



Introduction

In the final determination there is a number of performance commitments with a requirement to publish associated assurance reports. This document contains copies of all those relevant reports.

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1. On-going assurance requirements

Performance commitment (bespoke)	Reporting and assurance requirement
Water service resilience See section 2.1 below	The company must publish independent reports of the assessment audit of the baseline position and then further audits of assessment of any changes in the risk position claimed within the year for each year between 2020 and 2025. If changes are necessary to the methodology or underlying data, the reports will make an assessment of any potential impact on reported performance and state the impact on the baseline position and any earlier reported years.
Better air quality See section 2.2 below	The company will provide independent assurance including that: • The concentration of NOx emissions are measured by independent qualified third party according to BS EN 14792 Stationary source emissions. Determination of mass concentration of nitrogen oxides (NOx) (or its successors or recognised equivalents). • All operational data relating to energy, electricity generation and biomethane production is compliant with the international carbon reporting standard (ISO 14064, Part 1) (or its successors or recognised equivalents) and assured following an audit by an appropriately qualified independent third party.
Hydraulic internal flood risk resilience See section 2.3 below	The company must publish independent reports of the assessment audit of the baseline position and then further audits of assessment of any changes in the risk position claimed within the year for each year between 2020 and 2025. If changes are necessary to the methodology or underlying data, the reports will make an assessment of any potential impact on reported performance and state the impact on the baseline position and any earlier reported years.

Hydraulic external flood risk resilience

See section 2.3 below

The company must publish independent reports of the assessment audit of the baseline position and then further audits of assessment of any changes in the risk position claimed within the year for each year between 2020 and 2025. If changes are necessary to the methodology or underlying data, the reports will make an assessment of any potential impact on reported performance and state the impact on the baseline position and any earlier reported years.



2. Independent assurance reports

The following sections contains the independent assurance reports as required in the final determination

2.1 Water service resilience summary of audit findings

Table number	3A.12
Lines	1-2
Topic Area (as defined by UU Programme)	Water Service Resilience
Jacobs Auditor(s)	
Jacobs Reviewer	
UU Auditee(s)	
Date of Audit	20 April 2023



Audit Scope

This was a limited audit of the Water Service Resilience measure. It entailed:

- A review of the four schemes contributing to the proposed reduction in customer service days, including
 the status before and after and confirmation that they have been commissioned.
- A review of the PR19 methodology for policy on performance commitments and enhancement spend to understand the implications of enhancement spend leading to improved PC performance.
- A check of transposition of scheme performance into the incentive model.

As for RR20, RR21 and RR22, we have continued to undertake audits remotely, arranging meetings via MS Teams.



Key Findings

Performance is reported in accordance with the Performance Commitment definition and our sample checks have not revealed any issues with the data.

The Williamsgate scheme has achieved a net risk reduction of 735 csd through closing the Cornhill, Ennerdale and Quarry Hill water treatment works (all of which fed single supply zones) and opening the more resilient Williamsgate works to replace them. This was funded as enhancement through PR19. The performance level for the performance commitment includes the 735 csd for this scheme. This means that the resilience improvements from the Williamsgate scheme effectively receive no reward through this performance Commitment.

This is further detailed in PR19 supplementary document S3001. .

RR23 Table Criteria	RAG	Achieved	Assessment
Performance and Significant events	G	Ø	Has the company met their respective targets and is the reporting process well managed/maintained? The process continues to be managed by and is being maintained.
Methodology	G	Ø	Does the methodology remain unchanged from previous years and is it clearly laid out with key data sources, processes and well-defined control points? The methodology remains the same as previous years.
Guidance	G	Ø	Does the methodology comply with the latest guidance from Ofwat? And has this been followed to produce the data? Performance has been reported in accordance with the Performance Commitment definition.
Assumptions	G	Ø	Are all assumptions reasonable and appropriately applied? Assumptions were audited for the baseline model. This audit did not cover any material assumptions.
Source Data	В	V	Has the source data been clearly identified, is it complete beyond material concern and is it well managed through to accurate systems input? The source data comprises evidence that the schemes are operational and network configuration data. This is generally sufficient but could be improved through providing or obtaining third-party verification that schemes are delivering their expected output.
Commentary	G	Ø	Is commentary provided and is it consistent with the process and the reported number(s)? The commentary is consistent with the reported number.
Clarity of Audit Trails	В	Ø	Is the audit trail detailed, comprehensive and traceable back to source? The audit trail relies somewhat on email confirmations of schemes being online. This is reasonably reliable but not the highest grade of evidence.



Confidence Grades	G	Ø	Do you concur with the confidence grades presented by the company? The confidence grade is reasonable.
Governance	В	Ø	Has all evidence of appropriate sign-off been provided? Signoff had not been completed at the time of audit but there is a plan to complete this.

ODI Measure RAG		On Target	Assessment
Performance Commitment	G	Ø	Are the performance figures accurately carried forward to the ODI and correctly calculated in accordance with Ofwat's PR19 FD - United Utilities – Outcomes performance commitment appendix? Yes – no issues identified.

- Williamsgate. This scheme essentially closed the Cornhow, Ennerdale and Quarry Hill water treatment works, which had a combined total of 1240 csd. Williamsgate has 505 csd, giving a resulting csd reduction of 735.
- **Prenton**. This is a connection and pumping station scheme to remove 9.9 MI/d from single supply, giving a benefit of 95 csd.
- **Huntington**. This scheme comprises development of the four Widnes boreholes, additional pumping capacity and mains conditioning to provide an alternative supply in the event of the Huntington works being out of service. The system has been proven up to 21 Ml/d, all of which has been shown to alleviate loss of supply from Huntington. This gives a csd reduction of 425.
- **Hurleston**. This is a connection and pumping scheme to remove around 1 MI/d from single supply, giving a benefit of 27 csd.

The total benefit is 1281, which combines with previous years' benefit for a total of 2197. This is above the reward cap.

We reviewed evidence for the claims being made:

- For the Williamsgate scheme we have seen email evidence that the scheme is operational and historic data giving the new peak demand deficit.
- For the Prenton scheme we have seen meter trace evidence that the scheme is operational.
- For the Huntington scheme we have seen borehole level and flow meter evidence that the scheme is operational up to 21 Ml/d.
- For the Hurleston scheme we have seen historic data giving the peak demand deficit.

We also made checks of the calculation workbook including spot checks of the calculations and a spot check of figures against the 2020/21 workbook figures.



Issues and Material Findings

We did not identify any issues with how performance has been reported.

SAF Ref.	No.	Issues/Recommendations	Company Response	Date of Response	Closed ? (Y/N)	RAG
-	-	-	-	-	-	-



2.2 Better air quality summary of audit findings

Table number	3B
Lines	1 – 9
Topic Area (as defined by UU Programme)	Better Air Quality
Jacobs Auditor(s)	
Jacobs Reviewer	
UU Auditee(s)	
Date of Audit	11 May 2023

Audit Scope

This was a limited audit which covered:

- A sample-based check of the source data for the measure.
- A review of the performance commentary and explanations given.
- A review of the model against last year.

As for RR20, RR21 and RR22, we have continued to undertake audits remotely, arranging meetings via MS Teams.

Key Findings

RR22 Table Criteria	RAG	Achieved	Assessment
Performance and Sig nificant events	G	Ø	Has the company met their respective targets and is the reporting process well managed/maintained?
Methodology	G	Ø	Does the methodology remain unchanged from previous years and is it clearly laid out with key data sources, processes and well-defined control points?
Guidance	G	Ø	Does the methodology comply with the latest guidance from Ofwat? And has this been followed to produce the data?
Assumptions	G	Ø	Are all assumptions reasonable and appropriately applied?
Source Data	G	Ø	Has the source data been clearly identified, is it complete beyond material concern and is it well managed through to accurate systems input?
Commentary	G	Ø	Is commentary provided and is it consistent with the process and the reported number(s)?
Clarity of Audit Trails	G	Ø	Is the audit trail detailed, comprehensive and traceable back to source?
Confidence Grades	G	Ø	Do you concur with the confidence grades presented by the company?

Governance	G	Ø	Has all evidence of appropriate sign-off been provided?
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ODI Measure	RAG	On Target	Assessment
Performance Commitment	G	Ø	Are the performance figures accurately carried forward to the ODI and correctly calculated in accordance with Ofwat's PR19 FD - United Utilities – Outcomes performance commitment appendix?

The audit trail for this performance commitment is short and straightforward with a small amount of calculation based on agreed conversion factors. The model was audited in detail last year, so this year we undertook a sample check of model function against last year's version. This showed no changes or anomalies in this year's version.

Version control of the model is in place and data for the PC are stored logically.

We could not confirm that any monitoring results were missing in the source data and there is a risk that the supplier could have provided a result which was edited, lost or suppressed. In the one case where a monitoring result was known to be missing (St. Helens, due to the site being closed), the value had been backfilled by averaging the last three years' results. This is reasonable.

We undertook sample checks of three emissions monitoring results and found that they had been copied into the model accurately, including conversion to reference conditions where needed:

- Leigh engine 2
- MBC Engine 5
- Oldham Engine 2

We confirmed that the ODI rate and calculation are accurate and in accordance with the Final Determination Outcomes Appendix.

The commentary is acceptable. We did not see evidence of internal checks other than in the PCS. The auditee stated that these had been completed.

Issues and Material Findings

There were no issues or material findings.

SAF Ref.	No.	Issues/Recommendations	Company Response	Date of Response	Closed ? (Y/N)	RAG
-	-	-	-	-	-	-

2.3 HEFFR and HIFFR summary of audit findings

Table number	ТЗВ
Lines	3B.13-14 – ODI – G05-WWN (Hydraulic flood risk resilience (internal)) & G06-WWN (Hydraulic flood risk resilience (External))
Topic Area (as defined by UU Programme)	Sewer Flooding and Sewer Network Performance
Jacobs Auditor(s)	
Jacobs Reviewer	
UU Auditee(s)	
Date of Audits	10 th May 2023

Audit Scope

For the AMP7 common performance commitments G05-WWN and G06-WWN, as contained within Table 3B, a Level 2 audit was completed, involving:

- checking the methodology against the PC definition and RR23 approach for consistency, through questioning and review of methodologies,
- Checking appropriate controls and checks are in place,
- Challenging provenance of data sources,
- Ensuring performance is consistent with expectations and variations explained,
- Ensuring risks to the PC have been considered and documented where appropriate and mitigations measures considered.

Key Findings

RR23 Table Criteria	RAG	Achieved	Assessment		
Performance and Significant events	G	Ø	Has the company met their respective targets and is the reporting process well managed/maintained? For RR23, UU has achieved the Year 3 target for the 2 x HFFR PCs. Process is very well managed. The continuation of the Flood Review Panel, provides an additional layer of verification for all arisals, with good evidence compiled to support the addition of properties to the HFFR.		
Methodology	G	Ø	Does the methodology remain unchanged from previous year and is it clearly laid out with key data sources, processes and well-defined control points? Methodology is consistent with current process and largely unchanged. Control points identified and understood.		
Guidance	G	Ø	Does the methodology comply with the latest guidance from Ofwat? And has this been followed to produce the data? Confirmed		
Assumptions	G	Ø	Are all assumptions reasonable and appropriately applied? Confirmed		
Source Data	G	Ø	Has the source data been clearly identified, is it complete beyond material concern and is it well managed through to accurate systems input?		

RR23 Table Criteria	RAG	Achieved	Assessment		
			Confirmed. The Company captures sufficient evidence to enable the appropriate assessment and verification of all arisals and removals.		
Commentary	G	Ø	Is commentary provided and is it consistent with the process and the reported number(s)? Confirmed – Company standard P&CS updated for RR23		
Clarity of Audit Trails	G	Ø	Is the audit trail detailed, comprehensive and traceable back to source? Confirmed. A selection of arisals and removals were trailed back to source. We confirm that a comprehensive evidence folder is prepared to support all additions/exclusions.		
Confidence Grades	G	Ø	Do you concur with the confidence grades presented by the company? Confirmed.		
Governance	G	Ø	Has all evidence of appropriate sign-off been provided? Confirmed.		

ODI Measure	RAG	On Target	Assessment
Performance Commitments	G	Ø	Are the performance figures accurately carried forward to the ODI and correctly calculated in accordance with Ofwat's PR19 FD - United Utilities – Outcomes performance commitment appendix? Confirmed. Source data is derived directly from INS. ODI calculation consistent with Ofwat's PR19 FD - United Utilities – Outcomes performance commitment appendix. UU has outperformed the 2022/23 target for the 2 HFFR PCs (£9.66m reward)

G05-WWN - Hydraulic Internal Flood Risk Resilience and G06-WWN - Hydraulic External Flood Risk Resilience (HFRR)

UU developed a measure for AMP7 to identify customers that have experienced repeat internal/external flooding and then deliver permanent solutions for these customers in order to reduce the risk of them experiencing future flooding.

The Company has developed a complex methodology, based on the identification of all properties on INS that have experienced at least 2 non-severe flooding incidents since 2012/13. These properties are then reviewed against the Company's comprehensive suite of 2D 'floodmesh' catchment models (last updated in 2020) to assess the modelled flooding risk. Comparison of the modelled risk and the actual historic flooding risk for each property is completed and the lower of the 2 risks is assigned to the property. When permanent solutions are delivered, the risk of flooding is reassessed, and the total resultant risk is then used to assess performance against the HFRR.

For RR23, UU have identified 956 properties on the internal and external HFRR, comprising 756 properties included in the RR19 baseline, 99 arisals in RR20, 61 arisals in RR21, 40 arisals in RR22 and 15 arisals in RR23 (comprising 5 internal and 10 external). We found that all properties added to the HFRR list (arisals) are reviewed by the Flood Review Panel to ensure the root cause is fully understood and coded correctly.

Up to the end of 2022/23, we note that UU has delivered 12 permanent solutions during the year providing protection to an additional 34 properties (142 in total), comprising 8 x cut and pump cellar disconnections (protecting 8 properties), 2 x interceptor sewer/storage solutions (protecting 22 properties) and 2 x rider sewer constructed (protecting 4 properties).

We reviewed a selection of arisals and permanent solutions during the course of our audit and confirm an evidence pack is prepared to support the reduction in risk to all properties affected by a permanent solution.

As a result of the above, UU has reported a cumulative reduction in overall internal risk of 30.87 and external risk of 124.50, resulting in a level of risk for RR23 of 38.49 (internal) and 173.30 (external). When compared to the PC targets for RR23, this equates to an outperformance against the internal measure of 18.43 (£8.11m reward) and 48.29 (£1.55m reward) against the external measure.

ODI (Performance Commitments) 2022/23 and Forecasted Performance							
ODI	Performance	2020/21	2021/22	2022/23	2023/24	2024/5	
		Actual	Forecast	Forecast	Forecast	Forecast	
G05-WWN	PC Target Performance	60.04	59.04	58.04			
	Actual Performance	41.84	40.61	38.49			
	Actual Reward/Penalty (£m)	+7.55 (reward)	+7.65 (reward)	+8.11 (reward)			
G06-WWN	PC Target Performance	254.53	232.33	210.13			
	Actual Performance	179.84	184.04	173.30			
	Actual Reward/Penalty (£m)	+3.14 (reward)	+2.03 (reward)	+1.55 (reward)			

Issues and Material Findings

SAF Ref.	No.	Issues/Recommendations	Company Response	Date of Response	Closed? (Y/N)	RAG
N/A						G

Recommendations

Nothing to Add



