

Operational Resilience

Data and Information Request

Supporting document

July 2022

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1. Methodology

1.1. Purpose

The Operational Resilience information request submission comprises of the following elements:

1. Data Tables
 - a. Unplanned Maintenance – Water Treatment Works
 - b. Unplanned Maintenance – Wastewater Treatment Works
 - c. Equipment failures on the sewerage network
2. Written descriptions of approaches to measurement:
 - a. Asset condition – water treatment works
 - b. Asset condition – wastewater treatment works
3. This supporting document which contains the Independent assurance findings, relevant submission tables and line commentaries and sets out the approval and governance procedures for the submission.

1.2. Background

In April 2022 Ofwat published a discussion paper on Operational Resilience, setting out plans for how this would be integrated into PR24. These plans included measuring operational resilience through three additional measures on unplanned maintenance and equipment failure. The discussion paper requested provision of data for these three additional measures for the three years 19/20 ,20/21 and 21/22, to be provided in July 2022 alongside the Annual Performance Report.

In addition, Ofwat is seeking views on potential alternative or additional measures, and issued a questionnaire on asset condition measurement, which forms part of the same data return pack.

1.3 Structure

The document provides commentary for each of the tables in the submission.

2. Table Commentaries

This section provides commentary for our approach to the completion of each table in the submission, which is intended to inform Ofwat's consultation on whether these data are reliable and appropriate to collect. We do not comment here on any reasoning for movements in figures or performance between years.

Confidence Grades

Confidence grades have been provided for each component of the 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%

2.1. Table OR1A Unplanned maintenance – water treatment works

The WTW categories are stored in SAP and controlled by the Asset Data team. SAP data for all jobs for Water Production is extracted and stored in SharePoint. A Power BI Report is then used to filter and split the data by WTW category.

Maintenance orders are recorded within SAP as either planned or unplanned by the Planning and Scheduling Team who are responsible for the correct classification.

The data is for all completed planned and unplanned jobs, as per the definition. If it was necessary to raise multiple (follow-up) maintenance jobs to resolve an individual asset failure or reduction in asset performance then this is reported as one job.

Only Water Treatment Works SAP assemblies are included. All other SAP assemblies that are not WTW are excluded eg Water Pumping Stations, Service Reservoirs, Borehole pumping stations, Booster sites, Intakes, Abstraction point. Non-potable treatment works have been excluded.

All potable WTW assets fall into either W5 or W3 category. In the APR we report three W4 assets, however these are assets owned by Severn Trent and used for bulk imports, and so are not included in this table.

Confidence Grade Allocated	A2
Confidence Grade Reasoning Data is pulled from the central data system, SAP, and then visualised automatically with no human modification / addition / deletion. Accuracy will be within +/- 5.	

2.2. Table OR1B - Unplanned maintenance – wastewater treatment works

The Planned & Unplanned Maintenance figure is reported to the business every month by the Wastewater Asset Performance Coordinator as part of the Maintenance Report. The OR1B figure is taken from this report.

The reported figure(s) represent exclusively maintenance orders/records in SAP. All records are checked and authorised by operational supervisors before being logged in SAP.

Maintenance orders are recorded within SAP as either planned or unplanned by the Planning and Scheduling Team who are responsible for the correct classification.

The data collected is a count of all the unplanned jobs completed, (a completed work order), it is not a count of investigations where nothing was done, or minor jobs carried out as a result of an inspection which are not recorded as a work order.

Jobs are reported for mechanical, electrical and instrumentation and control assets only.

Unplanned maintenance on all assets is included in the data regardless of asset criticality.

The data includes all planned-reactive jobs, that is anything strategically planned for reactive maintenance, i.e. run to fail assets.

If it is necessary to raise multiple (follow-up) maintenance jobs to resolve an individual asset failure or reduction in asset performance then this is reported as one job.

Confidence Grade(s) Allocated	A2
Confidence Grade Reasoning Data underpinning submission is company specific. Accuracy will be within +/- 5.	

2.3. Table OR1C - Equipment failures on the sewerage network

Data for this table is extracted from SAP. The reported data includes private sewer transferred

assets.

All failures related to failures of wastewater treatment assets are included in the report.

All plant and equipment at wastewater treatment works are excluded.

The number of pumping stations reported in line 12 is lower than the number reported in APR table 7C line 4, as this submission only includes pumping stations where the function code is identified on SAP as being surface, foul, or combined. The APR line also includes pumping stations where the function code isn't populated in SAP. We believe our approach for this submission is compliant with the requirements and allows for consistent reporting of failure rates with other asset types.

The length of sewers reported in line 40 equals the number reported in APR table 7C line 21.

Robustness and Accuracy of Output Data	
Confidence Grade(s) Allocated	A2
Confidence Grade Reasoning Data underpinning submission is company specific. Accuracy will be within +/- 5.	

2.4. Tables OR2A and OR2B – Asset Condition

These tables do not require any numeric input. We have provided our views on our approach and the suitability of the proposed measures as requested.

3. Assurance and Governance

We have adopted a three lines of defence approach to tables OR1A, 1B and 1C this submission, in line with our approach to regulatory data submissions.

Each data line was assigned an owner who produced a methodology statement for production of the data. The data was peer reviewed, with sign off provided by the responsible manager and director. In addition, the submission has been subject to external assurance from Jacobs. Jacobs 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.*

As no numeric data was required for tables OR2A and 2B, no external assurance was undertaken. The comments included represent the consolidated views of asset management experts within the company.

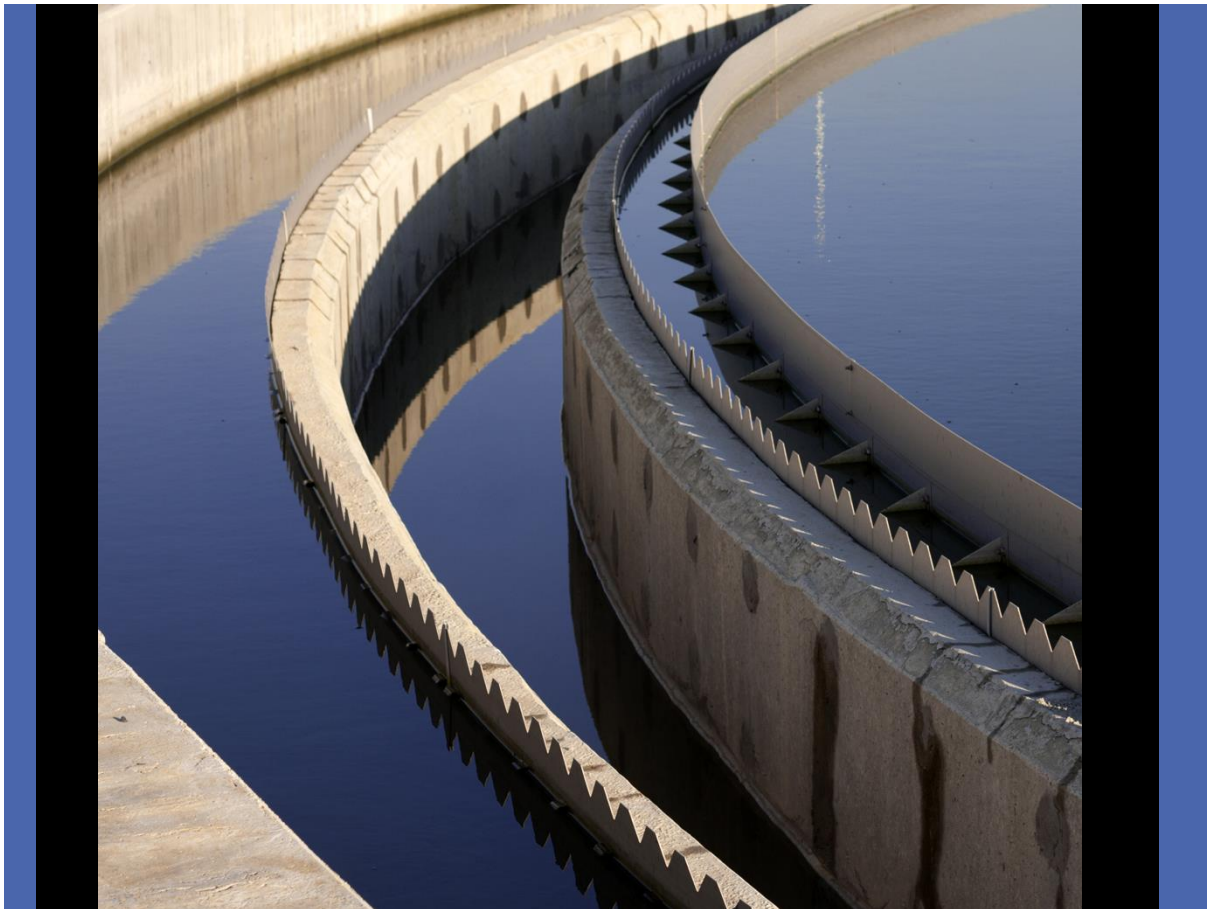
The final submission was approved by the Strategy and Regulation Director and the Managing Directors of our Water and Wastewater businesses.

Ofwat additional information request: Operational resilience

Revision no: 1.0

Dŵr Cymru Welsh Water

Non-financial Assurance Services Framework
1 July 2022



Ofwat additional information request: Operational resilience

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: 1 July 2022

File name: Operational resilience additional information request assurance letter final 1 July

Doc status: Final

Document history and status

Revision	Date	Description	Author	Checked	Reviewed	Approved
0.0	23/06/22	Draft	PH	GG		
1.0	01/07/22	Final	PH	SB	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 additional information request – operational resilience

Background

Ofwat's additional information request on operational resilience is intended to inform its approach to incentivising resilience at PR24. It includes a data request focused on providing additional details of planned and unplanned maintenance requests for water and wastewater treatment works, and equipment failures on the sewerage network, with a total of 37 data lines to be reported for the years ending 31st March 2020, 2021, and 2022.

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.

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

We identified some errors during our audits relating to:

- incorrect number of equipment failures on pumping stations and CSOs
- incorrect number of pumping stations used for 2019-2020.

Your team also identified a minor transposition error following one of the audits.

These errors were corrected, and we checked the revisions, so there are no outstanding issues. At the end of our assurance, we rated all the operational resilience 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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