Appendix 4b: PR19 Principal Assurance Activities



Appendix 4b - PR19 Principal Assurance Activities

Outline of Approach

Our approach to assurance of the PR19 business plan and preceding submissions is set out in our published assurance plan. See the link below:

https://www.yorkshirewater.com/sites/default/files/Yorkshire%20Water-Final-Assurance-Plan-2018.pdf

We have adopted our stated three lines of assurance model and applied it using a risk based approach.

To form the basis of our risk assessment we focussed our external third line of assurance on two risk scenarios R1 and R2 which are described in this appendix as Risk Definitions. These risks and their causes have been assessed to identify where the greatest probability of management failure and greatest impact on the plan could occur in our planning processes.

To deploy our assurance approach we completed a comparative risk assessment in two stages. The first stage reviewed all the components of the plan to consider where the greatest opportunity for material errors and shortfalls in plan quality could occur. This assessment used the Corporate risk management approach documented in our Annual Performance Report.

The second stage of our assessment ranked the deliverability risk of our customer outcomes and preliminary performance commitments in relation to the Initial Assessment of Business Plan or IAP tests. This identified where the Company's planning could fail to deliver a plan that meets customers and stakeholders needs, and prioritised our assurance activity.

Using the outcomes of our risk assessment the principal assurance activities we have undertaken for PR19 are categorised under specific risk assessment criteria and summarised against the IAP tests. The detailed tables of Principal assurance activities summarise the assurance that we have applied to the information in our data tables and documentation.

To secure a high quality plan we focussed our independent third line of assurance on the data table preparation and underlying analysis which is an element risk R1. The tables that were assured by each provider are listed in this appendix.

Both Deloitte and Jacobs have summarised their assurance findings in appendices 4d and 4e.

Risk Definitions

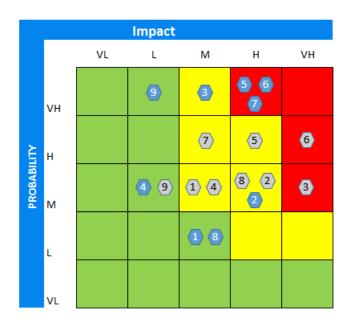
To focus our assurance on the highest priority areas for the plan and to ensure the Board has the assurance it needs to be confident that it's plan meets the expectations of customers and stakeholders and that it understands the risk the Company is taking on to deliver a plan with stretching performance commitments and efficient costs the two risks and the potential causes were identified. These are set out in the table below.

These risks and their causes have been subject to an assessment of where the greatest probability of management failure and greatest impact on the plan could occur in our planning processes.

Risk Effect	Risk Cause
R1. Plan fails to achieve at least Ofwat's 'fast track' standard. R2. Plan achieves at least Ofwat's 'fast track' standard but is not deliverable.	 Failure to produce a high quality plan with sector-leading approaches, ambition and innovation in all elements of the plan. Failure to demonstrate the sector-leading approach to high quality customer engagement and participation. Failure to demonstrate the plan is affordable for customers and supports those in need of assistance. Failure to demonstrate stretching performance commitments and incentives that reward performance and protect customers. Failure to demonstrate the plan is founded on robust risk assessments and is resilient in the long term. Failure to demonstrate a sector-leading approach to the use of markets to drive innovation and efficiency. Failure to demonstrate that costs shift the efficiency frontier. Failure to ensure the plan remains deliverable at the same time as driving the ambition, innovation and efficiency above. Failure to meet the Committees requirements to support the Board in signing the Board Assurance Statement.

Stage 1 Risk assessment to target assurance at high priority components of the plan

Our risk assessment was carried out in two stages. The first stage was to review all the components of the plan to consider where the greatest opportunity for material errors and shortfalls in plan quality could occur. The assessment used the Corporate risk management approach as set out in our Annual Performance Report. The probability of failure and the impact of failure were assessed for each component. The output was an identification of high and low risk areas of the plan for each of the two principle risks set out earlier. The out is set out using our corporate 5x5 risk matrix below.



Key:	
1	Engaging Customers
2	Affordability & Vulnerability
3	Deliver outcomes for customers
4	Long term resilience
5	Targeted Controls, Markets & Innovatio
6	Cost Efficiency
7	Align Risk and Return
8	Past Delivery
9	Confidence and Assurance



The output of this process was used to plan the deployment of the assurance approach, including how the three lines of assurance would be carried out. In particular the work informed the preparation and focus of the independent level three assurance.

Our level three assurance has focussed more effort and resource on assuring the greatest areas of risk to plan quality (R1) and deliverability (R2).

The output of this risk assessment and the resulting assurance activities was presented to the Board Audit Committee.

Stage 2 - Expanded Risk assessment to focus assurance at high priority performance commitments for customers

The second phase of the risk assessment was to conducted during the engagement process with customers on the development of their performance commitments.

Based on customers and stakeholders priorities for performance improvement and the stage 1 assessment of plan risk we produced a heat map of customer priority and plan risk to allow more detailed focus of assurance activities.

As a result the third line has focussed more effort and resource on assuring that the highest priority areas for customers received greatest assurance to ensure their priorities are reflected in the plan.

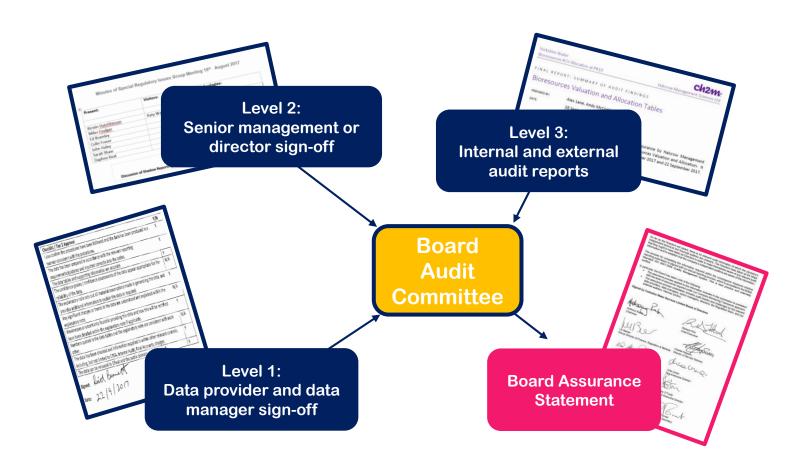
The output of this risk assessment and the resulting assurance activities was presented to the Board Audit Committee.

						000	<i>чотве</i>			
	,	/ ,	Selver One	TAP4	S. Targeted C.	6. Cost Efficia	/ ,		S for past delivery	Total
		omers	Na Vuln	hes for	rem Re	os, Ma	. /	'd retun	past de	dence a
	ي /	# / #//q		0		ficie Just	, net	tip / tip		
	1. Engaging C.	2. Afford	3. Deliver	4. Securin	S. Targete	6. Cost Ef.	IAP7	8. Accoun	9. Securin	
Performance Commitment	IAP1	IAP2	IAP3	IAP4	IAP5	IAP6	IAP7	IAP8	IAP9	Total
Water supply interruptions (minutes lost)	6	12	18	6	18	18	18	6	6	10
nternal sewer flooding	6	12	18	6	18	18	18	6		10
Leakage	5	10	15	5	15	15	15	5	5	9
Water supply interruptions (DG3)	5	10	15	5	15	15	15	5		9
Pollution incidents	5	10	15	5	15 15	15	15	5	5	9
Bill affordability	5	10 10	15	5 5		15 15	15 15	5	5	9
Mains repairs Continuous supply	5	10	15 15	5	15 15	15 15	15 15	5	5	9
External sewer flooding	5	10	15	5	15	15	15	5	5	9
-vremai sewei moodiilk	5	10	15	5	15	15	15	5	5	9
Sewer collapses	4	8	12	4	12	12	12	4	4	7
Bathing water quality	4	8	12	4	12	12	12	4	4	7
Resilience : flood risk	4	8	12	4	12	12	12	4		7
Bioresources treatment	4	8	12	4	12	12	12	4		7
Responsible business standard	4	8	12	4	12	12	12	4	4	7
Cost of bad debt	4	8	12	4	12	12	12	4	4	7
Drinking water contacts	4	8	12	4	12	12	12	4	4	7
Compliance risk index - DWQ new measure	4	8	12	4	12	12	12	4	4	7
Unplanned outage	4	8	12	4	12	12	12	4	4	7
Water supply interruptions (>12 hrs)	3	6	9	3	9	9	9	3	3	5
River length improved	3	6	9	3	9	9	9	3		5
Discharge permit compliance	3	6	9	3	9	9	9	3		5
Renewable energy generation	3	6	9	3	9	9	9	3		5
Virtual market hub	3	6	9	3	9	9	9	3		5
Customer experience measure CMEX	3	6	9	3	9	9	9	3	3	5
Developer experience measure	3	6	9	3	9	9	9	3		5
Help with bills	3	6	9	3	9	9	9	3		5
Per capita consumption	3	6	9	3	9	,	9	3		5
Time to repair leaks Surface water removed	3	6	9	3	9	9	9	3	_	5
Integrated catchment management	3	6	9	3	9	9	9	3		5
Quality agricultural products	3	6	9	3	9	9	9	3		5
Skills and workforce resilience	3	6	9	3	9	9	9	3		5
Verification of voids	3	6	9	3	9	9	9	3	3	5
Digital service	3	6	9	3	9	9	9	3	3	5
								,		
Low pressure (DG2)	2	4	6	2	6	6	6	2	2	3
Event risk index -DWI event classification?	2	4	6	2	6	6	6	2	2	3
Fixing supply pipes	2	4	6	2	6	6	6	2		3
Abstraction incentive	2	4	6	2	6	6	6			3
Land conserved and enhanced	2	4	6	2	6	6	6			3
Biosecurity	2	4	6	2	6	6	6			3
Carbon reduction and sequestration	2	4	6	2	6	6	6	2		3
Diversity and inclusion	2	4	6	2	6	6	6	2		3
Charity and volunteering	2	4	6	2	6	6	6	2		3
	2	4	6	2	6	6	6	2	2	3
Education										
Education Priority service register (PSR) awareness	2	4	6	2	6	6	6	2		3
Education				2 2 2	6 6	6 6	6 6	2 2 2	2	3

Three levels of assurance

In following our three levels of assurance model we have implemented a process of documented sign-off to support the Board in assuring itself that the plan has been prepared appropriately and followed the guidance. Each of the three levels has produced sign-off documentation to confirm that it has completed it's assurance activities.

The IAP tests and risks that we applied this process to are summarised in the following pages. The outputs were presented and to the Board Audit Committee to ensure that the Board could be satisfied that its assurance processes had been followed and acted upon prior to the Board releasing the plan for submission. The process is set out in the diagram below.



PR19 Principal assurance activities – mapped to IAP test and detailed risk assessment

Assurance activities Level 1 The engagement programme has been founded on our ongoing interactions with customer's identifying the day to day issues for them (e.g., flooding and odour). Valuing water has formally captured the broad customer's priorities. Customers have been exposed to comparative performance information which has informed their views that we need to improve our comparative performance, leading to the development of our 5 Big Goals, UQ plans and performance commitments. Customers have been engaged in setting the targets. ODIs have been tested with customers. Failure to 1. The plan builds on demonstrate the customer and Level 2 sector-leading The engagement has been tested with the Yorkshire Forum for Water Customers. A log has been kept to demonstrate the challenge and response. quality customer The engagement has been confirmed as innovative through the use of voting and stakeholder technologies, online panels, improvements in research techniques to increase comprehension of the questions asked (up from 74% at PR14 to 91% at PR19). Level 3 Deloitte's customer affordability and vulnerability assessment included consideration of the sources of information used to assess affordability, their triangulation process and customer engagement on vulnerability. Jacobs has reviewed the definition and construct of the bespoke performance

IAP Test	Risk assessment	Assurance activities
2. The plan is affordable for all	Failure to demonstrate a sector leading	Level 1 The outcome of the plan has been exposed to over 400 business customers, 2000 domestic customers (including over 200 categorised as vulnerable). The final acceptability results showed 86% acceptability of the plan and the bills (this compares with 77% at PR14). The acceptability of the plan has been tested with and without the WINEP, with the results demonstrating lower support without WINEP. This reflects customer's support for protecting and improving the environment.
customers, including the provision of assistance for vulnerable customers and customers at risk of struggling to pay.	approach to gaining a clear understanding of its customers views on affordability now and in the future.	The proposed acceptability research approach has been tested with the Yorkshire Forum for Water Customers. A log has been maintained to demonstrate the challenge and response. The Yorkshire Forum for Water Customers its agreement to the final approach following response to its challenges.
		Level 3 Deloitte's assessment of affordability and vulnerability includes consideration of the sources of information used to assess affordability, their triangulation process and engagement on vulnerability.

IAP Test	Risk assessment	Assurance activities
	Failure to	Level 1 Confirmation has been received that we have established 4 performance commitments to measure the delivery of support mechanisms to vulnerable customers. They will allow them to access the services they need and help them in being able to afford the bill when they need assistance. Our assurance checked the performance commitments are consistent with the requirements and that the data is accurate and in the correct format.
2. The plan is affordable for all customers, including the provision of assistance for vulnerable customers and customers at risk of struggling to pay.	demonstrate sector leading approach an effective and efficient methods of identifying and supporting vulnerable customers including those at risk of	Level 2 Confirmation has been received that the guidance has been followed and that the solutions are resilient, sustainable, efficient and innovative. The stretch in the performance commitment has been challenged to ensure there is an audit trail for the performance target to provide direct financial support. The proposals have been exposed to and challenged by the Yorkshire Forum for Water Customers. Feedback from Ofwat has been incorporated into the final performance commitment definitions.
	struggling to pay.	Level 3 Deloitte assessment of affordability and vulnerability included understanding the acceptability testing process, the sources of information used to assess affordability, their triangulation process and feedback from the Yorkshire Forum for Water Customers. Jacobs has reviewed the definition and construct of the bespoke customer vulnerability performance commitments.

Risk assessment Assurance activities Level 1 All performance commitments have been signed off as being consistent with the reporting requirements and that the submitted data has been prepared in accordance with the Failure to demonstrate procedures. A consistency check across all performance commitments has been provided by the regulation team. commitments with The performance commitments are supported by customers as a package. stretching and Level 2 3. The plan performance targets. All performance commitments have been signed off as being consistent with the guidance and that solutions are resilient, sustainable, efficient and innovative. Failure to propose Material assumptions, interdependencies and risks have been exposed and quantified. the Board's The proposed approach to monitoring and reporting of performance is being outstanding service or documented within the plan narrative and expanded within an appendix to the performance commitments. Level 3 Failure to demonstrate Deloitte's data table assessment included the table on Performance Commitments and Outcome Delivery Incentives. This included assessing the appropriateness of the the Board's monitoring approach to triangulate customer valuations. of performance. Jacobs has reviewed the preparation of the plan's performance commitment targets and associated costs, confirming the presence of the totex risk that has been modelled through the R2 analysis.

Assurance activities Level 1 Each stage of the customer engagement has revealed the long term priorities for customers, with long term reliability of safe drinking water and wastewater removal being of highest priority. Failure to The resilience assessment meets the reporting requirements and is focussed on demonstrate that operational, financial and corporate resilience and includes an assessed circa 10% average the plan has been improvement in the resilience score by 2025. assessment of Level 2 resilience in the The resilience framework has been informed by the research and the results from all round, supported by phases of the customer engagement. 4. The plan secures customer's views on Confirmation that the framework follows is aligned to BS65000:2014. long-term resilience in managing resilience. Failure to demonstrate that Level 3 the plan provides Cabinet Office – Emergency Planning Office has identified our organisational resilience the best long-term review as an example of leading good practice. value for money Deloitte assessed the design of the resilience framework, with Jacobs testing the implementation of this framework. Deloitte also assessed financial resilience which covered two separate areas; the first focused on scenario planning and modelling. The second focused on financial transparency, e.g. tax transparency and executive incentives.

IAP Test	Risk assessment	Assurance activities
	Failure to demonstrate a sector leading approach to the use of markets and third parties to deliver efficiency, innovation and resilience. Failure to demonstrate transparent, nondiscriminatory, best practice	Level 1 Confirmation has been received that our procedures and data are consistent with the guidance, the reported data is accurate and correctly formatted, the commentary is consistent with the data and risks have been identified. The Bioresources plan accounts for autonomous efficient capital delivery of projects, use of markets to provide solutions, market approaches to overheads. Capital delivery of outputs for AMP7 is going through market testing to provide new, efficient partners.
5. The plan adopts the use of targeted controls, markets and innovation.	bid assessment frameworks in the use of markets. Failure to demonstrate a sector leading strategy to reasoned, technical suitability and value for money assessments in the decisions	Level 2 Confirmation has been received that the guidance has been followed, that business cases are stretching ambitious, innovative and efficient, and that all material assumptions and interdependencies have been exposed. An assessment of the risk to delivery of the plan has been completed. The autonomous business structure and market tested solutions align fully with the guidance.
	around the use of direct procurement options for customers. Failure to demonstrate a culture of innovation across the company.	Level 3 As part of an efficiency and innovation assessment, the options appraisal process was assessed by Deloitte. This included assessing whether appropriate options had been considered, including market testing and direct procurement where applicable. It also included an assessment of the area where Yorkshire Water has used market testing the most, bioresources.

IAP Test	Risk assessment	Assurance activities
6. The plan secures cost efficiency.	Failure to propose frontier shifting costs for the sector with evidence of comparative efficiency assessments against other sectors. Failure to	Level 1 Confirmation was received that our procedures and data are consistent with the guidance, the reported data is accurate and correctly formatted, the commentary is consistent with the data and risks have been identified. We have used analysis from Oxera and Economic Insight to establish the efficiency to achieve industry upper quartile, and added the planned innovation within the business to determine the overall plan efficiency. Confirmation has been received that we have made assessment of Input Price Inflation and Real Price Effects. Level 2 Confirmation has been received that the guidance has been followed, that all material assumptions and interdependencies have been exposed. An assessment of the risk to deliver of the plan has been completed and was presented to the Board. The analysis confirms that the Company's long term viability is maintained.
	demonstrate a culture of innovation across the company.	Level 3 Has assessed the deliverability of individual components, confirming whether they are deliverable, possible, untested or difficult. This was presented to the Board. Deloitte efficience and innovation assessment considered how costs have been compared against other water companies and relevant sectors. It also assessed how well developed Yorkshire Water specific efficiency initiatives are. Assessment of the risks associated with this programme were considered by Deloitte as part of their financial resilience work.

IAP Test	Risk assessment	Assurance activities
		Level 1 Confirmation has been received that our procedures and data are consistent with the guidance, the reported data is accurate and correctly formatted, the commentary is consistent with the data and risks have been identified.
6. The plan secures sufficient evide cost efficiency. to support the cost efficiency.	Failure to provide sufficient evidence to support the cost adjustment claims.	Level 2 Confirmation has been received that the guidance has been followed, that all material assumptions and interdependencies have been exposed. An assessment of the risk to delivery of the plan has been completed. The number of claims was three with a total value of £220m (less 5% of totex), focussed on company specific areas of cellar flooding, growth sites and WINEP impact on Bioresources.
		Level 3 Jacobs reviewed the proposed claims for the compliance with the guidance and consistency with expenditure proposals.

IAP Test	Risk assessment	Assurance activities
7. The plan aligns risk and return.		Level 1 Confirmation has been received that the tables have been completed using Ofwat's early view of the Weighted Average Cost of Capital (WACC) for each of the separate price controls in accordance with the guidance. Level 2 Confirmation has been received that Ofwat's early view of the WACC has been used, in accordance with the guidance.
		Level 3 Deloitte data table assessments included data tables covering retail margin for the household and non-household businesses. It also included the calculations of WACC and underlying supporting documentation.

IAP Test	Risk assessment	Assurance activities
7. The plan aligns risk and return.	Failure to respond to Ofwat's consultation findings on putting the sector back in balance.	Level 1 The proposed sharing mechanism has been prepared following the results of Ofwat's publication 'Putting the sector in balance: position statement on PR19 business plans'. Level 2 The proposed sharing mechanism meets Ofwat's expectation that benefits from higher gearing and cost of debt outperformance are shared with customers.
		Level 3 The proposals within the business plan have been developed with expert regulatory support from PA Consulting.

IAP Test	Risk assessment	Assurance activities
		Level 1 The proposals for executive management incentivisation within the business plan is based upon the proposals being taken to the remuneration committee. The proposal has been reviewed for consistency with Ofwat's publication 'Putting the sector in balance: position statement on PR19 business plans.
7. The plan aligns risk and return.	Failure to respond to Ofwat's consultation findings on putting the sector back in balance.	Level 2 Ratification and approval of the proposal is being sought from the remuneration committee.

IAP Test	Risk assessment	Assurance activities
		Level 1 The dividend policy proposal within the business has been reviewed for consistency with Ofwat's publication 'Putting the sector in balance: position statement on PR19 business plans.
7. The plan aligns risk and return.	Failure to respond to Ofwat's consultation findings on putting the sector back in balance.	Level 2 Challenge has been provided by the Board. Confirmation has been received that the Board's challenges have been incorporated.

IAP Test	Risk assessment	Assurance activities
	Failure to demonstrate an understanding of the risks that could impact delivery of the plan using RoRE scenario analysis. Failure to demonstrate the plan is financeable on both notional and actual capital structures and protects customers in the short and long term.	Level 1 Confirmation has been received that our procedures and data are consistent with the guidance, the reported data is accurate and correctly formatted, the commentary is consistent with the data and risks have been identified. Pay as you go and run-off rates have been maintained at the natural rate over the AMP7 period, with some adjustment within period to smooth out the impact from infrastructure renewals expenditure.
7. The plan aligns risk and return.		Level 2 Confirmation has been received that the guidance has been followed, that all material assumptions and interdependencies have been exposed. Financeability ratios for both notional and actual capital structures are maintained. An assessment of the risk to delivery of the plan has been completed which has demonstrated that the long term viability of the Company is maintained.
		Level 3 Deloitte financial resilience assessment included consideration of the scenario planning process, calculation of the expected monetary value of specific risks and the financeablity assessment process.

IAP Tes
8. The plan accounts for past performance

Risk assessment

Assurance activities

Failure to demonstrate that it has reconciled its performance between 2015-20 and confidence in the delivery of performance

Failure to demonstrate learning from current delivery to give confidence in the ability to deliver the commitments made in

Failure to demonstrate a robust approach to the Board's monitoring of performance.

Level 1

Confirmation has been received that our procedures and data are consistent with the guidance, the reported data is accurate and correctly formatted, the commentary is consistent with the data and risks have been identified.

Level 2

Confirmation has been received that the guidance has been followed, that all material assumptions and interdependencies have been exposed. An assessment of the risk to delivery of the plan has been completed.

Level 3

Jacobs has confirmed that the guidance has been followed and material assumptions have been explained, the statements of numerical data are consistent with the supporting information and the Company's explanations of activities and assumptions are reasonably based.

Deloitte has assessed controls in the production, review and approval of the reconciliation. The findings raised have been addressed by management.

IAP Test	Risk assessment	Assurance activities
9. The plan secures confidence and assurance.	Failure to implement the company's three lines of assurance framework. Failure to implement the company's governance processes.	Level 1 Confirmation has been received that the guidance has been followed, procedures and approaches have been prepared correctly, data is accurate and correct, and commentary is consistent with the data. Level 2
		Confirmation has been received that the guidance has been followed, tables have been appropriately assured and that the risks and assumptions have been exposed.
		Level 3 Jacobs and Deloitte have completed independent reviews of the development of the plan, the reported data and deliverability of the efficiency plans. They have provided assurance findings and actions to management. Management closed out actions over the period up to submission of the plan.

9. The plan

Risk assessment

Assurance activities

Failure to demonstrate the Board has challenged itself that the plan is high quality, deliverable and assured.

Failure to demonstrate assurance the plan enables the Company to meet its statutory and licence obligations, deliver resilience in the round, is affordable for customers and develops the trust and confidence of customers through transparency and engagement.

Failure to provide a comprehensive Board Assurance Statement.

Level 1

As part of the APR, managers across the whole business complete a review of the legislative and regulatory compliance of their part of the business. They report back on the level of compliance and any improvement actions through the CRSA process. Legislative champions within the business support the process.

The Board assurance statement has been reviewed against Ofwat's methodology for consistency and completeness.

Level 2

We have followed the specific reporting guidance set out in Ofwat's PR19 methodology, which implements the UK Government's strategic policy statement, in preparing the business plan.

The business has submitted proposals to the DWI following its guidance on long term planning for the quality of drinking water supplies, the Environment Agency's requirements for preparing the WINEP and the WRMP.

Level 3

Jacobs has provided independent review of the approach and findings of the CRSA in supporting the Board in signing the APR risk and compliance statement identifying two opportunities for improvement.

Jacobs has reviewed the proposals driven by the DWI, WRMP and WINEP against the reporting requirements.

IAP Test	Risk assessment	Assurance activities
9. The plan secures confidence and assurance.	Failure to demonstrate the Board's ownership of the strategy and direction of the plan.	Level 1 The data and discussion material presented to the Board has been prepared by subject matter experts and has exposed sufficient amount of detail to allow the Board to question, challenge and direct management in the development of the plan.
		Level 2 The Board has published and consulted on its long term strategic direction 2018. Management has ensured that the five big goals that underpin the strategic direction are embedded in the priorities and commitments of the business plan 2020-2025. All performance commitments are linked to the five big goals. Confirmation has been received that business cases are stretching, ambitious, innovative, efficient and align with YWS strategic direction.

IAP Test	Risk assessment	Assurance activities
The plan secures confidence and assurance.	Failure to demonstrate the Board has challenged itself that the plan is high quality, deliverable and assured.	Level 1 Confirmation has been received that the methodologies applied are consistent with the reporting requirements and have been adequately documented. Data has been prepared in accordance with the procedures. Risks associated with the delivery of a fast track plan have been identified. Level 2 Confirmation has been received that the guidance has been followed and that solutions are resilient, sustainable, efficient and innovative. Assurance has been received that material assumptions and interdependencies have been exposed.
		Level 3 We received confirmation that level 3 has had access to all necessary information in reaching a robust opinion on the plan.

Data Table Assurance - Deloitte

Table Reference	Description	
App1	Performance commitments (PCs) and outcome delivery incentives (ODIs)	
App7	Proposed price limits and average bills	
App8	Appointee financing	
App9	Adjustments to RCV from disposals of interest in land	
App10	Financial ratios	
App11	Income statement based on the actual company structure	
App11a	Income statement based on a notional company structure	
App12	Balance sheet based on the actual company structure	
App12a	Balance sheet based on a notional company structure	
App13	Trade receivables	
App14	Trade and other payables	
App15	Cashflow based on the actual company structure	
App15a	Cashflow based on a notional company structure	
App16	Tangible fixed assets	
App17	Appointee revenue summary	
App18	Share capital and dividends	
App19	Debt and interest costs	
App20	Cost of debt / analysis of debt	
App22	Pensions High	
App23	Inflation measures	
App24	Input proportions	
App24a	Real price effects (RPEs) and efficiency gains	
App25	PR14 reconciliation adjustments summary	
App26	RoRE Scenarios	
App27	PR14 reconciliation - financial outcome delivery incentives summary	
App29	Wholesale tax	
App32	WACC for the Appointee	
App33	Wholesale Operating Leases reclassified under IFRS16	
WS1 (Section A and Line 27)	Wholesale water operating and capital expenditure by business unit	
WS1a (Section A and Line 27)	Wholesale water operating and capital expenditure by business unit (including op leases under IFRS16)	
WS5	Other wholesale water expenditure	
WS7	Wholesale water local authority rates	
WS8	Third party costs by business unit for the wholesale water service	25

Data Table Assurance - Deloitte (continued)

Table Reference	Description
WS13	PR14 wholesale revenue forecast incentive mechanism for the water service
WS15	PR14 wholesale total expenditure outperformance sharing for the water service
Wr2	Wholesale water resources opex
Wr3	Wholesale revenue projections for the water resources price control
Wr4	Cost recovery for water resources
Wr5	Weighted average cost of capital for the water resources control
Wn3	Wholesale revenue projections for the water network plus price control
Wn4	Cost recovery for water network plus
Wn5	Weighted average cost of capital for the water network plus control
WWS1 (Section A and Line 26)	Wholesale wastewater operating and capital expenditure by business unit
WWS1a (Section A and Line 26)	Wholesale waste water operating and capital expenditure by business unit (including op leases under IFRS16)
WWS5	Other wholesale wastewater expenditure
WWS7	Wholesale wastewater local authority rates
WWS8	Third party costs by business unit for the wholesale wastewater service
WWS13	PR14 wholesale revenue forecast incentive mechanism for the wastewater service
WWS15	PR14 wholesale total expenditure outperformance sharing for the wastewater service
WWn1	Wholesale wastewater sewage treatment operating expenditure
WWn2 (Section B)	Wholesale wastewater large sewage treatment works explanatory variables and operating expenditure
WWn5	Wholesale revenue projections for the wastewater network plus price control
WWn6	Cost recovery for wastewater network plus
WWn7	Weighted average cost of capital for the wastewater network plus control
Bio3	Wholesale wastewater sludge opex
Bio4	Wholesale revenue projections for the wastewater bioresources price control
Bio5	Cost recovery for bioresources
Bio6	Weighted average cost of capital for the bioresources control
R1	Residential retail
R2	Residential retail special cost factors
R3	Residential retail ~ further information on bad debt and customer services
R5	Business retail ~ non-exited companies operating in England
R6	Business retail special cost factors
R7	Revenue and cost recovery for retail
R8	Net retail margins
R9	PR14 reconciliation of household retail revenue 26

Data Table Assurance - Jacobs

Table Reference	Description	
App1	Performance commitments (PCs) and outcome delivery incentives (ODIs)	
App2	Leakage additional information and old definition reporting	
App3	Abstraction Incentive Mechanism - surface and ground water abstractions under the AIM threshold	
App5	PR14 reconciliation ~ performance commitments	
App6	PR14 reconciliation ~ sub-measures	
App28	Developer services (wholesale)	
App30	Void properties	
App31	Past performance	
WS1 (AMP6) (Capex)	Wholesale water operating and capital expenditure by business unit	
WWS1 (AMP6) (Capex)	Wholesale wastewater operating and capital expenditure by business unit	
WS2 (AMP6) (Capex)	Wholesale water capital and operating enhancement expenditure by purpose	
WWS2 (AMP6) (Capex)	Wholesale wastewater capital and operating expenditure by purpose	
WS2a (AMP6) (Capex)	Wholesale wastewater cumulative capital enhancement expenditure by purpose	
WWS2a (AMP6) (Capex)	Wholesale wastewater cumulative capital enhancement expenditure by purpose	
WS1 (AMP7) (Capex)	Wholesale water operating and capital expenditure by business unit	
WWS1 (AMP7) (Capex)	Wholesale water operating and capital expenditure by business unit	
WS2 (AMP7) (Capex)	Wholesale wastewater operating and capital expenditure by business unit	
WWS2 (AMP7) (Capex)	Wholesale wastewater operating and capital expenditure by business unit	
WS2a (AMP7) (Capex)	Wholesale wastewater capital and operating expenditure by purpose	
WWS2a (AMP7) (Capex)	Wholesale wastewater cumulative capital enhancement expenditure by purpose	
WS2 (AMP7) (Opex)	Wholesale water capital and operating enhancement expenditure by purpose	
WWS2(AMP7) (Opex)	Wholesale wastewater cumulative capital enhancement expenditure by purpose	
WS3	Wholesale water properties and population	
WWS3	Wholesale wastewater properties and population	
WS4	Wholesale water other (explanatory variables)	
WS10	Transitional spending in the wholesale water service	
WWS10	Transitional spending in the wholesale wastewater service	
WS12, WS12a	RCV allocation in the wholesale water service	
WS17	PR14 water trading incentive reconciliation	
WS18	Explaining the 2019 Final Determination for the water service	
WWS18	Explaining the 2019 Final Determination for the wastewater service	
Wr1	Wholesale water resources (explanatory variables)	
Wr6	Water resources capacity forecasts	27

Data Table Assurance – Jacobs (continued)

Table Reference	Description
Wr7	New water resources capacity ∼ forecast cost of options beginning in 2020-25
Wn1	Wholesale water treatment (explanatory variables)
Wn2	Wholesale water distribution (explanatory variables)
WWS12	RCV allocation in the wholesale wastewater service
WWn3	Wholesale wastewater network (explanatory variables)
WWS4	Wholesale wastewater other (explanatory variables)
WWn2	Wholesale wastewater large sewage treatment works explanatory variables and operating expenditure
WWn4 WWn3 (Part)	Wholesale wastewater sewage treatment (potential explanatory variables)
WWn8	Wastewater N+ Special Cost Factors - Wastewater Growth. Cellared Properties & WW Growth
Bio1	Wholesale wastewater sludge (explanatory variables)
Bio2	Wholesale wastewater sludge treatment process and disposal routes
Bio7	Wholesale wastewater bioresources special cost factors
R10	PR14 Service incentive mechanism

