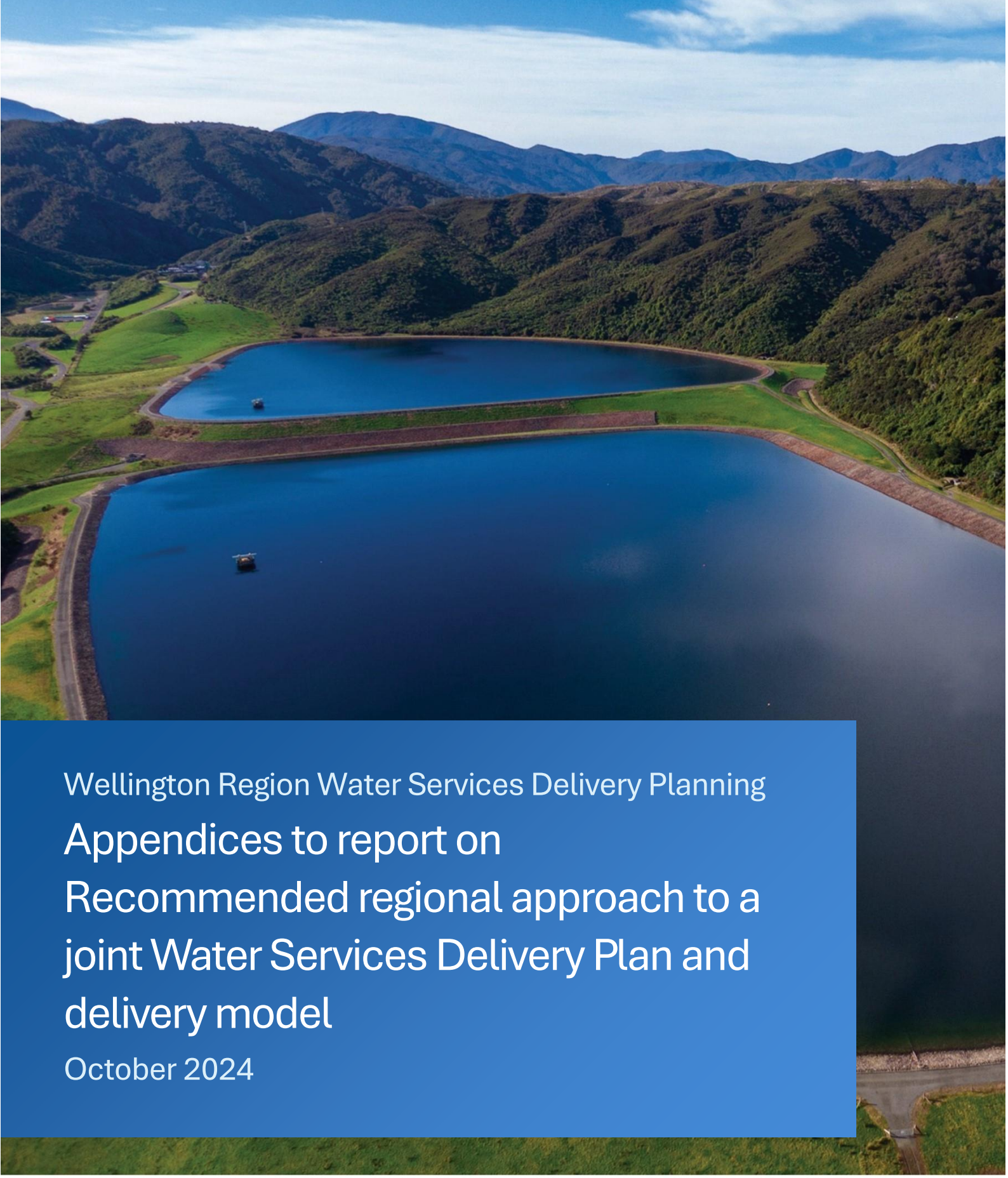

Wellington Region Water Services Delivery Planning

Appendices to report on Recommended regional approach to a joint Water Services Delivery Plan and delivery model

October 2024

Horowhenua District Council

Kāpiti Coast District Council

poriruacity

Masterton District Council

Te Kaunihera-ā-rohe o Tararahi Carterton District Council

South Wairarapa District Council

Te Kaunihera o Te Awa Kairangi ki Uta Upper Hutt City Council

Hutt City Te Awa Kairangi

Absolutely Positively Wellington City Council

Me Heke Ki Pōneke

Greater Wellington Te Pane Matua Taiao

LIMITATIONS AND DISCLAIMER:

Purpose

These appendices support the report titled "Recommended regional approach to a joint Water Services Delivery Plan and delivery model" dated 4 October 2024.

That report aims to provide sufficient information to support decision making by councils on whether to develop a joint Water Services Delivery Plan (WSDP), and joint delivery model with other councils in the region.

The report does not represent the position of any of the councils involved in this process but rather outlines a recommended 'best for region', concept-level delivery model for a regional Water Services Council Controlled Organisation (WSCCO) to deliver water services in the region, should councils decide to adopt this approach. It follows the requirements of Government policy and legislation and provides a robust strategic-level analysis of the case for change and investment required.

The report is not intended to fulfil the statutory requirements for a WSDP nor to be a basis for investment decisions. A full WSDP along with further development and decisions on the proposed delivery model, will need to be developed by councils later, based on the confirmed approach. Councils will need to separately consider and evaluate alternative options in relation to the recommended model to inform decision making.

Limitations of information and analysis

The information in these appendices has been based on best available information and is intended as a strategic and directional-level analysis to inform decision making on an approach to a WSDP, rather than the level required of a complete WSDP or to inform investment decisions. Where possible, the sources and limitations have been noted. As new or more robust information becomes available, this will be used to further inform and refine the analysis. Key assumptions, sources of information and levels of confidence are set out in Appendix C. This includes how information has been verified where possible, including through discussions with council officers and Wellington Water (WWL) staff to ensure accuracy and correct interpretation. There are a number of documents referenced in this report, (such as the draft Entity G Asset Management Plan) that were developed by the Department of Internal Affairs (DIA) but never finalised. These have been relied upon in the absence of other information in order to significantly reduce the time and costs of this process. As noted, reasonable efforts have been made to cross-check such information with other sources.

It should be noted that:

- Forecasts almost always turn out incorrect, especially over a 30-year horizon.
- There is great difficulty in estimating investment requirements over the next 30 years given poor information on asset condition, lack of detailed engineering assessment of what is required to address water quality to match the proposed water quality standards, and uncertain growth investment.
- Choices need to be made over a myriad of modelling approaches, inputs, and assumptions that reasonable minds may disagree with over some decades.
- There is a range of decisions yet to be made and legislation to be enacted to give effect to reform of water services.
- All modelled network economics figures should assume to have a +/-20% accuracy such as in relation to revenue, investment and debt over the 30-year period, which is considered a sufficient level of accuracy for strategy decision-making purposes at this stage. Some of these, such as the available asset condition metrics, are known to be weak.
- However, based on the analysis of information and cross-checking, there is a relatively high level of confidence that the analysis is directionally correct and sufficiently robust to support the strategic level of analysis in this report and the decision making that it is intended to support.
- As noted, the detail will be subject to ongoing refinement and change as more accurate, specific information is identified and councils complete the required detail in a WSDP.

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Prepared for:	Councils in the Wellington Region and Horowhenua District
Date:	4 October 2024
Status:	Final appendices for release

Contents

Appendix A: Clarification of the alignment with the requirements of a WSDP

Table 1: Alignment of the report with requirements of a WSDP (as described in Section 13 of the Local Government (Water Services Preliminary Arrangements) Act 2024)

Contents of Water Services Delivery Plan: A territorial authority's Water Services Delivery Plan must contain the following information in relation to the water services delivered in the authority's district:

Section 13(1)	Relevant section of this report	Notes and limitations
(a) a description of the current state of the water services network:	Sections 10 -17	
(b) a description of the current levels of service relating to water services provided:	Section 14	High-level delivery models only
(c) a description of — (i) the areas in the district that receive water services (including a description of any areas in the district that do not receive water services); and (ii) the water services infrastructure associated with providing for population growth and development capacity:	n/a	
(d) whether and to what extent water services — (i) comply with current regulatory requirements: (ii) will comply with any anticipated future regulatory requirements	Section 16 Appendix F	High-level overview only
(e) if any water services do not comply with current regulatory requirements or will not comply with any anticipated future regulatory requirements — (i) a description of the non-compliance; and (ii) a description of how the anticipated or proposed model or arrangements provided under paragraph (j) will assist to ensure water services will comply	Section 16 Appendix F	High-level overview only
(f) details of the capital and operational expenditure required — (i) to deliver the water services; and (ii) to ensure that water services comply with regulatory requirements	Sections 17, 26-32	High-level overview only
(g) financial projections for delivering water services over the period covered by the plan, including —	Section 29 Appendix I	High-level overview only

(i) the operating costs and revenue required to deliver water services; and (ii) projected capital expenditure on water services infrastructure; and (iii) projected borrowing to deliver water services:	Appendix J	
(h) an assessment of the current condition, lifespan, and value of the water services networks:	Section 13	High-level overview only
(i) a description of the asset management approach being used, including capital, maintenance, and operational programmes for delivering water services:	n/a	
(j) a description of any issues, constraints, and risks that impact on delivering water services:	Sections 10-17	High-level overview only
(k) the anticipated or proposed model or arrangements for delivering water services (including whether the territorial authority is likely to enter into a joint arrangement under section 9 or will continue to deliver water services in its district alone):	Sections 18-25	High-level overview only
(l) an explanation of how the revenue from, and delivery of, water services will be separated from the territorial authority's other functions and activities:	n/a	
(m) a summary of any consultation undertaken as part of developing the information required to be included in the plan under paragraph (j):	n/a	
(n) an explanation of what the territorial authority proposes to do to ensure that the delivery of water services will be financially sustainable by 30 June 2028:	n/a	
(o) an implementation plan — (i) for delivering the proposed model or arrangements described under paragraph (j); and (ii) if a territorial authority is proposing to deliver water services itself and not as part of a joint arrangement for delivering water services, that sets out the action that the territorial authority will take to ensure its delivery of water services will be financially sustainable by 30 June 2028:	Sections 37-43	High-level overview only
(p) any other information prescribed in rules made by the Secretary under section 14.	n/a	

Section 13 (2)
For the purposes of subsection (1)(o), an implementation plan must include the following: (a) a process for delivering the proposed model or arrangements: (b) a commitment to give effect to the proposed model or arrangements once the plan is accepted: (c) the name of each territorial authority that commits to delivering the proposed model or arrangements: (d) the time frames and milestones for delivering the proposed model or arrangements.

Section 14

Contents of joint water services delivery plan

(1) A joint water services delivery plan must contain the following:

(a) information that clearly identifies each territorial authority that is proposed to be a party to the joint arrangement:

(b) information as to whether the joint arrangement will deliver—

(i) all water services for all of the territorial authorities that are parties to the joint arrangement; or

(ii) all water services except for some or all services in relation to all of the territorial authorities' stormwater networks; or

(iii) all water services for some of the territorial authorities, and all water services except for some or all services in relation to stormwater networks for the other territorial authorities:

(c) all of the information listed in **section 13**:

(d) information on the likely form of the joint arrangement, including whether it is anticipated it will involve water services being delivered by—

(i) a joint WSCCO; or

(ii) an arrangement described in section 137 of the LGA2002; or

(iii) another organisation or arrangement that the territorial authorities are considering.

(2) To the extent that further information about the joint arrangement is available when the plan is submitted to the Secretary under **section 18**, a joint water services delivery plan may also contain that information, including—

(a) the ownership structure; and

(b) the governance structure; and

(c) the control and financial rights of each territorial authority in the joint arrangement.

(3) For the purposes of **subsection (1)(c)**, a joint plan must contain the information required under **section 13** in relation to—

(a) each territorial authority that is a party to the joint arrangement; and

(b) all water services delivered in the joint service area (including services relating to each territorial authority's stormwater network).

(4) **Subsection (1)(c)** applies to a territorial authority's delivery of water services relating to its stormwater network even if the delivery of those services is not part of the joint arrangement.

(5) A joint plan must also comply with any requirements prescribed in rules made by the Secretary under **section 16.**

Appendix B: Detailed key requirements

As part of the development of a recommended 'best for region' approach, councils identified a number of issues that will need to be addressed as part of the development of a WSDP and WSCCO and these have been captured as key requirements. It is recognised that the categorisation used here for different organisations and groups is subjective and that some requirements relate to multiple groups (for example, water is a taonga for all, not just for Iwi/Māori).

These will need to be reviewed and reconfirmed as part of the next phase of work to develop a WSDP and implementation plan based on the outline below, as well as the minimum requirements for delivery models expected to be set out in Bill 3.

Consumer requirements

Public ownership: All councils in the region have expressed an absolute commitment to ensure that the provision of water services remains under public ownership. This is consistent with the model adopted by most countries around the globe with many examples of the model working successfully (for example Australia).

Affordable water; fair, equitable and transparent pricing: Delivering affordable water is a major challenge, not just in New Zealand but in most developed economies. A recent World Bank Study ("Funding a Water Secure Future") determined that the percentage of GDP spent on water infrastructure by developed economies was currently 0.5% and needed to rise 2.7-3 times current levels in order to achieve Sustainable Development Goal targets. This is consistent with the economic analysis in this report and is a material change from current price levels.

Increases to price and ensuring affordability will need to be managed very carefully and will require ongoing engagement with communities and careful use of financial tools to manage the rate of cost increases.

Recent consultation by councils through LTP processes has identified that ratepayers are prepared to spend more on fixing the water infrastructure if there are demonstrable improvements. Implementing an efficient and effective model will be essential to secure consumer support.

Price setting and price increases will ultimately need to be determined by a new WSCCO. This will be done in the context of new economic regulation, which will have a strong focus on price and quality based on actual cost to provide sustainable networks and services.

The new entity will inherit a diverse suite of revenue sources and pricing structures. It will be very challenging for the entity to transition these into a simple set of services with fair and transparent prices. This will be a key task for the first five years of operation. The transition principles in the main report are designed to provide councils with confidence that their residential ratepayers will not experience any major rebalancing of prices in the early years of the entity and that any subsequent rebalancing of charges will be phased in over time.

High-quality, seamless, environmentally compliant services: As noted, ratepayers (water consumers) have indicated a willingness to pay more for water services if they experience demonstrable improvements in service quality (reliability, reduced leaks, improved discharge quality etc).

Customer focus: This is a key requirement, particularly for smaller councils such as Kāpiti Coast and the Wairarapa councils, where there is a strong concern about loss of service levels to a larger regional model. Councils have expressed a strong view that any future regional WSCCO would need to provide a high level of local service delivery and not result in a loss of service quality levels for communities.

Continuous improvement: The extent of the challenges faced means that the creation of a new model and delivery entity will be merely the start of a continuous drive to optimise services and delivery processes. The range of services and processes to be optimised is extremely wide. For example, from the optimisation of pipe replacements in the field to the streamlining of data collation and reporting for regulatory purposes.

Iwi/Māori requirements

Aspirational vision and water treated as taonga: The most important requirement expressed by Iwi/Māori is that the entity shares an aspirational vision to restore te mana o te wai. This should be at the heart of a new entity's vision and DNA.

Meaningful influence: Iwi/Māori feedback has been supportive of a skills-based Board where treaty and cultural awareness are two of the key skills required. Iwi/Māori also want to see a genuine commitment to local/Māori procurement.

Water & environmental quality improvement: Iwi/Māori are looking for a major, ongoing commitment to improvement of water quality.

Future water entity

Empowered to operate independently: The entity will inherit a wide range of services, assets, systems, investment requirements and billing arrangements. This includes assets and systems which are beyond the end of their life. The entity will require mandate to prioritise investments if it is to resolve the challenges in a cost-effective and optimal manner.

Independent, skills-based Board: Following on from the previous requirement, the magnitude of the challenges will require not only the mandate to optimise but also the appointment of an exceptionally skilled Board. These skills will need to include commercial, cultural, people and transformational expertise. The Board will need to appoint an exceptional executive leadership team.

Certainty to plan, fund and invest optimally: This is firstly about independence so that the entity can commit to a long-term investment plan without the plan being "chopped and changed" by short-term funding and political shifts. Secondly, given the potential funding shortfall, the entity will also need to have confidence that it has committed debt funding lines, albeit that they may be linked to the entity demonstrating that it is on track to achieve its key business plan milestones.

Full breadth, integrated utility: One of the major learnings from the current WWL model is that there needs to be a single entity accountable for the effective delivery of water services. In particular, the entity needs to own, and have full control over the assets, revenue streams and funding facilities, if it is to resolve the challenges and provide seamless services to water consumers.

High-quality systems and staff: High-quality people and system capabilities will be essential for the entity to meet the challenges it inherits. The new regulatory environment will also require a quantum shift in the data collection, analysis and reporting capabilities of all water delivery services.

Councils

Sustainable funding and financing (prior to the Government's policy announcements made in August 2024 around new financing options for councils via the LGFA, this was noted as 'balance sheet separation'): Local councils and central government require water services revenue, costs and borrowings to be financially sustainable in line with legislative requirements by 30 June 2028.

Local influence to ensure alignment of accountabilities, particularly for growth: While recognising that the entity has to be independent, councils also require the entity to support urban growth and deliver broader community outcomes. Historically, councils have found it challenging to fully fund new growth from Development Contributions or Financial Contributions. Councils have had to fund growth infrastructure from general rates, debt or defer growth infrastructure. Councils have a requirement that the new entity must support housing growth and also plan and invest to ensure the entity supports broader outcomes of the community.

Single point of accountability for service delivery: One of the learnings from the Wellington Water model is that all parties (including consumers, councils and entity staff) require a single point of accountability who is responsible and takes ownership for the delivery of water services.

Water delivery entity has strong processes, systems and data: As noted, the lack of investment in WWL's foundational systems, and associated high-quality information has inhibited the performance of WWL and has also been a perpetual source of frustration for councils. Councils require a new entity that has high-quality core systems.

Long-term planning horizon: Councils need to work with utilities (electricity, water, telecommunications) that take a long-term approach and can be meaningful partners with councils in planning the long-term development of the region.

Economies of scale & integration: All councils require a regional entity to deliver economies of scale, both financial and depth of operating model capabilities. In addition, the city councils require a single entity to manage the highly integrated city water services network.

Three waters (for all?): Further consideration will be required in relation to urban stormwater. WWL currently manages the delivery of all three water services for the metropolitan councils and South Wairarapa District Council. This includes responsibility for the reticulated stormwater network. Over the past decade, this definition of the scope of the stormwater responsibilities delivered by WWL has worked well. It provides a relatively simple delineation point and suits the metropolitan area, which has legacy waste and stormwater networks that were designed with a high number of integration and interconnection points. Accordingly, the metropolitan councils will require a future, regional entity to provide a similar scope of stormwater services. The situation in the semi-urban or rural council areas is different. The network topography has a lower level of integration between the wastewater and stormwater networks. In addition, these areas make greater use of open, as opposed to reticulated, stormwater drains.

Council financial sustainability: The demerger of each council's water services creates two potential issues for each council in respect of their residual activities:

i. Stranded costs: i.e. overheads which a council will still incur, that were previously recovered from the water services. Examples include the fixed cost of support services and fixed software licence costs;

ii. Reduced debt capacity: the LGFA typically sets a council's maximum debt limit at 3 times revenue. If a council's water-related debt:revenue ratio is less than the council's current

average ratio then the demerger of the water services will leave the residual council with a higher debt:revenue ratio and reduced debt capacity than it has today.

These two issues are likely to affect all councils. They may even create financial sustainability issues for some councils.

Central Government

The Government has several requirements for delivery models, with further details of these expected as part of Bill 3. The Government has stated that councils can design their own arrangements as long as they meet clear, minimum requirements set out in legislation including meeting regulatory standards and financial sustainability requirements. There will be restrictions against privatisation and there will be additional requirements for water organisations to ensure they are operated and governed effectively.

Financially independent and sustainable: Central Government requires water service entities to be financially sustainable.

Compliant with regulation: Central Government requires water service entities to be able to "meet all regulatory standards and requirements for delivering water services". This requirement will be very challenging for the region's wastewater discharges and will depend on how the changes to the National Policy Statement for Freshwater Management flow down into the Taumata Arowai wastewater standards and then into the Regional Councils' plan and resource consent process. The timeframe for achieving standard compliance will be particularly important.

Enables housing growth: The Government has simply stated that a water services entity is required to demonstrate how it will "unlock housing growth".

Scale: The legislation supports regional collaboration and the creation of regional water services delivery entities.

Appendix C: Key assumptions, sources of information and levels of confidence

Table 2: Key assumptions – Economic Model

Item	Assumption	Sources of information	Confidence/Limitations
Network condition	21% of regional network in poor or very poor condition	• AECOM Entity C Working Draft Asset Management Plan 2024 – 35 (draft, not finalised). • AECOM Entity G Wellington/Wairarapa Initial Draft Asset Management Plan 2024 – 35 Version 1.1 October 2023 (draft, not finalised). • AECOM and Tonkin and Taylor, Entity G Wellington Wairarapa Initial Draft Asset Management Plan Version 2.0 December 2023. • Feedback and clarifications from councils on asset condition information • Interviews with council staff. • Interviews with WWL staff. • Council staff review and feedback.	• Network pipe condition assessment by approximately 10% sampling. • Pipe condition assessment extrapolated to treatment plant condition assessment due to lack of specific data. • Low-medium data accuracy confidence. • Confidence in impact of asset condition assessment on required funding is considered acceptable.
Network valuation	Network replacement value $19.7 billion	The valuation is based on the triangulation of the following valuations: • $21.2 billion WICS Entity G valuation produced for DIA ($20.4 billion plus $0.8 billion for Horowhenua). • $21 billion indicative valuation provided by WWL for WWL Councils to Entity G team, plus the replacement cost asset values for Horowhenua, Kāpiti, Carterton and Masterton.	• Reasonable level of confidence that the value of the network is between $19 - $21 billion. The latest council asset valuations indicate $19 billion, but majority of these are still in draft and not yet final. • Asset replacement valuations in water networks fluctuate due to changes in available civil contracting costs.

		• $19.2 billion latest three water asset valuations from WWL Councils (but with latest WCC, HCC and UHCC valuations and associated uplifts yet to be added in). Plus, the replacement cost asset values for Horowhenua, Kāpiti, Carterton and Masterton. https://www.dia.govt.nz/diawebsite.nsf/Files/Water-Services-Reform/$file/Entity-G-(Wellington)-2054-projected-household-costs.xlsx	
Levels of service		• WWL Quarterly reporting to the Wellington Water Committee. • WWL Statement of Intent. • Council LTP information. • Council feedback on challenges and issues.	Low confidence in reported fault rates for councils without metering due to: • increasing faults backlog not included in fault costing. • historical financial reporting of leak cost means costs are at least one year behind actual. • leaks require public reporting. • underground leaks are not visible and not included in reporting in areas without metering.
Compliance		• WWL reporting. • Council reporting. • Council feedback on compliance issues.	• Drinking water compliance is well specified. • Wastewater discharge compliance standards are still fluctuating. • Economic compliance (waters delivery price & quality) is yet to be introduced.
Operational expenditure		• Council LTP information.	• High confidence in the draft LTP numbers and detailed budgets for strategic modelling purposes. • The draft LTP information will be updated with the final council approved

			LTP budgets for the next version of the model. • The detailed budget and assumptions could be refined further at a later stage once the entity setup is confirmed, and more detailed information is available from councils.
Capital expenditure			• 2024 LTP 10 yr forecast intentionally does not contain all capital required to maintain the water network or to support growth over the 10 years. • Many of the large capital expenditure items required sit outside of the 10 yr LTP process and are not yet allocated to water by councils.

Table 3: Key assumptions – Financial Model

Item	Assumption	Sources of information	Confidence / Limitations
Revenue – price change	9% real pa after growth and inflation	• Base case assumption per economic modelling chapter. • Range of different price scenarios are able to be modelled.	• This is a placeholder based on average price. Further work is required to conclude the price affordability vs financial sustainability challenge. • This is not an indication of actual price or charging.
Revenue – population growth	Average 1.3% pa	• Local council projections for the 2024 LTP, including forecast information from the 2023 Wellington Regional Housing and Business Capacity Assessment (HBA) Update report prepared for the Wairarapa-Wellington-Horowhenua region in September 2023.	• Reasonably reliable noting has been ongoing fluctuations in population growth and immigration / emigration.

		https://wrlc.org.nz/wp-content/uploads/2024/04/HBA3-Draft-full-report-with-COVER-updated-16.02.24.pdf	
Revenue & Expenses – water consumption volumes	No change to current consumption		• This will become important if meters and volumetric charges are rolled out. • Typically, meters lead to a ~30% reduction in water required.
Revenue & Expense Inflation – staff, maintenance, operations & capital expenses	2.6% 27/28 2.5% 28/29 2.3% 29/30 2.2% average pa thereafter	• Sourced from the *'Cost adjusters 2023 interim update'* produced by BERL for 2024-34 Long Term Planning purposes. The water and environmental management adjustor have been used.	• Accurate at date of estimate. • Likely to reduce based on slowing economy. • Reduction in expense inflation will be counterbalanced by reduction in revenue inflation.
Staff Expense – vacancy rate	8%	• Expense based on costed organisation design reduced by 8% assumed level of vacancies.	• Reasonable confidence as this is based on Wellington Water Limited's historical vacancy rate.
Staff Expenses – capitalisation of labour	40% of personnel costs	• Capitalised labour is a conservative assumption based on Wellington Water Limited's 23/24 labour recharge to projects budget scaled up for the regional entity.	• This is a conservative assumption. e.g. Watercare capitalise almost 80% of staff costs.
Consequential Operating & Maintenance Expenses – from new capital expenditure	0% except $5.4 million for sludge minimisation	• The one material growth investment is the Wellington Sludge Minimisation Facility. • A $5.4 million pa uplift in operating costs has been factored in from 27/28 based on information provided by Wellington City Council.	• 80%+ of capital expenditure is renewal or improvement to existing infrastructure. • This should lead to a longer-term reduction in repair costs - hence the assumed 0%. • The one material growth investment is the Wellington Sludge Minimisation Facility.

			• A $5.4 million pa uplift in operating costs has been factored in from 27/28 based on information provided by Wellington City Council.
Interest Rates	5.47% 27/28 5.47% 28/29 5.47% 30/31 6.01% average pa thereafter	• Years 1-4 based on LGFA borrowing yield for an unrated guarantor plus a credit rating adjustment of 5 basis points pa for a regional water entity.	• Accurate at date of estimate. • Likely to reduce based on slowing economy. • Any reduction in interest rates likely to be accompanied by reduction in inflation and hence offset reduction in revenue inflation assumption.
Depreciation (useful lives on **existing** assets) • Drinking Water • Wastewater • Stormwater	31 years 37 years 61 years	• Average remaining useful lives on existing assets were calculated based on depreciation budgets and asset book values provided by Councils.	• High level of confidence for strategic modelling purposes. • Actual useful lives of individual assets may vary and can be refined at a later stage once detailed asset information is available from councils.
Depreciation (useful lives on **new** assets) ➢ Drinking Water ➢ Wastewater ➢ Stormwater	55 years 70 years 100 years	• A weighted average useful life of 74 years has been used across the 3 water assets based on the book value information provided by councils.	• There is a reasonable level of confidence on the weighted average useful life for strategic modelling purposes. Actual useful lives of individual assets maybe higher or lower than forecasted. • This information can be further refined at a later stage once the detailed investment is confirmed for the new water entity.
Opening debt	The opening debt of $2.3 billion at 1 July 2027 is a placeholder at this stage. The final will	• The opening debt for 1 July 2027 is based on the forecasted opening debt figure for 2025 provided by Councils, which have been rolled forward based	• The debt figures for the 10 councils are placeholders only and will need to be agreed during Phase 2 and the Establishment Phase.

	be based on figures agreed with councils.	on the final adopted 2024 LTP income and expenditure.	
Forecast opening asset book value	$9.5 billion for 24/25	• The forecast opening asset book value for 24/25 is based on council forecast 24/25 opening asset book value of $7.4 billion plus the impact of recent draft valuations on Optimised Depreciated Replacement Cost (ODRC) of $2.1 billion.	• There is a reasonable level of confidence in the draft valuation figures. The assumptions can be refined once the current valuations are finalised, and when a full valuation is undertaken prior to transition to the new entity.
27/28 Opening revenues	$697 million	For the first 3 years of the plan, the forecast uses the councils' 2024 final adopted LTP operating revenue as a base after adjusting for known revenue that will no longer exist under the new entity such as the GWRC Levy. The revenue is then projected out from year 4 based on the following assumptions: • Adjusting for known one-off revenue and other revenue that will no longer exist under the new entity such as the Wastewater Joint Venture revenue. • It is also assumed that IFF levies on the new Sludge Minimisation Facility will remain with Council. • Rates revenue – the real price path 9% per annum assumption (after allowing for inflation and growth). • Non-rates revenue – BERL inflation adjustor (after growth has been applied to customer base where applicable). Note: Other income may include some interest income which should be netted off against interest expense. The amount is not material.	• There is a high level of confidence in the final adopted LTP information, but the forecast price increase of 9% is a placeholder at this stage. Further work is required to conclude the price affordability vs financial sustainability challenge.

27/28 Staff (net of capitalised labour) Expense	$64 million	• Staff costs ($109 million) are based on the Entity G detailed organisational design and estimated job-sizing for roles, including other employment costs. • Any potential savings from governance arrangements are offset by additional staff transferred from Horowhenua. • A vacancy factor of 8% has been applied, and 40% of the remaining total personnel costs is assumed to be capitalised.	• There is a reasonable level of confidence in the estimates as it is based on best available information at the time. • The forecast assumes that all roles are full-time equivalents, but some roles may potentially be part time. The cost would reduce accordingly. This can be refined further at a later stage once the entity setup is confirmed.
27/28 Maintenance Expense	$71 million	• Maintenance costs largely consist of planned/routine and reactive maintenance. • The forecast spend is based on WWL's maintenance budget forecast for Year 1 of the 2024 LTP for WWL shareholding councils with a 15% uplift for Carterton, Kāpiti Coast, Masterton and Horowhenua based on historical portion of spend between the councils.	• There is a reasonable level of confidence in the estimates as it is based on best available information at the time. • The detailed budget and assumptions can be refined further at a later stage once the entity setup is confirmed, and more detailed information is available from councils.
27/28 Operations Expense	$80 million	• Operations costs mainly consist of operation technology, disposal, general treatment plant operations, and compliance costs. • The forecast spend is based on WWL's operations budget forecast for Year 1 of the 2024 LTP for WWL shareholding Councils with a 15% uplift for Carterton, Kāpiti Coast, Masterton and Horowhenua based on historical portion of spend between the Councils, plus provision for power costs of $16 million that is currently paid by the Councils (not included in WWL forecasts).	• There is a reasonable level of confidence in the estimates as it is based on best available information at the time. • The detailed budget and assumptions can be refined further at a later stage once the entity setup is confirmed, and more detailed information is available from councils.
27/28 Planning & investigations	$41 million	• The forecast spend is based on WWL's budget forecast for Year 1 of the 2024 LTP for WWL shareholding Councils with a 15% uplift for	• There is a reasonable level of confidence in the estimates as it is

		Carterton, Kāpiti Coast, Masterton and Horowhenua based on historical portion of spend between the Councils.	based on best available information at the time. • The detailed budget and assumptions can be refined further at a later stage once the entity setup is confirmed, and more detailed information is available from councils.
27/28 Other Operating Expenses	$78 million	• Digital costs - $19 million budget based on a pro-rata of Watercare's digital costs (e.g. IaaS, software licensing etc). 7 FTEs for technology staff have been budgeted under personnel costs. • Rates expense - $15 million based on the national forecast from the Three Waters programme allocated on population. • It assumes 70% of three waters related land will transfer to the entity. • Insurance - $15 million based on 2022 council premiums with an uplift applied for impact of asset valuations and inflation increase based on analysis done through the Three Waters programme. • Other costs of $29 million including administration, consultancy, motor vehicles, telecommunications, bad and doubtful debts, Taumata Arowai regulatory costs – based on a combination of pro-rating Watercare's costs or based on forecast from the Three Waters programme as appropriate. • The Data and Digital costs were a placeholder until the impact of the actual system solution and costs are known, therefore the related costs may be higher or lower than forecasted.	• There is a reasonable level of confidence in the estimates as it is based on best available information at the time. • The detailed budget and assumptions can be refined further at a later stage once the entity setup is confirmed, and more detailed information is available from councils.

		• The Rates Expense costs were based on high-level estimates from the Three Waters programme and require detailed information from Councils to understand actual costs which may be higher or lower than forecast. • Insurance costs were a placeholder until an insurance strategy is worked through for the new entity.	
27/28 Depreciation	$277 million	• Depreciation is based on assumed asset lives rather than actual asset lives and calculated on the projected capital investment profile with an allowance for the impact of asset revaluations. • Actual useful lives may be shorter or longer than the assumptions used, therefore the depreciation cost maybe higher or lower than forecasted.	• Reasonable level of confidence based on assumed average useful lives. Actual useful lives may be shorter or longer than the assumptions used and can be refined at a later stage.
27/28 Capital	$522 million	• For Years 1-3, the capital investment profile is taken from councils' final adopted 2024 LTPs. • For Years 4 onwards, the capital investment total is taken from the Network Economic Analysis and inflation adjusted. • The resulting value of the total envelope should more than encompass the existing Year 4-10 LTP. • However, the new entity will almost certainly recast the capital plan for this period. • At this stage, the capital expenditure figures exclude establishment, transition and set up costs. These will be significant. • $20 million pa has been allowed for ongoing property, vehicles, digital and sundry capital expenditure. This is based on a pro-rata of Watercare and Wellington Water Ltd budgets.	• There is a high level of confidence in the final adopted LTP information. • The capital investment plan from Year 4 onwards will likely be recast by the new entity. Provisions for establishment and transition setup costs need to be made at a later stage.

Table 4: Other key documents and sources

Documents and sources
• Review into the Future for Local Government (2023) He piki tūranga, he piki kōtuku, Wellington: New Zealand.
• Wellington Regional Leadership Committee Regional Dashboard, https://wrlc.org.nz/reports/housing-data
• The Mayoral Taskforce on the Three Waters Report (2020)
• Wellington Water Limited Statement of Intent (2024)
• Water Industry Commission of Scotland (WICS) Reports (2021)
• DIA Three Waters Reform – WICS Modelling Phase 2. Beca Ltd (April 2021)
• Three Waters Review: Release of second stage evidence base. DIA briefing to Government (20 May 2021)
• Report of the Havelock North Drinking Water Inquiry: Stage 2 (2017)
• Three waters reform. Review of methodology and assumptions underpinning economic analysis of aggregation. farrierswier (May 2021)
• Water Industry for Scotland, Economic analysis of water services aggregation (May 2021)
• Wellington Water Limited: capital programme estimating and budget systems. Roy Baker and Kevin Jenkins (2024)
• Contract Optimisation review conducted by FieldForce4. (2023)
• Inquiry into the cessation of water fluoridation by Wellington Water. MartinJenkins (2022)

Appendix D: Council profiles

See separate document – Appendix D[1]

[1] At time of writing, no information for the profile had been received from Carterton District Council.

Appendix E: Network condition information

Overall network asset condition assessment

Information below uses the calculations as follows:

1. Each of the asset measurements is normalised (total set to 100%) from raw data as wastewater adds to 99%, and stormwater has 11% of the network as "not assessed".
2. Weight average asset conditions are calculated weighted by pipe length.
3. Pipe condition was extrapolated to include other asset classes (only treatment plants are material) as there are no individual condition assessment of other asset types, and pipes make up 80-90% of asset replacement value (dependent on council district) and so is likely materially accurate.

Note: This approach is less than ideal but is the only reasonable approach given the scarcity of good asset condition assessment.

Table 5: Overall network asset condition assessment

Asset	Condition	As reported	Normalised
Water supply			
	Excellent	37%	37%
	Good	30%	30%
	Medium	16%	16%
	Poor	11%	11%
	Very Poor	6%	6%
	Not assessed	0%	
Total		100%	100%
Wastewater			
	Excellent	24%	24%
	Good	20%	20%
	Medium	22%	22%
	Poor	12%	12%
	Very Poor	21%	21%
	Not assessed	0%	
Total		99%	99%
Stormwater			
	Excellent	33%	38%
	Good	25%	28%
	Medium	17%	19%
	Poor	6%	7%
	Very Poor	7%	8%
	Not assessed	11%	
Total		99%	100%

Reticulation (km)			
	Water supply	3,310	
	Wastewater	3,090	
	Stormwater	1,930	
Total		8,330	
Weighted Average Condition			
	Excellent		26%
	Good		28%
	Medium		24%
	Poor		**10%**
	Very Poor		**11%**
Total			99%

Source: Base information is AECOM Asset Management Plan V2.0 figure 11, page 34.

Original information was taken from AECOM Asset Management Plan V1.1 figure 11, which did not contain asset class values or regional breakdowns.

This asset condition information has been checked by councils and WWL and further updates on asset condition information have been received from councils.

Note: There appears to be an arithmetic error in AECOM Asset Management Plan V2.0 page 35 which incorrectly states:

"Around 15% of the pipe network has been assessed as in poor or very poor condition, representing more than 1,200 km of pipe that will be requiring increasing maintenance and renewal in the short term. This is described further in Section 9 - Asset Renewals Needs"

The 15% appears to be calculated incorrectly but only in this version of the report. The raw figures provided are the same as per version 1.1 and correctly add to 22% as per version 1.1 and calculations as per Table 6 and Table 7 below which have also been adjusted with further updates from councils.

Combining the 10% Poor and 11% Very Poor results in **21%** of the network past the end of service life (EoSL).

Asset condition assessment by council

Table 6: Summary of asset condition assessment by council

Weighted Average Condition	Greater Wellington Regional Council	Carterton District Council	Horowhenua District Council	Hutt City Council	Kāpiti Coast District Council*	Masterton District Council	Porirua City Council	South Wairarapa District Council	Upper Hutt City Council	Wellington City Council	Weighted
Network Length (km)	187	159	961	1845	1065	444	1065	209	662	2,728	~9,325
Reticulation											
Excellent	16%	12%	22%	26%	22%	38%	38%	6%	54%	35%	31%
Good	39%	23%	51%	39%	33%	14%	20%	18%	20%	24%	30%
Medium	39%	36%	10%	16%	10%	14%	10%	46%	11%	15%	15%
Poor	5%	22%	3%	10%	11%	14%	11%	11%	9%	10%	10%
Very Poor	0%	7%	5%	8%	23%	19%	20%	17%	7%	16%	14%
Not Assessed	1%		9%	1%	1%	1%	1%	2%			
Total	100%	100%	100%	100%	100%	100%	100%	100%	101%	100%	100%
Beyond EoSL	5%	29%	20%	24%	2%	34%	23%	14%	15%	26%	21%

Table 7: Detailed asset condition assessment by Council

			Greater Wellington Regional Council	Carterton District Council	Horowhenua District Council	Hutt City Council	Kāpiti Coast District Council	Masterton District Council	Porirua City Council	South Wairarapa District Council	Upper Hutt City Council	Wellington City Council	
Asset Condition													
	Water supply												
		Excellent	16%	10%	25%	38%	6%	31%	7%	8%	50%	43%	
		Good	39%	23%	53%	32%	42%	17%	16%	25%	25%	38%	
		Medium	39%	36%	10%	3%	50%	13%	33%	53%	10%	9%	
		Poor	5%	26%	2%	7%	2%	16%	16%	10%	11%	7%	
		Very Poor	0%	5%	2%	20%	1%	8%	18%	2%	4%	4%	
		Not assessed	1%	0%	8%	0%	0%	16%	10%	2%	0%	0%	
			100%	100%	100%	100%	100%	100%	99%	100%	100%	101%	
	Wastewater												
		Excellent		13%	5%	11%	0%	47%	10%	3%	53%	29%	
		Good		23%	69%	37%	23%	6%	15%	12%	17%	16%	
		Medium		32%	6%	23%	77%	10%	46%	45%	13%	12%	
		Poor		22%	5%	12%	0%	12%	23%	15%	8%	17%	
		Very Poor		11%	1%	17%	0%	10%	4%	23%	9%	26%	
		Not assessed			14%	0%	0%	14%	1%	2%	0%	0%	
				101%	100%	100%	100%	100%	100%	100%	100%	100%	
	Stormwater												
		Excellent		18%	49%	23%	5%	9%	10%	0%	61%	35%	
		Good		25%	11%	47%	1%	10%	18%	0%	16%	18%	
		Medium		53%	16%	17%	1%	13%	70%	0%	8%	27%	
		Poor		3%	2%	12%	2%	8%	1%	0%	5%	4%	
		Very Poor		1%	22%	1%	2%	2%	1%	100%	9%	15%	
		Not assessed					90%	58%					
				100%	100%	100%	100%	100%	100%	100%	99%	99%	

			Greater Wellington Regional Council	Carterton District Council	Horowhenua District Council	Hutt City Council	Kāpiti Coast District Council	Masterton District Council	Porirua City Council	South Wairarapa District Council	Upper Hutt City Council	Wellington City Council	Weighted
Asset Sizing													
	Reticulation (km)												
		Water supply	187	75	428	711	478	218	344	118	281	922	
		Wastewater		66	351	680	354	214	427	75	226	1077	
		Stormwater		18	182	454	233	55	294	16	155	729	
		Total	187	159	961	1,845	1,065	487	1,065	209	662	2,728	~9,325
	Treatment Plants												
		Water supply	4	2	5	0	5	2		4			
		Wastewater		1	6	1	2	4	1	4		2	
		Stormwater		0	1	5	0	3					
	Pump Stations												
		Water supply	15	1	1	13	9	1	15		9	34	
		Wastewater		17	53	48	153	13	67	11	17	69	
		Stormwater			19	12	18				7	2	
	Replacement Value ($m)												
		Reticulation	507	38	234	314	553	128	181	70	200	1,904	4,129
		Treatment Plants	429	36	321	688	390	211	400	43	222	2,973	5,713
		Pump Stations	364	11	80	531	189	57	323	9	232	2,309	4,105
		Total	1,300	85	635	1,533	1,132	396	904	122	654	7,186	13,947

Source: Base information is AECOM Asset Management Plan V2.0 Appendix 2. This asset condition information has been checked by councils and WWL and further updates on asset condition information has been received from councils including KCDC, PCC, MDC and HCC.

Calculations are as follows:

1. Each of the asset measurements is not normalised (total set to 100%) because of the risk of high uncertainty when raw data is inflated by high proportions of unassessed network, in particular stormwater for:
   - Horowhenua District Council 22%,
   - Kāpiti Coast District Council 90%,
   - South Wairarapa District Council 100%
2. Weighted average asset conditions are calculated weighted by asset class value, as this metric was provided in V2.0 for regions.
3. It is likely the pipe condition asset assessment (V1.1) has been used to calculate asset class condition (V2.0) as the figures line up well. This is likely the same approximation that was made for the whole network condition assessment above, but this is not explicit in the V2.0 report.

Appendix F: Key compliance issues

Disclaimer: Compliance information changes from month to month and the material in the table below is based on best available information at the time of this report. For the facilities managed by Wellington Water this information has been taken from the Wellington Water Operations Report to the Wellington Water Committee dated 12 September 2024. For other councils, the information is as supplied in response to the draft of this report in September 2024.

Table 8: Drinking water compliance status

Area / Plant	Compliance	Comment
Waterloo	**x Non-compliant**	Due to changes in the assurance rules, the capability of the existing Waterloo treatment plant facilities, and the layout of the network, a significant treatment plant upgrade and/or additional network infrastructure is needed to achieve compliance with the rules as written.
Wainuiomata	**✓ Compliant**	Wainuiomata water treatment plant is compliant with the Water Services Authority bacterial and protozoal compliance rules.
Te Marua	**✓ Compliant**	Te Marua water treatment plant is compliant with the Water Services Authority bacterial and protozoal compliance rules.
Gear Island	**✓ Compliant**	Gear Island water treatment plant is compliant with the Water Services Authority bacterial and protozoal compliance rules.
Waiohine	**✓ Compliant**	The Waiohine water treatment plant is compliant against new bacterial and protozoal Rules. However further work is required to meet process assurance rules e.g. development of standard operating procedures, operators completing qualification requirements, and implementation of an asset maintenance recording system.
Memorial Park	**✓ Compliant**	The Memorial Park water treatment plant is compliant against new bacterial and protozoal Rules. However further work is required to meet process assurance rules e.g. development of standard operating procedures, operators completing qualification requirements, and implementation of an asset maintenance recording system.
Martinborough	**✓ Compliant**	The Martinborough water treatment plant is compliant against new bacterial and protozoal Rules. However further work is required to meet process assurance rules e.g. development of standard operating procedures, operators completing qualification requirements, and implementation of an asset maintenance recording system.
Pirinoa	**✓ Compliant**	Pirinoa is compliant against new bacterial and protozoal rules. However further work is required to meet process assurance rules, such as development of standard operating procedures, and implementation of an asset maintenance recording system.
Ōtaki (KCDC)	**✓ Compliant**	
Hautere/Te Horo (KCDC)	**✓ Compliant**	

Waikanae Paraparaumu Raumati (KCDC)	✓ **Compliant**	
Paekākāriki (KCDC)	✓ **Compliant**	
Horowhenua District Council	**No information supplied**	
Masterton District Council	✓ **Compliant**	Masterton District Council have two drinking water treatment plants, both of which are compliant.
Carterton District Council	**No information supplied**	

Table 9: Wastewater treatment compliance status

Area / Plant	Compliance	Comment
Moa Point	x **Non-compliant**	The plant remains non-compliant for suspended solids and faecal coliforms. Steps to fix this are being undertaken. However, breakdowns and planned maintenance work have delayed a return to compliance.
Porirua	✓ **Compliant (with noted issues)**	The plant is compliant for effluent quality. The treatment plant has higher levels of solids in the process than normal. This can cause partially treated discharges especially during heavy rain. Steps are being taken to address this. There are UV performance issues. Changes made to date have improved UV performance during high volume flows, but occasional faults are still occurring. The system will continue to be closely monitored.
Seaview	x **Non-compliant**	The plant remains non-compliant for faecal coliforms. Improvements have been observed in the biological process.
Western	✓ **Compliant**	The plant is compliant for effluent quality.
Greytown	x **Non-compliant**	Current plant design and processes are inadequate for the connected population, resulting in non-compliance (specifically related to ammonia concentration in the effluent) which is affected by seasonal weather patterns. In 2023, Greater Wellington Regional Council (GWRC) requested explanations of non-compliance. Wellington Water is implementing the required corrective actions where possible within plant and resource constraints. Major investment is required, and current approved funding levels do not meet this. A compliance upgrade project is underway (excluding growth). The plant is already operating beyond its design loading capacity and so new connections have been paused. Funding has been approved to complete a Growth-Capacity Study in conjunction with Martinborough's study. The degree of desludging that will be achieved at Greytown is

		not yet determined.
Featherston	**x Non-compliant**	Major investment is required to achieve a new consent. Renewal of the consent is being managed as a major project and plant is currently operating on an extension of the old consent. The consent approval process will better inform the required capacity of the plant to cater for growth in Featherston beyond 2032. A significant effluent non-compliance occurred in May-June. This was due to the high volume of septic tank discharges (from Lake Ferry wastewater treatment plant) being pumped into the pond via a nearby manhole. Operational mitigation of this event continues; other septic tank discharges have been stopped until the plant recovers adequately. Plant continues to require ongoing management of resources, focused on effluent quality, to achieve compliance with consent requirements.
Lake Ferry	**✓/x Partially compliant**	Further investment is required to achieve a management plan and consent compliance into the future. Stantec has been commissioned to prepare and develop a new resource consent application by 30 March 2025. Early conversations suggest that the current scheme will require capital works because of consenting requirements. More funding is required for the consent 2024-25 renewal project than currently allocated. The extra funding is required to prepare an adequate application and undertake community consultation. The source of current high inflow and infiltration is still not funded for investigation. Peak loads are near the plant's hydraulic capacity. Septic tank cleanouts and filter cleaning has been completed. The effect on effluent compliance will be assessed in coming months. The treatment process is being tested and assessed for optimised operation. Plant valving automation is required to better comply with consent discharge requirements; however, this is not funded. Projects underway include sodium bicarbonate dosing improvements and optioneering dripline leaks – some repaired, more require repair.
Martinborough	**x Non-compliant**	In June 2024, a new 'To Do Abatement Notice' was issued for Martinborough wastewater treatment plant with a deadline of May 2025 to complete desludging This superseded the May 2024 and August 2023 'To Do Abatement Notices', which in turn replaced the Abatement Notice issued in 2022, although the WWTP still remains non-compliant. WWL and SWDC are working together to address the items raised in the new Notice, as part of the compliance upgrade project underway. Major investment is required, and current approved funding levels do not meet this requirement. Current plant design is insufficient to avoid non-compliance. Effluent discharge rate and quality to land continues to exceed current consent limits. Effluent volume discharged to river continues to exceed the annual average consent limit. GWRC has issued an updated To Do Abatement notice, with a deadline of May 2025 to complete desludging. Progress is being made on the desludging geobag laydown area consenting and tendering process, as well as UV optimisation.

Paraparaumu Wastewater Treatment Plant (KCDC)	**✓ Compliant**	Operating on expired consent conditions. Securing new consent for the Paraparaumu Wastewater Treatment Plant.
Ōtaki Wastewater Treatment Plant (KCDC)	**✓ Substantively compliant**	Increasing nitrogen levels in the discharge from the Otaki Wastewater Treatment Plant.
Tokomaru Wastewater Working Party (HDC)	**x Non-compliant**	An abatement notice has been issued regarding the Tokomaru Wastewater Working Party. Capacity to meet consenting conditions is limited.
Masterton District Council	**✓/x Partially compliant**	Masterton District Council have four wastewater treatment plants, and all have a high level of compliance and environmental sampling does not show any adverse effects on the environment.
Carterton District Council	**No information supplied**	

Appendix G: Types of entity model options

NOTE: This report focuses on the assessment of regional models and is intended to support councils to undertake an assessment of other options, including those focusing on council alone or provincial options. There will be many sub-variants that councils could identify. A range of these sub-variants has been identified in the table below, but there are others, such as:

- whether joint arrangements cover 2 or 3 waters,
- number of councils or mix of councils in joint options e.g. 3 or 4 councils,
- staging and timing,
- asset and debt transfer arrangements, noting the detail of which would need to be considered as part of the WSDP (Phase 2); and,
- transition – there are a range of options for transition that need to be considered through Phase 2 and 3.

Table 10: Delivery models considered

Option	Description	Comments
1. Council alone, in-house delivery	Delivery of water services in house, e.g., as per the current Masterton, Carterton, Kāpiti Coast, and Horowhenua models. No joint WSDP or arrangements. Sub-variants include: • Resourcing, procurement and contracting models • Deliver in house in a financially ring-fenced Business Unit • Deliver in house as a single council CCO	**NOT RECOMMENDED AS BEST FOR REGION** *Councils will each evaluate an in-house option as an alternative option to a regional model.*
2. Joint CCO – service delivery only	Joint WSDP and arrangements. Multiple council-owned CCO. CCO role: • Plans, designs, operates and maintains as per the current WWL model. • Assets, liabilities and debt remain on council balance sheets.	**NOT RECOMMENDED AS BEST FOR REGION** *The current WWL model has struggled with a number of structural challenges which inhibit its effectiveness. Therefore, a narrow CCO option is not considered to meet regional requirements.*
3. Joint CCO – full breadth	Joint WSDP and arrangements. Multiple council-owned CCO. CCO role: • Full-breadth water utility vested with ownership of all water assets, revenues & liabilities. • Debt is transferred from councils. • Owned by local councils through shares. • Bills users directly for charges. • Must enable sufficient borrowing.	**RECOMMENDED FOR CONSIDERATION** *This option is likely to be a modified form of a CCO which should achieve balance sheet separation. (Note: Bill 3 will clarify the nature of the powers of this new type of entity).*

4. Joint council-owned company (COC)	Joint WSDP and arrangements. Multiple council-owned COC COC role: • Full breadth water utility vested with ownership of all water assets, revenues and liabilities. • Similar structure to a Council Controlled Organisation but with reduced Council oversight provisions thereby enabling the company to have greater control and certainty over its investment plans.	**RECOMMENDED FOR CONSIDERATION** *This option is likely to be a modified form of a CCO which should achieve balance sheet separation. (Note: Bill 3 will clarify the nature of the powers of this new type of entity). This is the option underlying the design set out in this report. It mirrors the structure now referred to as a joint water services council-controlled organisation (WSCCO) in the Local Government (Water Services Preliminary Arrangements) Act 2024.*
5. Consumer trust	Trust role: • Full breadth water utility but owned by a trust. • Overseen by independent trustees appointed by consumers. See detail below on variants and issues. Variants: • Council alone or joint model. • Council alone or joint WSDP and arrangements.	**NOT RECOMMENDED AS BEST FOR REGION** *This would require councils to transfer their water assets to a consumer-owned trust. The trust would also have challenges accessing the necessary funding. In particular, it would not be able to access LGFA funding as the LGFA's current constitution limits lending to councils and CCOs only.*
6. Private sector	Transfer or sale or assets, liabilities and revenue to private sector investor. Variants: • Transfer in whole. • Transfer in part e.g. JV type model.	**NOT RECOMMENDED AS BEST FOR REGION** *This was not explored. The councils held strong views that this was not an acceptable option.*

Other possible model options

Below is a summary of other technically possible model options which were not considered to be practical options for further development.

Trust (Potential CCO)

This would be an independent legal entity, established through its trust deed. The trust would have the power to hold and operate the relevant assets, which would be owned by the trust. Some or all trustees could be appointed by the councils. If the councils had the right to appoint 50% or more of the trustees, the trust would be a CCO (meaning LGA accountability measures like the statement of expectations and statement of intent would apply). The trust deed would set out the basis on which the trust would operate, and the powers of its trustees. This model would allow some council control over the entity if the trust were a CCO. However, the model is unlikely to be suitable because councils would have to transfer their water assets to a trust, which is not owned by the councils. Also, for international capital and insurance markets a corporate structure is a more "vanilla" structure.

Non-CCTO Charitable Trust

Another option is a charitable trust (with an incorporated board of trustees or a company trustee), which should be tax-exempt provided that the trust is not a council-controlled trading organisation (CCTO) under the Local Government Act 2002 and is registered under the Charities Act 2005 (such registration being a

prerequisite for income tax exemptions for charities). A not-for-profit public water services trust (reinvesting funds in its assets/services) should be able to be structured as a charity and non-CCTO.

While this option is theoretically possible, charitable status would place significant governance restrictions on the new entity, would involve ongoing regulatory oversight by DIA Charities Services and mean that the assets would be locked up for exclusively charitable purposes in perpetuity. In addition, a non-corporate trust model, even with a corporate trustee, would not enable council ownership of the entity. This option is therefore not recommended, especially if income tax exemption for the new entity can be achieved via legislation (see above).

Limited Partnership

Limited partnerships are legal entities governed by a limited partnership agreement (which the entity must have) and the Limited Partnerships Act 2008. Councils could be the limited partners in a limited partnership; the Limited Partnerships Act requires them to not be involved in management of the limited partnership, in order to maintain the limited liability protection that this model provides. A limited partnership is managed by a general partner. In this instance it would need to be a company that has responsibility for managing the limited partnership. The councils could be shareholders in the company that is the general partner. Another possible option would be for the councils to contribute the assets to, and be limited partners in, a limited partnership that is not a CCTO (as above), which would not be taxed in its own right as its income would be attributed to its limited partners (the councils) and tax-exempt at council level.

While theoretically possible, a limited partnership structure is likely to be unsuitable. It may not achieve the desired balance sheet separation from councils, while from a governance and management perspective it would be desirable for the general partner to not be controlled by the councils. While this model does enable council ownership of water services assets, it is complex and does not result in any material benefits as against using a CCO or COC.

Port company/energy company model

The current definition of "council-controlled organisation" in s6 of the Local Government Act 2002 excludes a port company within the meaning of the Port Companies Act 1988, and an energy company within the meaning of the Energy Companies Act 1992. In both the cases, the apparent policy rationale for these companies not being CCOs, and (notwithstanding that a port company or energy company might otherwise qualify as a CCO, if a local authority owns shares carrying 50% or more of voting rights) is that they are subject to their own regulatory regimes, which require accountability documents such as a statement of corporate intent. Those regimes are inconsistent with, and would to some extent duplicate, the regime for CCOs in the Local Government Act 2002. It is possible that when the Government prepares legislation providing for a new type of COC/CCO (i.e. Bill 3 expected late-2024), it takes guidance from the Port Companies Act 1988 and Energy Companies Act 1992. Accordingly, there may be some similarities between a new COC model and the existing Port and Energy Company models.

Appendix H: Network economics approach

Purpose

The purpose of network economic analysis is to provide transparency to the cause/effect relationships that exist in both technical and economic views of networks. This technique is useful to examine the trade-offs between decisions that include pricing, growth support, network reliability and risk, capital allocation, debt, compliance, network remediation pace, fault rates and costs, and debt requirements. It is a high-level view of making the primary cost structures, constraints, and decision levers visible to governance and other decision makers. It is primarily used for choosing scenarios and focusses on differing effects of capital investment distribution.

This helps to provide simple and clear answers to the following critical questions:

1. What is the **problem**? How big is the **gap**?
2. What is the **best investment strategy**? What is the **risk** of severe network failures? How **quickly** do we need to do it? What will it **cost**?
3. How much can be funded from **price**?
4. What is the residual that will need to fund from **debt**?
5. Where will the **debt** come from? What **credit support** is required?

The network model enabled analysis to:

- assess the cost of remediation and ongoing investment for maintenance and renewal,
- support analysis of different scenarios and remediation pathways,
- consider remediation investment, time, efficiency, price, and debt,
- consider decision drivers of risk and cost,
- model a range of investment scenarios, including price, debt and risk, and
- recommend a practical scenario to support strategic understanding of:
    - high-level capital requirements and associated timing, and
    - the impact on price, debt, risk, and cost and timing.

It is common practice that once these scenarios including capital distribution are chosen, then an investment grade cash-flow analysis is provided using the key decision metrics of the economic analysis.

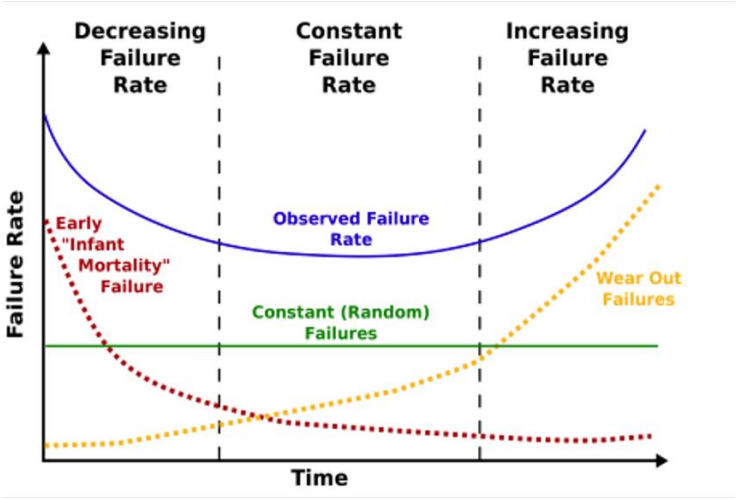
There are two frameworks commonly used for the network economic analysis of capital efficiency. These are:

- “Bathtub Failure Rate Curve” (an engineering concept at the heart of reliability estimation), and
- “Sustainable Replacement Cost” (a microeconomic concept used extensively in asset management).

The modelling used these two frameworks individually to cost the minimum continual investment in the network to maintain its current state (sustaining “keep-up” investment). These were then used together to cost some of the consequential failures generated by worn-out assets, including estimating the cost of network leaks.

Concept 1 – Asset failure rate ("Bathtub") curve

Figure 1: The asset failure rate ("Bathtub") curve



Key points of the asset failure rate curve:

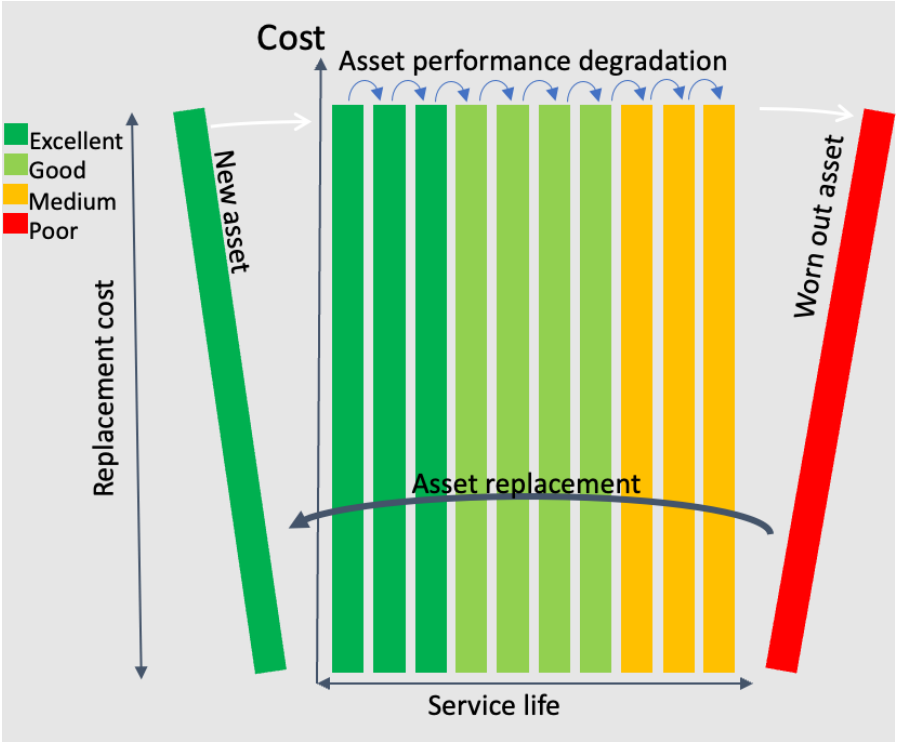
When the network starts to fail, costs increase exponentially. Fixing faults does not fix the network unless you replace the assets.

- The ability of all assets to meet their service function declines with use or age.
- Ageing assets start to generate faults due to their reduced condition. In a network, these faults may occur with an asset itself, but also may occur elsewhere in the network due to the interaction between connected assets. This is known as the 'Network Effect'.
- The more worn-out an asset is, the more faults it generates, and the rate of fault generation often increases exponential as an asset's condition reduces (ages).
- There is a natural point at which the expected network fault costs caused by asset deterioration exceed the cost of replacing the asset. This point of asset deterioration is known as the End of Service Life (EoSL) of the asset and is often described in 'years in service', although the actual measurement to determine this metric is measurement of the asset condition. When an asset condition reaches the end of its service life, it is economically sensible to replace it.
- This means that for every asset in a network there is an optimum service life; so, the whole network also has an optimum service life. In practice, this is calculated from assessing the condition of costly and critical assets in the network.
- This means that the optimal use of capital to maintain a network of assets occurs at the maximum average age of the assets. If the assets in a network are used beyond their EoSL, then the cost of the network increases, due to the increased cost of faults from assets that fail. Conversely, if assets are replaced too quickly, then the network also costs more to support because the capital involved is unnecessarily high.
- There is a 'sweet spot' for the efficient use of capital in any network. How far off the actual condition of the network assets are from this sweet spot allows assessment of how much additional cost is being generated by the network.

Concept 2 - Sustainable network renewal costs

Once a network is operating in its economic sweet spot, it is relatively simple to determine its sustainable capital replacement cost.

Figure 2: Determining sustainable capital replacement cost



Worn-out assets should be replaced with new ones at the same rate as the old ones are wearing out. This annual cost is known as the sustainable (capital) cost of the network ('keep up' investment). It is worth noting that replacing assets at this rate does not improve the condition of the network overall – it simply keeps it at the same condition it is already at.

Replacing assets more slowly than this rate degrades the network and generates an additional cost burden from faults. Conversely replacing assets faster than the sustainable rate improves this condition of the network and lowers consequential costs until the network is back to its economic sweet spot.

It is useful to distinguish between network replacement costs and network fault costs. Network replacement costs are an inherent part of maintaining the network and are not discretionary if network efficiency is to be maintained.

Faults costs (including leaks) are generated mainly by worn-out assets and are one of the consequential costs of network failure. Investing in mitigating consequential costs is not the same as investing in the network itself and, in practice, often diverts investment in network maintenance which further accelerates network degradation.

Asset Life

The 'End of Service Life' (EoSL) for an asset means that its condition has deteriorated sufficiently and that it is economically sensible to replace it with a new one. While the asset age is measured in years of life, it is not its age that determines when it should be replaced – it is its condition.

In the absence of intervention, the increasing and continuous cost of fixing leaks diverts investment from replacing the worn-out pipes that are the root cause of most of the leaks and so the network generates more leaks. This is a network cost 'runaway' situation – and this is the situation potentially facing much of Wellington's regional water networks.

Network risk analysis is often a major component of network economic analysis and is performed using the trend information on faults, condition assessments and a view of the current fault/expected baseline

fault information. Probability of critical major network failures can be determined if a base probability of failure from a good condition network is provided.

The condition of much of the Wellington regional water networks with its current high rate of leaks and other asset failures means that the chance of a critical network failure event is currently high (estimated as 10 times that of a remediated network). The long timeframes involved in remediating the network (18-30 years) mean that this high risk of critical network failure remains for some time and any extension to the remediation process increases this risk of network failure.

Appendix I: Investment, price and debt scenarios

The network economic modelling is multi-dimensional and can be used to test a wide range of alternative investment, price, debt and risk scenarios. These scenarios are not intended to represent planned investment, but to help understand tradeoffs.

Apart from the rate of catch-up investment, the total investment required was taken as an assumed fixed quantum on the basis that it is the essential investment required to turn the network around and to meet growth and compliance standards. It is noted that this is an *estimate* only of the level of investment required and will require significant further refinement through the development of the WSDP.

Notes:

- Further analysis of financing arrangements, including how the WSCCO can utilise and structure borrowing to manage and smooth the rate of cost increases will need to be fully explored in subsequent phases of work.
- The versions of modelling scenarios have been based on the information, assumptions and limitations as noted in Appendix C.

Table 11: Scenario Modelling

Scenario Name	Scenario Purpose	Comments and key Insights
Main price and debt scenarios		
Optimised base scenario	Based on consideration and testing of a range of variables, including price, debt, cost and risk, this outlines an overall optimised scenario to remediate the network in 21 years and deliver substantial compliance in 23 years. The scenario can then be used to compare and contrast other scenarios.	There is further optimisation that can be achieved through further refinement of this scenario, but it gives an indication of an optimal and affordable investment pathway based on assumed average of 9% increase in prices.
1. Higher early price of 25% and then 9%	This scenario is based on the impact of a higher Year 4 price increase in order to reduce total debt and interest costs and achieve an investment-grade FFO:Debt Ratio >9% earlier.	A higher price increase may be considered unaffordable to water consumers. However, this results in lower peak debt and therefore lower costs to service debt and peak prices than the base scenario.
2. Lower and longer price rise - 5% pa	This scenario takes the investment required to turn around the network as a given and models a lower price rise. It calculates debt as the balancing variable.	This scenario results in a lower average peak price but would result in the network remediation taking 5 years longer. The scenario may also result in the WSCCO exceeding FFO debt limits in early years.
Main speed of catch up (Backlog Renewal Scenarios)		
3. Go slower – 30-year remediation period with 9% price rise	This scenario looks at remediating the renewal backlog and compliance issues over a longer period. This spreads the capital remediation impact.	This scenario results in a lower average peak price. However, it would also have higher risk of network faults due to the extended period the network continues to be held in its current poor condition.
Alternative investment scenarios		

Scenario Name	Scenario Purpose	Comments and key Insights
4. Investment if 20% increase in construction costs	This scenario models a 20% increase in construction/capex costs and allows for demand inflation due to many national water networks needing to be remediated at the same time.	Results in higher prices to customers – peak and long term and longer term to fix network.
5. Investment if 20% decrease in construction costs	This scenario models a 20% decrease in construction/capex costs, recognising that high interest rates and a downturn in the economy have led to some reduced construction costs.	Results in lower prices to customers – peak and long term and shorter term to fix network.
6. Faults cost increase	This scenario models $120 million of faults costs pa.	Results in higher prices to customers – peak and long term and longer term to fix network.
7. Increased opening debt	This scenario models if the WSCCO has an opening debt of an additional $500m or total of $2.8b. This helps to understand potential impacts of additional financing arrangements.	Results in a potential credit shortfall in 2028 which could be managed based on actual year of borrowing. Results in higher peak and sustainable price.
8. Investment level set at LTP levels	This scenario models what the faults costs, risk, price and debt impacts are if the investment level is set at the aggregate of the 10 councils' LTP capital spends for the next 10 years.	This level of investment continues to degrade the network, increases costs to the consumer and results in a continually increasing consequential cost from network failure. This level of investment makes the eventual remediation of the network more expensive and costs to the consumer rise.

Table 12: Financial modelling and analysis – refer also to the diagrams below that explain the linkage from economic modelling to financial modelling.

Aspect	Economic model is:	Economic model is not:
Purpose	To enable rapid exploration of different strategic options and scenarios to support strategic decision making (this aims to enable councils to evaluate the merits of a strategic, "regional water delivery entity" option).	Designed to support more detailed tactical decisions. For example, detailed, accurate pricing of specific services or detailed investment plan (this level of modelling detail would be undertaken in the establishment phase of a WSCCO).
Level	Strategic, macro model.	Tactical, micro model.
Timeframe	30+ years.	Short-term financial model (noting that a financial accounting perspective of the first 10-year horizon is included in Appendix J.)
Inflation	Using real numbers. This makes comparisons clearer and underlying trends more transparent.	Using nominal, inflated numbers (but the report provides a set of 10-year financial projections which incorporate inflation in Appendix J.)
Accuracy	Targeting +/-20% around revenue, investment, debt etc over the 30-year period, i.e. a sufficient level of accuracy for strategy decision-making purposes (note modelling used the "best available data and assumptions". Some of these,	Not intended as the basis for investment decisions but is intended to inform scenarios that investment planning can be based upon.

	such as the available asset condition metrics, are known to be weak[2]).	
Investment	Calculating top-down investment "envelope" required by main category (sustaining, catch up, growth, compliance).	Bottom-up project by project build-up of a detailed Investment or Asset Management Plan.
Price	Calculating aggregate "Revenue Requirement" and revenue path (rather than price for a specific service).	Designed to calculate prices for specific services, specific regions etc.
Averaging	Averaging costs over long-term timeframes, e.g. 20 - 30 years for sustaining or catch-up period.	Designed to provide finely phased figures that factor in ramp-up periods and inconsistent levels of investment for major projects.

[2] Refer to Appendix C for assumptions

Economic & Financial Modelling - Approach

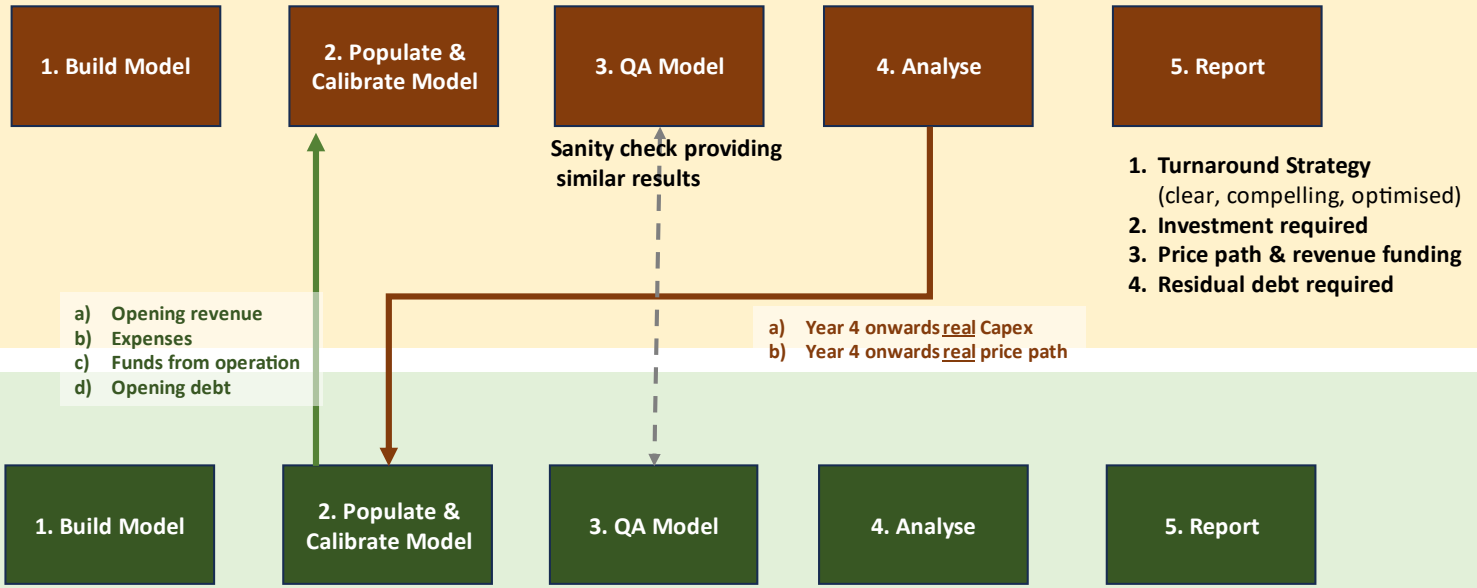
ECONOMIC MODEL (30 Year)

Purpose: Enable strategic analysis to:

1. **Explore options for turning the network performance around**
2. **Land a preferred option**

Model uses:

1. Macro assumptions.
2. Real, not inflated figures.



1. **Turnaround Strategy** (clear, compelling, optimised)
2. **Investment required**
3. **Price path & revenue funding**
4. **Residual debt required**

FINANCIAL MODEL (10 Year)

Purpose: Fine tune preferred option to produce

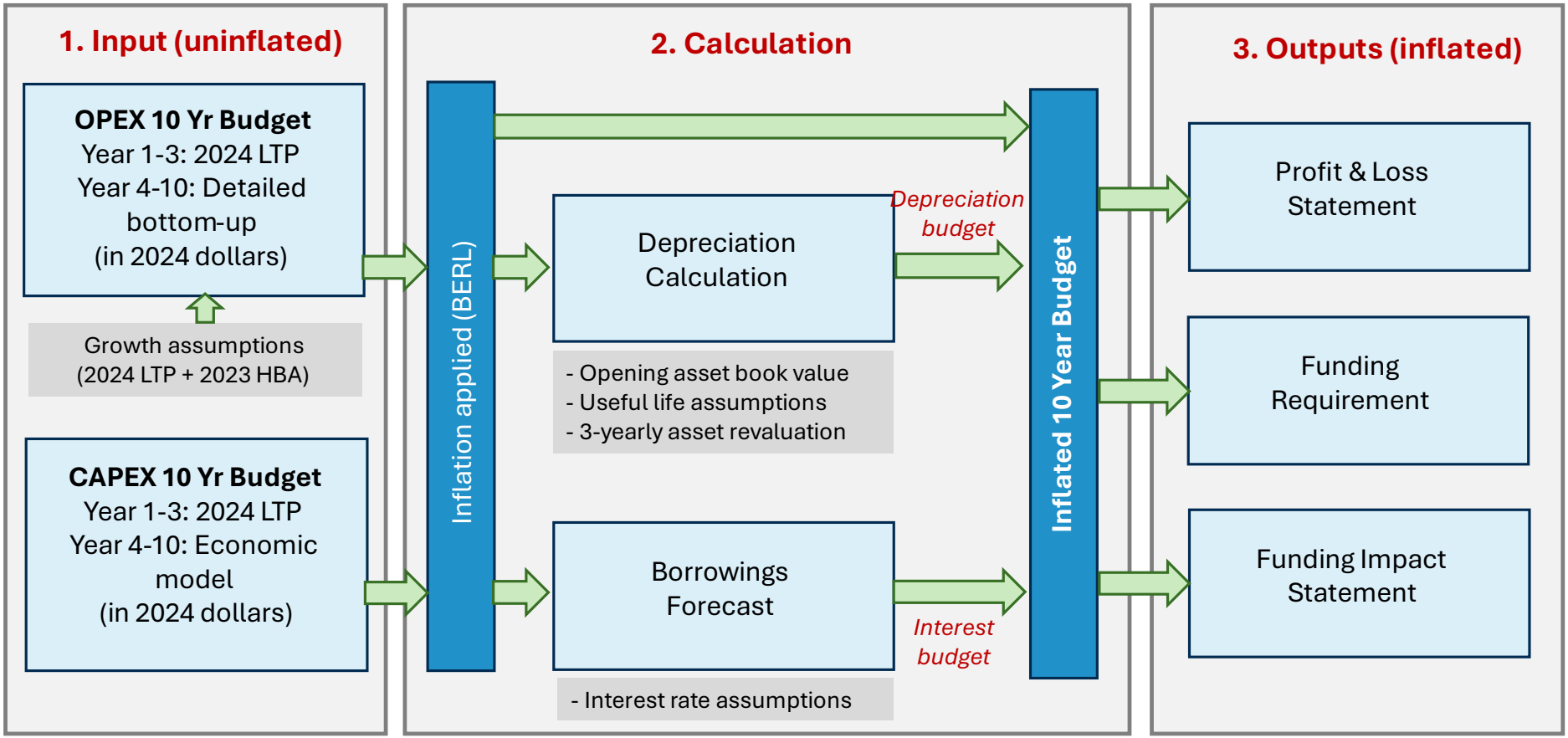
1. **Robust Year 1 -10 financial projections (inc price, FFO, capex & debt)**

Model uses:

1. Micro assumptions (LTP etc).
2. Nominal figures (ie factors in inflation)

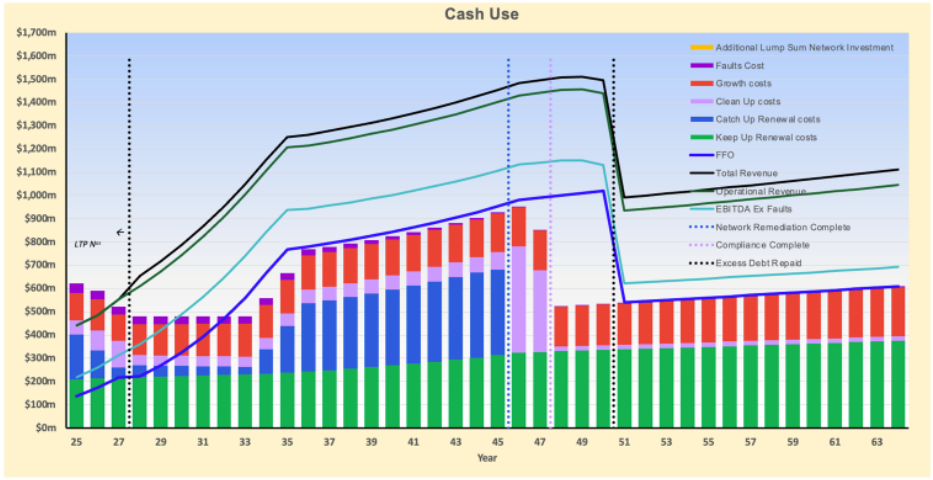
1. **10 Year Financials**
2. **Info to populate business plan section**
3. **10 year nominal price path**
4. **10 year nominal debt profile**
5. **10 year credit rating metrics**

Model Overview – 10 Year Financial Projection Model

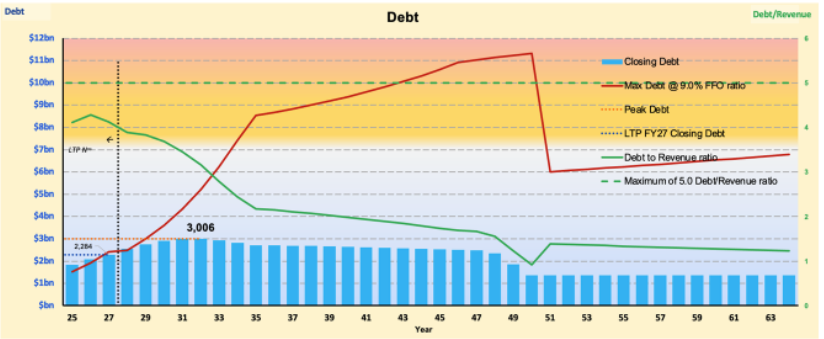


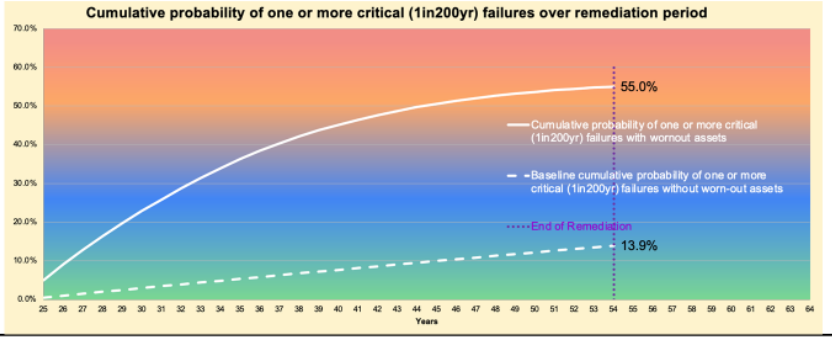
Scenario Baseline: 9% pa (*all values are in $FY24*)

Headline Metrics



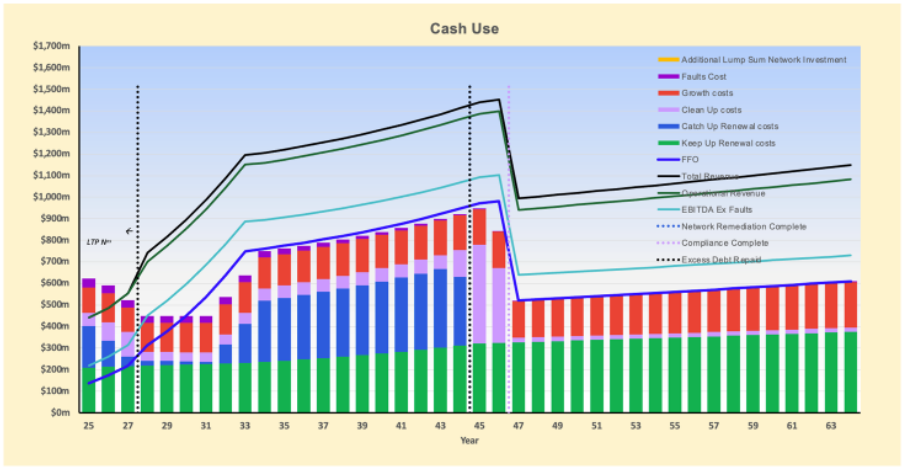
Long-term average sustainable price	$2,596	in 2051
Peak average price	$4,239	~2035-2050
Peak debt	$3.0bn	2032
Peak credit limit shortfall	$0.0bn	
Network fixed	2045	
Network self funding	2033	
Debt repaid	2050	
Network investment costs	74%	
Interest costs	23%	
Faults costs	3%	
Network critical failure risk increase	55% vs 13.9%	



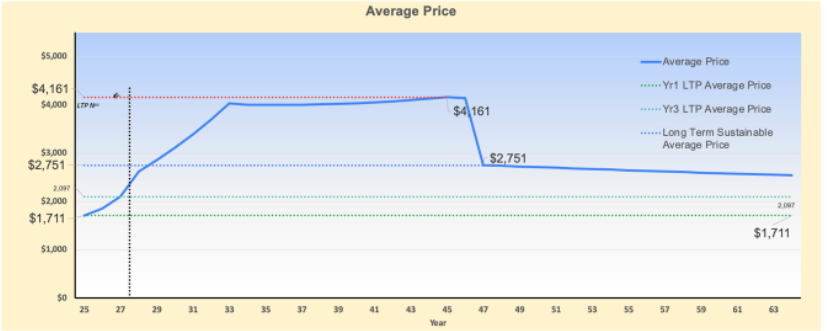


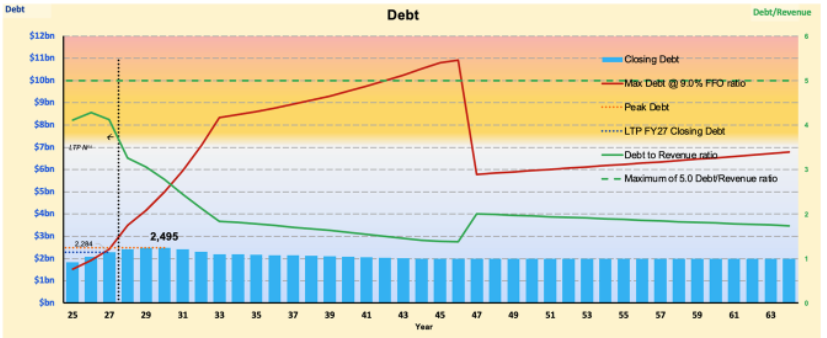
Scenario 1: 25% yr4 price rise, then 9% pa (*all values are in $FY24*)

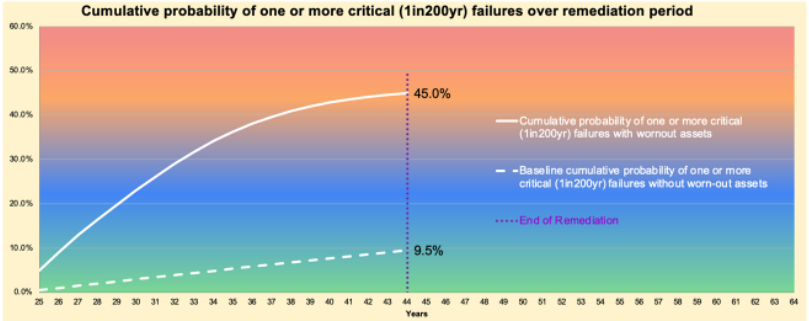
Headline Metrics



Long-term average sustainable price	$2,751	in 2047
Peak average price	$4,161	~2033-2046
Peak debt	$2.5bn	2030
Peak credit limit shortfall	$0.0bn	
Network fixed	2044	
Network self funding	2030	
Debt repaid	2043	
Network investment costs	81%	
Interest costs	16%	
Faults costs	3%	
Network critical failure risk increase	45% vs 9.5%	

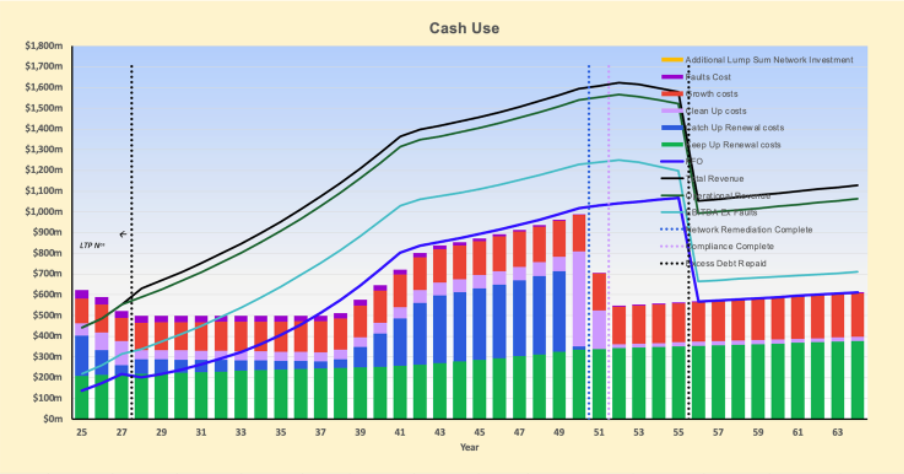




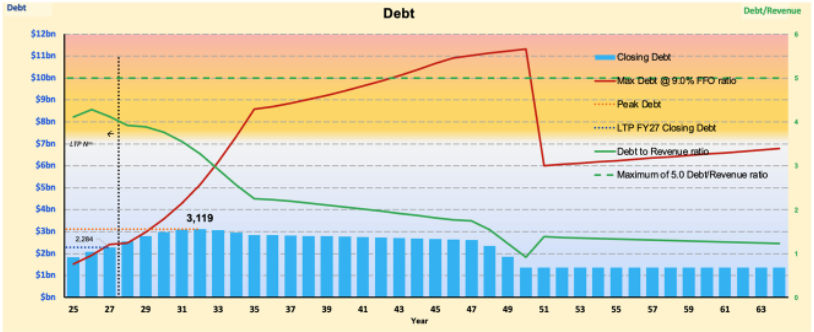


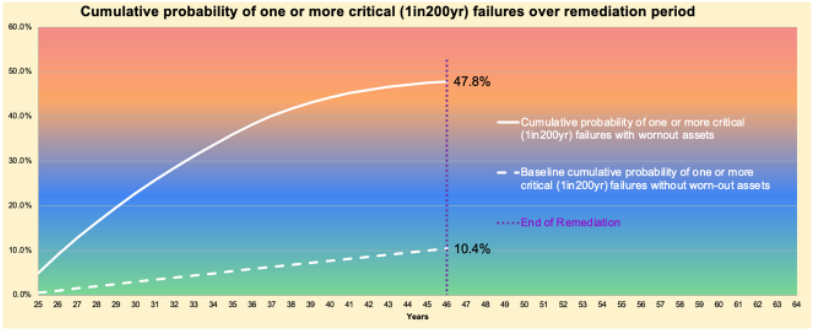
Scenario 2: 5% pa price rise (*all values are in $FY24*)

Headline Metrics



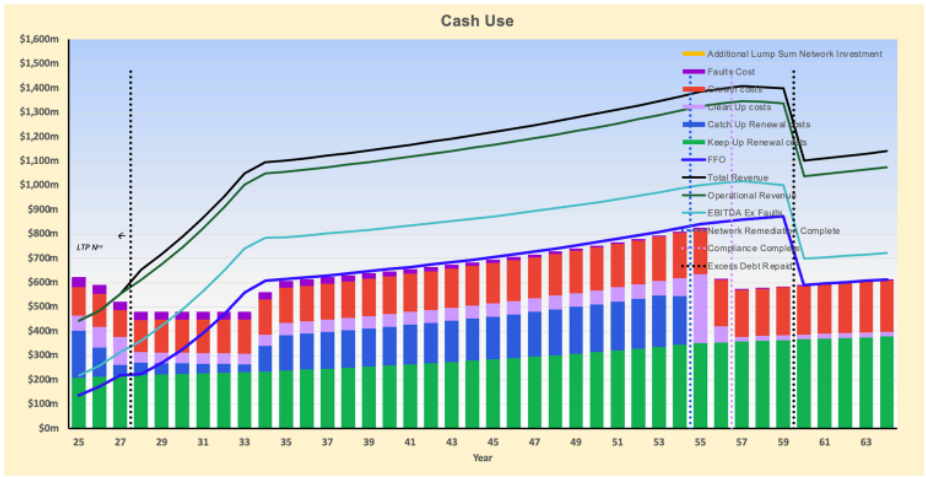
Long-term average sustainable price	$2,584	in 2056
Peak average price	$4,330	~2041-2055
Peak debt	$3.1bn	2032
Peak credit limit shortfall	$0.5bn	2030
Network fixed	2050	
Network self funding	2037	
Debt repaid	2055	
Network investment costs	70%	
Interest costs	27%	
Faults costs	3%	
Network critical failure risk increase	47.8% vs 10.4%	



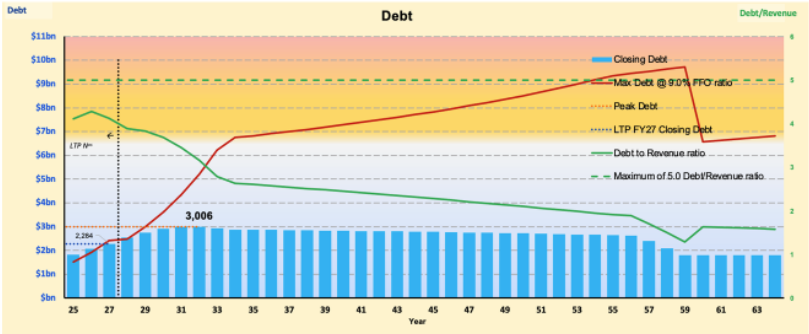


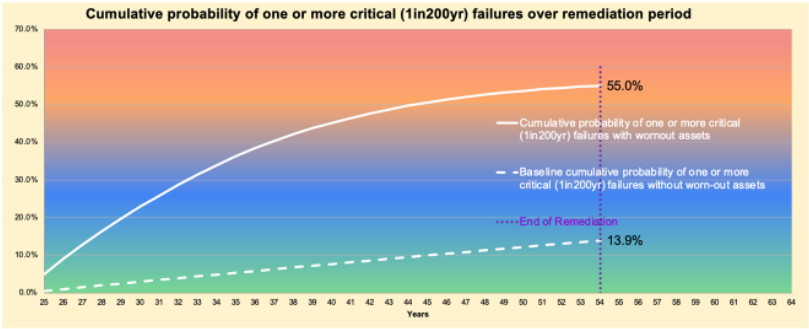
Scenario 3: 30yr network recovery, 9% pa price rise, reduced peak funds (85%) to lengthen remediation period (*all values are in $FY24*)

Headline Metrics



Long-term average sustainable price	$2,567	in 2060
Peak average price	$3,628	~2034-2059
Peak debt	$3bn	2032
Peak credit limit shortfall	$0.0bn	
Network fixed	2054	
Network self funding	2033	
Debt repaid	2059	
Network investment costs	73%	
Interest costs	24%	
Faults costs	3%	
Network critical failure risk increase	55% vs 13.9%	





Scenario 4: 20% increase in cost, +9% pa price rise (*all values are in $FY24*)

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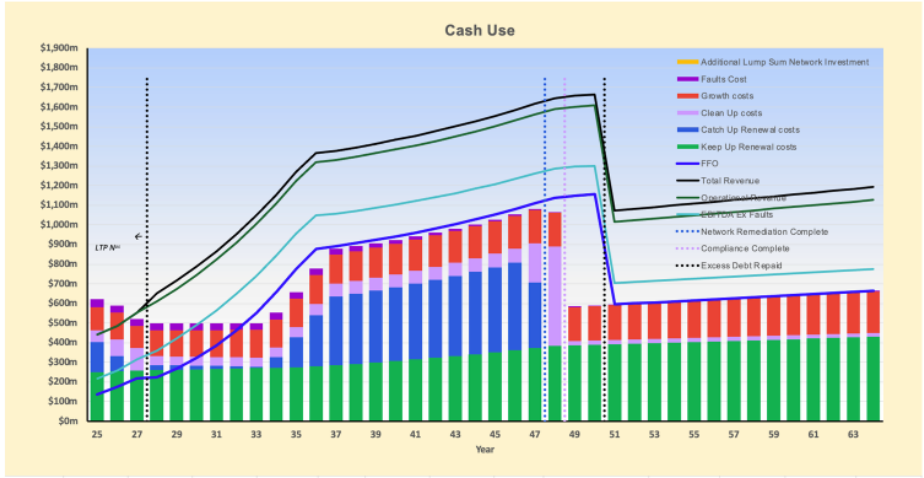
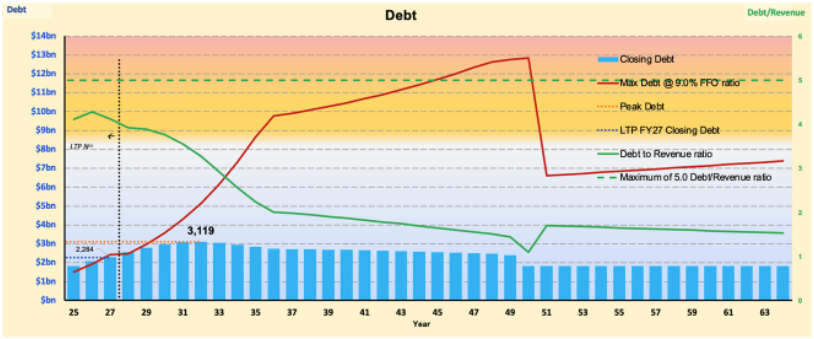
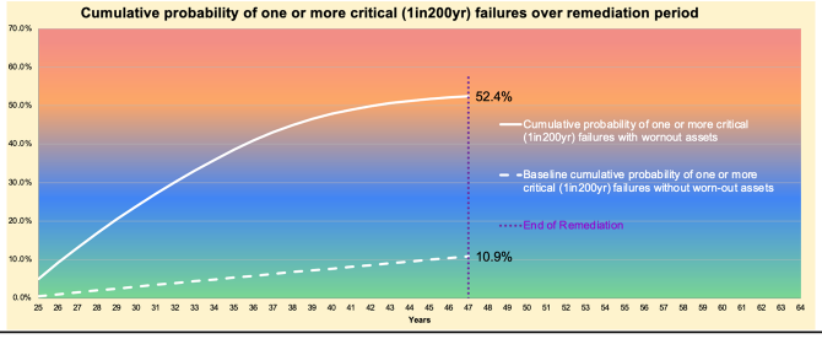


Long-term average sustainable price	$2,824	in 2051
Peak average price	$4,592	~2036-2050
Peak debt	$3.1bn	2032
Peak credit limit shortfall	$0.0bn	
Network fixed	2047	
Network self funding	2033	
Debt repaid	2050	
Network investment costs	77%	
Interest costs	20%	
Faults costs	3%	
Network critical failure risk increase	52.4% vs 10.9%	

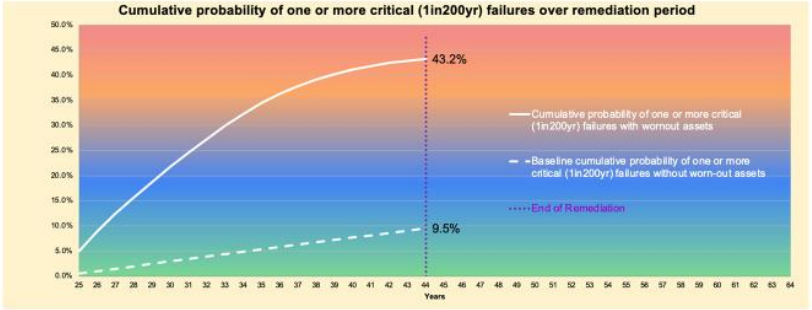




Scenario 5: 20% decrease in cost, +9% pa price rise (*all values are in $FY24*)

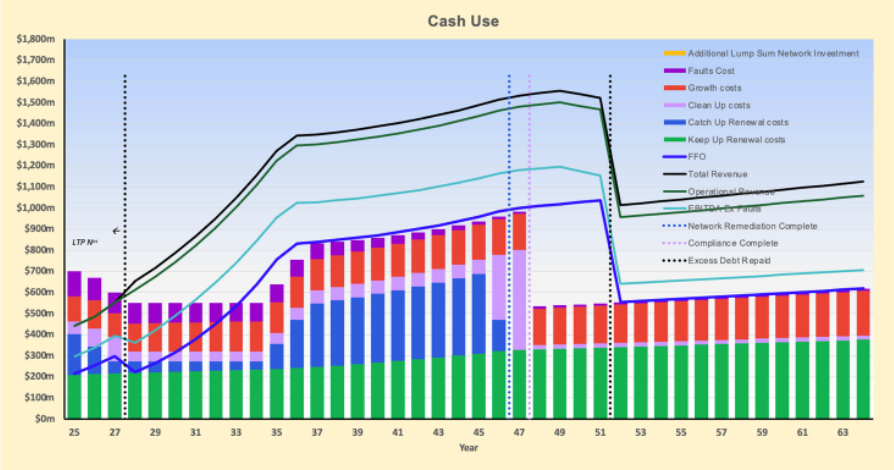
Headline Metrics

Long-term average sustainable price	$2,461	in 2050
Peak average price	$3,796	~2034-2049
Peak debt	$2.7bn	2030
Peak credit limit Shortfall	$0.0bn	
Network fixed	2044	
Network self funding	2031	
Debt repaid	2049	
Network investment costs	74%	
Interest costs	23%	
Faults costs	3%	
Network critical failure risk increase	43.2% vs 9.5%	

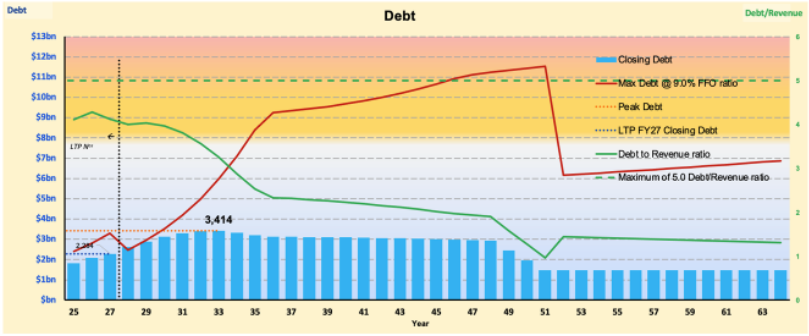


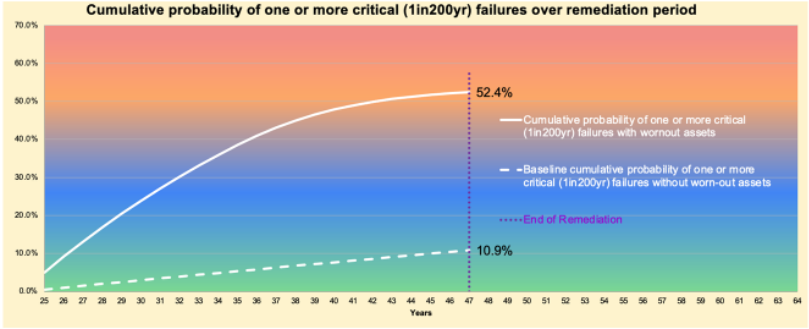
Scenario 6: $120m fault cost, 9% pa price rise (*all values are in $FY24*)

Headline Metrics



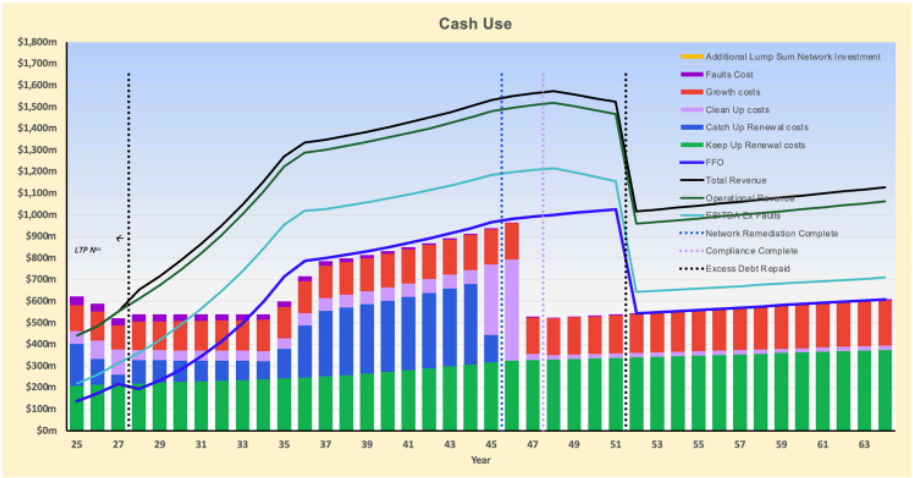
Long-term average sustainable price	$2,623	in 2052
Peak average price	$4,368	~2036-2051
Peak debt	$3.4bn	2033
Peak credit limit shortfall	$0.1bn	2028
Network fixed	2046	
Network self funding	2034	
Debt repaid	2051	
Network investment costs	69%	
Interest costs	23%	
Faults costs	8%	
Network critical failure risk increase	52.4% vs 10.9%	



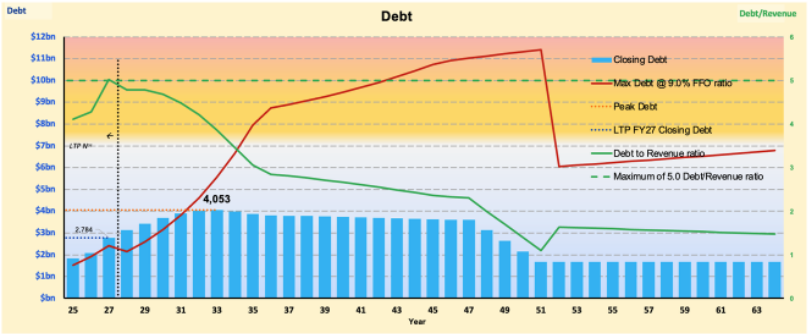


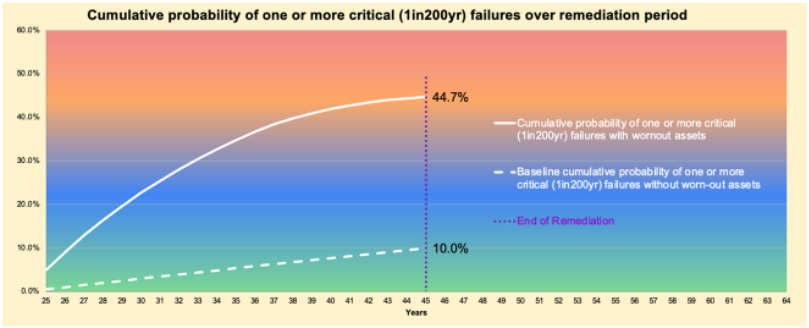
Scenario 7: Increased opening Debt (+$500M), 9% pa price rise (*all values are in $FY24*)

Headline Metrics



Long-term average sustainable price	$2,632	in 2052
Peak average price	$4,441	~2036-2051
Peak debt	$4.0bn	2033
Peak credit limit shortfall	$1.0bn	2028
Network fixed	2045	
Network self funding	2034	
Debt repaid	2051	
Network investment costs	70%	
Interest costs	28%	
Faults costs	2%	
Network critical failure risk increase	44.7% vs 10%	





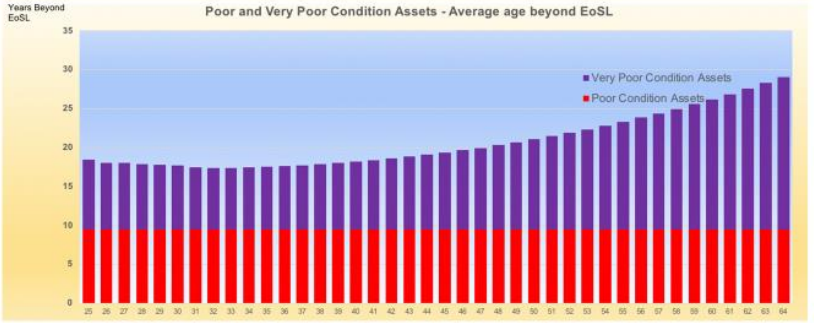
Scenario 8: Consolidated Council LTPs: 9% price rise (*all values are in $FY24*)

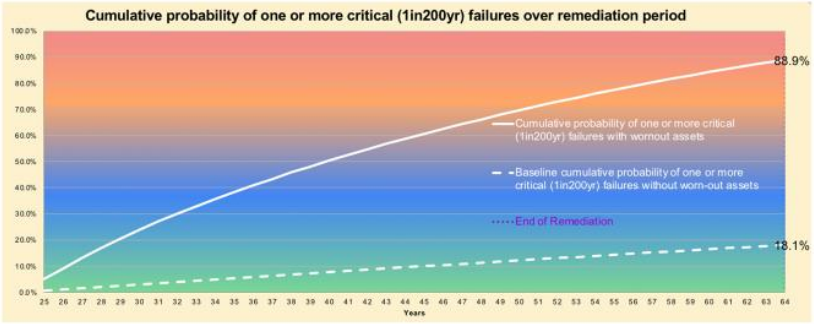
Headline Metrics

Long-term average sustainable price	is not able to be achieved	
Peak average price	$3,899	~2035 onwards
Peak debt	$3.0bn	2031
Peak credit limit shortfall	$0.0bn	
Network fixed	never	
Network self funding	2031	
Debt repaid	2038	

Network investment costs: - are increasingly used to meet increasing faults and growth costs, removing the ability to fund Network Renewal with continued decline in asset condition

Network critical failure risk increase: 88.9% vs 18.1%





Appendix J: Financial projections

This section outlines the 10-Year financial projections. The financial projections assume that the new entity comes into operation on 1 July 2027 (start of Year 4). As noted in the body of the report, this may in fact be earlier, from early 2026 with a staged implementation approach.

The first three years of the financial projections are taken from councils' final adopted 2024 Long-term Plans (LTPs). The following seven-year figures are the financial projections for the new entity based on the 9% pa price scenario set out in the Financial Sustainability section.

Forecast Profit & Loss Account (P&L)

Table 8 sets out the forecast 10-Year Profit & Loss account. This is based on the Key Financial Assumptions detailed in below. The salient points to note are:

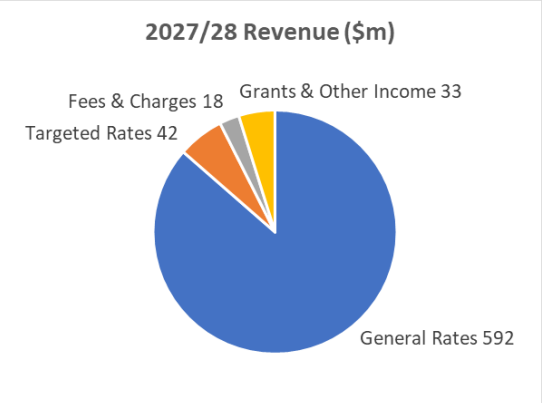
1. **Nominal** - the figures in the Profit & Loss account are shown in nominal (inflated) dollars.
2. **Revenue** – is based on the revenue levels set in the final adopted 2024 LTP for the first three years and an average annual price increase of 9% is applied from Year 4 (2027/28) onwards (after adjusting for growth and inflation).
3. **Expenses** – we have not factored in any efficiency savings. Rather, the assumptions are that (i) any efficiency savings will be sufficient to fund the continuous improvement projects one would expect a business to invest in each year and (ii) any efficiency savings above that will be used to accelerate the speed of rectifying the renewals backlog.
4. **Funds from operation (FFO) and surplus** – as discussed in the Financial Sustainability section, with the 9% pa steady price rise it takes until 2033 for FFO to be sufficient to cover the c$550 million pa capital investment ($ quoted in real terms here). The surplus reflects this situation.
5. **Explanation for dynamic** – the shortfall is the result of the inherited revenue streams being significantly short of the amount required to fund the required level of investment. Hence, the rise in revenue needs to be sufficient to close the gap and to fund the rapidly increasing interest burden arising from the debt used to fund the gap until the price path catches up.
6. **Establishment costs** – at this stage, we have not factored in any of the operational or capital investment required to establish a new entity. The Transition section below provides a rough indication of potential establishment costs.

Table 13 – Profit and Loss Account, 3- and 10-Year Summary

Profit and Loss Account, 3- and 10-Year Summary ($m)	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34
Revenue[3]	**460**	**518**	**620**	**697**	**782**	**875**	**982**	**1,098**	**1,227**	**1,372**
Expenses	**364**	**378**	**426**	**465**	**488**	**507**	**521**	**560**	**561**	**559**
Staff[4]	-	-	-	*109*	*112*	*114*	*117*	*120*	*122*	*125*
less Capitalised labour	-	-	-	*(45)*	*(46)*	*(47)*	*(48)*	*(49)*	*(50)*	*(51)*
Maintenance	-	-	-	71	73	75	77	78	79	81
Operations	241	246	272	80	82	84	86	88	87	89
Monitoring & Investigations	-	-	-	41	42	44	46	48	49	50
Other – *digital, insurance, property, admin etc*	38	42	50	78	82	84	86	88	90	92
Integration & Efficiency Initiatives	-	-	-							
Interest	85	90	105	131	143	153	158	188	183	174
Funds from Operations	**96**	**140**	**194**	**232**	**293**	**369**	**461**	**538**	**666**	**813**
Depreciation	241	249	270	277	288	313	324	336	363	371
Net Surplus/(Deficit)	**(145)**	**(109)**	**(76)**	**(45)**	**6**	**56**	**137**	**202**	**303**	**442**

An explanation of each of the line items follows below. The explanations focus on the composition of the Year 4 figures, being the first year of the new regional entity's operation. Given the stable nature of the business, the composition of the subsequent years figures is very similar with inflation being the main reason for the year-on-year change.

Revenue ($685 million): The revenue figures comprise a blend of rate and service fees (refer to the chart below). The water rating revenues equate to a cost of approximately $2,003 per residential household and $5,025 per business (excluding GST) based on current council rating differentials. The core targeted rates, general rates and fee revenues streams are relatively stable. Grants are more volatile. Underlying the revenue streams are a very diverse and fragmented range of service and pricing structures inherited from the 10 legacy councils. A key task for the new entity will be to simplify and rationalise the service, pricing & tariff structures. This will be an essential foundation for enabling customer transparency and rebalancing revenues to sustainable levels which reflect the cost to serve.



Staff expenses ($109 million): The staff expenses are based on the detailed organisation structure which was designed for the regional entity during the Three Waters programme (Entity G). The design has been adjusted to back out roles no longer required under the new legislation and to add in roles from Horowhenua District Council. The total headcount of the new organisation design is 727. This is an increase of 143 (11%) new roles on the roles transferring in from councils and WWL. The main drivers behind the increase are roles to furnish new capabilities for: (i) the new regulatory regime; (ii) retail customer billing/support; and (iii) additional corporate support capacity. The additional corporate

[3] Revenue excludes capital contributions (e.g. development contributions). These are accounted for and discussed in the Capital and Funding sections below.
[4] Staff costs of temporary people ($0.8m) employed to work on initiatives are included in the initiative costs line, not the staff cost line.

support capacity is required because, while significant operational staff would transfer from councils, hardly any corporate/customer staff would transfer.

Some parts of the organisational structure are driven by the need for some extra support in the "frenetic" early years. Accordingly, there will be opportunities to streamline some areas of the organisation structure as the organisation matures and staff turnover.

Maintenance expenses ($71 million): The main components are planned maintenance ($22m), reactive maintenance ($46m) and general maintenance such as plant & equipment maintenance ($3m). The high level of reactive maintenance reflects the ageing network. This is a significant opportunity to improve efficiency as the entity ramps up sustaining maintenance and remediates backlog renewals.

Operations expenses ($80 million): The major components of these expenses are general operations costs ($55m); consisting of work such as leak detection, backflow prevention, land disposal, costs associated with the new sludge minimisation facility operations, power ($17m), compliance costs, chemicals ($6m) and operating technology ($2m).

Monitoring and investigation expenses ($41 million): The main components here are: investigations ($11m), asset management improvements ($9m), strategic planning ($2m), sampling and monitoring ($5m) and other general operational planning and investigation work ($14m) such as carbon management, hydraulic modelling, universal water meters business case, growth planning and modelling, seismic and resilience assessments, water conservation, and facility management plans.

Efficiency: The cost base included in the P&L is high compared with comparative water businesses (refer Appendix J). There are a number of areas which should be targeted for efficiency improvement as the organisation stabilises. As noted above, we have not factored in any efficiency costs at this stage. Rather, we assume that any efficiency savings will be reinvested in continuous improvement initiatives and to accelerate the remediation of the renewals backlog.

Other expenses ($78 million): The main components of other expenses are professional services ($12m), insurance ($15m), rates expense ($15m), digital services ($19m), telecommunications ($1m), other operating costs such as rent, doubtful debts, security, vehicle costs, community engagement ($10m), and administration costs ($6m), including Commerce Commission and Taumata Arowai levies.

Interest expense ($131 million): The interest expense rises steeply as a result of higher interest rates and high debt driven by:

- $2,273 million inherited from Councils on 1 July 2027
- $536 million pa debt required to fund average capital expenditure in first three years of the new entity.

Note: Watercare does not capitalise interest and it is assumed that the WSCCO would also adopt this stance.

Operating cashflow ($240 million): The funds from operations improve significantly driven by the increase in revenue.

Depreciation expense ($232 million): Depreciation is currently based on assumed asset lives and the latest council revaluations. A full revaluation will be undertaken on acquisition. The actual asset lives will also be available on acquisition. Both of these actions will result in some change to the asset and depreciation figures.

Net surplus/deficit ($45 million): The deficit primarily reflects the revenue shortfall as previously discussed, along with the "full" costs resulting from the entity being a standalone, fully-fledged utility (for example, having its own billing systems, finance systems, paying regulator fees, paying rates etc).

Sensitivity and risks: There is still a relatively high level of uncertainty surrounding a number of the assumptions and figures. The main uncertainties are summarised in Table 14 below. The key assumptions are set out in Appendix C.

Table 14 – Risks and sensitivities

Risks and sensitivities ($m)		
Item	Level of Uncertainty	Comment on major risks
Revenue		
Operating Income	High *(>$10m)*	May be a rationale for choosing a different % price increase than the 9% placeholder.
Capital Income	Med *(<$10m)*	Forecast prices for DCs may change depending on final capex profile and population growth forecasts.
Expenses		
Staff	Low *(<$4m)*	The forecast assumes that all roles are full-time equivalents. Potentially, some roles may be part-time. The cost would reduce accordingly.
Maintenance	Low *(<$4m)*	The forecast is based on WWL's forecast budget for Year 1 of the 2024 LTP for WWL shareholding councils with a 15% uplift for Carterton, Kāpiti Coast, Masterton and Horowhenua based on historical portion of spend between the councils. The final costs may be less than forecast.
Operations	Med *(<$10m)*	The forecast is based on WWL's forecast budget for Year 1 of the 2024 LTP for WWL shareholding councils with a 15% uplift for Carterton, Kāpiti Coast, Masterton and Horowhenua based on historical portion of spend between the councils, plus provision for power costs of $16 million that are currently paid by councils (not included in WWL forecasts). The final costs may be less than forecasted. The only consequential opex costs factored in are for the new Sludge Minimisation Facility.
Planning & Investigations	Med *(<$10m)*	The forecast is based on WWL's forecast budget for Year 1 of the 2024 LTP for WWL shareholding councils with a 15% uplift for Carterton, Kāpiti Coast, Masterton and Horowhenua based on historical portion of spend between the councils. The final costs may be less than forecasted.
Other	Med *(<$10m)*	Uncertainty about $15 million rates expense forecast. Have budgeted based on the CV-forecast from the Three Waters programme. It assumes that only 70% of land will transfer (Watercare %), but actual costs may be higher or lower.
Interest	Med *(<$10m)*	Uncertainty is low for interest rate, but medium for quantum of debt. Approx $5.47 million interest per $100 million of capex/debt.
Depreciation	Med *(<$10m)*	Dependent on capex profile and still based on estimated useful lives for assets rather than actual.

Forecast 10-Year capital investment and funding requirements

The forecast 10-Year capital investment, funding requirements and associated funding metrics are shown in Table 15 & Figure 3 below. They reflect the proposed investment and funding strategy set out in the Financial Sustainability section. As noted earlier, they (1) are based on nominal, inflated figures; and (2) exclude the capital investment costs required to establish a new entity.

Table 15 – Summary 3- and 10-Year Investment Plan and Funding Requirement

Summary 3- & 10-year investment plan and funding requirement ($m)	25	26	27	28	29	30	31	32	33	34
Current Infrastructure Projects										
Renewals	201	220	222	-	-	-	-	-	-	-
Keep up				246	255	264	274	283	292	302
Catch up				77	75	73	70	67	63	139
Clean up				30	31	32	32	33	34	39
Levels of Service	268	242	161	-	-	-	-	-	-	-
Digital	-	-	-	18	19	19	20	20	21	21
Sundry (e.g. property)	-	-	-	2	2	2	2	2	2	2
Total Current	469	462	383	374	382	390	398	405	412	503
Growth Projects	121	117	136	148	154	160	165	171	177	183
Total Capital Spend	590	579	518	522	536	549	563	576	589	686
Funded By:										
Capital income	166	208	105	56	31	40	50	47	59	31
Funds from Operations	96	140	194	232	293	369	461	538	666	813
Debt	328	231	220	234	211	140	52	(8)	(136)	(158)
	590	579	518	522	536	549	563	576	589	686

Figure 3 – Summary of debt level vs investment vs price