United Utilities Water

DRAFT Drainage and Wastewater Management Plan 2023

Technical Appendix 1 – Governance and assurance

Document Reference: TA1

June 2022

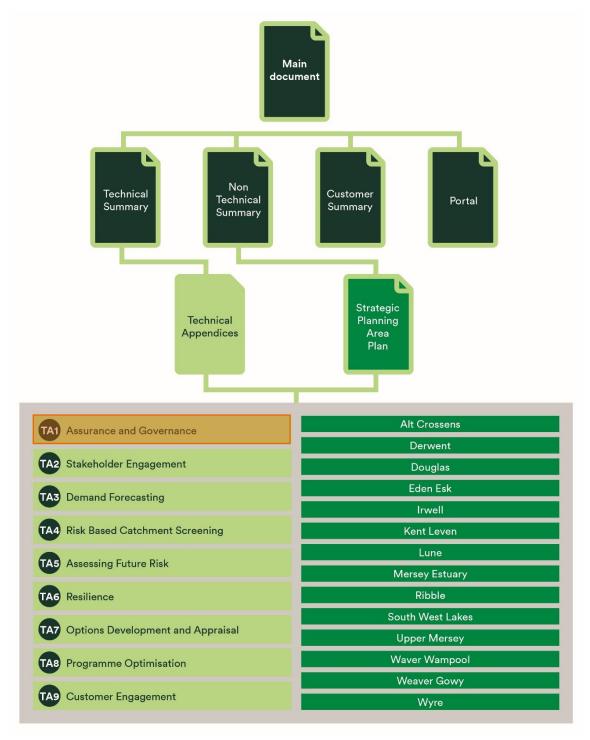


Executive summary

The draft Drainage and Wastewater Management Plan (DWMP) has been developed in accordance with the standard 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 are identified as critical or high risk, includes, targeted independent third parties' assurance. The production of the draft DWMP has therefore been developed in accordance with a number of assurance audits by the UUW Corporate Audit team and four additional independent audits.

UUW believes the application of the assurance framework, including the use of both internal and external assurance experts, has culminated in a draft DWMP, which is of high quality and fulfils all the requirements as set out in: The DWMP Framework (2018); The Defra Guiding Principles (October 2021); and the Defra letter to CEOs (ref: DWMP_GP/02/2022, February 2022).

Figure 1 DWMP document structure



Acronyms

For a list of acronyms, refer to document C0003.

Contents

1.	Introduction		5		
	1.1	Background	5		
	1.2	Approach to development and assurance of the draft DWMP	5		
2.	Governance				
	2.1	DWMP programme governance	8		
	2.2	Board engagement	11		
3.	Corporate risk assurance				
	3.1	Introduction	12		
	3.2	Programme	12		
	3.3	Data	12		
	3.4	Methodologies	13		
	3.5	Stakeholder and customer	13		
4.	Assı	Assurance and audit			
	4.1	General assurance process	15		
	4.2	Specific assurance activities	16		
5.	Con	clusions	19		
Tab	les				
Table	1 De	fra Guiding Principles	7		
Table	2 Bo	ard engagement	11		
Table	e 3 Ris	k assurance of DWMP products	15		
Figu	ıres				
Figur	e 1 D\	WMP document structure	3		
Figur	e 2 DWMP governance structure				

1. Introduction

1.1 Background

1.1.1 United Utilities Water (UUW) draft Drainage and Wastewater Management Plan (DWMP) has been developed in alignment and compliance with the DWMP Framework (Water UK, 2018), the Draft Guiding Principles for DWMPs (Defra, 2022) and Defra letter to CEOs 'Expectations for assurance of cycle 1 draft and final drainage and wastewater management plans (DWMPs) 18/02/22 ref: DWMP_GP/02/2022. The three documents contain, for the majority, common requirements. These guidance documents contain specific assurance requirements for the DWMP. These are summarised below:

Guiding Principles for DWMPs, Draft, October 2021

- "...companies will need to ensure that information is presented and maintained in such a manner as to enable effective audit and assurance." (Appendix F, page 3)
- "We also expect company Boards to:
 - ensure that the DWMP is given sufficient resource for its development;
 - give a clear signal on their expectations for the plans to their DWMP and Regulation teams;
 - take an active interest in their development, challenging what is being done and considering how the plans can improve company operations and accountability; and
 - be exemplars for encouraging multi-sector engagement on the plans and promoting them in the company and beyond."

(Defra letter to CEOs 'Expectations for assurance of cycle 1 draft and final drainage and wastewater management plans (DWMPs) 18/02/22 ref: DWMP_GP/02/2022)

- We expect each company to provide an assurance statement from its Board to Defra, Ofwat and the EA to accompany its draft DWMP in summer 2022 and final DWMP in spring 2023, stating that it is satisfied that:
 - the guiding principles and the DWMP technical framework are being followed and applied;
 - the planning objectives are being met (both common and bespoke);
 - there are clear links and processes in place to ensure the appropriate DWMP interventions, including partnership and co-funded schemes, will be put forward for investment in PR24 business plans;
 - measures are in place to achieve objectives set in the Government's Storm Overflows Discharge Reduction Plan (government will engage and consult with stakeholders on the storm overflows discharge plan in March 2022 and publish the plan in September 2022; therefore, assurance not expected on this in statements accompanying draft plans); and
 - it is a best value plan for customers and the environment for managing and developing drainage and wastewater services and is based on robust evidence and costing processes.

1.2 Approach to development and assurance of the draft DWMP

1.2.1 The scope, delivery and risk management of the programme of work required to deliver the draft DWMP has been undertaken by a dedicated central technical programme team, managed through a Technical Review Group, and a Steering Group, who ultimately report progress to the Strategy Steering Group (chaired by the Chief Executive) and the UUW Board. This structure is pictorially represented in Figure 2 DWMP governance structure. In addition to the formal internal programme governance structure, UUW has sought to ensure the robustness of the DWMP via the use of both internal (UUW

Corporate Audit) and external assurance expertise. UUW has embedded a check, review and approve process and has targeted additional assurance, with independent third parties, in areas considered high risk. High risk areas are defined by application of the UUW risk assurance assessment used consistently across all 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 risk¹ is considered high or critical, the need for further third-party assurance is identified. This methodology allows UUW to consistently determine the need for, and therefore the use of, independent third parties to support the submission.

- 1.2.2 UUW has worked with the customers and stakeholders of the North West to incorporate their views and priorities, and to ensure that the plan reflects these views. This has been achieved via:
 - undertaking a programme of engagement with customers at various stages throughout the development of the DWMP;
 - 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 Your Voice Environment Sub Group: the UUW independent customer and stakeholder challenge panel; and
 - setting up 'Strategic Planning Groups' to engage with stakeholders and offer opportunities to comment on the UUW DWMP and the approaches developed.
- 1.2.3 The DWMP has been audited by the UUW independent Corporate Audit team on two separate occasions prior to draft publication. The Corporate Audit team have tested the appropriateness and robustness of governance, assurance and project management processes, which thereby ensure the quality of the DWMP outputs.
- 1.2.4 Additional independent assurance has been undertaken on products considered high risk, prior to draft DWMP submission. Additionally, further independent assurance has been undertaken to ensure that the DWMP has met all the requirements as set out in the DWMP Framework, the DWMP Guiding Principles and Defra letter to CEOs 'Expectations for assurance of cycle 1 draft and final drainage and wastewater management plans (DWMPs) 18/02/22 ref: DWMP_GP/02/2022.
- 1.2.5 Finally, the UUW approach to assurance has included an independent provider to undertake aggregation assurance. 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 DWMP programme to assist UUW in documenting, and agreeing to, the Board Assurance Statement (BAS). By agreeing to the BAS, the UUW Board have confirmed the quality of the DWMP and that it, at this time, represents the best value long-term plan to mitigate the identified future risks and uncertainties.
- 1.2.6 This Technical Appendix sets out:
 - the overarching governance process implemented by UUW, to support development of the draft DWMP, including Board engagement; and
 - evidence of compliance by UUW to the DWMP Framework, Guiding Principles and Defra Board Assurance letter to CEOs.
- 1.2.7 The Defra Guiding Principles for DWMP are outlined in Table 1 below. All requirements have been managed within the DWMP requirements traceability matrix which allows UUW to ensure requirements have been met within each product.

¹ Net risk is the residual risk post the application of controls

Table 1 Defra Guiding Principles

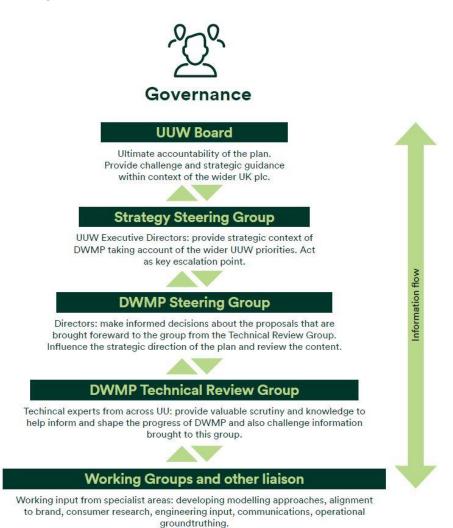
Guiding Principles	Description		
Comprehensive, evidence based and transparent	Be comprehensive, evidence based and transparent – in assessing, as far as possible, current capacity and actions needed in 5, 10 and 25-year periods, considering risks and issues such as climate change. Plans should also align, as far as possible, with other strategic and policy planning tools.		
Resilient	Strive to deliver resilient systems that will meet operational and other pressures and minimise system failures.		
Environment	Consider the impact of drainage systems on the immediate and wider environment, and how to mitigate those impacts.		
Leadership	Show leadership – in considering the big picture for an organisation's operational capacity.		
Collaborative	Be collaborative – recognising that, like in Water Resources Management Plans (WRMPs), the importance of sectors working together to consider future need, whilst also recognising the significant differences between water resources planning and drainage & wastewater planning. In particular, it should be noted that DWMPs are at a much lower level of geographic granularity and, unlike for WRMPs, multiple drainage asset owners are involved.		
Customer	Improve customer outcomes and awareness, and provide value for money.		

2. Governance

2.1 DWMP programme governance

2.1.1 To deliver a successful DWMP, UUW recognises the importance of input, challenge and strategic direction from across the business. UUW have 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 DWMP and have ensured alignment with wider business activities. The diagram below defines the different tiers of governance for the DWMP:

Figure 2 DWMP governance structure



2.1.2 UUW Board

- 2.1.2.1 The UUW Board is a key element of the DWMP assurance process. The DWMP team have kept the Board up to date on developments and taken its advice, challenge and strategic guidance to assist with the development of the plan. This has ranged from a deep dive session to ensure a comprehensive understanding of the planning process to the agreement and sign-off of the Board Assurance Statement. The Board added substantial input from its understanding of the wider UK plc economic and political climate.
- 2.1.2.2 As well as formal meetings, the UUW Board is kept fully engaged via the commonality of the Chief Executive Officer (CEO), who attends both the Board meetings and the Strategic Steering Group (SSG) meetings.

2.1.3 Strategic Steering Group (SSG)

- 2.1.3.1 The SSG is the core strategic decision-making forum for UUW. It is composed of the UUW Executive Directors and chaired by the CEO. The SSG provides strategic direction to the DWMP Steering Group and sets the DWMP in the context of the wider UUW priorities. The SSG provides:
 - direction to the DWMP Steering Group;
 - makes strategic decisions on scope and outcomes;
 - approves the programme funding over and above the DWMP Steering Group's delegated authorities;
 - sets the risk appetite for the DWMP programme;
 - · acts as key escalation point to the DWMP Steering Group; and
 - approves the strategic elements of the DWMP; for example, the Baseline Risk and Vulnerability Assessment (BRAVA) results and associated publication.

2.1.4 DWMP Steering Group (SG)

- 2.1.4.1 The DWMP SG acts as both the programme board and a content steering group. It ensures both the delivery and the strategic direction of a high-quality DWMP. They are, additionally, accountable to ensure the plan has been fully assured and delivered to the required regulatory timescales.
- 2.1.4.2 SG consists of senior leaders and operational directors that are empowered to make informed decisions about the proposals that are brought forward from the DWMP Technical Review Group (TRG). They influence the strategic direction of the plan, review and sign-off the content prior to submission to the SSG.
- 2.1.4.3 The DWMP SG membership ensures a comprehensive linkage, understanding and strategic guidance across both the DWMP and PR24 submissions. This is achieved via a number of key personnel sitting across both the DWMP SG and the Price Review 2024 Programme Management Board (PR24 PMB). These members are the Environment Planning and Innovation Director and the Wastewater Price Control Manager.
- 2.1.4.4 The key roles and responsibilities of the Group are to:
 - · challenge decisions made by the DWMP TRG;
 - make key decisions throughout the development of the plan;
 - act as a gateway for key decisions that may go forward to the SSG;
 - relay information/knowledge to the DWMP 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 SSG 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 DWMP and its vision.

2.1.5 DWMP Technical Review Group (TRG)

- 2.1.5.1 The DWMP TRG is a technical steering group composed of key subject matter experts from across UUW. It has been established to ensure that all key data and assumptions used within the process can be appropriately challenged, validated and agreed.
- 2.1.5.2 The DWMP TRG has been set up for the purpose of informing processes and challenging information presented in order to make decisions throughout the delivery of the DWMP. The TRG consists of technical experts from across UUW, which provide valuable scrutiny and knowledge to inform and shape the progression of DWMP and challenge information brought to the Group.
- 2.1.5.3 The key accountabilities of the TRG are to:
 - relay information/knowledge to the DWMP team and the Group regarding regulatory changes or decisions that may impact on the delivery of the plan;
 - provide technical input and use networks across the industry to share best practice and innovation;
 - make decisions on and challenge proposals that are brought to the Group;
 - provide assurance to the DWMP SG that the right level of scrutiny has been provided by the right people;
 - hold leads accountable for delivery to key milestones, risk and issue management where appropriate, and ensure the delivery of a quality plan; and
 - act as a gateway for key decisions prior to the DWMP Steering Group.

2.1.6 Working groups and other liaison

- 2.1.6.1 Below the TRG are numerous working groups who have been set up to provide much of the detailed analysis and modelling to inform and build the DWMP. Examples of such groups are:
 - DWMP portal development;
 - flooding;
 - pollution;
 - permit compliance;
 - · environmental improvement; and
 - natural capital.

2.2 Board engagement

2.2.1 Board engagement has occurred during the development of the first UUW DWMP to ensure that the plan represents a best value approach to mitigating long-term risks and building resilience for drainage and wastewater. Table 2 provides an overview of the UUW Board engagement activities.

Table 2 Board engagement

Board agenda item	Meeting purpose	Date	
Water Industry National Environment Programme (WINEP) Board Strategy day	To provide information to the Board to allow challenge and strategic guidance on WINEP and Sewer Overflows.	April 2022	
DWMP deep dive	Provide information to the Board to allow challenge and strategic guidance.	March 2022	
Board Assurance Statement warm-up	Walk though of the Board Assurance Statement for challenge and guidance.	May 2022	
Board Assurance Statement sign-off	Sign-off of the Board Assurance Statement prior to DWMP regulatory submission.	June 2022	

3. Corporate risk assurance

3.1 Introduction

- 3.1.1 The DWMP is incorporated in our final assurance plan, which is publicly available on our website: www.unitedutilities.com/corporate/about-us/performance/Assuring-our-performance-2020-25/
- 3.1.2 The DWMP has been given targeted status within the assurance plan due to the complexity and maturity of the process. This status shows recognition of the importance of the outputs of DWMP in shaping the future strategy of UUW regarding managing the wastewater asset base, which will have significant impact upon future performance and expenditure levels, and therefore directly impact customer bills.
- 3.1.3 The DWMP has assurance plan will be continuously reviewed until the risk reduces. The plans are all publicly available via the UUW website (link in paragraph 3.1.1).
- 3.1.4 There are a number of completed, ongoing and planned activities to mitigate any identified risks.

3.2 Programme

- 3.2.1 A dedicated team has been established within the Environmental Planning and Innovation Directorate of UUW. 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 against all the requirements of the DWMP framework, Defra Guiding Principles and Defra CEO Board Assurance letter; and
 - management of additional expert engineering resources via the UUW integrated supply chain. The
 integrated supply chain ensures built-in assurance processes embedded within the UUW
 procurement framework. These resources have specifically supported the BRAVA, options
 development and optimisation phases of the programme under the management, guidance and
 assurance framework of the UUW Programme team.

3.3 **Data**

- 3.3.1 All data utilised within the DWMP has undergone comprehensive validation and checks:
 - data sources have been established, reviewed and validated using established UUW 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 haves been established between the DWMP team and operational teams to review the results following each development stage;
 - where the data utilised within the DWMP 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

- 3.4.1 All methodologies used to develop the DWMP have been developed using industry best practice. For example:
 - subject matter experts have completed the development of the underpinning methodologies to help identify risks and support the decision-making process; and
 - assessment methodologies have been established, which include risk-based catchment screening, baseline risk and vulnerability and options development. The relative importance of the risk-based catchment screening methodologies has necessitated director level sign-off, which has been aligned to our regulatory reporting approach. Furthermore, independent third-party assurance has been applied to a number of methodologies due to their core importance to the overall DWMP outputs. These methodologies are:
 - the baseline risk and vulnerability assessment (section 4.2.2); and
 - the options development approach (section 4.2.3).

3.5 Stakeholder and customer

- 3.5.1 A full description of the DWMP stakeholder and customer engagement can be found in Technical Appendix 2 Stakeholder Engagement (TA2) and Technical Appendix 9 Customer Engagement (TA9).
 - Stakeholder research sessions have been held to develop the strategic direction of DWMP, with
 these sessions being organised, developed and facilitated by an independent third-party
 organisation. UUW have considered the outputs of these sessions and, in the light of the feedback
 received, UUW has updated its long-term goals to align with the ambitions of stakeholders of the
 North West.
 - A second wave of stakeholder engagement workshops were undertaken to identify opportunities for partnership working and collaboration. The workshops were completed by March 2021.
 - A third wave of engagement has taken place in the three months to December 2021. The purpose of
 this engagement has been to share and seek endorsement of the approach UUW has undertaken to
 developing options.
 - Four pieces of customer research have been undertaken to ensure the plan meets customer expectations in a cost-effective manner:
 - The first piece of research was undertaken in October 2020. This explored the ways in which UUW could share the plan in order to maximise customer engagement and inform the ongoing development of the UUW DWMP customer webpage.
 - The second piece of 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 risk. The outputs have been used to inform the selection of options within the DWMP.
 - The third piece of customer research was completed in February 2022, triangulated results from five projects:
 - Customer priorities: testing prioritisation of services across UUW.
 - Conjoint Water Resources Management Plan (WRMP) and DWMP analysis to understand how customers prioritise wider benefits: e.g. carbon, social, natural and human capital.
 - State of the Nation Covid-19 tracking
 - Sewer Overflows
 - Social Value, insight synthesis

- The fourth piece of research was completed in May 2022 and focusing on customer usability of the DWMP Customer Portal; the Customer Portal forms part of the DWMP publication. This is the first time UUW have produced an online geospatial tool for public view and so customer input to its development was critical. The research informed changes made to the Customer portal prior to 'go-live'.
- To enable successful and informative customer research, the UUW customer challenge panel and Your Voice were involved in the development of materials to upskill customers, thereby ensuring they were able to make informed choices.

4. Assurance and audit

4.1 General assurance process

- 4.1.1 UUW have undertaken a three-line assurance process to support the development of the DWMP. This methodology is in line with UUW standard assurance practices.
- 4.1.2 In order to establish the need for both the depth and coverage of assurance activities high risk areas are defined by application of the UUW risk assurance assessment, which is used consistently across all regulatory submissions. This process assesses each product against:
 - impact (stakeholders, competition, financial and performance); and
 - · probability.
- 4.1.3 Following the gross risk review (paragraph 4.1.2), the assessment then reviewed the programme's existing controls and, from this, UUW derive the level of net risk per product. Where the net risk is considered high or critical the need for further third-party assurance is identified. Where the work has been undertaken on behalf of UUW by a third party, further external assurance is not applied as any consultancy organisation employed by UUW has been rigorously tested for quality standards as part of the UUW procurement process. This methodology allows UUW to consistently determine the need, and therefore the use of, independent third parties to support the submission.
- 4.1.4 Table 3 demonstrates the need for third-party assurance on Technical Appendix 5 Assessing Future Risk (TA5) and Technical Appendix 7 Options Development and Appraisal (TA7) (see sections 4.2.2 and 4.2.3). Under this methodology, Technical Appendix 8 Programme optimisation (TA8) was not required to have additional third-party assurance applied as it was undertaken, on behalf of UUW, by an external expert optimisation consultancy.

Table 3 Risk assurance of DWMP products

		Risk	
Ref	Product	Impact-probability matrix calculated total risk (NET RISK)	Impact-probability matrix calculated total risk - Uncontrolled (GROSS RISK)
DP1	Main Chapter	МН	н
NTS	Non-Technical Summary	L	М
TS	Technical Summary	М	М
CTS	Customer Summary	М	МН
TA1	TA1 - Assurance and Governance	М	МН
TA2	TA2 - Stakeholder Engagement	М	МН
TA3	TA3 - Demand Forecasting	М	М
TA4	TA4 - Risk Based Catchment Screening	М	МН
TA5	TA5 - Assessing Future Risk	н	С
TA6	TA6 - Resiliance	М	МН
TA7	TA7 - Options Identification	н	С
TA8	TA8 - Options Appraisal ad Programme Optimisation	н	С
TA9	TA9 - Customer Engagement	М	МН
L2	Strategic Planning Area Plans	М	МН

4.1.4.1 First-line assurance: within business team

Review of methodologies and approaches against DWMP Framework.

4.1.4.2 Second-line assurance: peer review

Managed through the governance structure outlined above in section 2.1.

- Technical elements of the plan have been reviewed by subject matter experts. In addition, peer review of outputs that have been delivered by internal teams (e.g. Head of Modelling review of Options Development process).
- Internal, but independent, assurance of the manipulation of the optimisation outputs to ensure correctness and reliability of the outputs.
- Internal Corporate Audit team assurance of programme who report to independent Group Audit Risk Committee.

4.1.4.3 Third-line assurance: independent assurance

- Undertaken by Jacobs at two stages across the development of UUW DWMP: BRAVA and Options Development (see Section 4.2.2 and 4.2.3).
- Assurance undertaken by Jacobs to confirm that UUW had met all the requirements as set out in section 4.2.6.
- Final aggregate assurance undertaken to review the combined assurance activities whether internal or external (section 4.2.7).

4.2 Specific assurance activities

4.2.1 Assurance 1 – Programme and governance (initial review)

- 4.2.1.1 The first audit was undertaken in September–October 2020 by UUW Corporate Audit. The focus of this audit was to assess the adequacy and effectiveness of the DWMP programme governance and management, and associated assurance approach.
- 4.2.1.2 The audit covered the following:
 - review of programme governance and management;
 - review of delivered and planned activities for overall alignment to the guidance, including the outcome of any assurance activities performed to date;
 - review of the assurance approach/framework; and
 - review of the programme risk assessment and assurance plan.
- 4.2.1.3 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 DWMP and therefore assure the quality of plan. No significant issues were identified by the review and the small number of agreed actions were completed within the agreed timescales to strengthen the management of the programme as it moved into a key stakeholder engagement phase.
- 4.2.1.4 The DWMP programme was audited again, just prior to submission. See section 4.2.5.

4.2.2 Assurance 2 – Technical audit of BRAVA methodologies

- 4.2.2.1 The first technical assurance was undertaken in autumn 2020 by Jacobs. The assurance focus was to assess the technical methodologies for the 'baseline risk and vulnerability assessment' phase of the DWMP, thereby ensuring that the methodologies used met the requirements of Appendix C of the DWMP framework, and that the outputs of the process were reflective of baseline and forecast performance.
- 4.2.2.2 The overall conclusions of the audit were:
 - BRAVA methodologies were suitably robust and materially compliant with DWMP BRAVA guidance;
 - the data output used to inform the BRAVA assessment provides a fair and balanced overview of the 2020 baseline and 2030/2050 forecasted position; and
 - explanations of the baseline and forecast positions were reasonably based.

4.2.2.3 In summary, the information within and that supports the DWMP BRAVA outputs has been assembled using appropriate data and methodologies, and provides a reliable representation of the baseline and forecast position. There was also found to be good evidence of senior management engagement, governance and programme management.

4.2.3 Assurance 3 – Technical audit of Options Development methodology

- 4.2.3.1 Jacobs undertook technical assurance to assess the appropriateness of the UUW interpretation of Stage 4 of the Water UK guidance document, relating to Options Development and Appraisal. This took the form of two distinct phases:
 - Phase 1: A review of the approach taken to develop traditional wastewater treatment options comprising: wastewater treatment works upgrades and new assets, transfers and diffuse pollution offsetting; and
 - Phase 2: A complete audit of the Options Development methodology against the requirements set
 out in the DWMP framework. Assurance was to test and confirm that the approaches to each phase
 of the options development (generic, unconstrained, constrained, feasible and preferred) and
 associated screening steps were delivered in line with the framework requirements.
- 4.2.3.2 Phase 1 was undertaken by a review of a selection of sites, to ensure the options proposed were technically feasible, deliverable and costed consistently, in accordance with the wastewater options development methodology.
- 4.2.3.3 Phase 2 consisted of audit meetings with the DWMP Plan Development Manager and the DWMP Project Engineering Manager, followed by a desktop review of the TA8 document.
- 4.2.3.4 In summary, the conclusions of the assurance work for Phase 1 stated that "On the basis of our limited sample audit, we are comfortable that the Company has reasonably interpreted Appendix D of the DWMP guidance (Options Development and Appraisal) and developed a repeatable methodology to produce generic wastewater treatment enhancement options to address a number of potential future scenarios."
- 4.2.3.5 With regard to Phase 2 of the assurance work, Jacobs concluded that UUW has "...developed a methodology that:
 - contains a good selection of option types across all key management areas;
 - ensures estimating assumptions are consistent across all options;
 - demonstrates that the screening criteria has been applied consistently and in accordance with the guidance for each of the screening steps; and
 - is accompanied by a series of rejection registers, including suitable explanations of the reasons for rejection."

4.2.4 Assurance 4 – Optimisation output (internal assurance)

- 4.2.4.1 The DWMP modelling process derived a number of potential scenarios to achieve the agreed targets via an optimisation engine provided by a third party Copperleaf. The outputs from these optimisations were processed into a more accessible format within the DWMP team. This processing methodology has the potential to introduce minor errors due to the relative complexity of the process. UUW have therefore undertaken internal assurance of the methodology to ensure this was appropriately and consistently applied, and therefore no processing errors were introduced.
- 4.2.4.2 In summary, the assurance report stated that "The methodology was consistently applied to produce the expected outputs in a reliable, comprehensive and repeatable manner."

4.2.5 Assurance 5 – Programme and governance (final review)

- 4.2.5.1 The Corporate Audit team of UUW undertook a final review (May 2022) of the DWMP programme prior to regulatory submission. The audit scope covered: programme governance and management; programme risk assessment process; and the assurance approach and how the plan was aligned to this approach.
- 4.2.5.2 Where corrective actions were identified these have been addressed to the agreed timelines.

4.2.6 Assurance 6 – Requirements traceability assurance

- 4.2.6.1 Jacobs have been utilised to provide independent third-party assurance to ensure that the UUW DWMP has fulfilled all the requirements as set out in the Draft Guiding Principles for DWMPs (Defra, 2022).
- 4.2.6.2 The audit was designed to test that the UUW DWMP has met all necessary requirements.
- 4.2.6.3 In summary, the findings of this audit confirm that all requirements have been met and that no corrective actions are required.

4.2.7 Assurance 7 – Aggregate assurance

- 4.2.7.1 UUW has engaged Jacobs to undertake an aggregation assurance exercise. The purpose of the aggregation assurance was:
 - to combine all assurance applied to the DWMP, whether internal or external, and confirm that any corrective actions have been completed in line with any assurance recommendations; and
 - to assure UUW project management practices and processes have been applied rigorously in the development of the draft DWMP.

4.2.7.2 The Audit found that:

- "In conclusion, UUW has identified the requirements for the draft DWMP, developed the required submission and followed a defined process to quality assure these documents. This process has included three lines of assurance activities performed by Jacobs, which when combined, cover all of the requirements of the submission."
- "External and internal assurance activities undertaken by Jacobs and UU Corporate Audit resulted in
 a number of actions, which were required to be addressed prior to submission. Evidence has been
 provided by UU confirming the actions have now been completed, or their reasoning for deferring or
 not completing. Aside from some minor exceptions, we are broadly satisfied with the evidence and
 explanations provided and we have no further recommendations to add."

5. Conclusions

- The development of the draft DWMP has been undertaken in accordance with the UUW standard governance and assurance framework used for all submissions. This framework requires a detailed requirements traceability matrix and the risk assessment of products to identify areas of risk and therefore the determination of where greater assurance is required.
- The draft DWMP submission has been assured, both internally and externally, where areas were deemed high risk.
- UUW believe that the adoption of the governance and assurance framework has resulted in the production of a high quality submission.

United Utilities Water Limited

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

