Dŵr Cymru
Welsh Water

Base and Residential Retail Data Request

Supporting document

July 2022

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1. Methodology

1.1. Purpose

The Base and Residential Retail data information request submission comprises of the following documents:

1. **Base and Residential Retail Data Tables**- "Base-and-residential-reail-April-2022-data-request-UPDATED-line-3 WSH.xlsx"
2. This supporting document which contains the independent assurance report and relevant submission commentary outlining our approach for completing the tables

1.2. Background

Ofwat's December 2021 consultation 'Assessing base costs at PR24' asked companies to propose data lines for PR24 cost assessment. This data request includes data to inform the assessment of base costs at PR24. The data request includes the collection of historical data where this was previously not collected and new lines for all years back to 2011-12.

1.3 Structure

The document provides line commentary for each of the tables in the submission in following sections:

Base Data Request
This section provides commentary for the completion of tables 7B, 7B- additional line PE, 7B-extended, 7D- extended and items 2 & 22

Retail Data request
This section provides data on bad debt costs and smoothing adjustments for Covid-19.

Assurance

We have adopted our "three lines of defence" approach to this submission, in line with our usual approach to regulatory data submissions. Each data line was assigned an owner and peer reviewer, with sign off provided by the responsible manager and director. In addition, the 'base data request' has been subject to external assurance from Jacobs and the 'retail data requests' has been subject to external assurance from KPMG.

Jacobs for the base data request concluded that:

- *[The Welsh Water] team has a good understanding of your processes to produce the data in line with Ofwat guidance; and*
- *[The Welsh Water] team's internal commentaries were consistent with the data we saw at the time of reviewing them and did not contain any obviously false or misleading statements in relation to that data.*
- *Data are competently sourced, processed and fit for purpose.*

The Jacobs assurance letter is included in the appendix.

KPMG has assured the retail data request which includes the analysis of bad debt costs using agreed upon procedures. The assurance report was issued to the directors on 5 July 2022 which stated that they have found no exceptions.

Confidence Grades

Confidence grades have been provided for each component of submission where appropriate. The confidence grades include two components, firstly a letter is assigned for the reliability of the data and secondly a number to reflect the accuracy.

Reliability Bands

- A- Measured data from sound textual records, procedures, investigations or analysis properly documented and recognized as the best method of assessment
- B- As A, but with minor shortcomings. Examples include old assessment, some missing documentation, some reliance on unconfirmed reports, some use of extrapolation
- C- Extrapolation from limited sample for which Grade A or B data is available
- D- Unconfirmed verbal reports, cursory inspections or analysis

Accuracy Bands

1. Accuracy to or within +/- 1%
2. Accuracy to or within +/- 5%
3. Accuracy to or within +/- 10%
4. Accuracy to or within +/- 25%

2. Base Data Request

This section provides commentary for the completion of each table in the submission.

2.1. Table 7B

This table provides data on our large sewage treatment works including data on the population equivalent of total load, consents and flow passed to full treatment. Table 7B is reported in the APR for 2016-17 onwards. This submission provides data for 2013-14 to 2015-16. The data has been completed in line with our APR methodology.

Several of our wastewater treatment works do not meet the threshold for a large sewage treatment works for all the years. These works have been included in the table but we have left the cells bank where they do not meet the treshold. The table reports a zero value for consents where there is no numeric consent.

Confidence grade for large sewage treatment works data is A2.

2.2. Table 7B- additional line PE

This table reports the population equivalent of total load received (residential population and trade effluent) for the large sewage treatment works for 2011-12 to 2021-22. The data reported is a subset of the population equivalent reported in table 7B as non-residential population is excluded.

A number of works do not meet the threshold for a large sewage treatment works over the whole time series. Where they do not meet the threshold for individual years, we have left the cell blank.

The confidence grade for this table is A2.

2.3. 7D- extended

This table reports data on UV consents for all sewage treatment works from 2011-12 to 2021-22. The Sewage Treatment Works (STW) are categories into one of three UV consent bands; >30mW/s/cm2, <=30mW/s/cm2 and No permit. Data is provided for the number of works and volume of load received by the STW in size bands 1-5 and above band 5.

Data is also provided for the weighted average number of days that UV applies per year for the STWs by size band. This is calculated for an individual site by multiplying the number of days in which UV is operational by the load at the site divided by the total load of sites with UV in the size band.

The table below reports the total number of dates that UV applies per year for each STW band.

The confidence grade for this table is A2.

		Total										
Average number of days that UV permit applies per year		2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
Weighted average number of days that UV permit applies per year for STWs in size band 1	nr	0.0	365.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	365.0
Weighted average number of days that UV permit applies per year for STWs in size band 2	nr	366.0	365.0	365.0	365.0	366.0	365.0	365.0	365.0	366.0	365.0	365.0
Weighted average number of days that UV permit applies per year for STWs in size band 3	nr	366.0	365.0	356.9	365.0	366.0	228.0	315.0	322.7	315.0	326.1	314.5
Weighted average number of days that UV permit applies per year for STWs in size band 4	nr	366.0	365.0	365.0	365.0	366.0	288.6	284.0	291.7	280.8	283.3	288.2
Weighted average number of days that UV permit applies per year for STWs in size band 5	nr	366.0	365.0	365.0	365.0	366.0	365.0	365.0	365.0	366.0	365.0	365.0
Weighted average number of days that UV permit applies per year for STWs above size band 6	nr	366.0	365.0	365.0	365.0	366.0	365.0	365.0	365.0	366.0	365.0	365.0

2.4. Items 2 &22

This table reports data on peak seasonality measured through the peak 7 day rolling average distribution input following our APR methodology. The values reported are pre-MLE. The confidence grade on this data is A2.

Line description	Units	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
Seasonality - peak												
Peak 7 day rolling average distribution input	Ml/d	904.50	893.35	968.59	925.03	870.66	878.25	968.45	1002.94	921.91	1022.51	1029.29
Distribution input	Ml/d	834.34	801.16	806.64	804.92	803.40	810.07	822.81	849.22	853.00	871.17	883.98
Peak 7 day rolling average distribution input / annual average distribution input	ratio	1.08	1.12	1.20	1.15	1.08	1.08	1.18	1.18	1.08	1.17	1.16

The Peak 7 day rolling average distribution input (DI) is determined from a company timeseries of daily DI. The 7 day RA is a continuous rolling 7 days from the 1st of April 2011. The Peak 7 Day RA DI value varies and is driven by a range of factors such as operational event, hot and cold weather events and also customer behaviours. The following table reports the peak 7 day rolling average DI date and commentary to explain the peaks seen.

Year	Date of Peak 7 Day RA DI	Commentary
2011-2012	19th April 2011	Early Spring Weather Event driving increased customer demand. Leakage was recovering from the 2010-2011 cold snap which extended into Feb 2011, so leakage levels naturally higher at this time of year and were then reducing continuously over 2011 resulting in an earlier peak demand.
2012-2013	24th May 2012	Spring / Summer Weather Event (Dry / Warm) driving increased customer demand
2013-2014	14th July 2013	Extreme Summer Weather Event (Dry / Warm) driving increased customer demand
2014-2015	23rd July 2014	Extreme Summer Weather Event (Dry / Warm) driving increased customer demand
2015-2016	29th June 2015	Spring / Summer Weather Event (Dry / Warm) driving increased customer demand
2016-2017	3rd June 2016	Spring / Summer Weather Event (Dry / Warm) driving increased customer demand
2017-2018	3rd March 2018	Leakage Event related to cold weather 'Beast From East'. Hence why peak is late in that year.
2018-2019	26th June 2018	Extreme Summer Weather Event (Dry / Warm) driving increased customer demand
2019-2020	23rd July 2019	Spring / Summer Weather Event (Dry / Warm) driving increased customer demand
2020-2021	27th May 2020	Peak of COVID-19 Pandemic and Lockdowns combined with prolonged Weather Event
2021-2022	17th July 2021	Summer Weather Event (Dry / Warm) driving increased customer demand, increased tourism due to international travel restrictions and easing of domestic restrictions

The table also includes the number of impounding reservoirs. The number of impounding reservoirs within this submission counts each reservoir within a chain separately and includes balancing reservoirs. The confidence grade on this data is A2.

Line description	Units	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
Number of impounding reservoirs												
Total number of impounding reservoirs	nr	78	78	78	78	78	79	79	78	77	76	77

3.1 Analysis of Bad Debt Costs

The table reports doubtful debts and bad debt provisions for 2019-20 to 2021-22. Data reported is in line with our APR submission. The data request reports data for the 'corrected' doubtful debts, this should be used to correct the values reported in 2C if any bad debt were excluded (e.g., classed as atypicals etc). No corrections have been applied.

Lines 3 and 6 reports the smoothed doubtful debt and bad debt provision as at 31 March. This line adjusts the bad debt charge is any element of the bad debt provision was subsequently released (e.g. as a result of over provision). A £3.75 million credit recognised in 2021-22 has been removed and smoothed in 2020-21 (increasing current year and decreasing the charge recognised in 2020-21). This relates to a COVID-19 sensitivity provision included last year which we have not seen materialise during the year.

Analysis of bad debt costs

A	Bad debt costs	Scenario	Existing Bon cod	Units	2019-20	2020-21	2021-22	Total
1	Doubtful debts	Original	BM9003	£000s	22700	32530	19113	74343
2	Doubtful debts	Corrected	N/A	£000s	22700	32530	19113	74343
3	Doubtful debts	Smoothed	N/A	£000s	22700	28780	22863	74343

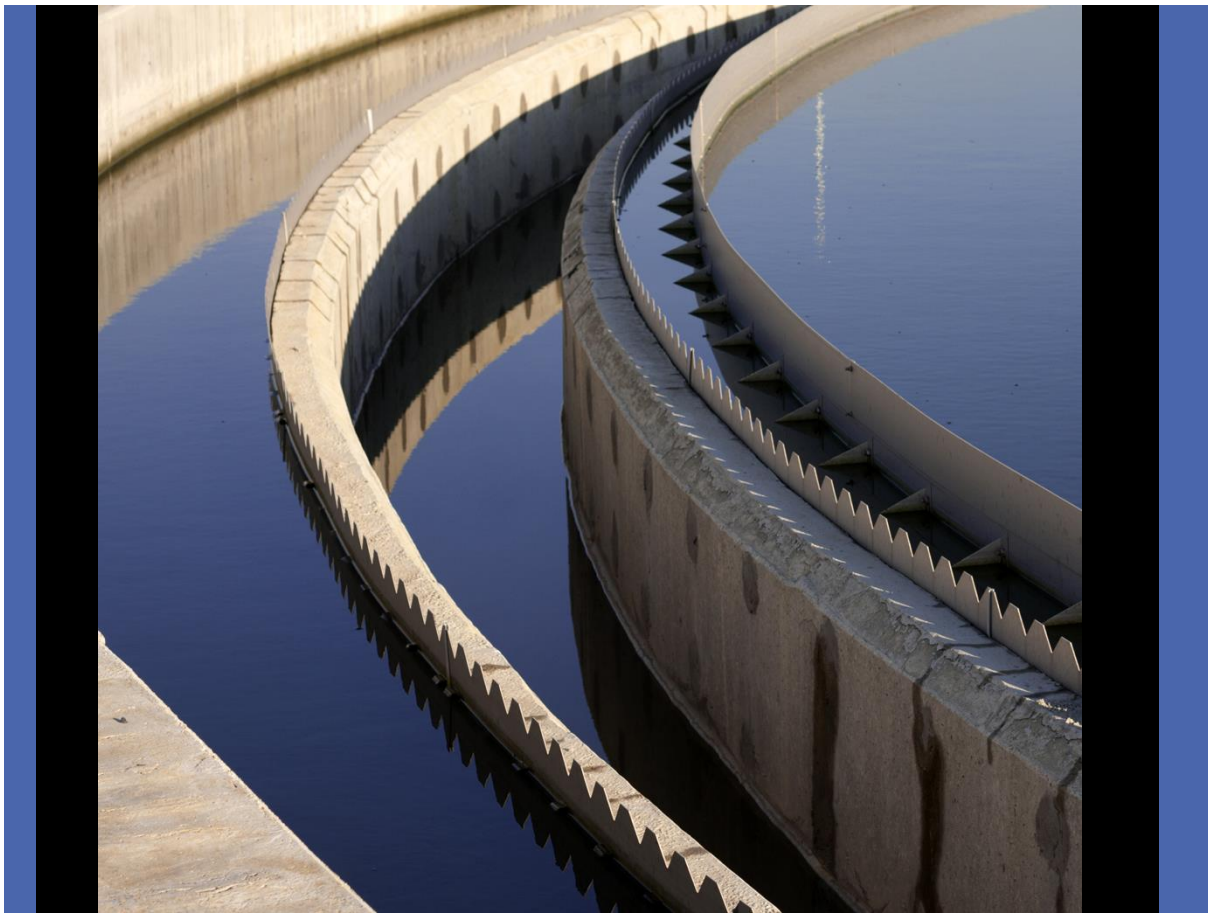
B	Bad debt costs - balance sheet moveme	Scenario	Bon code	Units	2019-20	2020-21	2021-22	Total
4	Bad debt provision as at 31 March	Original	N/A	£000s	81754	77796	69460	229010
5	Bad debt provision as at 31 March	Corrected	N/A	£000s	81754	77796	69460	229010
6	Bad debt provision as at 31 March	Smoothed	N/A	£000s	81754	74046	73210	229010

Ofwat IN22-02 additional information request: base modelling

Revision no: 1.1

Dŵr Cymru Welsh Water

Non-financial Assurance Services Framework
1 July 2022



Ofwat IN22-02 additional information request: base modelling

Client name:	Dŵr Cymru Welsh Water		
Project name:	Non-financial Assurance Services Framework		
Client reference:		**Project no:**	B2271302
		Project manager:	Alex Reoyo
Revision no:	1.1	**Prepared by:**	Alexandra Martin
Date:	1 July 2022	**File name:**	Base modelling additional information request assurance letter final 1 July
Doc status:	Final		

Document history and status

Revision	Date	Description	Author	Checked	Reviewed	Approved
1.0	23/06/22	Draft	PH	GG		
1.1	01/07/22	Final	PH	GG	AKM	AKM

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1 July 2022

Attn: Eleri Rees, Strategy and Regulation Director, Dŵr Cymru Welsh Water

Project name: Non-financial Assurance Services Framework
Project no: B2271302

Subject: Ofwat IN22-02 additional information request – base modelling

Background

Ofwat's Information Notice 22/02 requested additional data to inform its assessment of base costs at PR24.

In formulating its request, Ofwat considered 30 suggested data items, assessing them against a set of criteria aligned to its cost assessment principles. It narrowed these down to request the following:

- large sewage treatment works data (subset of table 7B in APR) for the three years where the data was not collected historically (2013/14, 2014/15 and 2015/16);
- load and number of sewage treatment works (STWs) split by company band size and UV treatment consent (extension of table 7D in the APR) and the average number of days that a UV permit applies per year (2011/12 - 2021/22);
- water seasonality data - peak 7 day rolling average distribution input / annual average distribution input (2011/12 - 2021/22);
- total number of impounding reservoirs (2011/12 - 2021/22).

This letter provides an overview of our assurance activity relevant to your submission.

Scope of our assurance

You asked us to undertake a risk-based review to check the robustness and accuracy of the data you intend to submit for Ofwat's base modelling additional information request, including your compliance with the guidance set out in the request. Our assurance of your data is designed to support your own first and second line assurance activity.

Our assurance approach

In June 2022, we met remotely with the individual teams responsible for each of the tables in the request. We reviewed their processes and the data you intend to submit to Ofwat. The submission includes previously reported JR / APR actual data, and APR-related data not submitted historically (including additional supporting information). Therefore some, but not all, of this data and the supporting processes have been subject to previous or ongoing external assurance.

We have taken a risk-based approach (via sampling) to assessing the completeness, reliability and accuracy of the source data, the robustness of the reported data and the appropriateness of the confidence grade for the non-financial data which the team had assigned. We also checked the consistency of internal commentaries with the data we reviewed and ensured that they did not contain any obviously misleading or false statements.

After each audit, we provided you with detailed feedback which explained our assessment of the risk associated with the reported performance figure and set out the actions arising from our assurance.

Findings

We identified some errors during our audits relating to:

- the averaging formula in the full to flow treatment calculations;
- 2011 to 2014 distribution input data were copied from the wrong years.

Your team also identified some issues following the audits:

- minor corrections for the number of UV days;
- an update to correct for a missing asset in SAP;
- an update following a clarification from Ofwat to use pre-MLE Distribution Input data.

All these points were addressed and checked before we completed the audit process. There are no outstanding issues. We rated all the base modelling areas as 'low risk'.

Assurance Statement

Overall, we conclude that:

- your team has a good understanding of your processes to produce the data in line with Ofwat guidance;
- your team's internal commentaries were consistent with the data we saw at the time of reviewing them and did not contain any obviously false or misleading statements in relation to that data; and
- data are competently sourced, processed and fit for purpose.

Yours sincerely,

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Director of Operations

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