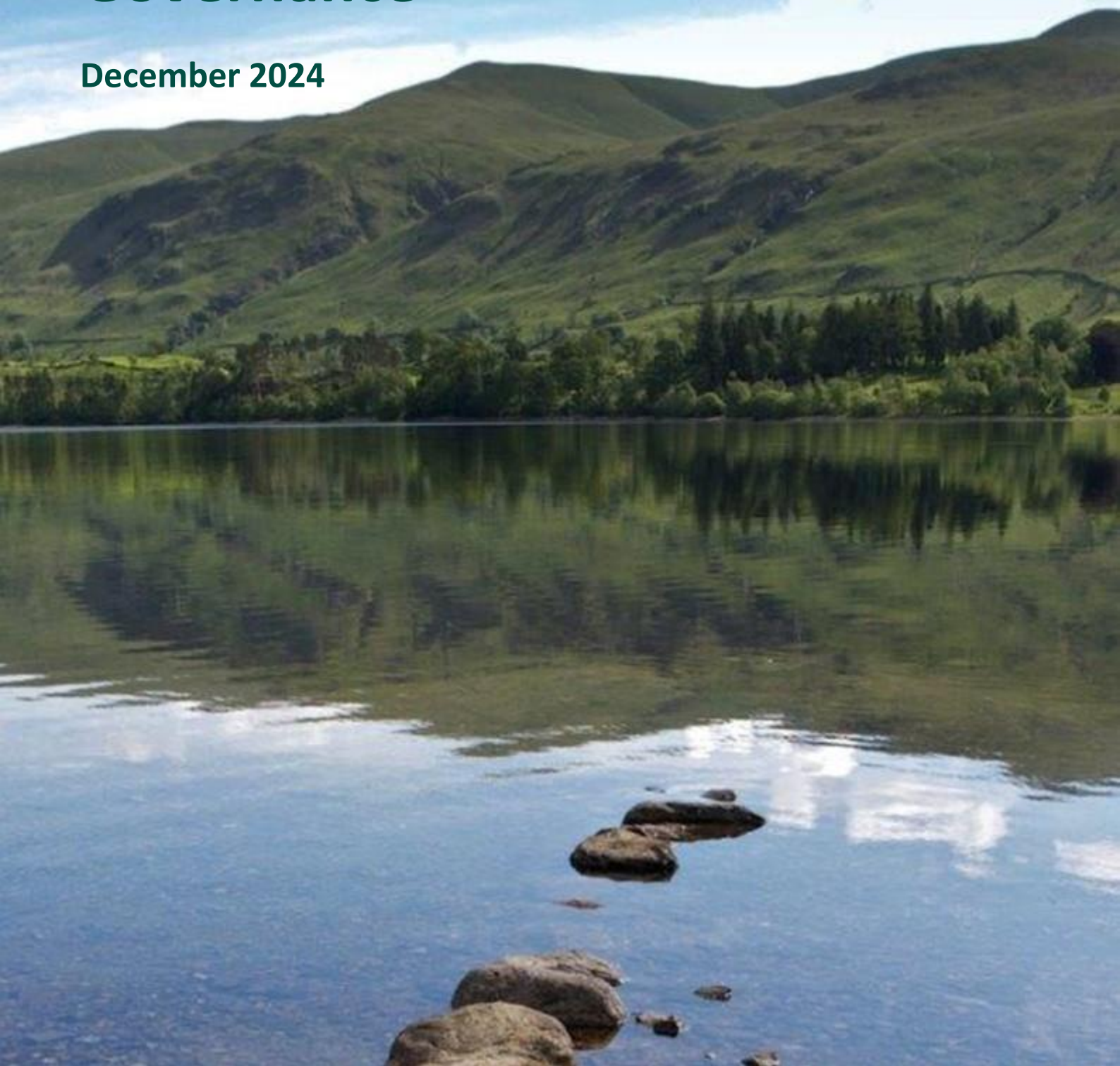


Final Water Resources Management Plan 2024

Technical report - Assurance and Governance

December 2024



Executive Summary

The Water Resources Management Plan (WRMP) has been developed in accordance with the published United Utilities Water (Uuw) governance and assurance framework. This assurance framework risk assesses all products to determine the level of assurance required. Assurance follows a first, second and third-line process that, where products that are identified as critical or high risk, includes targeted independent third parties' assurance. The production of both the draft, revised draft and final Water Resources Management Plan have, therefore, been developed under assurance audit by the Uuw Corporate Audit team and three additional independent audits. The production of the plan has been supplemented by further independent audits as set out in this report.

Uuw believes the application of the assurance framework, including the use of both internal and external assurance experts, has culminated in a plan which is of high quality and fulfils all the requirements as set out in the Water Resources Planning Guideline (2023)¹.

¹<https://www.gov.uk/government/publications/water-resources-planning-guideline/water-resources-planning-guideline>

Contents

1. Introduction.....	4
1.1 Background	4
1.2 Approach to development and assurance of the plan.....	4
2. Governance	6
2.1 WRMP programme governance.....	6
2.2 Board engagement.....	7
3. Corporate risk assurance	9
3.1 Introduction	9
3.2 Programme	9
3.3 Data	9
3.4 Methodologies	9
4. Stakeholder and customer engagement.....	10
4.1 Introduction	10
4.2 Stakeholder and customer research	10
5. Assurance and audit	11
5.1 General assurance process	11
6. Conclusion	22

Tables

Table 1 Risk assessment of WRMP products	11
Table 2 Supply assurance undertaken by Jacobs	16
Table 3 Demand assurance undertaken by Jacobs.....	17
Table 4 Target headroom assurance undertaken by Jacobs	18
Table 5 Options assurance undertaken by Jacobs.....	18
Table 6 Best value assurance undertaken by Jacobs.....	19

Figures

Figure 1 WRMP governance structure	6
--	---

Acronyms

For a list of acronyms, refer to glossary in the main document.

1. Introduction

1.1 Background

The United Utilities Water (UW) Water Resources Management Plan forms a key part of our strategy to ensure that we have water sufficiency and sustainability, in order to deliver resilient services to customers and the environment, now and in the future. The plan has also been developed in alignment and compliance with the Environment Agency and Natural Resources Wales *Water Resources Planning Guideline (2023)*. This guidance document contains specific assurance requirements for Water Resources Management Plans. In summary, we are required to demonstrate that:

- we have met our obligations in developing our plan;
- our plan reflects all relevant regional plans, which have been developed in accordance with the national framework and relevant guidance and policy, or provides a clear justification for any differences; and
- our plan is a best value plan for managing and developing our water resources so we can continue to meet our obligations to supply water and protect the environment and is based on sound and robust evidence including relating to costs.

1.2 Approach to development and assurance of the plan

The scope, delivery and risk management of the programme of work required to deliver the plan has been undertaken by a dedicated central technical programme team, managed through a Steering Group, who ultimately report progress to the Our Future Plan Programme Board (chaired by the Chief Executive) and the UW Board. This structure is pictorially represented in Figure 1. In addition to the formal internal programme governance structure, UW has sought to ensure the robustness of the plan via the use of both internal (UW Corporate Audit) and external assurance expertise. UW has embedded a check, review and approval process and has targeted additional assurance, with independent third parties, in areas considered high risk. High risk areas are defined by application of the UW risk assurance assessment used consistently across regulatory submissions. This process assesses each product against impact (stakeholders, competition, financial and performance) and probability. The assessment then reviews the programme's existing controls and from this derives the level of risk per product. Where the net risk (the residual risk post the application of controls) is considered high or critical, the need for further third-party assurance is identified. This methodology allows UW to consistently determine the need for and use of independent third parties to support the submission.

UW has worked with the customers and stakeholders of the North West to understand and reflect their priorities in this plan. This has been achieved via:

- undertaking a programme of engagement with customers at various stages throughout the development of the draft WRMP;
- using customer input to support the prioritisation of option types;
- using customer prioritisation of services to support scenarios for programme optimisation;
- directly engaging with the Environmental sub-group of YourVoice: the independent customer and stakeholder challenge panel;
- engaging with stakeholders and offering opportunities to comment on the UW draft plan and the approaches developed; and
- reviewing all responses received from the public consultation on the draft plan and incorporating changes into the revised draft plan.

The assurance approach, plan and activities have been audited by the UW Corporate Audit team prior to submission. This included a review of the appropriateness and robustness of governance, roles and responsibilities, reporting and monitoring. UW corporate Audit tested a sample of the assurance activities to

confirm that they had taken place and that recommendations have been captured and implemented where appropriate.

Independent assurance has been undertaken on products considered high risk, prior to draft and revised draft plan submissions. Additional independent assurance has been undertaken to ensure that the plan has met all the requirements as set out in the Planning Guideline.

Finally, the U UW approach to assurance has included utilising an independent assurance provider, Turner & Townsend, to undertake assurance aggregation. This assurance broadly has two parallel streams of activity; firstly, compiling all assurance activity to validate that all corrective actions have been undertaken; and secondly, to test compliance with programme governance. Such assurance has been undertaken across the plan programme to assist U UW in documenting, and agreeing to, the Board Assurance Statement. By agreeing to the Board Assurance Statement, the U UW Board has confirmed the quality of the plan and that it, at this time, represents the best value long-term plan to mitigate the identified future risks and uncertainties.

This technical report sets out:

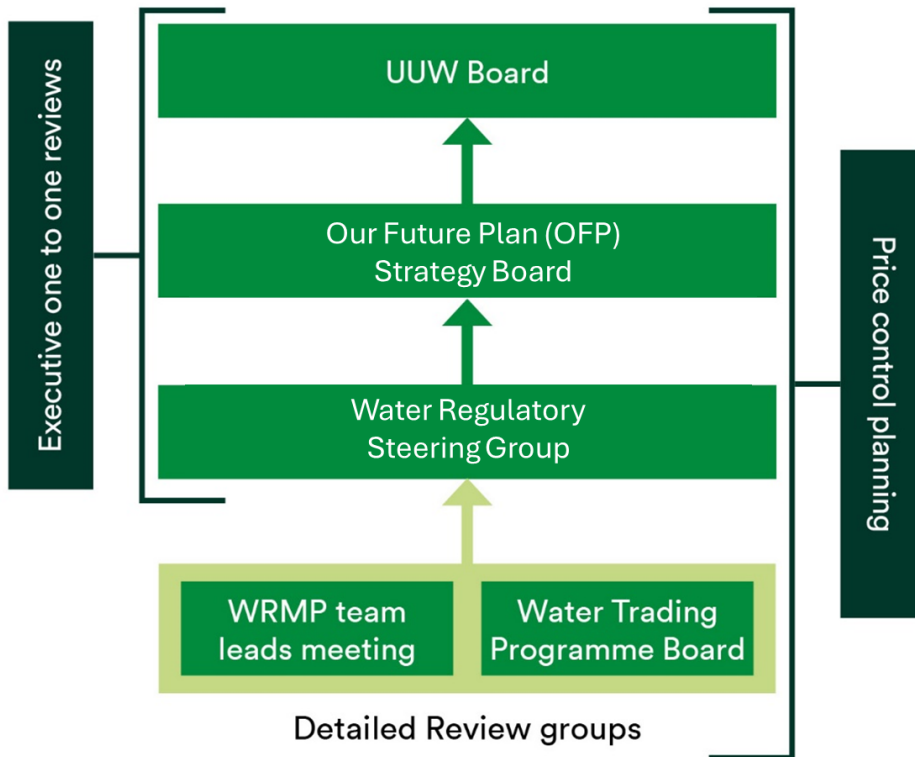
- the overarching governance process implemented by U UW to support development of the draft, revised draft and final plans, including Board engagement; and
- evidence of compliance with the Water Resources Planning Guideline.

2. Governance

2.1 WRMP programme governance

In order to deliver a successful plan, U UW recognises the importance of company-wide input, challenge and strategic direction. U UW has, therefore, implemented a tiered approach to governance. These governance groups have provided, and continue to provide, scrutiny, steer and technical input into the development of the plan and have ensured alignment with wider business activities. Figure 1 describes the different tiers of governance.

Figure 1 WRMP governance structure



2.1.1 U UW Board

The U UW Board is a key element of the Water Resources Management Plan assurance process. The Water Resources Management Plan team has updated the Board on developments and taken its advice, challenge and strategic guidance to assist with the development of the plan. This Board engagement has ranged from a deep dive session to ensure a comprehensive understanding of the planning process through to the approval and sign-off of the Board Assurance Statement.

As well as formal meetings, the U UW Board is kept engaged via the commonality of the Chief Executive Officer (CEO), who attends both the Board meetings and the Our Future Plan (OFP) Programme Board meetings.

2.1.2 Our Future Plan Strategy Board

The Our Future Plan (OFP) Strategy Board is the core strategic decision-making forum for U UW. It is comprised of the U UW executive directors and chaired by the CEO. The OFP Strategy Board provides strategic direction to the WRMP Steering Group and sets the plan in the context of the wider U UW priorities. The OFP Strategy Board:

- provides direction to the WRMP Steering Group;
- makes strategic decisions on scope and outcomes;
- approves the programme funding over and above the WRMP Steering Group’s delegated authorities;
- sets the risk appetite for the WRMP programme;

- acts as a key escalation point to the WRMP Steering Group/Water Systems Strategy Group; and
- approves the strategic assumptions of the WRMP.

2.1.3 Water Regulatory Steering Group (SG)

The Water Regulatory SG acts as a content steering group and programme governance group for the WRMP. It ensures both the delivery and the strategic direction of a high quality WRMP. It is also accountable to ensure the plan has been fully assured and delivered to the required regulatory timescales.

The Water Regulatory SG consists of senior leaders and operational directors that are empowered to make informed decisions about the proposals that are brought forward from the WRMP team leads meeting. They influence the strategic direction of the plan, review and sign-off the content prior to submission to the OFP Programme Board.

The Water Regulatory SG membership ensures a comprehensive linkage, understanding and strategic guidance across both the WRMP and PR24 submissions. This is achieved via a number of key personnel sitting across both the Water Regulatory SG and the Our Future Plan Strategy Board. This includes roles such as Asset Management Director, Director of Regulatory and Strategic Programmes, Head of Regulatory Strategy and Regulatory Totex Manager.

The key roles and responsibilities of the Group are to:

- challenge decisions made by the WRMP team leads;
- make key decisions throughout the development of the plan;
- act as a gateway for key decisions that may go forward to the OFP Programme Board;
- relay information/knowledge to the WRMP team regarding regulatory changes or decisions that may impact on the delivery of the plan;
- hold leads accountable for delivery to key milestones, risk and issue management where appropriate, and ensure the delivery of a quality plan and submission;
- provide assurance to the OFP Programme Board and Board that the right level of scrutiny has been provided by the right technical experts and that the submission is fully assured;
- endorse the plan; and
- act as ambassadors for the WRMP and its vision.

2.1.4 WRMP Team Leads Meeting

The WRMP Team Leads Meeting is a technical group composed of key subject matter experts from the water business. It has been established to ensure that all key data and assumptions used within the process can be appropriately challenged, validated and agreed.

2.2 Board engagement

Board engagement has occurred during the development of both the UUW draft, revised draft and final WRMPs to ensure that the plans represents a best value approach to mitigating long-term risks and building resilience for water resources. Quarterly updates were also shared with the Board during the draft and revised draft development, with updates on the plan and key decisions which were required.

Subjects covered during these Board interactions include:

- Water resources context and strategy;
- Water resources planning framework;
- Water transfers and trading;
- The WRMP schedule;

- How the plan is built;
- Supply forecasting;
- Demand forecasting;
- Headroom allowance;
- Levels of Service;
- Demand management strategy;
- Adaptive planning; and
- Investment requirements.

The Board were also engaged in October 2024 during the finalisation of the plan.

3. Corporate risk assurance

3.1 Introduction

The plan has been developed in accordance with the U UW Regulatory Reporting Assurance Framework, which can be found on our website².

3.2 Programme

A dedicated team has been established within the Regulation and Compliance Directorate of U UW. The team is accountable for:

- programme management of the work required to develop the plan and to ensure that risks and issues are identified, managed and mitigated;
- ensuring work is delivered to meet the requirements of the WRMP Planning Guideline; and
- management of additional expert engineering resources via the U UW integrated supply chain. The integrated supply chain ensures built-in assurance of processes embedded within the U UW procurement framework. These resources have specifically supported the options identification phase of the programme under the management, guidance and assurance framework of the U UW Programme team.

3.3 Data

Data utilised within the WRMP has undergone comprehensive validation and checks:

- data sources have been established, reviewed and validated using established U UW data governance processes. These processes ensure that the data used to support the decision-making process is reliable, accurate and complete with supporting data being risk assessed and signed-off at the appropriate level;
- checkpoint and verification processes have been established between the WRMP team and operational teams to review the results following each development stage;
- where the data utilised within the WRMP process is used for regulatory reporting, the data has been validated and assured using the same principles as that used for regulatory reporting; and
- additional assurance of the data used within the process has been provided by adding the data to the data set covered by our established three lines of assurance regulatory reporting process.

3.4 Methodologies

Methodologies used to develop the WRMP have been developed using industry best practice with subject matter experts completing the development of the underpinning methodologies to help identify risks and support the decision-making process.

² <https://www.unitedutilities.com/globalassets/documents/pdf/2020-25-assurance-framework>

4. Stakeholder and customer engagement

4.1 Introduction

As described in Section 1.2 UUW has worked with the customers and stakeholders of the North West to understand and reflect their priorities in this plan. A full description of the WRMP stakeholder and customer engagement can be found in the *Technical Report – Customer and stakeholder engagement*.

4.2 Stakeholder and customer research

Stakeholder research sessions have been held to develop the strategic direction of the WRMP, with these sessions being organised, developed and facilitated by an independent third-party organisation. UUW has considered the outputs of these sessions and, in the light of the feedback received, UUW has updated its long-term goals to best align with the ambitions of stakeholders of the North West.

Three pieces of customer research have been undertaken to ensure the plan meets customer expectations in a cost-effective manner:

- (1) customer research was completed in April 2021. This was undertaken in collaboration with the UUW water resources colleagues. This immersive research aimed to understand customer priorities about the way in which UUW should resolve water resources risk. The outputs have been used to inform the selection of options within the WRMP;
- (2) customer research was also used to determine the appetite of customers to pay for the Temporary Use Bans (TUBs) service level to be improved for 1 in 20 (5 per cent annual chance) to 1 in 40 (2.5 per cent annual chance); and
- (3) a ‘whole-plan acceptability’ test was performed.

5. Assurance and audit

5.1 General assurance process

UW has undertaken a risk-based approach to assurance to support the development of the WRMP. This methodology is in line with UW published assurance practices.

In order to establish the need for both the depth and coverage of assurance activities high risk areas are defined by application of the UW risk assurance assessment, which is used consistently across regulatory submissions. This process assesses each product against:

- impact (stakeholders, competition, financial and performance); and
- probability.

Following the gross risk review, the assessment then reviewed the programme’s existing controls and, from this, the level of net risk for each product was derived. Where the net risk was considered high or critical, the need for further third-party assurance was identified. Where the work has been undertaken on behalf of UW by a third party, further external assurance was not generally applied as any consultancy organisation employed by UW has been rigorously tested for quality standards as part of the UW procurement process. This methodology allows UW to consistently determine the need and, therefore, the use of, independent third parties to support the submission.

In the development of the plan, the risk assessment was run five times with the final run being prior to the submission of the final WRMP, and completed in September 2024.

The results of the first two runs are shown in Table 1 below. The additional runs (three to five) are not shown because there were no high or critical elements identified, and the assessment deemed no changes.

Table 1 Risk assessment of WRMP products

Element	Product alignment	First risk assessment	Second risk assessment
Statutory Consultation	Statement of Response	N/A	L
Demand			
Annual demand profiles	Final WRMP24 Technical Report – Demand for Water	L	L
Growth assumptions	Final WRMP24 Technical Report – Demand for Water	H	M
Household consumption	Final WRMP24 Technical Report – Demand for Water	H	M
Non-household consumption	Final WRMP24 Technical Report – Demand for Water	M	M
Leakage and PCC assumptions	Final WRMP24 Technical Report – Demand for Water	M	M
Dry year/dry year critical period/1 in 500 (0.2 per cent annual chance) Uplifts	Final WRMP24 Technical Report – Demand for Water	L	L
Demand model	Final WRMP24 Technical Report – Demand for Water	H	M
Data tables	Data Tables	L	L

Element	Product alignment	First risk assessment	Second risk assessment
Supply			
Hydrology	Final WRMP24 Technical Report – Supply forecast	M	M
Demand inputs	Final WRMP24 Technical Report – Supply forecast	L	L
Asset capacities (reservoir storage, water treatment works capacities, network capacities etc.)	Final WRMP24 Technical Report – Supply forecast	L	L
Groundwater inputs	Final WRMP24 Technical Report – Supply forecast	L	L
Water resources models	Final WRMP24 Technical Report – Supply forecast	H	H
Baseline deployable output assessment	Final WRMP24 Technical Report – Supply forecast	M	M
Climate change assessment	Final WRMP24 Technical Report – Supply forecast	M	M
Outage assessment	Final WRMP24 Technical Report – Supply forecast	M	M
Losses (raw water, treatment works, process)	Final WRMP24 Technical Report – Supply forecast	L	L
Imports/exports/non-potable supplies	Final WRMP24 Technical Report – Supply forecast	L	L
Water Resources	Final Developing drought lessons learned appendix	N/A	M
Target Headroom			
Input data	Final WRMP24 Technical Report – Allowing for uncertainty	L	L
Model	Final WRMP24 Technical Report – Allowing for uncertainty	H	L
Glidepath	Final WRMP24 Technical Report – Allowing for uncertainty	M	H
Options			
Unconstrained options list	Final WRMP24 Technical Report – Options Identification	L	L
Third-party involvement	Final WRMP24 Technical Report – Options Identification	M	M
Options screening	Final WRMP24 Technical Report – Options Identification	H	M
Demand options design and costing	Final WRMP24 Technical Report – Options Identification	H	L
Supply Options design and costing	Final WRMP24 Technical Report – Options Identification	M	M
Environmental assessments	Final WRMP24 Technical Report – Options Identification	M	M
Options AIC calculation	Final WRMP24 Technical Report – Options Identification	H	M

Element	Product alignment	First risk assessment	Second risk assessment
Workstream consistency (United Utilities/WRW/STT)	Final WRMP24 Technical Report – Options Identification	M	M
Optimism Bias	Final WRMP24 Technical Report - Options Identification	N/A	L
Environment			
SEA/HRA/WFD/INNS/Natural capital/biodiversity (options/plan)	SEA/HRA/WFD	L	M
Sustainability reductions	Final WRMP24 Technical Report – Environmental destination	L	M
Environmental destination	Final WRMP24 Technical Report – Environmental destination	M	H
Decision-making			
Planning scenarios	Final WRMP24 Technical Report – Deciding on future options	M	H
Strategic choices	Final WRMP24 Technical Report – Deciding on future options	M	H
Decision-making tools	Final WRMP24 Technical Report – Deciding on future options	M	H
Best value/adaptive plan as appropriate	Final WRMP24 Technical Report – Deciding on future options	M	H
Non-PWS			
Prioritisation	Delivered by Water Resources West	N/A	N/A
Matrix of opportunities	Delivered by Water Resources West	N/A	N/A
High level assessment	Delivered by Water Resources West	N/A	N/A
Stakeholder and Customer			
Aims and objectives of research	Final WRMP24 Technical Report – Customer and stakeholder engagement	L	M
Customer research approach	Final WRMP24 Technical Report – Customer and stakeholder engagement	M	M
Research results	Final WRMP24 Technical Report – Customer and stakeholder engagement	L	M
Incorporation into the plan	Final WRMP24 Technical Report – Customer and stakeholder engagement	M	M
Stakeholder engagement and support	Final WRMP24 Technical Report – Customer and stakeholder engagement	L	M
Submission			
Guidance and directive compliance	FinalWRMP24 Technical Report – Assurance and governance	L	M

Element	Product alignment	First risk assessment	Second risk assessment
Document production	Final WRMP24 Technical Report – Assurance and governance	L	M
Website production	FinalWRMP24 Technical Report – Assurance and governance	L	M
Tables			
EA WRMP tables and commentary	Tables Submission	L	H
Market information tables	Tables Submission	L	H

The levels of assurance undertaken as part of the overall assurance framework are described below.

5.1.1 First-line assurance: within business team

In line with our processes, systems and management controls there was progressive review of the plan. Material assumptions and calculations from the governance groups, described in Section 2.1, were subject to internal challenge.

5.1.2 Second-line assurance: peer review

This was managed through the governance structure outlined in Section 2.1. The technical elements of the plan have been reviewed by subject matter experts. In addition, peer review was undertaken on the outputs that were delivered by internal teams.

5.1.3 Third-line assurance: independent assurance

Third line assurance was undertaken across the course of the plan by independent third parties as identified from the risk assessment. Jacobs undertook review in two phases across the development of the plans (draft and revised draft). The areas assured are set out in Table 1 above and are indicated by high or critical assessments.

Jacobs stated in its audit letter that:

“Taking account both of our previous assurance and our most recent assurance, and except where noted above³, we consider that:

- *you have met your obligations in developing your plan;*
- *the plan incorporates the long-term government requirements for leakage and demand reduction;*
- *the plan aligns with the WRW regional plan, and has been developed in accordance with the national framework and relevant guidance and policy, or provides a clear justification for any differences*
- *the WRMP and PR24 planning assumptions are consistent.”*

Further details of the areas assured by Jacobs are provided below.

5.1.4 Assurance aggregation

UW engaged Turner & Townsend to undertake an assurance aggregation exercise across the development of the WRMP plans and prior to the submissions of the draft, revised draft and final plans. The purpose of the assurance aggregation was to test whether:

³ Jacobs have reported that all material issues have been resolved. Non-material actions have also been addressed apart from one that will be resolved between “draft” and “revised draft” plans.

- the assurance plan is aligned to the U UW Assurance Framework, including reviewing the adequacy of the planned scope of work and deliverables, together with the plan to deliver these activities;
- there was application of the U UW Assurance Framework and associated risk-based assessment;
- the project management including governance and control was sufficient;
- any processes used were developed in a way which will support the delivery of reliable, accurate and complete data, to be used in the WRMP documentation or tables; and
- the regulatory requirements have been reviewed, documented and understood.

Draft and revised draft audit conclusions

The Audit of the draft WRMP found that:

‘Our aggregate assurance of your dWRMP24 observed alignment to processes and did not identify any material issues within our scope that would impact the Board’s decision to go ahead with the planned submission.’

The Audit of the revised draft WRMP found that:

‘Our aggregate assurance of U UW’s revised draft WRMP24 and Statement of Response submission observed alignment to processes and did not identify material issues that would impact the Executive’s decision to go ahead with the planned submission’.

Final audit conclusions:

The Audit of the final WRMP found that:

“Based on the interviews and risk-based sampling undertaken, we consider you continue to operate acceptable project management processes and governance for the final iteration of your WRMP24. Our aggregate assurance has observed alignment to processes and did not identify material management or governance issues that would impact your decision to publish your final plan.”

5.1.5 Additional assurance

The Water Resources Planning Guidelines identified the following areas requiring assurance:

- The Water Resource Planning Guideline (WRPG) is being followed and applied;
- A supply forecast that meets the requirement for resilience to a 1 in 500-year (0.2 per cent annual chance) drought has been developed;
- Our demand forecast follows regulatory guidance and uses the best available data and the latest methodologies;
- We have accounted for uncertainty in our forecasts by using ‘target headroom’, with the choice of percentile reflecting both the degree of confidence in data and potential risk;
- Identification of the options was carried out in accordance with current regulatory and industry guidelines;
- It is a best value plan for customers and the environment for Water Resources based on robust evidence and costing processes; and
- Our WRMP is aligned to other programmes.

The assurance activities undertaken and the outputs for each of these requirements are set out below.

The Water Resource Planning Guideline (WRPG) is being followed and applied U UW Corporate Audit

U UW corporate audit provided targeted and cyclical review of the process. We also utilised interactions with regulators and other interested parties to validate and enhance our approach to meeting certain elements of the planning guideline.

The audit activity for the draft WRMP was undertaken in September 2022 by the U UW Corporate Audit team. The focus of this audit was to assess the adequacy and effectiveness of the WRMP programme governance and management, and associated assurance approach.

The audit covered the following:

- review the overall Assurance Approach to WRMP including governance, roles and responsibilities, reporting and monitoring;
- review the WRMP Assurance Plan considering how it mitigates the key risks and whether there is clarity surrounding the specific assurance activities required;
- carry out sample testing on the assurance activities to confirm that they have taken place and that recommendations have been implemented where appropriate;
- review any actions and recommendations from Phase 1 to confirm they have been implemented; and
- review the plans in place to ensure that the WRMP Assurance Plan remains relevant and valid.

The overall conclusion of the audit was that there were robust programme management and governance controls in place over the processes used to produce the draft WRMP. No significant issues were identified by the review and the small number of identified actions were completed within the agreed timescales to strengthen the management of the programme as it moved into a key stakeholder engagement phase.

A similar audit was undertaken for the revised draft WRMP in May 2023 including compliance with the WRPG through a review of the UJW Requirements Traceability Matrix. The overall conclusion of this audit was that:

"The WRMP programme governance and controls are robust and follow the established UU methodology, including completion of a requirements traceability matrix. The assurance approach is robust and is consistent with the standard approach applied to regulatory submissions. Planned assurance activities over the submission have been completed with no unresolved material issues. The Board Assurance Statement is an accurate reflection of the assurance activities performed and the results of those activities."

In the development of the Final WRMP, a further audit was undertaken in November 2024. This also reviewed completion of the requirements set out in order to finalise the WRMP. This audit concluded the continued robust programme management and governance controls in place across the Final plan development and that the requirements set were addressed.

A supply forecast that meets the requirement for resilience to a 1 in 500-year (0.2 per cent annual chance) drought has been developed

The supply forecast assurance that has been performed is summarised in Table 2.

Table 2 Supply assurance undertaken by Jacobs

Topic	Material issues (Y/N)	Number of non-material actions
Water resources modelling	N	None
Environmental destination (ED):	N	2
<ul style="list-style-type: none"> • verification of data flows from the EA Fixit tool to UJW Aquator™ and Pywr modelling software; • comparison of baseline and ED results • review of evidence to support any change in reduction compared with initial reductions proposed by the EA; and • review of the rationale for different scenarios and alignment with WRW and Ofwat scenarios. 		

Topic	Material issues (Y/N)	Number of non-material actions
Water resources models review: <ul style="list-style-type: none"> • how baseline data has been prepared and verified; • how this data has been applied in the model; • development of the models for our draft WRMP baseline; • use of the model and results (noting overlap with the environmental destination task), to include baseline Deployable Output (DO) values, raw water and process losses, drought permits/orders and demand savings, environmental destination; • spot checks of model scenarios and parameters; • high level rationale for definition of emergency drought orders metrics; • high level DO benefit from drought permits and orders; • role and Aquator™ and Pywr; and • model behaviour in relation to operations (including trade-off between strategic model and realism). 	N	None

This requirement was reassessed as described in section 5.1 prior to the final WRMP submission and did not require any further assurance to be met.

Our demand forecast follows regulatory guidance and uses the best available data and the latest methodologies

The demand forecast assurance that has been performed is summarised in Table 3 below.

Table 3 Demand assurance undertaken by Jacobs

Topic	Material issues (Y/N)	Number of non-material actions
Demand growth assumptions review including: <ul style="list-style-type: none"> • population and property forecasts taking into account: <ul style="list-style-type: none"> – local Authority housing plans – Office of National Statistics (ONS) forecast data; and • taking into account into account the views of regulators to plan for a high growth scenario and making sure that we are an efficient company 	N	None
Household consumption forecast assurance to ensure that U UW was correctly using the “micro-component” consumption data provided by our consultants, Artesia	N	None
Demand modelling assurance to confirm that the demand model is correctly processing demand and consumption forecast data and that assumptions that have been made are reasonable	N	None

This requirement was reassessed as described in section 5.1 prior to the final WRMP submission and did not require any further assurance requirements to be met.

We have accounted for uncertainty in our forecasts by using ‘target headroom’, with the choice of percentile reflecting both the degree of confidence in data and potential risk

The target headroom/glidepath assurance that has been performed is summarised in Table 4.

Table 4 Target headroom assurance undertaken by Jacobs

Topic	Material issues (Y/N)	Number of non-material actions
Headroom/Glidepath:	N	1
<ul style="list-style-type: none"> gradual pollution of sources (changes from WRMP19 approach); modelling and operational uncertainty (comparison of Aquator™, Pywr and real-world results); uncertainty of demand management savings (as informed by WRW methods); additionally, we would like to discuss UUW’s decision with regards to the glide path selected; gradual pollution of sources (S5); demand Saving Uncertainty (S6); modelling and Operational Uncertainty (S6) to include uncertainty around stochastic data within the S6 component; uncertainty around demand management options within (D4); review the factors included in the demand forecast upper and lower bounds and, therefore, considered within headroom; and identification of any areas of uncertainty not included in headroom (e.g. estimate of volume associated with private supplies) and identification of how these are to be considered i.e. as scenarios, within decision-making. 		

This requirement was reassessed as described in section 5.1 prior to the final WRMP submission and did not require any further assurance requirements to be met.

Identification of the options was carried out in accordance with current regulatory and industry guidelines

The options assurance that has been performed is summarised in Table 5.

Table 5 Options assurance undertaken by Jacobs

Topic	Material issues (Y/N)	Number of non-material actions
Options screening – Check application and consistency of screening methodology to options	N	None

Topic	Material issues (Y/N)	Number of non-material actions
Demand options design and costing: <ul style="list-style-type: none"> consider what new options have been identified for WRMP24 – is the range and scale of options considered sufficient; consider options previously screened out at WRMP19 but now screened in for WRMP24. Is there sufficient reason for screened out options to remain screened out; consider rejection register – is this up to date and does it include sufficient detail; test whether United Utilities are using the ‘all companies working group’ the basis of costing; is optimism bias applied to the costings; and sample check of DO benefit estimation. 	N	3
Options Average Incremental Cost (AIC) calculation: <ul style="list-style-type: none"> confirmation that the AIC calculation has been correctly implemented; and ensuring that it is consistent with the RAPID methodology. 	N	0

This requirement was reassessed as described in section 5.1 prior to the final WRMP submission and did not require any further assurance requirements to be met.

A best value plan for customers and the environment for Water Resources based on robust evidence and costing processes

The best value plan assurance that has been performed is summarised in Table 6.

Table 6 Best value assurance undertaken by Jacobs

Topic	Material issues (Y/N)	Number of non-material actions
Planning scenarios: <ul style="list-style-type: none"> how we have reconciled the Ofwat scenarios with the regional scenarios; determine which scenarios UUW views as important, and how they have prioritised these scenarios; and UUW’s various ‘what if’ scenarios, and determine what happens if an option cannot be implemented. 	N	2

Topic	Material issues (Y/N)	Number of non-material actions
Strategic choices: <ul style="list-style-type: none"> • how the strategic choices fit in with the UUWs proposed headroom/glide path; • what level of service UUW is targeting and how they plan to achieve this; • the assumptions behind the leakage and demand management targets; and • the timeline UUW is targeting to achieve resilience to a 1 in 500-year (0.2 per cent annual chance) drought and environmental destination targets. 	N	4
Decision-making tools: <ul style="list-style-type: none"> • how UUW has achieved the right balance for system optimisation; • examination of the decision as to whether the WRW ValueStream tool was used for the options selection process or whether we used our own process tools to assess options; and • how options are assessed in the decision-making tool. 	N	0
Best value/adaptive plan: <ul style="list-style-type: none"> • to review our approach for developing a best value/adaptive plan. 	N	0

All non-material actions listed from the Jacobs assurance reviews were addressed during the period between draft and revised draft plans.

Our WRMP is aligned to other programmes

We implemented a tiered approach to governance to ensure that the WRMP has been developed in a robust way, with wide input from across the organisation. This approach provides internal scrutiny on plan development, promotes alignment with wider processes and supports the internal team in developing the plan. The governance process feeds into and supports final endorsement by the Board.

The final WRMP maintains strong alignment with the Water Trading programme, which uses a similar governance structure, as shown in Figure 1.

Additionally, WRMP is aligned with the Price Review programme (PR24) and the submission of the PR24 Draft determination⁴ in August 2024.

5.1.6 Additional revised draft WRMP review and validation of changes from draft WRMP

Jacobs were engaged to review and validate changes identified by UUW for production of the revised draft WRMP. The audit covered the following;

- Review changes to the WRPG and validate the changes identified by UUW and confirm, or otherwise, UUW’s impact assessment on the requirements of the Decision-Making Tools and Demand Options Model. Where changes are required by the Final WRPG, confirm that these have been incorporated.

⁴ <https://www.unitedutilities.com/corporate/about-us/our-future-plans/our-business-plan-submissions/our-business-plan-submissions-for-2025-2030/pr24-proposed-plan-supplementary-documents/>

- Identify and document any change/developments to the Decision-Making Tools and Demand Options Model, and the associated driver requirements since completion of the assurance commission undertaken in support of the draft WRMP submission in September 2022.
- Review the internal UUW process adopted to govern and apply the changes

The outputs for each area are set out below.

Decision Making Tools

Jacobs confirmed that there were no residual material issues and concluded that;

"Overall the use of ValueStream2 (VS2) incorporates the WRPG updates and UU staff have stated how they have addressed the changes in guidance in relation to input data that is used in VS2 and other information that informs the WRMP and is used to populate the WRP tables.

The internal governance and processes related to ValueStream2 updates and audit trail of VS2 run results are thorough and well structured."

Demand Options Model

Jacobs concluded that;

"UU has updated its use of the demand options model based on previous assurance feedback and to include recent WRPG updates. No issues were identified that needed addressing."

6. Conclusion

- The development of the draft, revised draft and final plans have been undertaken in accordance with the UUW published governance and assurance framework.
- This framework requires a comprehensive documented understanding of regulatory requirements and the risk assessment of products to identify areas of risk and, therefore, the determination of where greater assurance is required;
- The WRMP plans have been assured internally, and externally where areas were deemed high risk;
- The appropriate risks assessments and assurance reviews have been undertaken periodically and as appropriate; and,
- UUW believes that the adoption of the governance and assurance framework has resulted in the production of a high-quality plan.

United Utilities Water Limited
Haweswater House
Lingley Mere Business Park
Lingley Green Avenue
Great Sankey
Warrington
WA5 3LP
unitedutilities.com



Water for the North West