning process and provide details of these in their business plan.

This modelling contains several distinct elements which are described in Appendix 12 Aligning risk and return of our methodology for the 2019 price review. The purpose is to assess both the risks to which the company is subject and the balance of risk and return between the company and its customers.

The table consists of seven key elements on which a sensitivity analysis should be carried out based on a P10/90 analysis of potential outcomes. The calculation of the Return on Regulated Equity (RoRE) is carried out within the financial model.

For the purpose of RoRE analysis, scenarios in the financial model are calculated off the notional gearing, which is consistent with the approach we adopt in guidance for monitoring annual performance.

Each required element appears as a pair in the table with a high and low case compared to the company's business plan e.g. water resources total expenditure (totex) in sections C (high case) and D (low case).

These upside case and downside cases are at the P10 and P90 levels relative to the company's business plan (which is assumed to comprise the 'base' case). For each sensitivity pair, we have specified a standard set of data requirements.

Unless otherwise specified in the definitions table, companies should provide information on the effects relative to the base case and provide accompanying commentary / rationale – if there is no impact, they should explain why.

The guidance notes in the table itself contain details about the sign conventions (+/-) that companies should use when entering the data in the table fields. Companies should pay particular attention to this to ensure the RoRE impact is calculated correctly.

In assessing the effects, companies should consider the full range of financial impacts for each scenario. This includes any direct impacts, but also take account of any efficient management responses to the relevant change in business conditions.

Companies should provide commentary to support their assessment. This should include details of any calculations used to estimate the impacts – for example, those relating to variations in customer numbers. The commentary should also describe management responses to the change in business conditions and any mitigation plans in place.

Companies should also explain their assumptions on how incentives are calibrated and make clear any assumptions regarding outperformance or underperformance for totex, ODIs, Customer experience (C-MeX) and Developer services experience (D-MeX) in their base case business plans further guidance on this is provided in Appendix 12 Aligning risk and return of our methodology for the 2019 price review.

For ODIs the P10 and P90 values in blocks I & J of table App26 are for the overall P10 and P90 values for outcomes at the appointee level. For example, the P10 values for the high RoRE case should reflect the scenario in which ODI outperformance payments for the appointee would equal or exceed these values 10% of the time. So while the data is split between the price controls, the probability is defined at the appointee level. Note that since the probability is defined at the appointee level, for the P10 (high case) and P90 (low case) for ODI performance, it is likely not appropriate to arrive at these figures by simply summing the values for each individual ODI in table App1. Performance against each individual ODI will be driven by different factors, therefore, the P10 and P90 values for each ODI cannot all be assumed to occur together and some statistical analysis of all ODIs should therefore be undertaken. This could for example involve Monte Carlo analysis using both variances for individual ODIs and covariance's between ODIs. We expect companies to provide an explanation of how they have arrived at the appointee level P10 and P90 scenarios, including the underlying analysis where appropriate.

The table makes provision for companies to assume that some of the costs incurred (or saved) in the downside or upside scenarios are covered by uncertainty mechanisms such as interim determinations or the substantial effects clause within company licences.

In the case of the totex cost sharing mechanism, the gross impact before the adjustment for the sharing rate should be entered in the table i.e. if the totex low case results in an increase in expenditure of £50m this figure should be entered in the table.

The adjustment for say a 50% cost sharing rate would take place in the financial model. The £50m total impact would be split on a 50:50 basis between the company and its customers: £25m being retained in the financial model as the company's share of the overrun.

App28 Developer services (wholesale)

This table collects actual and forecast expenditure and activity information on developer services. We will use forecast information on expenditure, charges and activity to inform our assessment of costs for the network plus price controls.

Companies should exclude income from New Roads and Street Works Act 1991 (NRSWA) diversion schemes in lines 11 and 27 but include these in lines 12 and 28 Other contributions (non-price control). But for completeness, the costs associated with NRSWA schemes should be included in lines 3, 19 or 20 if they specifically relate to network reinforcement works to serve new developments and would contribute to the company's infrastructure charge.

The table also asks for information relating to a company's future programme of network reinforcement to serve new developments. We will use this information to understand how this has informed forecasts of revenue to be collected through the new redefined infrastructure charges.

Blocks B, F and lines 10, 12, 26 and 28 are consistent with the information included for the 2017-18 Annual Performance Report.

Blocks I and J capture the required information to apply the volume based correction mechanism for developer services, distinguishing contestable and non-contestable services for both water and wastewater. Block I asks incumbents to forecast their 2020-25 new water connection volumes and corresponding costs and revenues, while Block J is in relation to new wastewater connections. Each block has space for up to five bands, which incumbents are able to use to produce more granular forecasts than a simple average across all services – using volume banding of their choice. Where the incumbent does not populate all five bands, leave the remaining bands empty. We will use this enhanced information to provide appropriate revenue corrections at the end of the period.

App29 Wholesale tax

This table contains the assumptions used to drive the tax calculations in companies' financial projections.

Allowed tax will be calculated separately for water resources, water network, wastewater network and bioresources for the first time, as we will be setting separate price controls. Companies should separate the 'brought forward' pools in blocks A and B over the four controls. Opening capital allowance pool balances should reflect the actual full value available to companies and should not be adjusted to reflect the impact of any previous disclaimers etc.

For additions in the 2020-25 period, following feedback from companies we propose to move away from the simplified approach to calculating capital allowances used at PR14. Instead, to drive the capital allowance calculations, we require companies to supply the proportion of new capital expenditure for each control that qualifies for each of the following categories of general pool, long life pool, full deduction (100% pool), and no deduction. For the final methodology, we have added in an additional category to collect the proportion of expenditure that qualifies for a deduction based on depreciation.

In relation to deductible IRE we expect the tax calculation to reflect what is accounted for as operating expenditure. But we understand a minority of companies may have different arrangements with HMRC, so Block D in the table allows companies to include an adjustment if required.

App32 Weighted average cost of capital for the Appointee

This new table sets out company assumptions on the cost of capital at the appointee business level consistent with how we reported the weighted average cost of capital (WACC) in our methodology for the 2019 price review.

This table sets out parameter assumptions on the cost of capital applicable to the Appointee (i.e. both wholesale and retail units). Figures should represent the company's best estimate of average financing costs prevailing in the periods 2020-25 and 2025-30, respectively.

Companies are requested to provide parameter values on the basis of:

- an assumed 'notional' structure with levels of gearing consistent with the appropriate assumption for the notionally geared company.
- the company's presumed 'actual' circumstances, which might, for example, reflect a higher gearing compared to the notional company

We have set out details of both the notional capital structure and our initial view of the appointee and wholesale WACC for PR19 in our Final Methodology documents and Appendices.

App33 Wholesale operating leases reclassified under IFRS16

IFRS16 will impact on the reporting of operating leases in company accounts for reporting years from 1 January 2019 (where companies are required to adopt IFRS16). Information Notice 18/09 sets out our approach for operating leases that are currently in place, or are proposed to be in place by 31 March 2020, for PR19.

This new table captures the information necessary for us to capitalise operating leases in place at 31 March 2020 into the RCV, and the associated deductions from 2020-25 totex cost allowances. All companies, including those who report under IFRS102 should report information in this table in a consistent manner with IFRS16 to ensure consistency in our price setting approach. Companies should report the future cash cost payments associated with such leases in this table for relevant years, and according to the maturity profile of the relevant leases. For leases expiring after 31 March 2030, companies should calculate the future cash payments beyond 2030 and discount those payments to 31 March 2020 using the blended RPI/CPIH cost of capital that underpins the relevant price control. Companies should explain separately any assumptions made in reporting data, or performing the calculation for the present value of leases that expire after 2030. Consistent with the requirement of IFRS16, any element of the cash cost of leases that is related to service charges or maintenance contracts should continue to be recorded in opex and therefore excluded from this table. Cash flows should be stated at base year values discounted by forecast CPIH.

3.3 Costs

Cost assessment is a critical part of PR19. It is important that the business plans put forward by companies are affordable and the interests of customers is protected.

So that we can set an independent baseline estimate of required expenditure to deliver proposed performance commitments, we need to collect information on costs and volumes for a range of expenditure drivers – both for the 2015-20 and 2020-2025 price control periods. We will use this information to establish efficient baselines.

At the appointee level, there are four tables containing information relevant to cost assessment which we discuss below.

App21 Direct procurement for customers

This table collects data on those projects companies consider are suitable for Direct Procurement for Customers (DPC). We expect companies to use direct procurement for customers for suitable enhancement schemes with a whole-life totex value of more than £100 million. **Chapter 7 Targeted controls, markets and innovation: direct procurement for customers** of our methodology for the 2019 price review provides further guidance on potential direct procurement projects at PR19.

The table has capacity for companies to include 10 DPC schemes and report information on:

1. Development costs;
2. Procurement costs;
3. Contract management costs;
4. End of contract asset value; and
5. Expected capex and opex costs for the CAP.

We also require companies to report the expected value of their payments to the successful bidder (i.e. the revenue stream) over each year in the 2020-25 period. We require this to assess the customer bill impact of DPC schemes.

Further guidance on our proposed direct procurement policy, including these cost types, can be found in Appendix 9 Direct procurement for customers of our methodology for the 2019 price review.

For the avoidance of doubt, we expect companies to include all relevant costs for projects as follows:

- All costs and revenues for a CAP within table App21 only.
- All development, tendering and contract monitoring cost for DPC projects that will be incurred by the appointees from PR19 onwards in table APP21 and in the relevant wholesale water tables (WS1, WS2 and WS2a) and wholesale waste water tables (WWS1, WWS2 and WWS2a).
- If any of these developmental costs are planned to be spent in 2019-20 as transitional expenditure the costs should also be included in tables WS10 and WWS10
- The forecast end of contract asset value (line 4) should only be entered in the final year of the contract.

We only expect to fund transitional expenditure for appointee development costs for DPC schemes by exception. In addition to the requirements for transitional expenditure under tables WS10, and WWS10, companies will also have to provide evidence that this cost has not already been funded and justify why it requires accelerated expenditure for the delivery of the DPC scheme. Companies must also provide details on what this expenditure will be used for and what impact it will have if this expenditure is not provided in 2019-20.

App22 Pensions

This table asks for actual and forecast pension liabilities for the period 2012-13 to 2024-25. The table allows us to understand the accounting charge for pensions in companies' regulatory accounts and model cash contributions to the scheme in our price controls. The information requests data for both on-going service costs and deficit recovery payments.

App24 Input proportions

This table asks companies to report forecast proportions of expenditure for the following input price categories for each price control:

- labour;
- energy;
- chemicals;
- materials, plant, equipment; and

- other prices.

Table App 24 should be reported as percentages on the basis of total expenditure, including both operating expenditure and capital expenditure. The reported proportions of all input price categories should add up to 100%. We will use this information in our assessment of real price effects.

App24a Real price effects (RPEs) and efficiency gains

This table identifies real price effects and efficiency gains for each price control. We expect companies to provide evidence on how their assumptions were derived. We will use this information to set an ex ante allowance that reflects an efficient view of these assumptions, which will ensure allowances in the baselines are efficient.

The RPEs reflect companies' expectations of how much the costs would increase above CPIH due to macro-economic factors outside of the companies' direct control.

For wholesale services, the RPE of cost category 'c' in year 't' should be calculated as:

$RPEc,(\%)=(1+ IPIc,t(\%))/(1+ \text{CPIH}t(\%))-1$

Where IPI (input price inflation) is the absolute-level each cost category (e.g. operating expenditure), has increased in year t relative to the previous regulatory year.

For retail services, companies should provide the forecast of IPI (input price inflation) for each cost category rather than the RPE. This is because we do not index the retail control to the CPIH or any other inflation index. For the avoidance of doubt, and where applicable, costs reported in the wholesale expenditure tables[7] should **include** real price effects (RPEs) net of assumed efficiency gains. Costs reported in the retail expenditure tables[8] should include input price inflation net of assumed efficiency gains. We will use the information provided in App24 and App24a to adjust cost data for modelling purposes. Companies should be clear that we will be expecting significant efficiency gains and these should be reflected in the business plans submitted.

[7] For wholesale water tables WS1 to WS10 and where applicable Wr1, Wr2, Wr7 and Wr8. For wholesale waste water tables WWS1 to WWS10 and where applicable WWn1 to WWn5 and Bio1 to Bio3.
[8] For retail tables R1 to R5.

As a result of the query and clarification process, for retail services, we have amended the requirements to forecast IPI and efficiency gains for depreciation to forecast IPI and efficiency gains for capital expenditure.

3.4 Past delivery

In PR14 we set a series of incentive mechanisms. These incentive mechanisms will generate RCV and revenue adjustments for the next control period. The PR14 reconciliation rulebook explains how we will take account of performance over 2015-20, along with those factors not reconciled from the 2009 price review (PR09), at PR19.

The rulebook describes the approach to the reconciliation of the following mechanisms.

- Outcome delivery incentives – outperformance payments for companies that exceed their stretching performance commitment levels, and underperformance penalties for customers if performance is below their performance commitment levels. We published an Information Notice about the limited circumstances in which companies can change their outcomes.
- Wholesale total expenditure (totex) sharing – where a company's over and underperformance on totex is shared with customers.
- Wholesale revenue forecasting incentive mechanism (WRFIM) – financial incentives for companies to make accurate forecasts for wholesale revenue, ensuring under and over-recovery is reconciled.
- Water trading incentive – incentive payments for new water trades that start in the 2010-15 period.
- Residential retail – the total revenue allowance is adjusted for actual customer numbers.
- 2010-15 reconciliation – further adjustments for performance against the PR09 incentive mechanisms, to reflect the update for actual 2014-15 performance.
- Land disposals – adjusting the RCV to share any proceeds from disposals of interest in land equally with customers.

In addition the PR19 methodology consultation document describes the reconciliation for the service incentive mechanism (SIM).

Company performance in the 2015 to 2020 period will be taken into account in our initial assessment of business plans, as this will influence the confidence we have in company business plans and the future delivery of services to customers. We will take overall company past performance into account in assessing the achievability and deliverability of business plans.

Companies should develop a comprehensive plan, setting out their understanding of the drivers of their past performance (covering outcomes and performance commitments, timely and efficient investment, operation of the water and wastewater network, dealing with major incidents or service failures, if any, and how the company has communicated with its customers), the lessons they have learnt from this performance and the additional measures that they have put in place to ensure they will deliver their 2020-25 business plans. At the appointee level, there are six tables containing information relevant to the PR14 reconciliation and overall past delivery which we discuss below. Tables relating to other service specific mechanisms are covered later in this appendix.

Companies are required to complete three tables for the PR14 reconciliation of outcome delivery incentives:

Data table	Contents
App5	PR14 reconciliation – performance commitments
App6	PR14 reconciliation – sub-measures
App27	PR14 reconciliation – financial outcome delivery incentives summary

We do not require companies to complete the ODI spreadsheet from the PR14 reconciliation rulebook or the K factor model, which companies used for the in-period ODI submissions in 2016 and 2017. This is because the financial model will calculate companies' new revenue control limits, making the K factor model unnecessary, and because we have received feedback and have found ourselves that the ODI spreadsheets are not user friendly and we have replaced them with tables App5 and App6.

As explained in section 2.5, there are implications for the reconciliation of ODIs for Severn Trent Water and Dee Valley Water, which we will discuss with those companies.

App5 PR14 reconciliation – performance commitments

Table App5 is used to capture forecasts for performance levels and ODIs for the 2018-19 and 2019-20 reporting years. We are not requiring companies to populate the table with the actual performance levels and ODI amounts for the 2015-16, 2016-17 and 2017-18 reporting years. For these three years we will use the data that we have, or will have, previously collected in table 3A as part of the annual performance reporting process.

App6 PR14 reconciliation – sub-measures

Table App6 is used to capture forecasts for sub-measure performance levels for the 2018-19 and 2019-20 reporting years. We are not requiring companies to populate the table with the actual performance levels for the 2015-16, 2016-17 and 2017-18 reporting years. For these three years we will use the data that we have, or will have, previously collected in table 3B as part of the annual performance reporting process.

To accompany tables App5 and App6, companies should provide the following information in their commentary:

- For each financial ODI forecast, including those that are in the underperformance penalty or outperformance payment deadband, companies should explain the calculation steps. For example:

WW1 Pollution incidents	
Forecast year	2018-19
Performance commitment level	75
Forecast performance level	60
Performance commitment level met	Yes
Outperformance payment deadband	67
Outperformance payment incentive rate	£0.125m per pollution incident
Outperformance payment	= 67 (deadband) - 60 (forecast performance) = 7 * 0.125 = £0.875m

  This applies to both in-period and end-of-period ODI forecasts.

  For performance commitments with sub-measures, companies should explain how the ODI has been calculated in relation to the individual forecast sub-measure performance levels.

- Companies should confirm whether the amount that is being claimed for each ODI is the same as or different from the outperformance payment / underperformance penalty determined by their reported performance. For example a company might voluntarily forgo an outperformance payment because it reflects data improvements rather than actual performance improvements.
- Where the forecast ODI value in table App5 differs in any way from the automatic operation of the in-period ODIs as set out in the company's PR14 final determination company-specific appendix (subject to any amendments allowed

by Ofwat through corrigenda or recalibration of ODI rates), companies must provide all its evidence in support of this.

- Companies must explain the reasons behind any material changes in performance.
- We require companies to explain whether and how any mitigating factors (for example, weather, third party actions or exceptional events) have been applied to the actual or forecast performance for each ODI and its justification for applying these. In such cases, the company must provide assurance on its judgment that a mitigating factor applies and how it has been applied.
- Companies must explain whether there was any ambiguity in the definition of each of its ODIs, how the company interpreted the ambiguity and what assurance it obtained on its interpretation of the ambiguity.
- Where the company has identified issues with the past reporting of its data, the company must explain what impact it has had on its past reported figures. The company must explain how it has adjusted its ODI claim for any issues identified with the past reporting of its data.
- The company must confirm whether it has refined its methodology for reporting any of its performance commitments (for example, improving the accuracy of its calculation). Where the company has changed its approach it must estimate what impact this has had on its reported figures.

We require assurance that the information provided is accurate and complete. The company must explain what internal and external assurance, including from its customer challenge group (CCG), it has obtained for its ODI claim. The company must provide a full and accurate summary of the results of any audits carried out, outlining any issues that have arisen and what actions it is taking to rectify them.

App9 Adjustments to RCV from disposals of interest in land

This table derives the adjustment needed for the RCV for disposals of interest in land expected in the current control period 2015-20. The benefits of such proceeds are split 50:50 between the company and customers (on an NPV neutral basis). Actual disposals for 2014-15 are compared to the estimate used in PR14 and the difference adjusted at 1 April 2020. Disposals of interest in land include the creation of an interest or right in or over land – for example, the granting of leases and wayleaves. Proceeds from all such transactions are included.

App25 PR14 reconciliation adjustments summary

This table summarises all the further adjustments arising from the 2010-15 reconciliation updated for 2014-15 actual performance and from each of the PR14 reconciliations of performance in the period ending 31 March 2020. The table copies values entered in the tables for each of the PR14 reconciliation mechanisms.

App27 PR14 reconciliation – financial outcome delivery incentives summary

Table App27 provides a summary of the financial adjustments arising from the actual and forecast performance levels as calculated under the PR14 reconciliation rulebook methodology.

Companies should enter a summary of the financial adjustments arising from the actual and forecast performance levels as calculated under the PR14 reconciliation rulebook methodology.

The table includes both in-period and end-of-period adjustments with a breakdown by PR14 price control element and a breakdown by the proposed allocation to the PR19 price controls.

In relation to the allocation to PR19 price controls:

- We will apply revenue adjustments to the network plus control except where an ODI is wholly aligned to water resources, bioresources or retail.
- RCV adjustments for water will be applied to the network plus control except where an ODI is wholly aligned to water resources.
- RCV adjustments for wastewater will be applied in full to wastewater network plus in full.

In relation to the in-period ODIs for the three companies with in-period ODIs in 2015-20, those three companies should complete the in-period ODI blocks with the actual amounts determined by Ofwat in December 2016 (for 2015-16) and December 2017 (for 2016-17) for each price control. Companies should also include forecasts for 2017-18, 2018-19 and 2019-20. However when completing the “total to be applied at PR19” column companies should be careful to ensure they only enter the amount they want to claim for PR19. We will carry out in-period ODI determinations in December 2018 and December 2020 where some of the forecast ODI payments will be determined.

In relation to the end-of-period ODIs companies should show how they accrue year by year, where appropriate, and confirm, in the “total to be applied at PR19” column, the adjustments they want to make to the various PR19 controls.

For all companies we expect table App27 to be consistent with the information submitted in tables App5 and App6. If this is not the case a company must provide a full explanation. One reason could be that a company has reached the aggregate cap or collar on ODIs in 2015-20 of ±2% RoRE.

App31 Past performance

This table is relevant to the assessment of past performance and contains information that is not captured in other data tables associated with the PR14 reconciliations.

Table App31 provides information on how well the company is performing and is forecast to perform over the 2015-20 period. Either in the table commentary or in the business plan itself companies should set out their understanding of the drivers of their past performance, the lessons they have learnt from this performance and the additional measures they have put in place to ensure they maintain confidence that they can successfully deliver their 2020-25 business plans.

On customer complaints companies should provide details of each incident escalated to CCWater or Ofwat or WATRS[9]. As a result of the query and clarification process, we have included a new line to report investigations opened up by CCWater and have referenced the CCWater End of Year Complaints and Enquiries report. Companies should also identify where complaints have been upheld by WATRS and Ofwat.

On major incidents, companies should provide a brief description of each major incident giving details of the nature, duration and scale of the disruption.

In relation to compliance with EA/NRW statutory requirements companies should provide a brief description of each category 1 and 2 pollution incident. For category 3 pollution incidents and compliance with discharge permits and sludge disposal companies should comment on the trend in actual and forecast performance.

In relation to compliance with DWI statutory requirements companies should comment on the trend in actual and forecast performance.

[9] The Water Redress Scheme who independently settle disputes between customers and the water and sewerage companies or suppliers of England and Wales.

In relation to completed prosecutions by the EA/NRW, DWI or Ofwat, companies should provide brief details of each completed prosecution, caution or undertaking.

3.5 Targeted controls, markets and innovation

App30 Void properties

We have decided stronger and more targeted incentives are required in relation to voids, because this would lead to fairer bills and improved affordability for the existing customers.

We expect water companies to come forward with bespoke performance commitments to manage their voids and gap sites for the residential market and business market or explain why they have not. We also expect water companies' business plans to clearly explain their void numbers and how they plan to manage voids and identify and manage gap sites in both the residential market and business market. We will make this part of our assessment in our initial assessment of business plans.

To help us to challenge companies' approach for the benefit of consumers, we will collect data on voids in the residential and business market, so we can:

- understand companies' historic and forecast voids;
- compare companies using consistent data; and
- compare companies' voids to their total number of connected properties, which is collected in a similar format.

We may also consider information on residential void properties as part of our assessment of company retail costs.

As stated above, the incentives cover both the residential and business market. Exited retailers in England are not covered by PR19. Therefore, to ensure we collect all the required data, we have decided to collect this information through an additional, appointee level table.

We recognise water only companies may not be able to populate some of this table where it relates to wastewater customers.

4 The wholesale water service tables

There are 16 data tables for the wholesale water service (prefixed WS), eight specific tables for the water resource price control (prefixed Wr) and six for the network plus price control (prefixed Wn). We discuss each table under the policy areas of costs, RCV allocation, risk and return and past delivery.

Table 3 Wholesale water service tables

Policy area	Table number	Contents	Purpose
Costs	WS1	Wholesale water operating and capital expenditure by business unit	Setting baselines (wholesale cost assessment)
	WS1a	Wholesale water operating and capital expenditure by business unit including operating leases reclassified under IFRS16	
	WS2	Wholesale water capital and operating enhancement expenditure by purpose	
	WS2a	Wholesale water cumulative capital enhancement expenditure by purpose	
	WS3	Wholesale water properties and population	
	WS4	Wholesale water other (explanatory variables)	
	WS5	Other wholesale water expenditure	
	WS7	Wholesale water local authority rates	
	WS8	Third party costs by business unit for the wholesale water service	
	WS10	Transitional spending in the wholesale water service	
RCV allocation	WS12	RCV allocation in the wholesale water service	Financial modelling
	WS12a	Change in RCV allocation in the wholesale water service	
Past delivery	WS13	PR14 wholesale revenue forecast incentive mechanism for the water service	Reconciling 2015-20 performance
	WS15	PR14 wholesale total expenditure outperformance sharing for the water service	
	WS17	PR14 water trading incentive reconciliation	
Summary information	WS18	Explaining the 2019 Final Determination for the water service	External communication

Notes:
Tables WS6, WS9, WS11, WS12b, WS14 and WS16 are not used.
We have replaced draft consultation table WS14 PR14 outcome delivery incentive reconciliation for the water service with App27.

We have replaced final methodology table WS9 Wholesale water special cost factors with separate tables for water resources (Wr8) and water network plus (Wn6).
We have removed table WS12b Wholesale water charges impact assessment.

Table 4 Wholesale water resource tables

Policy area	Table number	Contents	Purpose
Costs	Wr1	Wholesale water resources (explanatory variables)	Setting baselines (wholesale cost assessment)
	Wr2	Wholesale water resource opex	
	Wr8	Wholesale water resources special cost factors	
	Wr3	Wholesale revenue projections for the water resources price control	Financial modelling
	Wr4	Cost recovery for water resources	
	Wr6	Water resources capacity forecasts	Form of control and access pricing for the bilateral market
	Wr7	New water resources capacity ~ forecast cost of options beginning in 2020-25	
Risk and return	Wr5	Weighted average cost of capital for the water resources control	Financeability tests

Notes:
We have removed draft consultation table Wr8 Water resources forecast charging and equalisation payments. We provide further detail on our reasons for this in Appendix 5 Water resources control of our methodology for the 2019 price review. We have included a new table Wr8 to capture water resource special cost factors.

Table 5 Wholesale water network plus tables

Policy area	Table number	Contents	Purpose
Costs	Wn1	Wholesale water treatment (explanatory variables)	Setting baselines (wholesale cost assessment)
	Wn2	Wholesale water distribution (explanatory variables)	
	Wn6	Wholesale water network plus special cost factors	
	Wn3	Wholesale revenue projections for the water network plus price control	Financial modelling
	Wn4	Cost recovery for water network plus	
Risk and return	Wn5	Weighted average cost of capital for the water network plus control	Financeability tests

Notes:
We have included a new table Wn6 to capture water network plus special cost factors.

4.1 Water service costs (cost assessment)

Cost assessment is a critical part of PR19. It is important that business plans put forward by companies are affordable and the interests of customers are protected.

We are requiring historic and forecast information. This will provide a continuous data set over a period of time, which will enable our view on the efficiency of costs for PR19.

We have worked with water companies, using working groups to develop data tables. Our tables for the final Business Plan closely align with the Information Requests issued in 2016 and 2017. We have also aligned our tables with the Annual Performance Report (APR) for 2017-18 published November 2017.

There are 16 tables containing information relevant to cost assessment in the water service which we discuss below.

WS1 Wholesale water operating and capital expenditure by business unit

This table asks for a breakdown of actual and forecast water operating expenditure and capital expenditure by business unit for the period 2017-18 to 2024-25.

The main purpose of this table is to identify capital and operating expenditure for wholesale water.

In Block D we have included 10 spaces for atypical items – making it consistent with previous information requests and the current Annual Performance Report.

For forecast years (2018-19 onwards) companies must clearly explain why the item disclosed in Block D is atypical and why it is appropriate not to include it in the previous lines.

If companies choose to forecast atypical items in Block D they must provide details in their commentary. Companies must also clearly explain whether the nature of the atypical item is an operating or capital expense.

Where applicable please ensure values are consistent elsewhere within the cost assessment wholesale water tables.

We expect companies to include in their business plans forecasts of expenditure they will incur in the planning and administration of their expected DPC schemes. These are the development, procurement and contract management costs. These costs should be included in tables WS1, WS2, WS2a and WS10 as appropriate.

Companies should not include in the wholesale expenditure tables any costs forecast to be incurred by the competitively appointed provider.

WS1a Wholesale water operating and capital expenditure by business unit including operating leases under IFRS16

This new table is identical to table WS1 but asks for a breakdown of actual and forecast water operating expenditure and capital expenditure by business unit for the period 2017-18 to 2024-25 on the basis that IFRS16 had not been implemented. This will allow us to understand the impact of IFRS16 on reported forecast costs in 2020-25.

We provide further detail in IN 18/09 Guidance for reporting operating leases in PR19 business plans published 21 May 2018.

WS2 Wholesale water capital and operating enhancement expenditure by purpose

This table asks for actual and forecast water capital enhancement expenditure and associated operating expenditure by purpose and split by business unit for the period 2017-18 to 2024-25.

The table (and other similar expenditure tables for the water, wastewater and dummy controls) allows companies to identify i) other purpose categories of expenditure not covered by those listed in the table or ii) expenditure which is covered by the standard lines in the table but which the company considers beneficial to distinguish separately.

In either case the company should explain in its commentary its reasons for using the additional lines. We have increased the number of available lines from 10 to 15 to be consistent with the 2018 APR table.

Assuming no atypical costs we expect the total capital expenditure as reported in line 39, table WS2 to agree to the sum of lines 14 to 16 of table WS1. If total capital expenditure in line 32 does not agree to lines 14 to 16 companies should provide a reconciliation such that the difference is explained.

WS2a Wholesale water cumulative capital enhancement expenditure by purpose

This table calculates cumulative values of actual and forecast expenditure based on the inputs to table WS2. Calculating cumulative totals allows us to relate spend by project to outcomes. Companies should report the cumulative total for projects completed. A simple example below demonstrates how it works.

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

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

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

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

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

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

We have removed guidance relating to the transition programme as this is not relevant to the values to be input into this table.

Overlap schemes

Overlap schemes are projects on which capital expenditure is incurred across control periods.

In the case of expenditure incurred before the control period, any pre-control period capex will contribute toward the 'Cumulative Totals' but NOT the 'Year Totals'.

In the case of expenditure after the end of the control period, any within-control period spend will contribute toward the 'Year Totals' but NOT the 'Cumulative Totals.'

WS3 Wholesale water properties and population

This table asks for actual and forecast numbers of properties and residential and business properties along with activity information for the period 2017-18 to 2024-25. The table captures the physical characteristics of companies' wholesale water activities.

WS4 Wholesale water other (explanatory variables)

This table asks for actual and forecasts relating to maintaining a supply demand balance for the period 2017-18 to 2024-25. The table captures additional non-financial data which we will use in assessing costs. As a result of the query and clarification process, we changed the line definition for lead communication pipes and removed the peaking factor line as we no longer need this information.

WS5 Other wholesale water expenditure

This table asks for a breakdown of actual and forecast total expenditure on wholesale water assets for the period 2017-18 to 2024-25. This information will be used to derive unit costs.

For Block A, please note Employment costs for lines 1 and 2 should be reported on a total expenditure basis.

For Block B we expect the sum of lines 6 to 8 to agree with "Abstraction Charges / Discharge Consents" in line 3 of table WS1. If the values do not agree companies should provide a reconciliation such that the difference is explained.

WS7 Wholesale water local authority rates

This table asks for actual and forecast business rates for the water service for the period 2017-18 to 2024-25. Companies are able to include an additional 3 lines to cover other types of adjustment to their wholesale water business rates.

WS8 Third party costs by business unit for the wholesale water service

This table collects actual and forecast data on third party costs by wholesale water business units for the period 2017-18 to 2024-25. We will use this information to assess financeability and to ensure these costs are excluded from our benchmarking models.

As a result of the query and clarification process, we have updated this table to split out third party costs by both operating and capital expenditure and those included in the price control and those outside of the price control. We expect the sum of lines 4 and 14 to equal WS1 line 10 and the sum of lines 18 and 28 to equal WS1 line 18.

WS10 Transitional spending in the wholesale water service

This table allows companies to identify any accelerated (or transition) water capital expenditure they would like to make in the last year of the current price control period (2015-20). Such expenditure must contribute to the early delivery of outcomes proposed for the next price control period (2020-25).

Transition expenditure can only be associated with delivering the future investment programme for the water network price control. But in exceptional circumstances, we will also allow the transition programme in the water resources control. Expenditure must be compiled on the same basis, using the same process and approaches, as the forecasts of expenditure reported in tables WS1 and WS2.

Companies will need to provide independent assurance and justification to demonstrate that the schemes being put forward under this mechanism are efficiently associated with performance commitments to be delivered in the next price control period.

Wr1 Wholesale water resources (explanatory variables)

This table asks for information on explanatory variables relating specifically to water resources which we will use to develop cost assessment models.

As a result of the query and clarification process, we have added lines to capture water from future saline abstractions and water reuse schemes. We also now require companies to report the amount of water (Ml/d) abstracted from each source type in this table rather than the proportion (%) of distribution input derived from each source type, this information is now captured in table Wn2.

We have moved the lines for the number of raw water transport stations, capacity of raw water transport pumping stations and average pumping head ~ raw water transport to table Wn1 as these items are part of the network plus rather than the water resources price control.

To assist our future work on water resources and water trading we have added lines to capture the numbers and volumes of imports to and exports from raw water abstraction.

Wr2 Wholesale water resource opex

This table provides further analysis of operating expenditure for water resources.

Assuming no atypical expenditure, we expect power costs (line 1), income treated as negative expenditure (line 2) and local authority / cumulo rates (line 3) to agree with the relevant lines in table WS1. If they do not agree companies should provide a reconciliation such that the difference can be explained.

As a result of the query and clarification process, we have added a column to capture the operating costs for 'other' water resources.

Wr8 Wholesale water resources special cost factors

This new table allows companies to identify any costs that they consider should be excluded from comparative cost modelling (special cost claims) for the wholesale water resources price control.

Companies will be able to provide details for up to 8 proposed costs that they think should be excluded from our comparative cost assessment modelling, the cost performance incentives or the general risk framework. The table allows companies to provide some high level information on cost adjustment claims for water resources.

We consider that in many cases, companies can and should mitigate and avoid the need for cost adjustment claims. We expect companies to use the cost adjustment process responsibly, and raise cost adjustment claims only where there is convincing evidence that an adjustment is required and take an 'in the round' view.

We will consider the quality of claims and a company's approach to the process. Other things being equal, a company that raises cost adjustment claims only where necessary, and where the claims are well evidenced and efficient, is likely to score higher in the cost efficiency test than a company that uses the process less carefully, and whose claims are unwarranted and of low quality.

Companies should therefore consider the impact claims may have on their business plan categorisation under the initial assessment of business plans.

Wn1 Wholesale water treatment (explanatory variables)

This table asks for information on explanatory variables relating specifically to water treatment which we will use to develop cost assessment models.

As a result of the query and clarification process, we have renamed the size band guidance table ‘Maximum production capacity (Ml/d), and we have corrected the size band signage.

We have moved the lines capturing raw water transport information to Wn1 from Wr1 as raw water transport sits within the network plus price control.

To assist our future work on water resources and water trading we have added lines to capture the numbers and volumes associated with raw water transport and water treatment imports and exports.

Wn2 Wholesale water distribution (explanatory variables)

This table asks for information on explanatory variables relating specifically to water distribution which we will use to develop cost assessment models.

As a result of the query and clarification process, we have added lines to capture water from future saline abstractions and water reuse schemes. We now require companies to report the proportion (%) of distribution input derived from each source type in Wn2, rather than in Wn1.

To assist our future work on water resources and water trading we have added lines to capture the numbers and volumes of imports to and exports from treated water distribution.

Wn6 Wholesale water network plus special cost factors

This new table is identical to table Wr8, except that it identifies costs that companies consider should be excluded from comparative cost modelling (special cost claims) for the water network plus price control.

We consider that in many cases, companies can and should mitigate and avoid the need for cost adjustment claims. We expect companies to use the cost adjustment process responsibly, and raise cost adjustment claims only where there is convincing evidence that an adjustment is required and take an ‘in the round’ view.

We will consider the quality of claims and a company’s approach to the process. Other things being equal, a company that raises cost adjustment claims only where necessary, and where the claims are well evidenced and efficient, is likely to score higher in the cost efficiency test than a company that uses the process less carefully, and whose claims are unwarranted and of low quality.

Companies should therefore consider the impact claims may have on their business plan categorisation under the initial assessment of business plans.

4.2 Other water service cost information

Wr3 Wholesale revenue projections for the water resources price control

This table breaks down total revenues that a company expects to receive in providing wholesale water resource services and cross checks this revenue requirement against the total income the company expects to recover from retail and business customers' charges.

The table also asks for projected income from 3rd parties and income from outside the price control associated with providing water resource services.

As a result of the query and clarification process, we have restructured this table and equivalent tables Wn3, WWn5, Bio4 and Dmmy7. We have also included a new line in block A for re-profiling of allowed revenue over the 2020-25 period.

Block A, line 1 calculates water resource PAYG revenue based on forecast totex from table WS1 multiplied by the PAYG rate for water resources calculated in table Wr4.

Line 2 asks for projected revenue contributions to repair pension deficits.

Lines 3 and 4 ask for projected revenue based on the run-off and returns on companies' investment in the post 2020 RCV. Lines 5 to 8 ask for projected revenues based on the run-off and returns on the proportions of the RCV in place at 31 March 2020 that is indexed either by RPI or CPIH. Line 9 asks for projected tax and new line 10 allows companies to record the impact of re-profiling allowed revenue over the period. Line 11 asks for the PR14 reconciliation adjustments associated the water resources. The total wholesale water resources revenue requirement is then calculated in line 12.

Block B contains just one line 13 and asks for other price control income from providing services to 3rd party services.

Blocks C and D ask for projected non-price control income associated with water resources. In block C, we have separated bulk supplies into two lines, distinguishing between revenue from qualifying agreements signed before or on/after 1 April 2020.

The lines in block E ask companies to include projected allowed revenue from measured and unmeasured charges. The overall total in line 24, equals the total water resources revenue requirement in line 12 less other 3rd party price control income in line 13 and non-price control income in lines 18 and 19.

Block F asks for the element of grants and contributions associated with water resources for both price control and non-price control as reported in the developer services table App28.

Line 27 calculates the total price control revenue for the wholesale water resources control.

Wr4 Cost recovery for water resources

This table asks companies to provide their PAYG rates relevant to the water resources revenue projected in table Wr3. These should be expressed as a percentage of totex forecast in each year.

It also asks companies to provide their proposed run off rates for both the proportion of the RCV which is indexed by RPI and the proportion of the RCV which is indexed by CPIH.

Totex expenditure which is not recovered in the period through PAYG is to be added to “Post 2020 Investment”. We are asking companies to provide run off rates for this too.

For each of the PAYG and run off rates which are included in the table we are asking companies to provide a breakdown of the proposed rate which should be analysed as follows:

- the “natural rates” - rates which reflect the economic substance of the investment;
- any adjustments companies consider are required to address issues arising from the transition from RPI to CPIH as the primary inflation index; and
- adjustments that companies wish to make to enable them to address other issues, including the smoothing of bills.

We are asking companies to provide annual figures for each PAYG and run off rate and to provide justification for the rates that they have chosen.

In respect of the run off rates companies could also confirm if they wish to apply these on a straight line or a reducing balance basis and to explain their choices.

The table asks for PAYG rates for 2020-25 and expected PAYG rates for 2025-30. The information for 2025-30 is required to help us assess the expected change in bills after 2025.

Wr6 Water resources capacity forecasts

This focuses on capacity forecasts (measured in water resources yield) for the water resources control and looks over a 25 year period consistent with water resources planning. The first part of the table summarises company level information for forecast water resources capacity which should be a sum of all company water resource zones (WRZs) across all of its licensed areas. The second part captures the breakdown of capacity forecasts across individual WRZs.

As a result of the query and clarification process, we have added additional guidance to clarify that rather than cumulative totals, the post-2020 capacity should be the total available up to and including the year being reported. For example, if 20Ml/d of new capacity was available in 2020-21, then the reported post-2020 capacity for that year would be 20Ml/d. If a further 10Ml/d is made available in 2021-22, then that years reported post-2020 capacity would be 30Ml/d.

Wr7 New water resources capacity ~ forecast cost of options beginning in 2020-25

This table captures annualised unit costs for post-2020 capacity reported on a water resource zone (WRZ) basis. As a result of the query and clarification process, we have increased reporting in the table from 12 to 15 WRZs and for the first 3 WRZs, we have increased the number of cost of options from 3 to 12.

The forecast costs of options which are (1) planned to begin (i.e. costs will be incurred) during 2020-25 and (2) will increase water resources capacity (measured in water resources yield); and therefore contribute to the annualised unit cost calculation are also captured here. The table is on a WRZ basis and looks over a 25 year period consistent with water resources planning. The benefits, in terms of capacity and the costs of each option within the WRZ should be reported, including a detailed breakdown of water resources capex costs by asset type (e.g. civils). The individual option data is then totalled for a WRZ. To support companies an illustrative example and an explanatory note for annualised unit costs calculation, developed by Reckon, has been published with our PR19 methodology documentation.

Wn3 Wholesale revenue projections for the water network plus price control

This table is identical to table Wr3, except that it covers the water network plus price control and the run-off and return post 2020, is based on totex additions to the RCV.

Wn4 Cost recovery for water network plus

This table is identical to table Wr4, except that there is no totex to be recovered outside the PAYG rates relevant to water network plus assets.

4.3 RCV allocation in the water service

WS12 RCV allocation in the water service

This table allows companies to set out the roll forward of the net MEAV[10] and its proposal of the wholesale water RCV allocation.

Companies should consider the guidance provided in 'Water resources pre-2020 legacy RCV allocation at PR19 – technical guidance' when completing this table and take account of the feedback that we provided on its January 2018 initial submission in 'Initial proposals on water resource RCV – feedback to companies'.

WS12a Change in RCV allocation in the wholesale water service

This table asks companies to explain the differences between its proposed RCV allocation and that which it proposed in its initial submission in January 2018.

WS12b Wholesale water charges impact assessment (no longer required)

We have previously requested that all companies provide standard information on 2017-18 revenues and volumes allocated between water resources and water network plus, and where appropriate bioresources and wastewater network plus.

Companies provided initial submissions on their RCV allocation, including completing this data table. Based on these initial submissions, we consider that tables WS12b (and WWS12a) are no longer required for two reasons:

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[10] MEAV stands for the Modern Equivalent Asset Value and represents the cost of replacing water industry assets with those of similar capabilities.

- Information companies provided in their initial submissions has helped us to have confidence that the proposed RCV allocation will not have a significant impact on most customer bills. As we are satisfied that bills for the majority of customers will not be impacted by the RCV allocation there is little value in companies providing information for us to review the bill impacts of all customers.
- Companies have used a degree of judgement to allocate depreciation charges across controls. The choice of allocation method can have a significant impact on results. However ultimately bills will be affected by the choice of RCV run off post 2020 and not the allocation of past depreciation, and so this information was not useful to help us understand bill impacts understand bill impacts.

Instead we expect companies to explain how they have identified if the bills of any customer are at potential risk of significant impact from the allocation of the RCV. Further details are provided in our Initial proposals on water resource RCV allocations– feedback to companies.

4.4 Risk and return in the water service

Wr5 Weighted average cost of capital for the water resources control

This table sets out company assumptions on the cost of capital applying to the provision of wholesale water resources. Figures should represent the company's view of average financing costs for the periods 2020-25 and 2025-30. Companies should provide this on the basis of:

- an assumed 'notional' structure for the control, with levels of gearing consistent with the company's view of the WACC parameters which would characterise this control for the notional company; and

- an assumption of the 'actual' WACC which would prevail for this control based on the company's presumed actual circumstances over the respective time period. This could for instance reflect a higher gearing compared to the notional company.

We stated in our early view that, for 2020-25, the cost of capital, and its components, will be consistent across the wholesale price controls. However, we would expect asset beta in the wholesale controls to be slightly lower than for the appointee, given the lower exposure to systematic risk from retail business risks. Companies who agree with this assessment from our early view should back solve for the asset beta which sets the wholesale control-level WACC to that of the whole-company wholesale WACC, keeping all other inputs consistent with how they are stated in App32.

Where parameter values provided by companies in this table vary from those provided for the Appointee in App32, companies should provide a written commentary explaining why this is the case.

Wn5 Weighted average cost of capital for the water network plus control

This table sets out company assumptions on the cost of capital for the provision of wholesale water network plus assets. The format of the table is the same as Wr5 and so the same guidance applies.

Where parameter values provided by companies in this table vary from those provided for the Appointee in App32, companies should provide a written commentary explaining why this is the case.

4.5 Past delivery in the water service

Part of PR19 will be the calculation of the reconciliation adjustments to take account of past performance and PR14 incentives. There are three tables containing information relevant to the wholesale water controls.

As explained in section 2.5, there are implications for the reconciliation of ODIs for Severn Trent Water and Dee Valley Water, which we will discuss with those companies.

WS13 PR14 wholesale revenue forecast incentive mechanism for the water service

This table contains the water service inputs used for populating the PR14 WRFIM model and the revenue adjustment arising as calculated by the WFRIM model. The WRFIM model calculates in outturn prices and is converted to 2017-18 prices in the revenue adjustments feeder model.

As a result of the query and clarification process, we have reviewed the lines in the table and have included some new lines to fully align the table with the WRFIM model and the annual performance report table 2I Revenue analysis and wholesale control reconciliation.

We expect companies to publish their populated WRFIM models with associated explanation with the annual performance reporting in July 2018.

WS15 PR14 wholesale total expenditure outperformance sharing for the water service

This table contains the water service inputs used for populating the totex menu model and the total outperformance / (underperformance) adjustments arising as calculated by the totex menu model. The totex menu model calculates in 2012-13 prices and the adjustments are converted to 2017-18 prices in the revenue adjustments feeder model and the RCV adjustments feeder model.

We expect companies to publish their populated totex menu models with associated explanation with the annual performance reporting in July 2018.

WS17 PR14 water trading incentive reconciliation

This table contains the water service inputs used for populating the water trading incentive reconciliation model and the incentive payments arising as calculated by the water trading incentive reconciliation model. The water trading incentive reconciliation model calculates in 2012-13 prices and is converted to 2017-18 prices in the revenue adjustments feeder model.

We expect companies to publish their populated water trading incentive models with associated explanation with the business plan in September 2018.

4.6 Summary information

For this review, we are seeking to obtain consistent information on which to clearly explain what the final determinations mean for customers and stakeholders in England and Wales. Rather than create all this key information from the business plans after they have been submitted to us, we are proposing to identify and collect some of the information in advance, in collaboration with the industry. That way, we can ensure consistency and comparability of the information when deriving the industry picture.

WS18 Explaining the 2019 Final Determination for the water service

In this table we have included some key information for the water service focussed around the key themes of PR19. We think customers and stakeholders would find these useful to explain what the final determination will deliver at an industry level.

The table includes actual delivery in years 2015-16 to 2018-19 for comparison with company forecasts for 2019-20 to 2024-25. Actual information should be consistent with the company's Annual Performance Report where relevant. For forecast information, we expect that companies will be able to populate many of the lines either from data directly input into other tables or from information contained within their narratives.

As a result of the query and clarification process, we have refined the definitions for the number of contacts about drinking water, the volume of water traded, the length of river improved, the number of catchment management schemes and the change in the average residential customer water bill. We have also removed the number of water performance commitments since we can more accurately obtain this information from table App1.

We are collecting one item on customer engagement. This is the number of customers companies have engaged with during PR19. The engagement is through all forms of customer engagement such as focus groups, surveys etc over the period from 2015-16 to 2018-19. We are collecting this statistic from companies because we were asked about the extent of customer engagement at PR14 and we want to have this figure available at PR19. We recognise that the raw number of customers engaged with is a simple metric and does not reflect the depth of engagement that occurred. We propose to use this figure for engagement and briefing purposes rather than assessment purposes.

5 The wholesale wastewater service

There are 14 data tables for the wholesale wastewater service (prefixed WWS), eight specific tables for the network plus (prefixed WWn) and seven for the bioresources price control (prefixed Bio). We discuss each table under the policy areas of costs, RCV allocation, risk and return and past delivery.

Table 6 Wholesale wastewater service tables

Policy area	Table number	Contents	Purpose
Costs	WWS1	Wholesale wastewater operating and capital expenditure by business unit	Setting baselines (wholesale cost assessment)
	WWS1a	Wholesale wastewater operating and capital expenditure by business unit including operating leases reclassified under IFRS16	
	WWS2	Wholesale wastewater capital and operating enhancement expenditure by purpose	
	WWS2a	Wholesale wastewater cumulative capital enhancement expenditure by purpose	
	WWS3	Wholesale wastewater properties and population	
	WWS4	Wholesale wastewater other (explanatory variables)	
	WWS5	Other wholesale wastewater expenditure	
	WWS7	Wholesale wastewater local authority rates	
	WWS8	Third party costs by business unit for the wholesale wastewater service	
	WWS10	Transitional spending in the wholesale wastewater service	
RCV allocation	WWS12	RCV allocation in the wastewater service	Financial modelling
Past delivery	WWS13	PR14 wholesale revenue forecast incentive mechanism for the wastewater service	Reconciling 2015-20 performance
	WWS15	PR14 wholesale total expenditure outperformance sharing for the wastewater service	
Summary information	WWS18	Explaining the 2019 Final Determination for the wastewater service	External communication

Notes:
Tables WWS6, WWS9, WWS11, WWS12a, WWS14, WWS16 and WWS17 are not used.
Tables WWS1 (Dmmy1), WWS2 (Dmmy2), WWS4 (Dmmy3), WWS9 (Dmmy4), WWS10 (Dmmy5) will be required for the Thames Tideway Tunnel (Dummy control).
We have replaced final methodology table WWS9 Wholesale wastewater special cost factors with separate tables for wastewater network plus (WWn8) and bioresources (Bio7).
We have removed table WWS12a Wholesale wastewater charges impact assessment.

Table 7 Wholesale wastewater network plus tables

Policy area	Table number	Contents	Purpose
Costs	WWn1	Wholesale wastewater sewage treatment operating expenditure	Setting baselines (wholesale cost assessment)
	WWn2	Wholesale wastewater large sewage treatment works explanatory variables and operating expenditure	
	WWn3	Wholesale wastewater network (explanatory variables)	
	WWn4	Wholesale wastewater sewage treatment (potential explanatory variables)	
	WWn8	Wholesale wastewater network plus special cost factors	
	WWn5	Wholesale revenue projections for the wastewater network plus price control	Financial modelling
	WWn6	Cost recovery for wastewater network plus	
Risk and return	WWn7	Weighted average cost of capital for the wastewater network plus control	Financeability tests

Notes:
Tables WWn3 (Dmmy6), WWn5 (Dmmy7), WWn6 (Dmmy8) and WWn7 (Dmmy9) will be required for the Thames Tideway Tunnel (Dummy control).

Table 8 Wholesale bioresources tables

Policy area	Table number	Contents	Purpose
Costs	Bio1	Wholesale wastewater sludge (explanatory variables)	Setting baselines (wholesale cost assessment)
	Bio2	Wholesale wastewater sludge treatment process and disposal routes	
	Bio3	Wholesale wastewater sludge opex	
	Bio7	Wholesale wastewater bioresources special cost factors	
	Bio4	Wholesale revenue projections for the wastewater bioresources price control	Financial modelling
	Bio5	Cost recovery for bioresources	
Risk and return	Bio6	Weighted average cost of capital for the bioresources control	Financeability tests

5.1 Wastewater service costs (cost assessment)

Cost assessment is a critical part of PR19. It is important that business plans put forward by companies are affordable and the interests of customers are protected.

Our approach for the wastewater service is the same as that described for the water service in section 4.1. We need to establish an independent baseline estimate of wastewater expenditure and will need accurate historic and forecast information on costs and volumes for a range of expenditure drivers to develop our cost assessment approach.

There are 19 tables containing information relevant to cost assessment in the wastewater service which we discuss below.

WWS1 Wholesale wastewater operating and capital expenditure by business unit

This table asks for a breakdown of actual and forecast wastewater operating expenditure and capital expenditure by business unit for the period 2017-18 to 2024-25.

The main purpose of this table is to identify capital and operating expenditure for wholesale wastewater.

In Block D we have included 10 spaces for atypical items – making it consistent with previous information requests and the current Annual Performance Report.

For forecast years (2018-19 onwards) companies must clearly explain why the item disclosed in Block D is atypical and why it is appropriate not to include it in the previous lines.

If companies choose to forecast atypical items in Block D they must provide details in their commentary. Companies must also clearly explain whether the atypical item is an operating or capital expense.

Where applicable companies must ensure values are consistent elsewhere within the cost assessment wholesale wastewater tables.

We expect companies to include in their business plans forecasts of any expenditure they will incur in the planning and administration of their expected DPC schemes. These are the development, procurement and contract management costs. These costs should be included in tables WWS1, WWS2, WWS2a and WWS10 as appropriate. Companies should not include in the wholesale expenditure tables any costs forecast to be incurred by the competitively appointed provider.

WWS1a Wholesale wastewater operating and capital expenditure by business unit including operating leases under IFRS16

This new table is identical to table WWS1 but asks for a breakdown of actual and forecast wastewater operating expenditure and capital expenditure by business unit for the period 2017-18 to 2024-25 on the basis that IFRS16 had not been implemented. This will allow us to understand the impact of IFRS16 on reported forecast costs in 2020-25.

We provide further detail in IN 18/09 Guidance for reporting operating leases in PR19 business plans published 21 May 2018.

WWS2 Wholesale wastewater capital and operating enhancement expenditure by purpose

This table asks for actual and forecast wastewater capital enhancement expenditure and associated operating expenditure by purpose and split by business unit for the period 2017-18 to 2024-25. The table (and other similar expenditure tables for the water, wastewater and dummy controls) allows companies to identify i) other purpose categories of expenditure not covered by those listed in the table or ii) expenditure which is covered by the standard lines in the table but which the company considers beneficial to distinguish separately.

In either case the company should explain in its commentary its reasons for using the additional lines. We have increased the number of available lines from 10 to 15 to be consistent with the 2018 APR table.

In completing this table companies should allocate costs according to the driver as described in the line definition rather than the solution employed to meet the objective. Thus, for example, if a company chooses to meet a Habitats Directive-driven phosphorus consent at a filter bed works by closing the works and transferring flows for treatment elsewhere rather than installing a P removal process at the works, costs should be reported in lines 19 and 66 rather than in lines 22 and 69 (or in the additional lines at the bottom of blocks A and B).

Assuming no atypical costs, we expect total capital expenditure as calculated in line 47, WWS2 to agree with the sum of lines 14 to 16 in table WWS1. If the values do not agree companies should provide a reconciliation such that the difference can be explained.

The line definitions in Block I of table WWn4 require that the population equivalent (p.e.) data should be entered in the year of scheme delivery i.e. the same year in which the cumulative capital cost of the scheme is reported in table WWS2a. We recognise however that, on occasion, a company may incur capex on an enhancement scheme in a year after that in which full beneficial use of the scheme is first made and, consequently, in which it is reported as being delivered. Work which may typically give rise to such continuing capex includes lighting, landscaping, "snagging list" items, demobilisation, etc.

Such continuing capex will be small compared to the overall cost of a scheme and for the purposes of populating tables WWS2 and WWS2a we would normally expect companies to treat it as if it was forecast to be incurred in the year in which the scheme is planned to be delivered and report it as such. However, exceptionally, should a company wish to report any continuing capex in a subsequent year, they may do so provided the details of the schemes and amounts involved are set out in the accompanying commentary.

WWS2a Wholesale wastewater cumulative capital enhancement expenditure by purpose

This table calculates cumulative values of actual and forecast expenditure based on the inputs to table WWS2.

We provide additional guidance on this below.

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

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

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

Reporting cumulative capital expenditure shows the cumulative spend for projects completed in the year, i.e. projects for which full beneficial use of the enhancement being delivered is first made.

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

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

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

See also the guidance for tables WWS2 and WWn4 on how to complete this table.

Overlap schemes

Overlap schemes are projects on which capital expenditure is incurred across control periods.

In the case of expenditure incurred before the control period, any pre-control period capex will contribute toward the 'Cumulative Totals' but NOT the 'Year Totals'.

In the case of expenditure after the end of the control period, any within-control period spend will contribute toward the 'Year Totals' but NOT the 'Cumulative Totals

WWS3 Wholesale wastewater properties and population

This table asks for actual and forecasts of non-financial data for the period 2017-18 to 2024-25 which we will use in assessing costs.

WWS4 Wholesale wastewater other (explanatory variables)

This table asks for actual and forecasts of non-financial data for the period 2017-18 to 2024-25 which we will use in assessing costs.

As a result of the query and clarification process, we have updated the definition for line 13 to provide further guidance on what constitutes a site.

For sewerage network or STW schemes where the aim to meet spill frequency objectives is delivered by a solution other than providing additional storage e.g. by surface water separation or by flow attenuation, costs should not be entered in table

WWS4 lines 10 or 11. Instead, they should be entered using the freeform lines at the bottom of table WWS2 block A (for capital expenditure) and block B (for operating expenditure). No outputs will be recorded in table WWS4 for this type of solution.

Companies should instead state the equivalent volume of storage the provision of which has been avoided by the alternative solution in their commentary to table WWS2. This approach will ensure that the links between the costs entered in table WWS2 lines 10 and 11 and the associated output lines in table WWS4 lines 10 to 13 will not be broken or become confused.

WWS5 Other wholesale wastewater expenditure

This table asks for a breakdown of actual and forecast operating expenditure on wholesale wastewater assets for the period 2017-18 to 2024-25. This information will be used to derive unit costs.

For Block A, please note Employment costs for lines 1 and 2 should be reported on a Totex basis.

For Block B we expect the sum of lines 7 to 9 to agree with “Discharge Consents” in line 3 of table WWS1. If the values do not agree companies should provide a reconciliation such that the difference is explained.

WWS7 Wholesale wastewater local authority rates

This table asks for actual and forecast business rates for the wastewater service for the period 2017-18 to 2024-25. Companies are able to include an additional 3 lines to cover other types of adjustment to their wholesale wastewater business rates.

WWS8 Third party costs by business unit for the wholesale wastewater service

This table collects actual and forecast data on third party costs by wholesale wastewater business units for the period 2017-18 to 2024-25. We will use this information to assess financeability and to ensure these costs are excluded from our benchmarking models.

As a result of the query and clarification process, we have updated this table to split out third party costs by both operating and capital expenditure and those included in the price control and those outside of the price control. We expect the sum of lines 3 and 13 to equal WWS1 line 10 and the sum of lines 16 and 26 to equal WWS1 line 18.

WWS10 Transitional spending in the wholesale wastewater service

This table allows companies to identify any accelerated (or transition) wastewater capital expenditure they would like to make in the last year of the current price control period (2015-20). Such expenditure must contribute to the early delivery of outcomes proposed for the next price control period (2020-25).

Transition expenditure can only be associated with delivering the future investment programme for the wastewater network price control. Expenditure must be compiled on the same basis, using the same process and approaches, as the forecasts of expenditure reported in tables WWS1 and WWS2.

Companies will need to provide independent assurance and justification to demonstrate that the schemes being put forward under this mechanism are efficiently associated with performance commitments to be delivered in the next price control period.

WWn1 Wholesale wastewater sewage treatment operating expenditure

This table asks for actual and forecast operating costs for sewage treatment works by asset size for the period 2017-18 to 2024-25.

WWn2 Wholesale wastewater large sewage treatment works explanatory variables and operating expenditure

This table asks for actual and forecast operating costs for the larger sewage treatment works by individual named works for 2017-18.

WWn3 Wholesale wastewater network (explanatory variables)

This table asks for actual and forecast information on companies' network characteristics for the period 2017-18 to 2024-25. This information will support cost assessment modelling.

Lines 6 and 7 respectively require companies to report actual and forecast numbers of gravity sewer collapses and sewer rising main collapses / bursts. Forecasts for the remainder of AMP6 should be made on the same basis as previously reported numbers i.e. using the same definition of a collapse as in data reported for 2015-16 and 2016-17. However, forecasts for 2020-21 onwards should be made using the new definition being adopted for the AMP7 common performance commitments and set out in Reporting guidance – sewer collapses per 1000km.

WWn4 Wholesale wastewater sewage treatment (potential explanatory variables)

This table asks for actual and forecast information on numbers of sewage treatment works and the loads received for the period 2017-18 to 2024-25. This information will support cost assessment modelling.

In addition, the lines in Block I ask for data on the current population equivalent (p.e.) served by STWs at which various categories of enhancement schemes, for which the capital costs are reported in table WWS2, have been or are to be delivered. Note that p.e. figures should not be double-counted. For example, a scheme with a Groundwater Directive driver may require improvements to enable a STW to comply with tightened permit limits for sanitary parameters. The p.e served by the STW should be entered in line 20, not line 23 (provided, of course, that the associated costs are reported in line 15 of table WWS2).

P.e. data for enhancement schemes for which the capital costs are reported in the 'Additional' lines at the bottom of Block A in table WWS2 should be excluded from Block I in table WWn4. Instead the p.e. served by such schemes should be reported in the commentary accompanying table WWn4.

WWn8 Wholesale wastewater network plus special cost factors

This table allows companies to identify any costs that they consider should be excluded from comparative cost modelling (special cost claims) for the wholesale wastewater network plus price control.

Companies will be able to provide details for up to 8 proposed costs that they think should be excluded from our comparative cost assessment modelling, the cost performance incentives or the general risk framework. The table allows companies to provide some high level information on cost adjustment claims for wastewater network plus.

We consider that in many cases, companies can and should mitigate and avoid the need for cost adjustment claims. We expect companies to use the cost adjustment process responsibly, and raise cost adjustment claims only where there is convincing evidence that an adjustment is required and take an 'in the round' view.

We will consider the quality of claims and a company's approach to the process. Other things being equal, a company that raises cost adjustment claims only where necessary, and where the claims are well evidenced and efficient, is likely to score higher in the cost efficiency test than a company that uses the process less carefully, and whose claims are unwarranted and of low quality.

Companies should therefore consider the impact claims may have on their business plan categorisation under the initial assessment of business plans.

Bio1 Wholesale wastewater sludge[11] (explanatory variables)

This table asks for actual and forecasts of physical information relating to sludge operations for the period 2017-18 to 2024-25. This information will support the development of cost assessment modelling.

As a result of the query and clarification process, we have added a line for companies to enter the estimated quantity of sludge (ttds) that has been generated each year at in-area wastewater treatment works as a result of treating tankered organic waste in the wastewater treatment processes.

This will allow us to take account of non-appointed tankered waste treatment activity on both costs and quantities for the bioresources control and cost assessment purposes. Companies will need to explain the basis of their estimate of sludge quantity produced from treating tankered waste.

Bio2 Wholesale wastewater sludge treatment process and disposal routes

This table asks for actual and forecast information on sludge treatment processing for the period 2017-18 to 2024-25 which we will use to facilitate cost assessment modelling. As a result of the query and clarification process, we have removed 'Incineration of digested sludge' as this was not used by companies in their 2017 Cost Assessment submission.

Bio3 Wholesale wastewater sludge opex

This table provides further analysis of operating expenditure for wastewater sludge for the years 2017-18 to 2024-25.

Assuming no atypical items, we expect Power Costs (line 1), Income treated as negative expenditure (line 2) and Local authority / Cumulo Rates (line 3) to agree with the relevant values disclosed in table WWS1. If they do not agree companies should provide a reconciliation to explain any differences.

[11] Sludge describes certain assets and certain sub-processes within the bioresources market which is consistent with the RAGs. Tables Bio1, Bio2 and Bio3 relates to these assets and sub-processes.

Bio7 Wholesale wastewater bioresources special cost factors

This table is identical to table WWn8, except that it identifies costs that companies consider should be excluded from comparative cost modelling (special cost claims) for the wastewater bioresources price control.

We consider that in many cases, companies can and should mitigate and avoid the need for cost adjustment claims. We expect companies to use the cost adjustment process responsibly, and raise cost adjustment claims only where there is convincing evidence that an adjustment is required and take an ‘in the round’ view.

We will consider the quality of claims and a company’s approach to the process. Other things being equal, a company that raises cost adjustment claims only where necessary, and where the claims are well evidenced and efficient, is likely to score higher in the cost efficiency test than a company that uses the process less carefully, and whose claims are unwarranted and of low quality.

Companies should therefore consider the impact claims may have on their business plan categorisation under the initial assessment of business plans.

5.2 Other wastewater service cost information

WWn5 Wholesale revenue projections for the wastewater network plus price control

This table is identical to table Wn3, except that it covers the wastewater network plus price control.

WWn6 Cost recovery for wastewater network plus

This table is identical to table Wn4 but covers the wastewater network plus price control.

Bio4 Wholesale revenue projections for the wastewater bioresources price control

This table is identical to table Wr3 and as for water resources, projected revenues includes the run-off and returns on companies’ proposed investments in bioresources post 2020.

There are two additional lines in block H that are specific to this table. We ask companies to estimate the annual £m revenue required to cover fixed costs. The second additional line calculates the revenue required to cover variable costs as the total revenue required minus the company estimate of revenue required to cover fixed costs. We will use this information to calculate the revenue adjustment factor as part of the modified average revenue for bioresources.

Bio5 Cost recovery for bioresources

This table is identical to table WWn6. But as for water resource assets, asks companies to identify totex expenditure on bioresources which is not recovered in the period through PAYG but is to be added to "Post 2020 Investment."

5.3 RCV allocation in the wastewater service

WWS12 RCV allocation in the wastewater service

This table allows companies to set out its update of the net MEAV for bioresources and its proposal of the wholesale wastewater RCV allocation. It asks it to explain the differences between its proposed RCV allocation and that which it proposed in September 2017.

Companies should use the guidance provided in 'Economic asset valuation for the bioresources RCV allocation at PR19' when completing this table and consider the feedback that we provided in 'Economic value of bioresources assets – feedback to companies' on their September 2017 proposals.

If a company makes significant changes to the valuation it proposed in September 2017, or otherwise does not have confidence we will be able to understand the changes it has made from this business plan table, it should also submit the full set of updated detailed tables alongside its business plan.

WWS12a Wholesale wastewater charges impact assessment (no longer required)

We have removed the requirement for companies to provide revenue and volume information in this table and table WS12b, for the reasons set out in section 4.3.

5.4 Risk and return in the wastewater service

WWn7 Weighted average cost of capital for the wastewater network plus control

This table sets out company assumptions on the cost of capital for the provision of wholesale wastewater network plus assets. The format of the table is the same as Wr5 and so the same guidance applies.

Where parameter values provided by companies in this table vary from those provided for the Appointee in App32, companies should provide a written commentary explaining why this is the case.

Bio6 Weighted average cost of capital for the bio-resources control

This table sets out company assumptions on the cost of capital for the provision of wholesale bioresources assets. The format of the table is the same as Wn5 and so the same guidance applies.

Where parameter values provided by companies in this table vary from those provided for the Appointee in App32, companies should provide a written commentary explaining why this is the case.

5.5 Past delivery in the wastewater service

Part of PR19 will be the calculation of reconciliation adjustments to take account of past performance and PR14 incentives. There are two tables containing information relevant to the wholesale wastewater controls.

As explained in section 2.5, there are implications for the reconciliation of ODIs for Severn Trent Water and Dee Valley Water, which we will discuss with those companies.

WWS13 PR14 wholesale revenue forecast incentive mechanism for the wastewater service

This table contains the wastewater service inputs used for populating the PR14 WRFIM model and the revenue adjustment arising as calculated by the WFRIM model. The WRFIM model calculates in outturn prices and is converted to 2017-18 prices in the revenue adjustments feeder model.

As a result of the query and clarification process, we have reviewed the lines in the table and have included some new lines to fully align the table with the WRFIM model and the annual performance report table 2I Revenue analysis and wholesale control reconciliation.

We expect companies to publish their populated WRFIM models with associated explanation with the annual performance reporting in July 2018.

WWS15 PR14 wholesale total expenditure outperformance sharing for the wastewater service

This table contains the wastewater service inputs used for populating the totex menu model and the total outperformance / (underperformance) adjustments arising as calculated by the totex menu model. The totex menu model calculates in 2012-13 prices and the adjustments are converted to 2017-18 prices in the revenue adjustments feeder model and the RCV adjustments feeder model.

We expect companies to publish their populated totex menu models with associated explanation with the annual performance reporting in July 2018.

5.6 Summary information in the wastewater service

As explained in section 4.6, we also want consistent information on which to clearly explain what the final determinations will deliver for wastewater customers and stakeholders in England and Wales.

WWS18 Explaining the 2019 Final Determination for the wastewater service

This table is equivalent to the water service table WS18, but contains some key information for the wastewater service focussed around the key themes of PR19.

As a result of the query and clarification process, we have refined the definitions for the length of river improved and the change in the average residential customer wastewater bill. We have also removed the number of wastewater performance commitments since we can more accurately obtain this information from table App1.

6 The retail tables (residential in England and Wales, business in Wales and non-exited companies operating in England)

There are 10 data tables associated with the retail price controls. We discuss each table under the policy areas of costs, risk and return and past delivery.

Table 9 Retail tables

Policy area	Table number	Contents	Purpose
Costs	R1	Residential retail	To set cost baselines and assess business default tariffs
	R2	Residential retail special cost factors	
	R3	Residential retail ~ further information on bad debt and customer services	
	R4	Business retail ~ Welsh companies	
	R5	Business retail ~ non-exited companies operating in England	
	R6	Business retail special cost factors	
	R7	Revenue and cost recovery for retail	Financial modelling
Risk and return	R8	Net retail margins	Financeability tests
Past delivery	R9	PR14 reconciliation of household retail revenue	Reconciling 2015-20 performance
	R10	PR14 Service incentive mechanism	

6.1 Retail costs

Guidance on retail cost assessment is the same as that explained in section 4.1 for the water service.

R1 Residential retail

This table asks for actual and forecast cost information on the residential retail market for the period 2012-13 to 2024-25.

As a result of the query and clarification process, we have added a new line ‘Local authority / Cumulo rates’ to capture business rates separately from other retail costs. We have also improved the definition for pension deficit repair costs. We have also added additional lines and guidance to capture depreciation on assets acquired between 1 April 2015 and 31 March 2020, and depreciation on assets acquired after 1 April 2020.

R2 Residential retail special cost factors

This table asks for historic and forecast cost information for the period 2012-13 to 2024-25 associated with those costs a company considers should be excluded from our comparative cost modelling (special cost claims).

We consider that in many cases, companies can and should mitigate and avoid the need for cost adjustment claims. We expect companies to use the cost adjustment process responsibly, and raise cost adjustment claims only where there is convincing evidence that an adjustment is required and take an 'in the round' view.

We will consider the quality of claims and a company's approach to the process. Other things being equal, a company that raises cost adjustment claims only where necessary, and where the claims are well evidenced and efficient, is likely to score higher in the cost efficiency test than a company that uses the process less carefully, and whose claims are unwarranted and of low quality.

Companies should therefore consider the impact claims may have on their business plan categorisation under the initial assessment of business plans.

R3 Residential retail ~ further information on bad debt and customer services

This table asks for a breakdown of debt management costs and outstanding revenues for the period 2012-13 to 2024-25. We will use this information to assess the efficiency of bad debt management practices. The table also includes information on customer service metrics which we will consider when we compare water sector customer service functions with wider sectors.

R4 Business retail ~ Welsh companies

This tables asks for business retail information for companies who operate in Wales. We will use this information to assess business retail costs for our control.

As a result of the query and clarification process, we have improved the definition of miscellaneous costs and pension deficit repair costs. We have also added additional lines to capture depreciation on assets acquired between 1 April 2015 and 31 March 2020, and depreciation on assets acquired after 1 April 2020.

R5 Business retail ~ non-exited companies operating in England

This tables asks for business retail information for non-exited companies who operate in England. We will use this information to assess business retail costs for our control.

As a result of the query and clarification process, we have improved the definition of miscellaneous costs and pension deficit repair costs.

We have added additional lines to capture depreciation on assets acquired between 1 April 2015 and 31 March 2020, and depreciation on assets acquired after 1 April 2020.

R6 Business retail special cost factors

This table asks for historic and forecast cost information for the period 2012-13 to 2024-25 associated with those business retail costs a company considers should be considered as part of our assessment of business retail costs (special cost claims).

We consider that in many cases, companies can and should mitigate and avoid the need for cost adjustment claims. We expect companies to use the cost adjustment process responsibly, and raise cost adjustment claims only where there is convincing evidence that an adjustment is required and take an 'in the round' view.

We will consider the quality of claims and a company's approach to the process. Other things being equal, a company that raises cost adjustment claims only where necessary, and where the claims are well evidenced and efficient, is likely to score higher in the cost efficiency test than a company that uses the process less carefully, and whose claims are unwarranted and of low quality.

Companies should therefore consider the impact claims may have on their business plan categorisation under the initial assessment of business plans.

R7 Revenue and cost recovery for retail

This tables asks for operating costs, revenues and financial items including tax and interest. We will use this information to understand margins in the retail markets.

6.2 Risk and return in retail

R8 Net retail margins

This table asks companies for information around retail margins. We will set out in our final methodology an indicative view on retail margins for both residential and relevant business retail activities at PR19. We discuss our approach further in Appendix 12 Aligning risk and return of our methodology for the 2019 price review.

The purpose of this data table is for companies to provide details of their proposed retail margins. If this differs from our initial retail margin that we provide alongside our final methodology, we expect companies to clearly explain why it is different.

6.3 Past delivery

Part of PR19 will be the calculation of reconciliation adjustments to take account of past performance and PR14 incentives. There are two tables containing information relevant to the retail control.

As explained in section 2.5, there are implications for the reconciliation of ODIs for Severn Trent Water and Dee Valley Water, which we will discuss with those companies.

R9 PR14 reconciliation of household retail revenue

This table contains the inputs used for populating the household retail revenue reconciliation model and the revenue adjustments arising as calculated by the household retail revenue reconciliation model. The household retail revenue reconciliation model calculates in outturn (nominal) prices and is converted to 2017-18 prices in the revenue adjustments feeder model.

We expect companies to publish their populated household retail revenue reconciliation models with associated explanation with the annual performance reporting in July 2018.

R10 PR14 service incentive mechanism

We require companies to forecast their SIM score in 2018-19 in their business plans because this impacts on companies' bill forecasts. Final results for 2018-19 will be available during PR19 to inform the application of the SIM high performance payments and poor performance penalties.

We require companies to forecast their SIM score in 2019-20 as this informs whether they have met their own performance commitments with reputational ODIs. The 2019-20 information will not be used to inform any financial incentives.

We ask companies to provide an estimate of their SIM high performance payment or poor performance penalty in their financial model (this may be zero).

7 Early information submissions

As explained in **Chapter 13 Securing confidence and assurance** of our methodology for the 2019 price review, we planned to collect some information before companies submit their business plans to us in September 2018. These submissions are summarised in table 10 below.

This will enable us and companies to improve the quality and consistency of data and resolve any queries more quickly. It will also help us to refine our methodologies and make an early start on key elements of the initial assessment of business plans.

With the exception of past performance, companies have completed these submissions and so the detailed information required from companies has been removed from this chapter.

Table 10 Early submission summary

Data required	Purpose	By when	How	Reference
Companies' proposed allocations of historical RCV for water resources [see section 4.3]	To give companies feedback on their allocations before they submit their business plans (by the end of April 2018).	31 January 2018	Separate tables set out in PR19 Draft methodology - Jan 18 RCV	IN17/01 'Allocation of RCV to water resources and bioresources at 31 March 2020', January 2017
Companies' performance commitment definitions	To give companies feedback ahead of business plans, reducing ambiguity and improving consistency.	3 May 2018	Document similar to Appendix 4 of the PR14 final determination company-specific appendices. Spreadsheet similar to table App1 (performance commitments and outcome delivery incentives) of the PR19 business plan tables. We issued the templates for companies to use for their 3 May submissions on 1 March 2018[12].	'Water 2020: our regulatory approach for water and wastewater services in England and Wales', May 2016
Cost adjustment claims	To assist the review process – it will provide	3 May 2018	Separate information submission. We have provided further details	

[12] As links within IN 18/02: Price review early submissions on 3 May 2018 for performance commitment definitions and cost adjustment claims

Data required	Purpose	By when	How	Reference
	valuable additional time to take into account companies' cost adjustment claims in the initial assessment of business plans, and provide early certainty on our decision to exceptional and fast track companies..		on the type of evidence we expect companies to submit in support of their cost adjustment claims in Appendix 11 Securing cost efficiency. We issued the templates for companies to use for their 3 May submissions on 1 March 2018[12]	
PR14 reconciliation information[13]	To help us understand and review the data on which companies have calculated adjustments for their performance during the 2015-20 period.	15 July 2018 (extendable by two weeks on request)	With the 2018 Annual Performance Report	Accounting for past delivery, allows period to be extended from draft methodology to allow separate submission dates

[12] As links within IN 18/02: Price review early submissions on 3 May 2018 for performance commitment definitions and cost adjustment claims

[13] PR14 WRFIM, Totex menu and Household retail PR14 reconciliation spreadsheets. If a company is claiming a water trading incentive payment, then it should also submit the PR14 water trading reconciliation spreadsheet.

7.1 PR14 reconciliation information

There are 13 tables relevant to the PR14 reconciliations and overall past delivery. These are listed below.

Data table	Contents
App5	PR14 reconciliation – performance commitments
App6	PR14 reconciliation – sub-measures
App27	PR14 reconciliation – financial outcome delivery incentives summary
App9	Adjustments to RCV from disposals of interest in land
App25	PR14 reconciliation adjustments summary
App31	Past performance
WS13	PR14 wholesale revenue forecast incentive mechanism for the water service
WS15	PR14 wholesale total expenditure outperformance sharing for the water service
WS17	PR14 water trading incentive reconciliation
WWS13	PR14 wholesale revenue forecast incentive mechanism for the wastewater service
WWS15	PR14 wholesale total expenditure outperformance sharing for the wastewater service
R9	PR14 reconciliation of household retail revenue
R10	PR14 service incentive mechanism

We expect companies to publish their populated PR14 reconciliation models, along with explanations by 15 July 2018. The deadline is extendable by two weeks on request.

As explained in section 3.4 we do not require companies to complete the ODI spreadsheet from the PR14 reconciliation rulebook or the K factor model, which companies used for the in-period ODI submissions in 2016 and 2017. This is because the financial model will calculate companies' new revenue control limits, making the K factor model unnecessary, and because we have received feedback and have found ourselves that the ODI spreadsheets are not user friendly and we have replaced them with Table App5 and App6.

The populated PR14 reconciliations models we require companies to submit in July are:

- WRFIM PR14 reconciliation spreadsheet
- Totex menu PR14 reconciliation spreadsheet
- Household retail PR14 reconciliation spreadsheet

If a company is claiming a water trading incentive payment, then it should submit its populated water trading reconciliation spreadsheet with table WS17 in September 2018.

We do not expect companies to submit the PR09 legacy blind year spreadsheet since we have published these spreadsheets with the updated 2010-15 reconciliation. We will pre-populate block A of business plan table App25 with these published values. However, should a company propose a change to any of these published values then we will require the company to submit an updated PR09 legacy blind year spreadsheet and updates of the associated 2010-15 reconciliation models in July 2018.