

Enhancement and Water Balance Data
Request

Supporting document

August 2022



1. Methodology

1.1. Purpose

The Enhancement and Water Balance data information request submission comprises of the following documents:

1. **Enhancement and Water Balance Data Tables**- “Enhancement-and-water-balance-data-request 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

IN 22/02- Cost Assessment data request outlines the requirement for the enhancement and water balance data request. The data request includes the collection of additional enhancement costs and drivers for 2020-21 and 2021-22 which will allow Ofwat to consider the use of historical benchmarks and how they can better incorporate nature-based solutions. The data request also includes water balance data for 2011-12 to 2021-22. This data will be used to help inform the development of PR24 performance commitments relating to reduction in demand.

1.3 Structure

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

Enhancement Request

This section provides commentary for the completion of tables ‘Costs’ and ‘Drivers’.

Water Balance Request

This section provides data the water balance under the current and historical reporting guidance.

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 submission has been subject to external assurance from Jacobs.

Jacobs for the Enhancement and Water Balance 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.

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. Enhancement Data Request

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

2.1. Costs

The table reports enhancement costs by driver.

Section A- Lead Reduction

Expenditure for lead reduction is reported in block A in line with APR lines 4L.28 and 4L.59 for capex and opex respectively. Expenditure is broken down into expenditure for conditioning water to reduce plumbosolvency, replacing and relining lead communication pipes, external lead supply pipes, internal lead supply pipes and other lead reduction activity.

Line name	Type	Units	DPs	Expenditure in report year		Cumulative expenditure	
				2020-21	2021-22		
A	Lead reduction						
1	Expenditure for conditioning water to reduce plumbosolvency	Capex	£m	3	0.000	0.000	0.000
2	Expenditure for conditioning water to reduce plumbosolvency	Opex	£m	3	0.000	0.000	0.000
3	Expenditure for conditioning water to reduce plumbosolvency	Totex	£m	3	0.000	0.000	0.000
4	Expenditure on replacing or relining lead communication pipes	Capex	£m	3	1.621	0.783	2.404
5	Expenditure on replacing or relining lead communication pipes	Opex	£m	3	0.000	0.000	0.000
6	Expenditure on replacing or relining lead communication pipes	Totex	£m	3	1.621	0.783	2.404
7	Expenditure on external lead supply pipes replaced or relined	Capex	£m	3	0.137	0.834	0.971
8	Expenditure on external lead supply pipes replaced or relined	Opex	£m	3	0.000	0.000	0.000
9	Expenditure on external lead supply pipes replaced or relined	Totex	£m	3	0.137	0.834	0.971
10	Expenditure on internal lead supply pipes replaced and relined	Capex	£m	3	0.000	0.000	0.000
11	Expenditure on internal lead supply pipes replaced and relined	Opex	£m	3	0.000	0.000	0.000
12	Expenditure on internal lead supply pipes replaced and relined	Totex	£m	3	0.000	0.000	0.000
13	Expenditure on other lead reduction related activity	Capex	£m	3	0.000	0.000	0.000
14	Expenditure on other lead reduction related activity	Opex	£m	3	0.000	0.000	0.000
15	Expenditure on other lead reduction related activity	Totex	£m	3	0.000	0.000	0.000

Section B- Raw Water Deterioration

Expenditure for raw water deterioration is reported in Block B in line with APR lines 4L.61 and 4L.62 for capex and opex respectively. Expenditure is broken down into expenditure on water treatment assets, expenditure on non-treatment solutions (e.g. nature-based solutions) and third party contributions. Expenditure on treatment works is for work at Tynywaun WTW and Bryn Cowlyd WTW. Expenditure at Tynywaun WTW was mostly incurred in 2019-20 and the negative expenditure for 2020-21 is due to the application of the Capital Alliance pain/gain mechanism. Expenditure for non-treatment solution (e.g. nature-based) is for our Brecon Beacons catchments programme.

Line name	Type	Units	DPs	Expenditure in report year		Cumulative expenditure	
				2020-21	2021-22		
B	Raw water deterioration						
1	Expenditure on water treatment assets to address raw water quality deterioration	Capex	£m	3	-0.369	0.153	-0.216
2	Expenditure on water treatment assets to address raw water quality deterioration	Opex	£m	3	0.000	0.103	0.103
3	Expenditure on water treatment assets to address raw water quality deterioration	Totex	£m	3	-0.369	0.256	-0.113
4	Expenditure on non-treatment solutions (eg nature-based) to address raw water quality deterioration	Capex	£m	3	0.028	0.576	0.604
5	Expenditure on non-treatment solutions (eg nature-based) to address raw water quality deterioration	Opex	£m	3	0.000	0.000	0.000
6	Expenditure on non-treatment solutions (eg nature-based) to address raw water quality deterioration	Totex	£m	3	0.028	0.576	0.604
7	Third party contributions to support the delivery of nature-based solutions to address raw water quality deterioration	Capex	£m	3	0.000	0.000	0.000
8	Third party contributions to support the delivery of nature-based solutions to address raw water quality deterioration	Opex	£m	3	0.000	0.000	0.000
9	Third party contributions to support the delivery of nature-based solutions to address raw water quality deterioration	Totex	£m	3	0.000	0.000	0.000

Section C- Provision of Additional Storage

Block C reports expenditure on the provision of additional storage. Lines 1-6 report expenditure on schemes to increase storm tank capacity through grey solutions (lines 1-3) and nature-based solutions (lines 4-6). The data reported is in line with 4M.13 and 4M.14.

Line 10- Expenditure on additional network storage through green infrastructure to reduce spill frequency at CSO, etc for 2020-21 is negative due to finalising the project costs for an AMP6 scheme.

C	Line name	Type	Units	DPs	Expenditure in report year		Cumulative expenditure
					2020-21	2021-22	
	Provision of additional storage						
1	Expenditure on schemes to increase storm tank capacity (grey)	Capex	£m	3	0.146	0.192	0.338
2	Expenditure on schemes to increase storm tank capacity (grey)	Opex	£m	3	0.000	0.000	0.000
3	Expenditure on schemes to increase storm tank capacity (grey)	Totex	£m	3	0.146	0.192	0.338
4	Expenditure on nature-based schemes that deliver additional effective storage or reduce the need for storm tank storage at sewage treatment works	Capex	£m	3	0.000	0.000	0.000
5	Expenditure on nature-based schemes that deliver additional effective storage or reduce the need for storm tank storage at sewage treatment works	Opex	£m	3	0.000	0.000	0.000
6	Expenditure on nature-based schemes that deliver additional effective storage or reduce the need for storm tank storage at sewage treatment works	Totex	£m	3	0.000	0.000	0.000
7	Expenditure on additional storage schemes (grey) in the network to reduce spill frequency at CSOs, etc	Capex	£m	3	2.058	1.537	3.595
8	Expenditure on additional storage schemes (grey) in the network to reduce spill frequency at CSOs, etc	Opex	£m	3	0.187	0.012	0.199
9	Expenditure on additional storage schemes (grey) in the network to reduce spill frequency at CSOs, etc	Totex	£m	3	2.245	1.549	3.794
10	Expenditure on additional effective network storage through green infrastructure to reduce spill frequency at CSOs, etc	Capex	£m	3	-0.017	0.000	-0.017
11	Expenditure on additional effective network storage through green infrastructure to reduce spill frequency at CSOs, etc	Opex	£m	3	0.000	0.000	0.000
12	Expenditure on additional effective network storage through green infrastructure to reduce spill frequency at CSOs, etc	Totex	£m	3	-0.017	0.000	-0.017
13	Expenditure on surface water separation schemes to manage network flows	Capex	£m	3	0.017	0.000	0.017
14	Expenditure on surface water separation schemes to manage network flows	Opex	£m	3	0.000	0.000	0.000
15	Expenditure on surface water separation schemes to manage network flows	Totex	£m	3	0.017	0.000	0.017

2.2. Drivers

2.2.1. Lead Reduction

The table reports the lead reduction drivers including the number of lengths of lead communication pipes, external supply pipes and internal supply pipes replaced or relined.

Line name	Units	DPs	Outturn in report year		Cumulative outturn	
			2020-21	2021-22		
A	Lead reduction					
2	Total length of lead communication pipes replaced or relined	mtrs	0	5,410	1,128	6,538
3	Number of external lead supply pipes replaced or relined	nr	0	53	130	183
4	Total length of external lead supply pipes replaced or relined	mtrs	0	616	1,425	2,041
5	Number of internal lead supply pipes replaced or relined	nr	0	0	0	0
6	Total length of internal lead supply pipes or relined	mtrs	0	0	0	0

Line A2- Total length of lead communication pipes replaced or relined- This line reports the total length of lead communication pipes replaced or relined. The definition references the APR line 6C.21- Total lead pipes replaced for quality. The number of lead communication pipes replaced in 6C.21 is lower than the total communication pipes replaced as the definition outlines the pipes should only be included if they have been replaced for quality and have been confirmed by the DWI or at a customers' request under Regulation 30(1) of the Water Supply Regulations 2016. The difference was raised in a query response to Ofwat and it was confirmed that we should include the total length of communication pipes replaced or relined¹.

The table below outlines the total length of communication pipes replaced or lined alongside the number and corresponding lengths for the APR line 6C.21.

		2020/21		2021/22	
		APR Definition 6C.21 of Water Quality and Customer Request	Total Lead Communication Pipes	APR Definition 6C.21 of Water Quality and Customer Request	Total Lead Communication Pipes
Total Lead Communication Pipes Replaced and Relined	Nr	6	1,313	2	279
Total Lead Communication Pipes Replaced and Relined	Mtrs	37.2	5,410	7	1,128

The confidence grade for lines A2- A6 is B2.

¹ Email confirmation from Simon Harrow 12/07/2022

2.2.2. Raw Water Deterioration

The table reports the maximum production capacity of water treatment works having spend on improvements to address water quality and water treatment works being supplied by improving quality water from spend on non-treatment solutions (e.g. nature based) to address raw water quality deterioration. A query response from Ofwat² confirmed that schemes should be reported once they are finished. Schemes are being undertaken to address raw water quality and their expenditure is reported in the 'Cost' table in cells B1- B6. Schemes were not completed in 2020-21 and 2021-22 so zero is reported.

The confidence grade for lines B1-B2 is A1.

Line name		Units	DPs	Outturn in report year		Cumulative outturn
				2020-21	2021-22	
B	Raw water deterioration					
1	Maximum production capacity of water treatment works having spend on improvements to address raw water quality deterioration	MI/d	0	0	0	0
2	Maximum production capacity of water treatment works being supplied by improved water quality from spend on non treatment solutions (eg nature based) to address raw water quality deterioration	MI/d	0	0	0	0

² Email received from Ofwat Cost Assessment on 24/06/2022.

2.2.3. Provision of additional storage

Line C1- Additional storm tank capacity delivered (grey infrastructure)- The data has been reported in line with APR line 7D.24, which reported zero for both years. The table reports the additional storm tank capacity when the scheme has been completed. We are undertaking work on our WINEP/NEP schemes for storm storage which are expected to be claimed in years 3 to 5.

The confidence grade for this line is A2.

Line C2- Volume of additional effective storage for additional storm tanks at sewage treatment works delivered through green infrastructure- The data reported is part of the existing APR table 7D.24. We reported zero volume for 2020-21 and 2021-22.

The confidence grade for this line is A2.

Line C3- Total number of sewage treatment work sites where additional storage has been delivered- This line reports the number of sewage treatment works for the volume reported in line C1. In line with line C1 we have reported zero volume and zero works.

The confidence grade for this line is A2.

Line C4- Number of sewage treatment works sites where additional storage has been delivered with pumping- This line reports the number of sewage treatment works where additional storage has been delivered with pumping. This line links to the storage volume reported in C1.

The confidence grade for this line is A2.

Line C5- Number of sites benefitting from green infrastructure replacing the need for storm tank storage- No sites have been completed in 2020-21 and 2021-22.

The confidence grade for this line is A2.

Line C6- Additional effective storage delivered in the network (grey infrastructure)- The line reports the additional storage in network delivered by grey solutions which is part of the existing APR line 7D.25. There were no WINEP/NEP schemes signed off as completed during 2020-21 and 2021-22 which entailed tightening spill frequency requirements at CSO's overflows due to increased storage requirements.

The confidence grade for this line is A1.

Line C7- Additional effective storage delivered in the network through green infrastructure- As noted in line C6 there were no schemes signed off as complete during 2020-21 and 2021-22.

The confidence grade for this line is A1.

Line C8- Total number of individual sites delivering additional network storage (grey infrastructure)- As noted in line C6 there were no schemes signed off as complete during 2020-21 and 2021-22.

The confidence grade for this line is A1.

Line C9- Number of individual sites delivering additional network storage (grey infrastructure) which include pumping- As noted in line C6 there were no schemes signed off as complete during 2020-21 and 2021-22.

The confidence grade for this line is A1.

Line C11- Surface water separation drainage area removed- One surface-water separation scheme was delivered in 2020-21, removing 41,593m² of impermeable area draining to the combined sewer network. This area figure has been expressed as a total of 38,473m³ of surface water removed in APR Table 3B Line 10, taking into account local annual average rainfall. No surface water separation schemes were delivered in 2021-22.

The confidence grade for this line is B4. The removal of surface water is calculated based on surveys and a measurement of the relevant area in GIS. Figures for local rainfall is obtained from climate data.

Line name		Units	DPs	Outturn in report year		Cumulative outturn
				2020-21	2021-22	
C	Provision of additional storage					
1	Additional storm tank storage capacity delivered (grey infrastructure)	m3	0	0	0	0
2	Volume of additional effective storage for additional storm tanks at sewage treatment works delivered through green infrastructure	m3	0	0	0	0
3	Total number of sewage treatment works sites where additional storage has been delivered	nr	0	0	0	0
4	Number of sewage treatment works sites where additional storage has been delivered with pumping	nr	0	0	0	0
5	Number of sites benefitting from green infrastructure replacing the need for storm tank storage	nr	0	0	0	0
6	Additional effective storage delivered in the network (grey infrastructure)	m3	0	0	0	0
7	Additional effective storage delivered in the network through green infrastructure	m3	0	0	0	0
8	Total number of individual sites delivering additional network storage (grey infrastructure)	nr	0	0	0	0
9	Number of individual sites delivering additional network storage (grey infrastructure) which include pumping	nr	0	0	0	0
10	Number of individual sites delivering additional network storage through green infrastructure	nr	0	0	0	0
11	Surface water separation drainage area removed	m2	0	41,593	0	41,593

2.2.4. Improving discharge quality

D1- Number of sites with an increase sewage treatment works capacity delivered to address shortfall in flow to full treatment- The table reports the number of sites with an increase sewage treatment capacity delivered to address shortfall in flow to full treatment when the scheme has been completed. We are undertaking work on our WINEP/NEP schemes, no schemes have been completed in 2020-21 and 2021-22.

The confidence grade for this data is A2.

D2- Number of schemes delivered to meet tightened or new sanitary consents- This line reports the number of schemes that have been delivered to meet tightened or new sanitary consents. We are undertaking work on our WINEP/NEP schemes, no schemes have been completed in 2020-21 and 2021-22.

The confidence grade for this data is A2.

D3- Number of STW sites with tightened or new sanitary consents- This line reports the number of STW sites that have been delivered to meet tightened or new sanitary consents. We are undertaking work on our WINEP/NEP schemes, no schemes have been completed in 2020-21 and 2021-22.

The confidence grade for this data is A2.

D4- Number of installations requiring civils for flow monitoring at sewage treatment works- The data is aligned to the APR data in Table 7E line 4- the number of monitors for flow monitoring at STWs. The data relates to the WINEP/NEP MON4 and MON5 drivers and the number of sites where flow monitoring has been delivered and claimed within the financial year.

The confidence grade for this data is A1.

D5- Number of investigations for flow monitoring at sewage treatment works- We have reported the number of investigations undertaken under the U_INV2 driver, investigating suitability of existing monitor(s) for meeting U_MON4 driver requirements. No investigations under U_INV2 have been undertaken in 2020-21 and 2021-22. Where investigations have been undertaken for the purpose of scope development for installations under the U_MON4 driver, these are included in line D4.

The confidence grade for this data is A1.

Line name		Units	DPs	Outturn in report year		Cumulative outturn
				2020-21	2021-22	
D	Improving discharge quality					
1	Number of sites with an increase sewage treatment works capacity delivered to address shortfall in flow to full treatment	nr	0	0	0	0
2	Number of schemes delivered to meet tightened or new sanitary consents	nr	0	0	0	0
3	Number of STW sites with tightened or new sanitary consents	nr	0	0	0	0
4	Number of installations requiring civils for flow monitoring at sewage treatment works	nr	0	8	15	23
5	Number of investigations for flow monitoring at sewage treatment works	nr	0	0	0	0

3.1 Water Balance Data table

The table reports water balance data for 2011-12 to 2021-22 based on the current reporting guidance and the historical reporting guidance. The data is sourced from the water balance which was previously assured as part of our APR reporting. We are currently undertaking an extensive review of the components that feed into the leakage reporting process which will take several months to complete. We have reported our 2021/22 performance on a like for like basis with that followed in the 2020/21 APR. Ofwat are aware of the review and we will be providing regular progress updates.

Line 1- Measured household consumption (excluding supply pipe leakage)- The confidence grade for this line is A2. The data is obtained from meter readings and billing data.

Line 2- Unmeasured household consumption (excluding supply pipe leakage)- The confidence grade for this line is A2. The data is produced from the company domestic consumption monitor, which is a sample of small network areas (LCAs) that are used to monitor unmeasured household consumption.

Line 3- Measured non-household consumption (excluding supply pipe leakage)- The confidence grade for this line is A2. The data is obtained from meter readings and billing data.

Line 4- Unmeasured non-household consumption (excluding supply pipe leakage)- The confidence grade for this line is B2. The confidence grade is a B as some elements are based on estimates and extrapolation. Consumption is inferred from the property type and applied to the unmeasured property numbers.

Line 5- Total Annual Leakage- The confidence grade for this data is A2.

Line 6- Distribution system operational use- The confidence grade for this line is B3. This line has a lower confidence grade as not all volumes are captured.

Line 7- Water taken unbilled- The confidence grade of this line is B2.

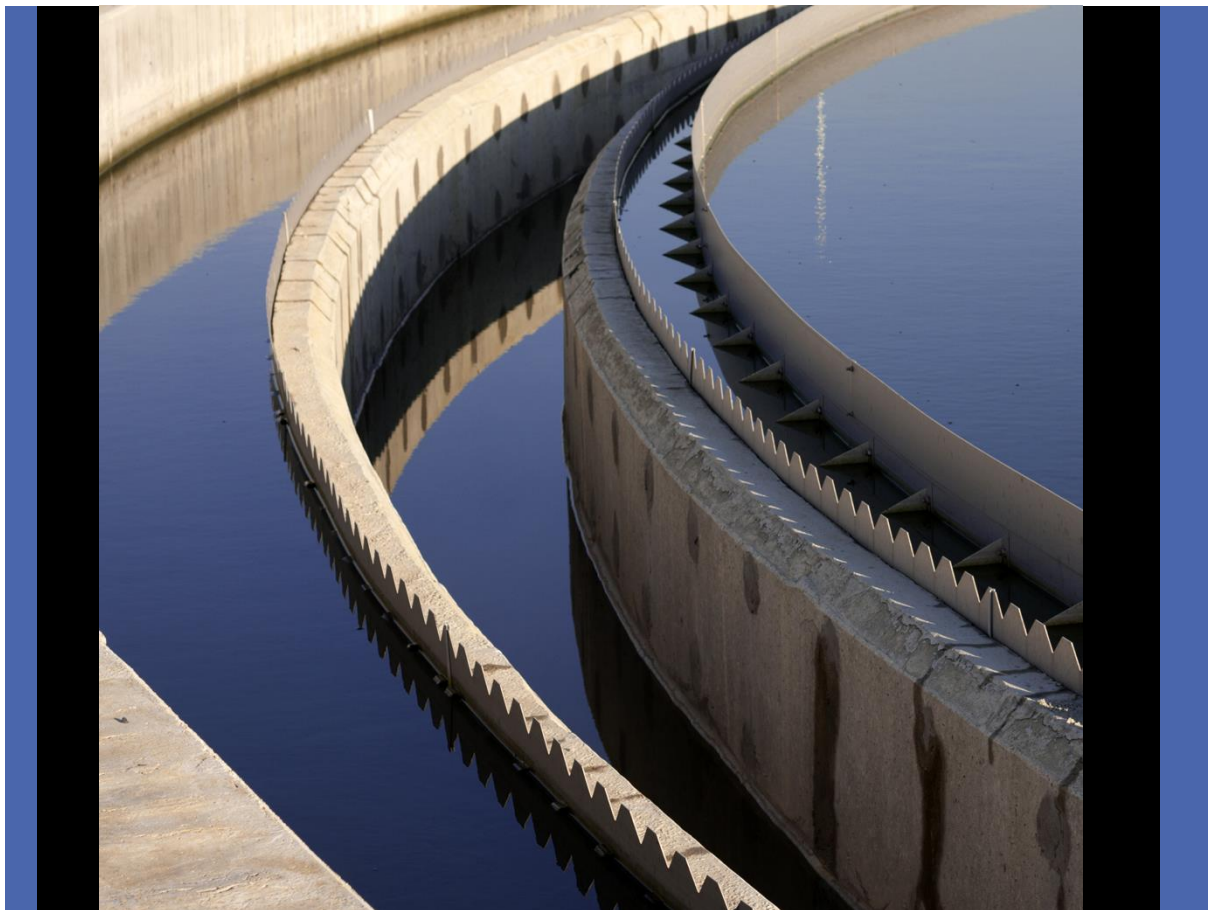
Line description		Units	DPs	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
A Water balance (following current reporting guidance)														
1	Measured household consumption (excluding supply pipe leakage)	MI/d	2							128.97	138.19	143.50	162.77	166.59
2	Unmeasured household consumption (excluding supply pipe leakage)	MI/d	2							321.49	330.14	323.85	361.90	367.66
3	Measured non-household consumption (excluding supply pipe leakage)	MI/d	2							167.33	176.59	174.91	148.90	160.82
4	Unmeasured non-household consumption (excluding supply pipe leakage)	MI/d	2							5.00	5.22	4.12	3.82	4.95
5	Total annual leakage	MI/d	2							175.42	172.88	173.11	163.62	157.41
6	Distribution system operational use	MI/d	2							11.03	11.41	12.58	12.08	11.76
7	Water taken unbilled	MI/d	2							13.37	13.68	15.39	14.40	12.66
8	Distribution input	MI/d	2							819.91	845.27	844.34	864.48	879.43
9	Distribution input (pre-MLE)	MI/d	2							822.81	849.22	852.93	871.17	883.98
B Water balance (following historical reporting guidance)														
1	Measured household consumption (excluding supply pipe leakage)	MI/d	2	86.06	87.43	90.62	95.21	102.01	110.50	130.07	139.26	142.95		
2	Unmeasured household consumption (excluding supply pipe leakage)	MI/d	2	345.51	331.51	328.72	324.36	315.11	315.45	313.54	323.62	333.88		
3	Measured non-household consumption (excluding supply pipe leakage)	MI/d	2	180.52	167.39	170.57	174.89	168.65	173.24	168.76	177.96	174.24		
4	Unmeasured non-household consumption (excluding supply pipe leakage)	MI/d	2	5.18	4.27	4.33	5.15	4.72	5.36	5.41	5.62	4.00		
5	Total annual leakage	MI/d	2	185.19	184.80	183.75	179.52	179.86	175.43	172.85	169.54	167.95		
6	Distribution system operational use	MI/d	2	8.70	8.40	8.85	8.86	11.26	9.74	12.48	12.74	11.93		
7	Water taken unbilled	MI/d	2	19.30	14.90	16.03	15.98	16.86	17.24	14.82	14.98	14.74		
8	Distribution input	MI/d	2	827.66	796.17	800.07	800.99	795.62	804.01	815.20	840.85	846.60		
9	Distribution input (pre-MLE)	MI/d	2	834.34	801.16	806.64	804.92	803.40	810.07	822.81	849.22	853.00		

Ofwat additional information request: Enhancement modelling

Revision no: 1.0

Dŵr Cymru Welsh Water

Non-financial Assurance Services Framework
29 July 2022



Ofwat additional information request: Enhancement 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: 1.0

Prepared by: Alexandra Martin

Date: 29 July 2022

File name: Enhancement modelling additional information request assurance letter

Doc status: Final

Document history and status

Revision	Date	Description	Author	Checked	Reviewed	Approved
V1.0	25/07/2022	Draft	SJ	PH	AKM	
V1.0 Final	29/07/2022	Final	SJ	PH	AKM	AKM

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29 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 additional information request – Enhancement Modelling

Background

Ofwat's additional information request on enhancement modelling is intended to help Ofwat decide whether it can improve on the PR19 enhancement models for PR24. This includes whether Ofwat can make greater use of historical data in its benchmark models, and how Ofwat can better incorporate nature-based solutions into its benchmarks.

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, 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 July 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.

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 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 figures and set out the actions arising from our assurance.

Findings

Ofwat requested data covering costs and related cost drivers for:

- A. reducing plumbosolvency
- B. addressing raw water quality deterioration
- C. providing additional storage

In addition, Ofwat requested information on cost drivers for improving discharge quality.

Costs:

We found no issues with the costs data reported. Data quality is a risk, but the commentary acknowledges this. We identified some non-material actions which your team told us it has completed since the audit. These included a recommendation for the team to cross-check for consistency between the costs and matching drivers by year and to explain in the commentary why there are negative costs in line B1.

Drivers:

We identified some material issues relating to line C11 (failure to include surface area removed from the network); line B2 (inconsistency in data used to calculate the total capacity); line A2 (data requirement interpretation and incorrect pipe replacement length); lines A3-4 (under-recording the values). The team addressed all these issues following the audit. In the process of closing out these material actions, we identified two further non-material actions to take the data back through due diligence. The team has told us that this has been completed.

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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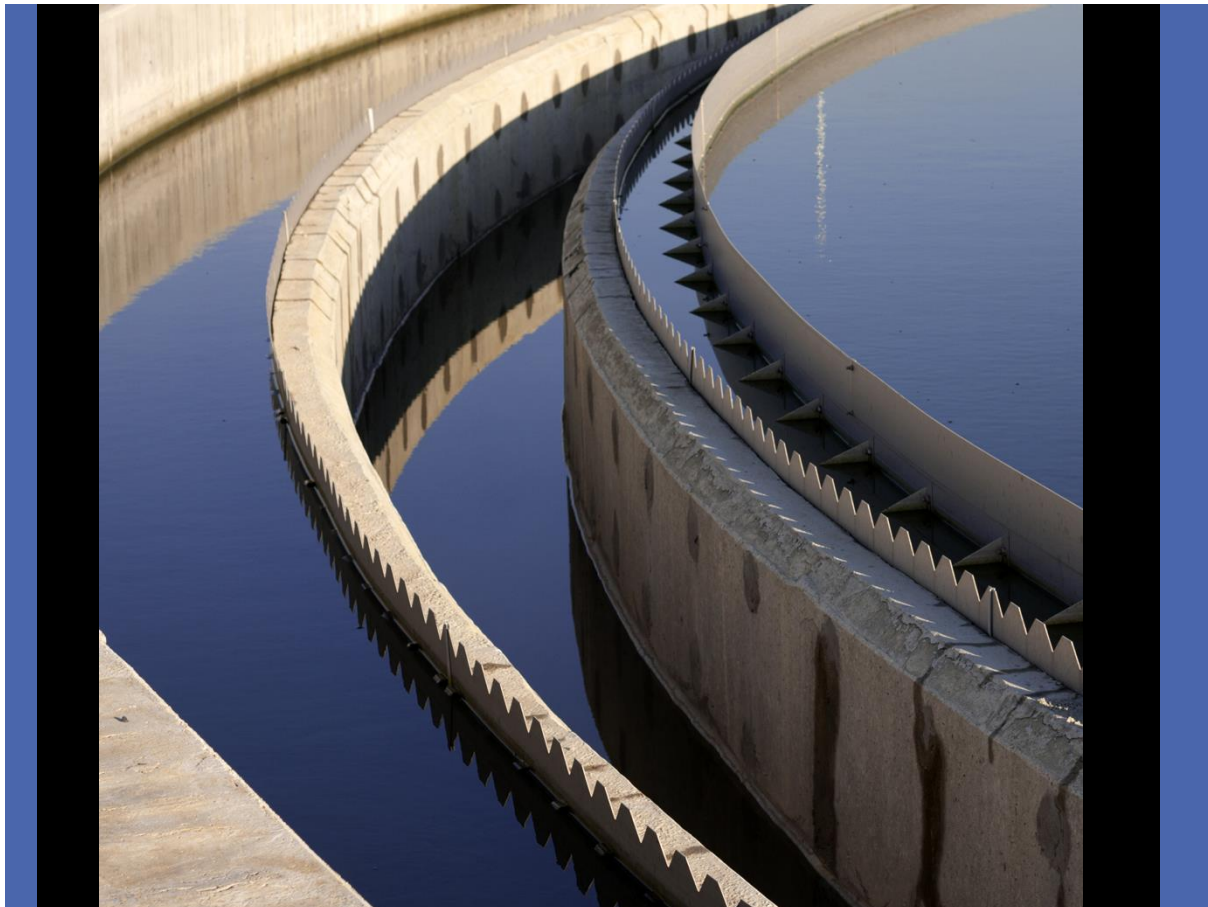
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Ofwat additional information request: Water Balance

Revision no: 1.0

Dŵr Cymru Welsh Water

Non-financial Assurance Services Framework
29 July 2022



Ofwat additional information request: Water Balance

Client name: Dŵr Cymru Welsh Water

Project name: Non-financial Assurance Services Framework

Client reference:

Project no: B2271302

Project manager: Alex Reoyo

Revision no: 1.0

Prepared by: Alexandra Martin

Date: 29 July 2022

File name: Water Balance additional information request assurance letter 29 July

Doc status: Draft

Document history and status

Revision	Date	Description	Author	Checked	Reviewed	Approved
1.0	25/07/2022	1 st Draft	SJ	PH	AKM	
1.0 Final	29/07/2022	Final	SJ	PH	AKM	AKM

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29 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 additional information request – Water Balance

Background

Ofwat's additional information request on water balance information is intended to help the regulator to develop PR24 common performance commitments relating to demand reduction.

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, 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 July 2022, we met remotely with the team responsible for the information in the request. We reviewed their processes and the data you intend to submit to Ofwat.

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 figures and set out the actions arising from our assurance.

Findings

Ofwat requested data covering the water balance components based on:

- A. current reporting guidance
- B. historical reporting guidance

We did not find any issues or concerns with the data. Data is sourced from previously audited APR data tables that have gone through a separate assurance process.

Assurance Statement

Overall, we conclude that:

Ofwat additional information request: Water Balance

- 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,



Alexandra Martin
Director of Operations

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