



Joint Water Services Organisation - Financial Assessment

Final Report

17 August 2026

Commercial in Confidence



Preface

This report has been prepared for Rotorua Lakes Council, Whakatāne District Council, Ōpōtiki District Council and Kawerau District Council by MartinJenkins.

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Limitations

This report contains a point-in-time, indicative assessment of stylised WSCCO scenarios to inform decision-making about future water services delivery models.

The analysis represents a snapshot in time, based on the data, assumptions and information available at the date of this report. As circumstances, policies, and council data and information evolve, this assessment, in whole or part, may become out of date and warrant re-evaluation.

We have relied on council-provided information and have not verified its accuracy.

The modelling outputs are dependent on the accuracy and completeness of information provided by participating councils. Any errors, omissions or inconsistencies in that information may affect the reliability of the findings, and have not been independently verified by us.

Scope of analysis is limited to indicative financial implications only.

Our work focuses on the potential structure and outcomes of a joint water services council-controlled organisation. It does not examine potential flow-on effects for other parts of the councils' operations and delivery arrangements, nor does it evaluate the underlying capital delivery programme. It is high-level, indicative analysis and does not constitute a detailed business case nor provide information sufficient to support implementation planning.

The outputs should be considered representative rather than exhaustive.

The purpose of this modelling is to provide a representative analysis based on current assumptions. It is not an exhaustive analysis or a detailed operational review. Users of this report should exercise caution when extrapolating the results beyond the specific scenarios modelled.

Ongoing changes and updates.

Given the dynamic nature of legislative frameworks, council priorities, and data quality, the inputs underpinning this analysis may change over time. Readers should refer to the most recent information and seek updated modelling if circumstances change.

Use of sensitive information

This report relies on the provision of sensitive information, the disclosure of which may prejudice commercial positions or negotiations, or inhibit the future supply of such information in a free and frank manner. It is recommended that participating councils are consulted prior to the disclosure of any information or findings in this report.



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Introduction and purpose



Introduction and purpose

Rotorua Lakes, Whakatāne District, Ōpōtiki District and Kawerau District Councils included a commitment in their Water Services Delivery Plans to investigate the implications of a joint WSCCO for their communities.

The four councils engaged MartinJenkins to undertake a high-level financial assessment of a possible Joint Water Services Council Controlled Organisation.

Local Water Done Well requires water services delivery arrangements to be financially sustainable and able to meet regulatory needs. In determining their preferred approach, each council should consider whether their existing service delivery arrangements will continue to meet community expectations regarding levels of service, achieve compliance with future regulatory requirements, and provide for growth, while also ensuring water services remaining affordable.

The Local Government (Water Services) Act 2025 requires that:

- revenue and funding is sufficient to sustain long-term investment in water services while meeting all regulatory requirements
- charges for water are ring-fenced and only used to pay the costs of water services
- a water services provider's revenue, funding and expenses are transparent to the public.

A Water Services Council Controlled Organisation (WSCCO) offers financial advantages over in-house delivery.

A WSCCO has the ability to borrow at higher levels of gearing, more appropriate for operating long-lived water infrastructure, at interest rates similar to councils due to the ability to access bespoke LGFA lending arrangements and covenants. The ability to combine assets and service delivery and optimise capital structure, alongside professional governance and management, mean there are likely to be greater operating and capital efficiencies available relative to in-house delivery options.

A WSCCO would enable three waters debt to be separated from shareholding councils' balance sheets. Under the current delivery model, the level of debt available for water and non-water investment is constrained by each council's overall debt position and borrowing limits. By establishing a WSCCO, water debt would transfer to the new entity, which would free up council debt headroom for other purposes. The modelling assumes the WSCCO would continue to borrow through LGFA at interest rates similar to those councils can obtain.

This report assesses how a joint WSCCO delivery model could benefit participating councils and customers by enabling greater efficiencies and adopting more efficient capital structures.

It presents these findings for a joint WSCCO comparing two scenarios against the status quo:

1. Increased investment
2. Optimised prices

It provides an indicative assessment of costs to customers under a cost-to-serve approach. For comparative purpose, harmonised price paths are also shown in Appendix D.

Further scenarios that explore different combinations of shareholding councils are included in Appendix B.

We have relied on council supplied financial projections and an agreed set of assumptions.

In undertaking this analysis, we have relied on financial information and projections provided by the participating councils and have used assumptions developed with and agreed upon by participating councils (refer [Appendix B](#)).

These assumptions guide the scope of potential outcomes and inform the overall conclusions regarding the financial and operational viability of the proposed joint WSCCO model. Changes to these underlying assumptions may have a material impact on the outcomes presented in this report. The reasonableness of the conclusions should therefore be considered with reference to the reasonableness of the inputs and assumptions.



Summary of findings



Summary of key findings

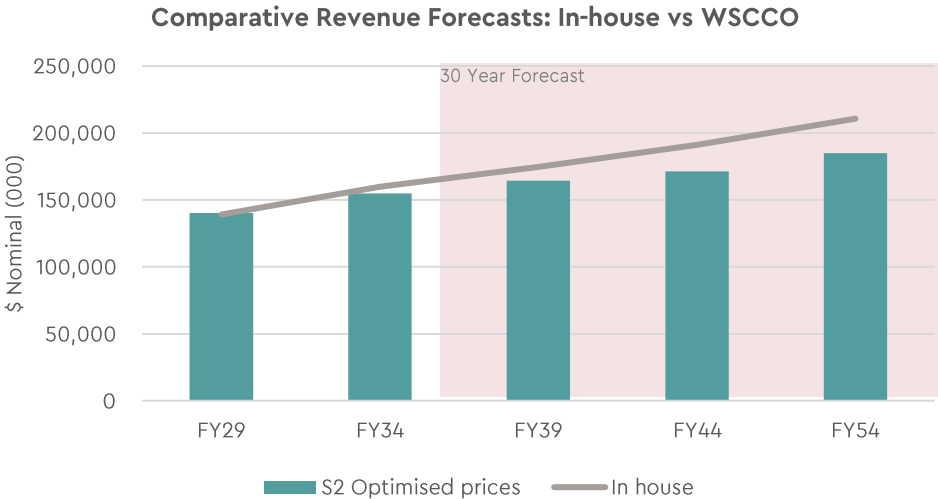
A joint WSCCO would be expected to deliver water services at a lower long-run cost to consumers than individual councils can deliver through current operating models and/or enable greater levels of investment to be delivered within currently projected revenues. Specifically, by FY54, a WSCCO could achieve:

- Cost efficiencies.** Operating efficiencies are projected to peak at ~11.7% by FY47, delivering ~\$180 million in cumulative operating savings to FY54 (~\$145 million net of establishment and ongoing incremental costs). Capital efficiencies are projected to peak at ~18.1%, generating ~\$185 million in cumulative capex savings — about 11% lower than in-house delivery for the same investment programme.
- Customer impacts.** Rotorua and Whakatāne consumers are expected to see the largest price reductions (~\$5,600 and ~\$5,560 cumulative savings per connection to FY54). Ōpōtiki and Kawerau see more modest direct savings (~\$1,710 and ~\$1,650), but significant benefits would accrue to ratepayers through a reduction in Council debt and lower finance costs. The varied distribution of benefits reflects different starting debt-to-revenue ratios.
- Council financial flexibility.** A key benefit of the WSCCO is balance sheet separation and capital structure. This creates additional borrowing headroom at the council level, significantly improving financial flexibility and the capacity to manage shocks. For Ōpōtiki and Kawerau, the transfer of water debt to a WSCCO would effectively eliminate council debt, while Whakatāne would also gain significant financial flexibility.

The benefits from the more **efficient capital structure** of the WSCCO model, **combined with the potential for operating and capital efficiencies**, would provide an immediate uplift in borrowing capacity to support required investment; result in fairer intergenerational allocation of costs through funding assets over their useful lives; and enhance investment capacity, infrastructure resilience, and create greater financial capacity for the WSCCO and councils to manage risks and absorb shocks.

Scenario	Total Savings in water charges per connection (FY29-FY54) (\$ real)	Total Capex including efficiencies (FY29-FY54) (\$ nominal)	Total Opex including efficiencies (FY29-FY54) (\$ nominal)
WSCCO – Optimised Prices	RLC ~ \$5,600		
	WDC ~ \$5,560		
	ODC ~ \$1,710	~\$1,510 million	~\$2,120 million
	KDC ~ \$1,650		
In-house	N.A.	~\$1,695 million	~\$2,265 million
Cumulative Savings	N.A.	\$185 million	\$145 million*

* Net of establishment and ongoing incremental costs



Modelling approach



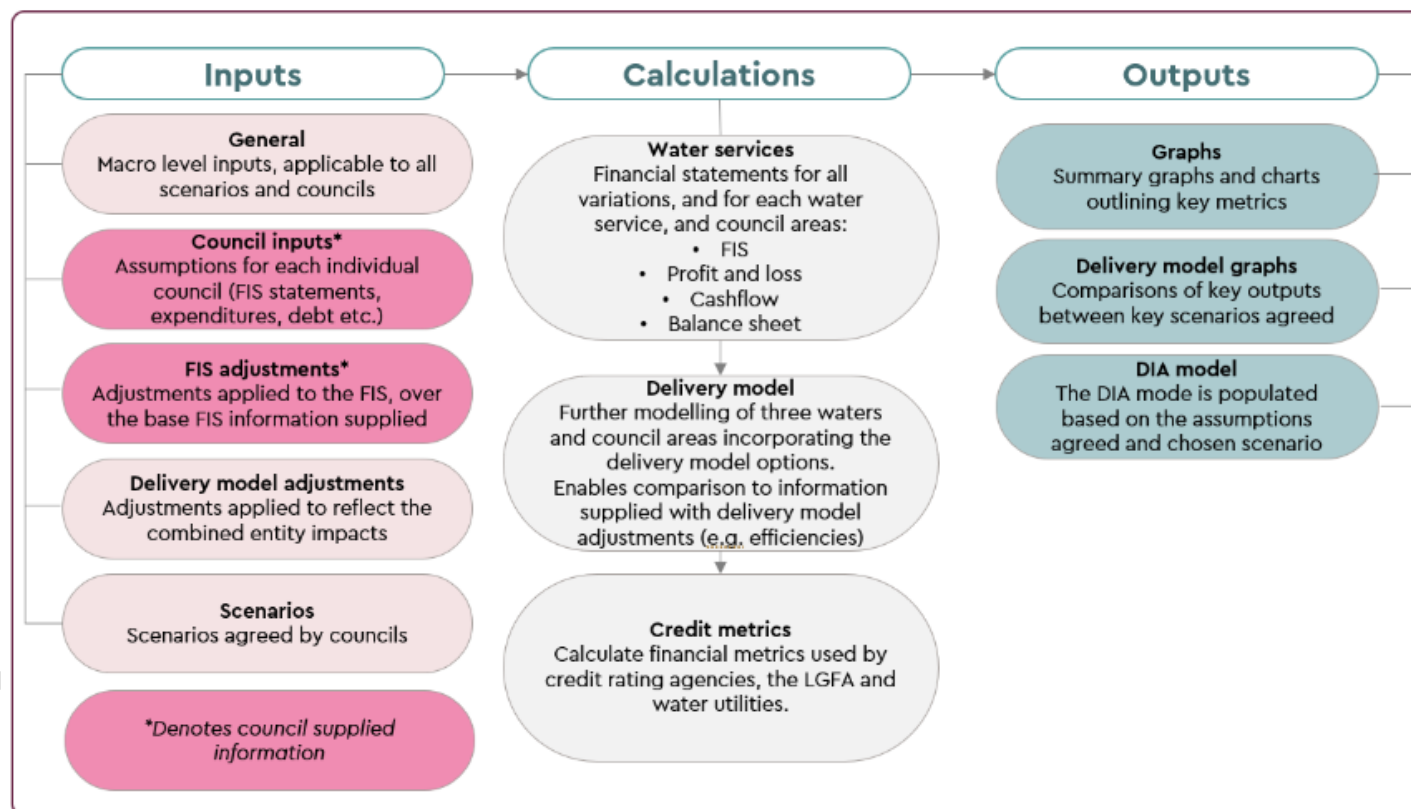
Modelling approach

Our model builds on the Department of Internal Affairs WSDP financial template and incorporates

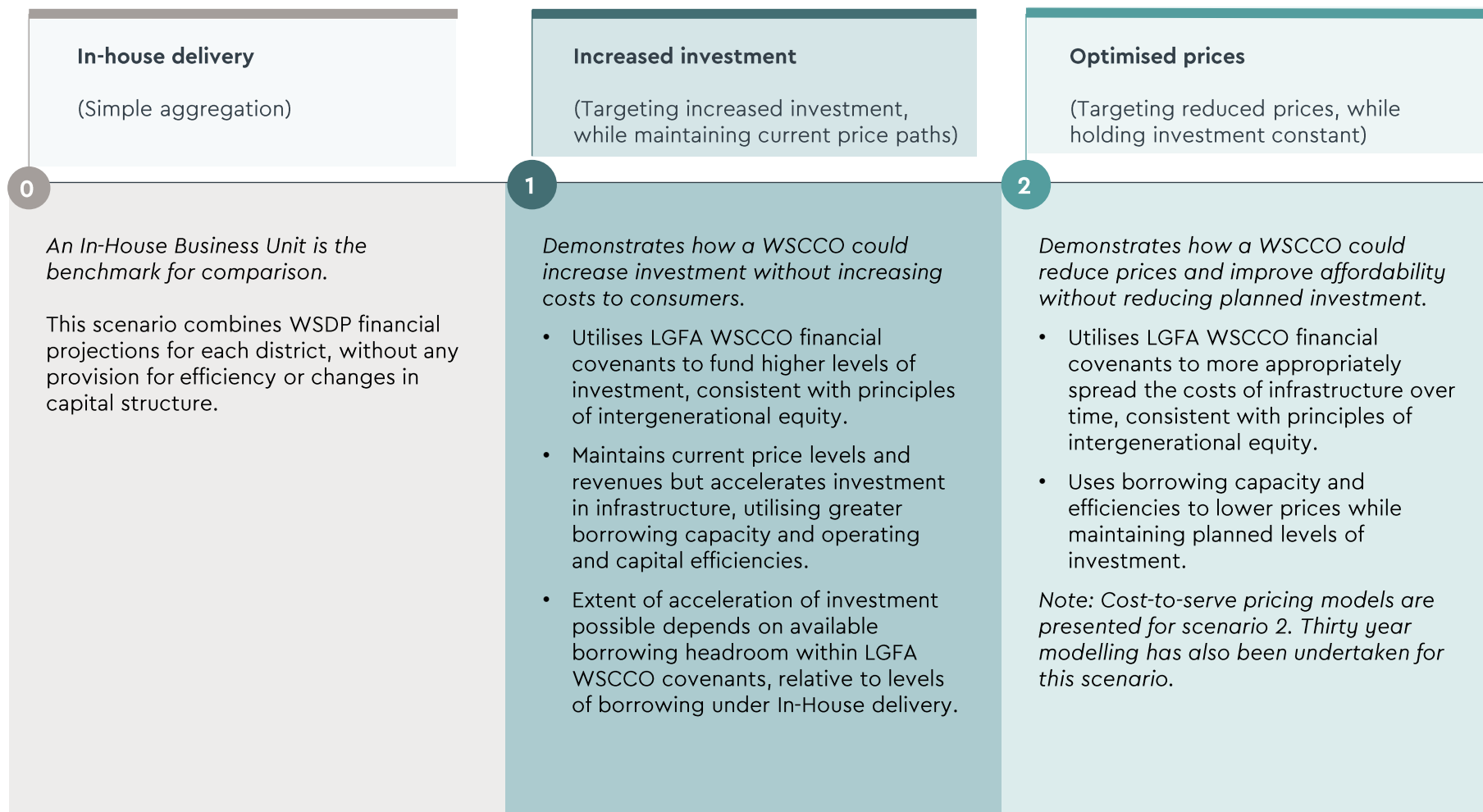
- The ability to solve for certain capital structures, financial ratios, revenue profiles, and other key metrics, enabling testing and comparison of multiple scenarios.
- Efficiency assumptions for both capital and operating expenditure based on international benchmarks and scale of the proposed entity.
- Allows for one-off establishment and ongoing incremental costs.
- Models several scenarios, based on data assumptions supplied by the councils.

The usefulness of the model's outputs is dependent on the robustness of inputs and assumptions. We have relied on information supplied by councils, with adjustments documented in Appendix A.

Overview of model architecture



Scenarios assessed



Financial sustainability framework

The Local Government (Water Services) Act sets out financial principles that underpin the requirement for financial sustainability. Under Local Water Done Well, the expectation is that operating revenues pay for operating costs with capital investment funded by capital sources (e.g., borrowing and development contributions). Our financial sustainability framework is presented on the right-hand-side.

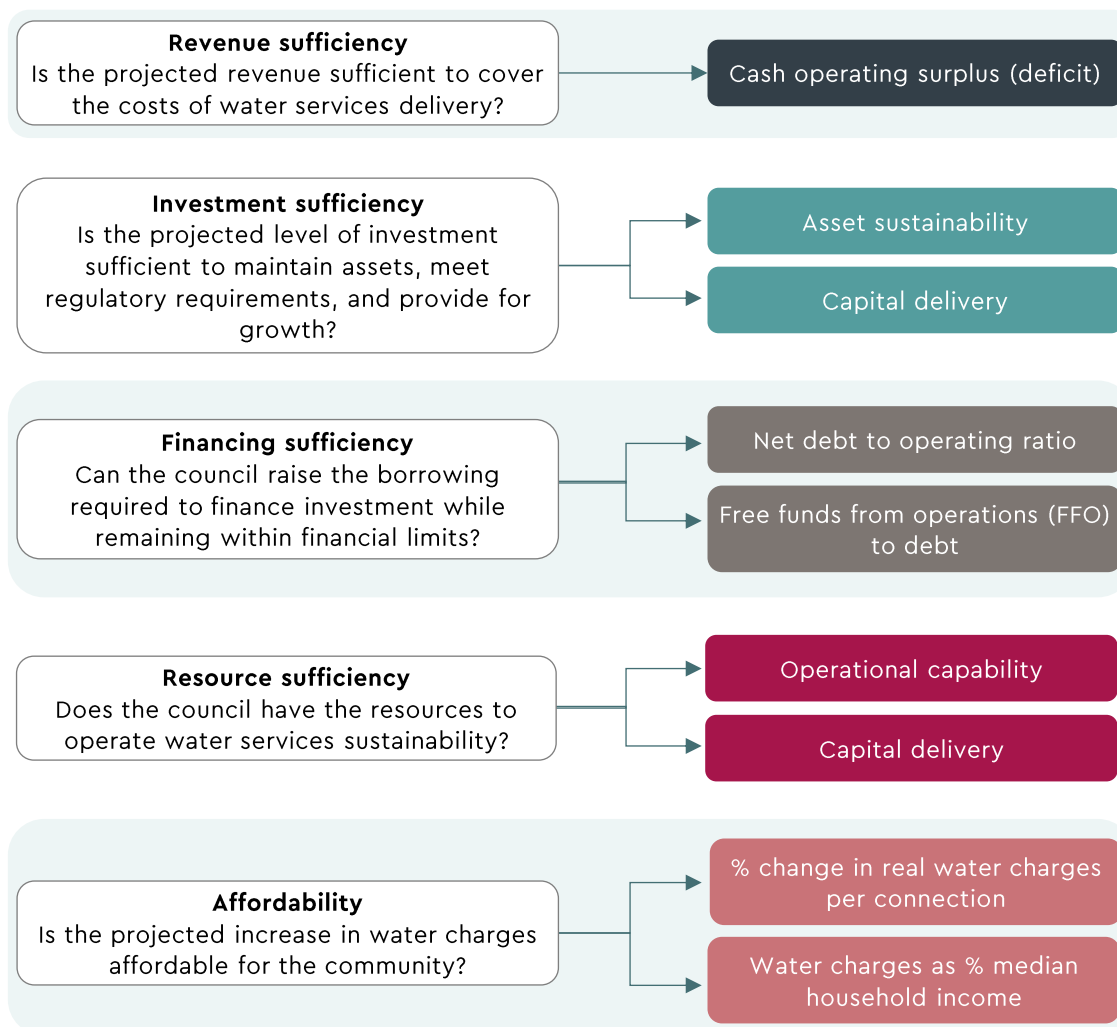
LGFA has set out a number of credit criteria. A critical component of the 'prudent credit criteria' is that a 'funds from operations'-to-debt covenant would be required, with an expected minimum FFO-to-debt ratio of 9%

FFO-to-debt provides a metric by which a lender can assess the ability of revenues (including a portion of DCs consistent with LGFA covenant metrics) to meet operating costs and debt servicing requirements.

By targeting an efficient capital structure, it is possible for a WSCCO to optimise revenues, while meeting operating and capital costs and maintaining prudent borrowing. This creates opportunities to:

- increase investment while maintaining current price levels, or
- maintain investment while lowering price levels, or
- a combination of these scenarios.

Our modelling targets FFO-to-debt at 10% as a conservative assumption. This means cash surpluses generated in any year are equal to 10% of the WSCCO's net borrowings, and above the LGFA covenant of 9%.



Base assumptions

Several key assumptions underpin the analysis, and are consistent across the scenarios modelled.

Additional information on the underlying assumptions can be found in [Appendix A](#).

Further information on efficiencies can be found in [Appendix E](#).

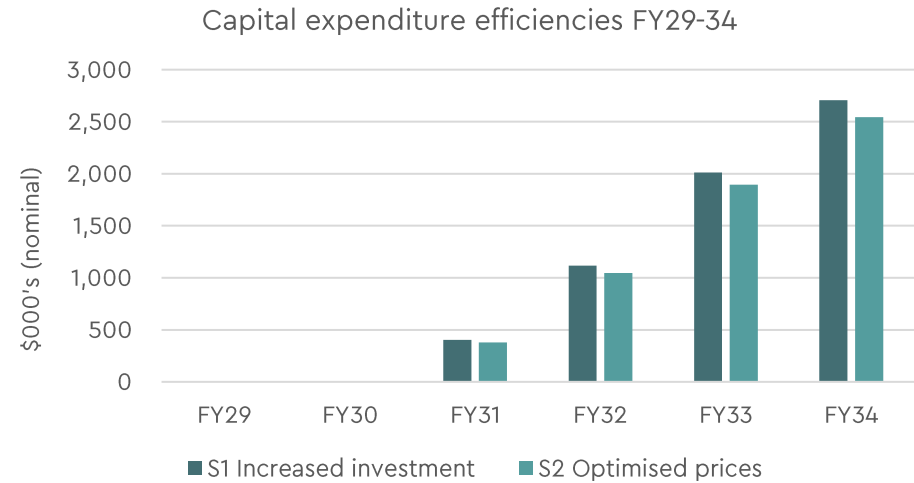
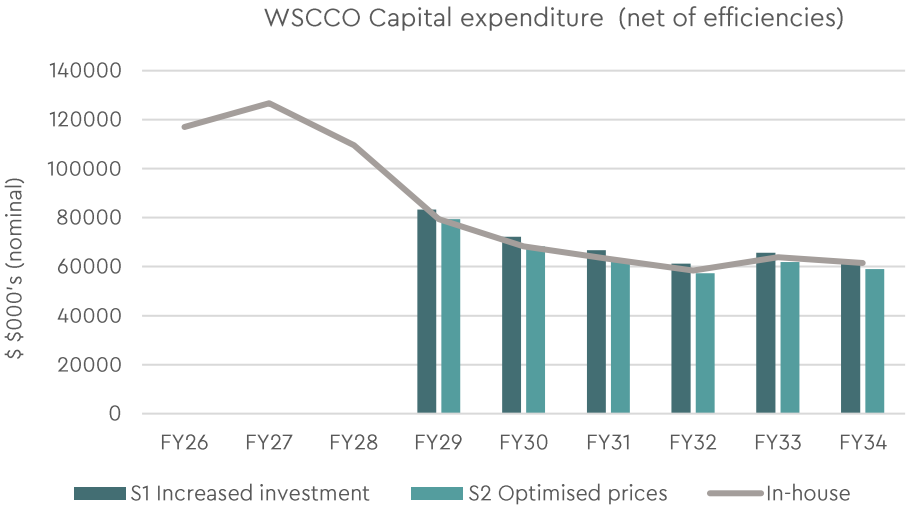
Assumption	Commentary
Establishment date 1 July 2028	The WSCCO would be established and operational from 1 July 2028 (i.e., for FY28/29)
Operating efficiencies 0.75% p.a.	Operating efficiencies are driven by a number of factors, including productivity gains arising from effective governance and management practices, purchasing power, and streamlined operations and maintenance. Efficiencies are modelled to begin in FY31, two years after the entity's establishment and ramp to 0.75% p.a. (the mid-point of the efficiency range) until peak operating efficiency is achieved in FY47 (cumulative gain of 11.7% relative to the initial operating cost).
Capital efficiencies 1.2% p.a.	Capital efficiencies reflect reductions in real unit costs from prudent investment decisions, sophisticated procurement practices, and market power from a larger entity having long-term investment pipelines. Efficiencies are modelled to begin two years after the entity's establishment (FY31) and ramp to 1.2% p.a. (the upper end of the efficiency range) until peak capital efficiency is achieved in FY47 (cumulative gain of 18.1%).
Establishment costs	Establishment costs are assumed to be: • \$9 million for four council entity scenarios • \$8 million for three council entity scenarios The modelling results are not sensitive to this assumption.
Incremental opex	Additional operating costs associated with a WSCCO include board fees, additional management costs, and other costs. These are assumed to be \$0.9 million p.a. from FY29
Financing 5.25% p.a.	LGFA has indicated that the borrowing margin for multi-council WSCCOs would be based on the weighted average borrowing margin of the participating councils. Default weighting will be based on ownership structure per LGFA guidance.



Capital expenditure



Projected capital expenditure



Current Investment Levels

The four councils plan to invest \$394 million from FY29-FY34 (being the period of WSSCO operation within the current forecasts).

Investment Scenarios under a WSSCO

The WSSCO could generate cumulative **capital efficiencies totalling about \$6 million by FY34**, meaning the delivery of the same investment for around **\$6 million less** than current council arrangements. This should lead to **lower costs for consumers**.

Efficiencies are forecast to reach 4.1% by FY34, which is less than 25% of the peak efficiency rate of 18.1%. By FY54, cumulative efficiencies are much larger, and estimated to total about \$185 million over 30 years.

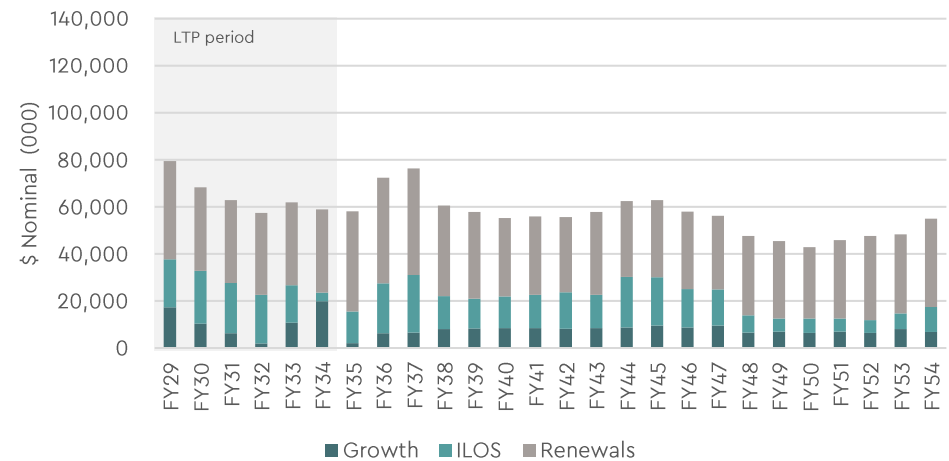
If the **current price path** is maintained, a WSSCO could invest an **additional \$17.3 million** between FY29 and FY34, an increase of 4.4% above the in-house forecasts. The absence of 30-year operating cost projections means we are unable to estimate the scope for additional investment over this timeframe, but we expect it would exceed \$100 million due to the cumulative efficiencies over this timeframe.

	Total capex including efficiencies (FY29-FY34)	Capex efficiencies (FY29-FY34)
S1-Increased investment	\$412 million	~\$6.2 million
S2-Optimised Prices	\$388 million	~\$5.8 million
In-house	\$394 million	Nil.

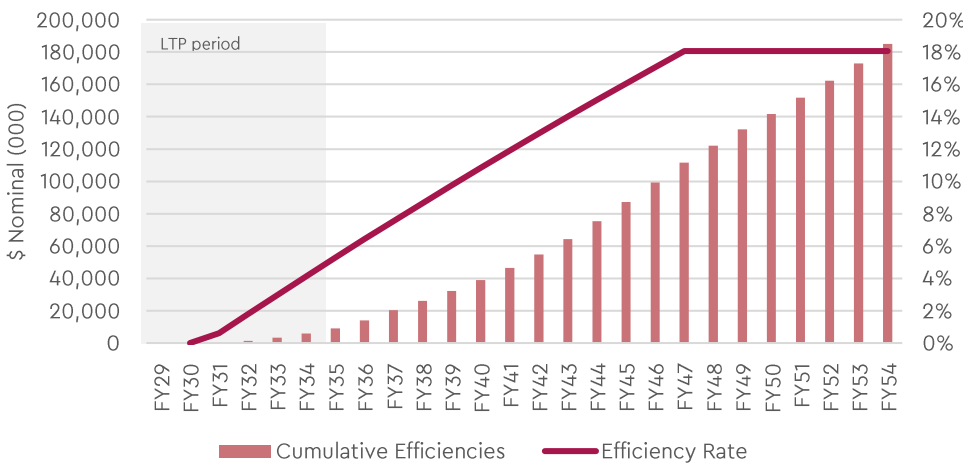


Projected capital expenditure with optimised prices

Three Waters Capital Expenditure (FY29-54)



WSCCO Cumulative Capital Expenditure Efficiencies (FY29-54)



Current Investment Levels

Based on 30-year Infrastructure Strategies, the four councils plan to invest \$1.7 billion in water infrastructure over the FY29-FY54 period. The majority of forecast investment is directed towards renewals (55%), with a smaller proportion allocated to levels-of-service improvements (26%) and growth infrastructure (19%).

Elevated levels of investment are expected in FY29, FY36-FY37 (Rotorua), and FY42-FY45 (Ōpōtiki) due to major asset replacements and upgrades.

Investment Scenarios under a WSCCO

By achieving modest efficiencies, the WSCCO could generate cumulative **capital efficiencies totalling ~\$185 million by FY54**. This equates to being able to deliver the existing capital programme for 11% less than is projected under current In-house delivery models.

Capex efficiency FY34

4.1%

\$5.8 million cumulative savings

Capex efficiency FY47

18.1%

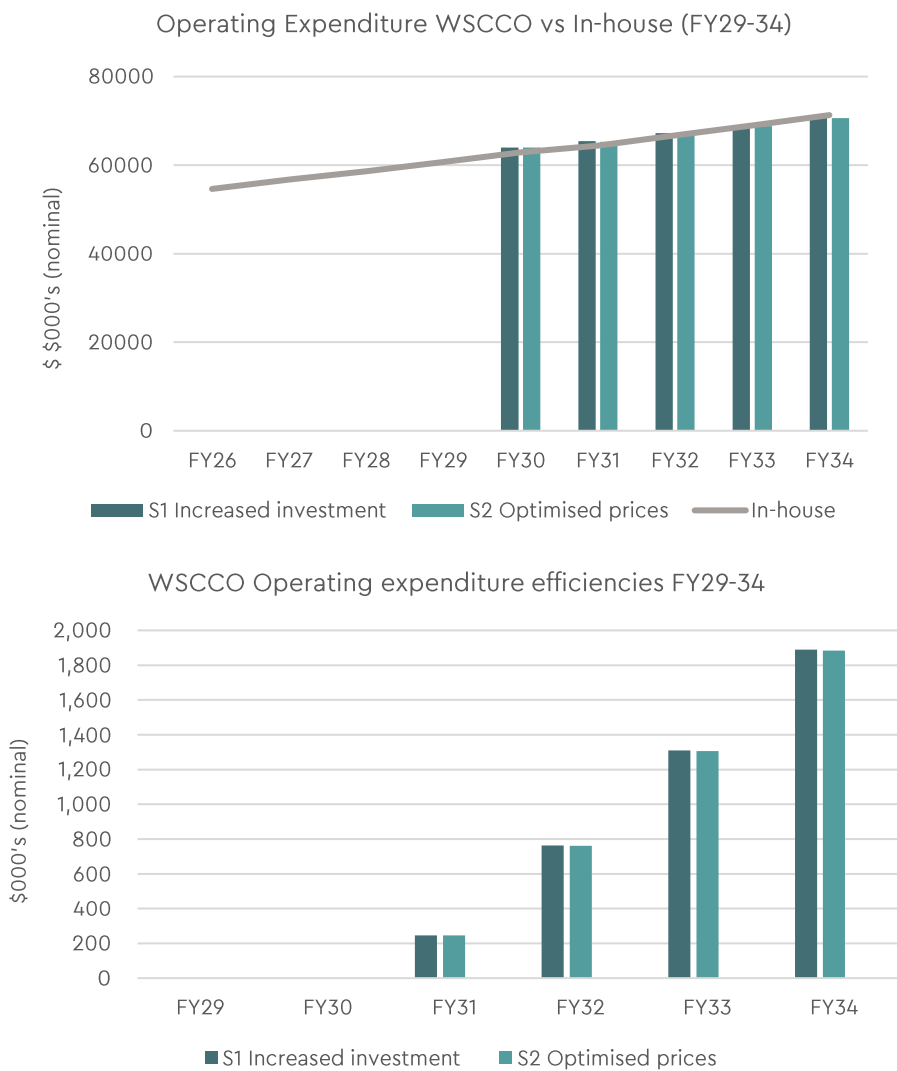
\$185 million cumulative savings



Operating expenditure



Projected operating expenditure



Operating expenditure

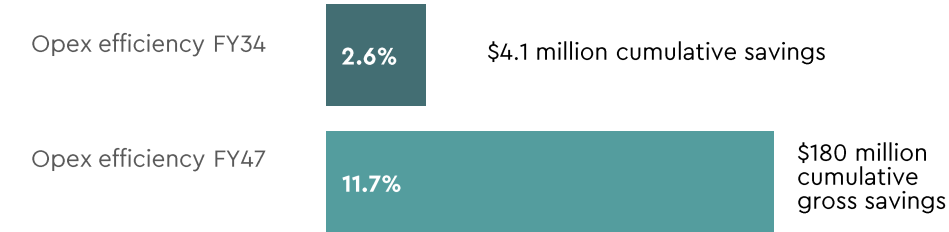
Total operating expenditure is similar across the three scenarios over the LTP period. The additional management and governance costs associated with a WSCCO begin to be offset by the operational efficiencies from FY32.

Efficiency gains are modelled to increase over time, with a two-year ramp-up post-establishment, and the full efficiency benefits reached 15 years thereafter. This means **cost savings will continue beyond the LTP period, delivering significant ongoing savings to communities** (see next page for detail).

Operating efficiencies have been applied only to core operating costs, excluding depreciation and finance costs.

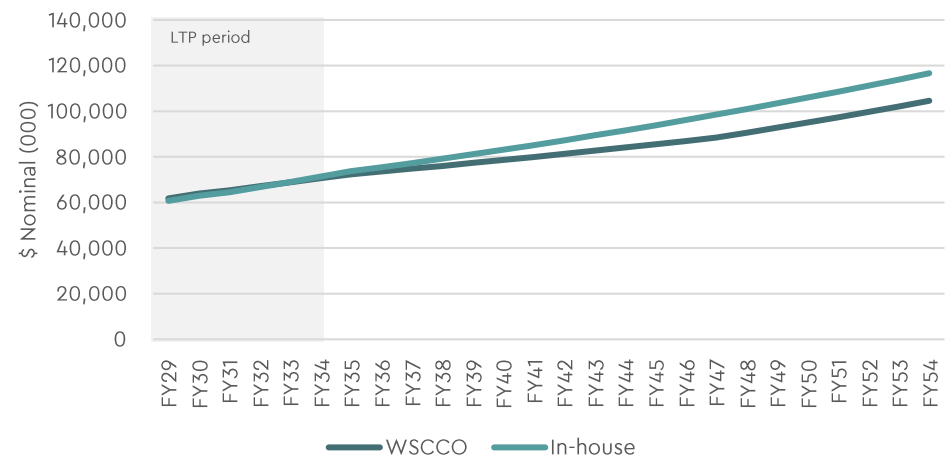
Scenario 1 provides for up to \$17 million worth of additional investment, compared with In-house delivery. This creates additional financing and depreciation costs to service this investment. We have assumed this additional capex is primarily directed to improving existing assets and have made a small allowance for consequential operating costs.

	Total Opex including efficiencies (FY29-FY34)	Opex efficiencies (FY29-FY34)
S1 Increased investment	~\$398 million	~\$4.2 million
S2 Optimised prices	~\$397 million	~\$4.1 million
In-house	~\$395 million	Nil.



Projected operating expenditure with optimised prices

Operating Expenditure WSCCO vs Status Quo (FY29-54)



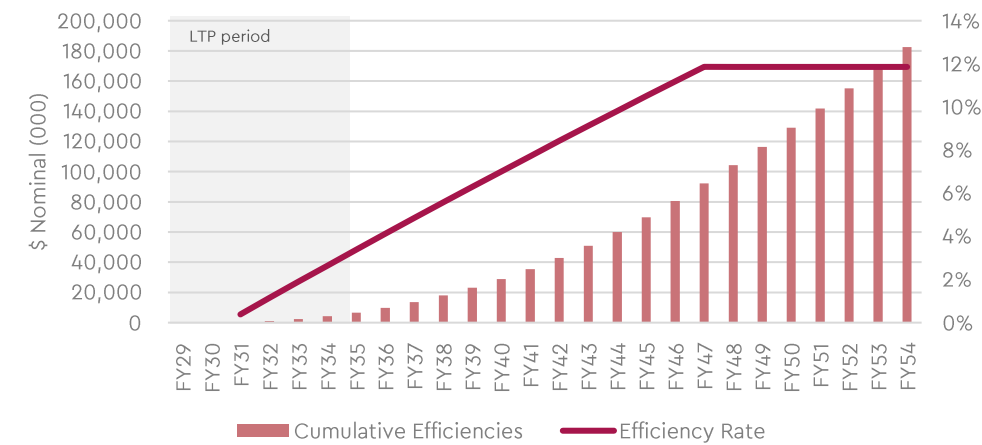
Operating expenditure

Efficiency gains in a WSCCO are modelled to increase over time, with full efficiency benefits peaking at 11.7% per year in FY47. Over the FY29-FY54 period, cumulative efficiencies result in operating expenditure of ~6% less than In-house delivery. The cumulative operating efficiencies are estimated to total ~\$180 million by FY54.

Modelling assumptions

Rotorua provided its own 30-year opex forecasts. For Ōpōtiki, Whakatāne, and Kawerau, operating expenditure was forecast for the period FY34-FY54 using an inflation rate of 3% per year. For Ōpōtiki and Whakatāne, an additional consequential operating expenditure allowance of 1.5% was applied to all growth-related capital expenditure. Kawerau's existing infrastructure network has capacity to capture the expected growth, so no consequential operating cost was included. Finance costs were calculated based on projected debt balances, assuming an interest rate of 5.25%. See [30 Year inputs and assumptions](#) for more detail.

WSCCO Cumulative Operating Expenditure Efficiencies (FY29-54)



	Total Opex including efficiencies (FY29-FY54)	Opex efficiencies (FY29-FY54)
WSCCO scenario	~\$2,120 million	~\$180 million*
Status Quo	~\$2,265 million	N.A.

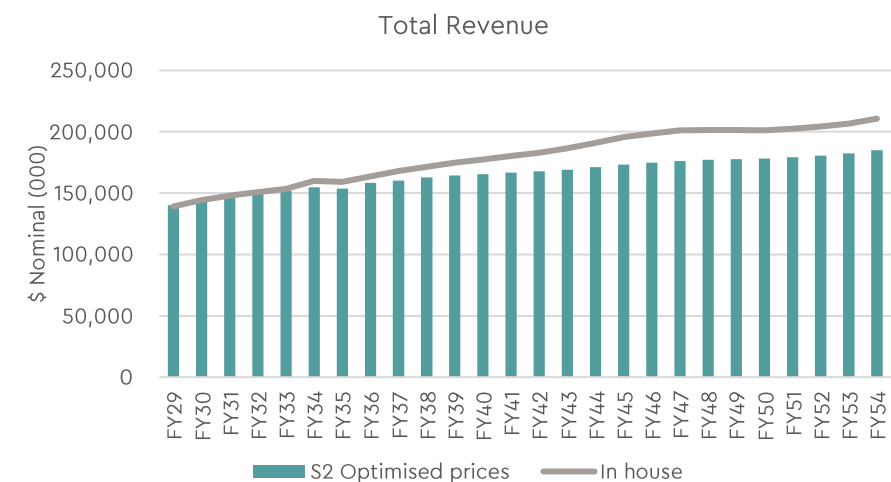
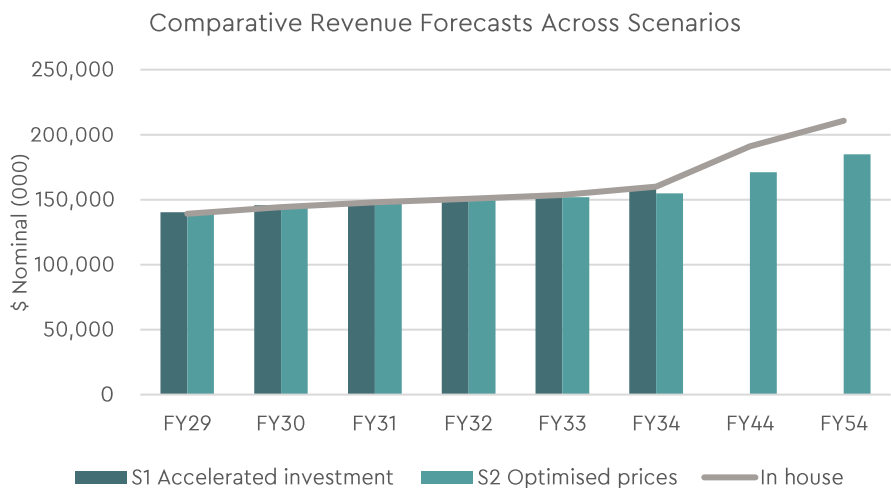
* After accounting for the additional establishment and ongoing WSCCO costs, the net savings total ~\$145 million.



Operating revenue



Projected revenues



Determining operating revenues

Under Local Water Done Well, the expectation is that operating revenues pay for operating costs with capital investment funded by capital sources (e.g., borrowing and development contributions).

This means operating revenues (and therefore charges for water services) should be set to recover all cash operating expenses plus a minimum FFO requirement (9%, based on LGFA covenants).

For the purposes of this report, we have assumed a target of 10% FFO-to-debt to provide a buffer above the minimum LGFA required covenant. This ensures an efficient approach to setting water charges while maintaining borrowing at a prudent level.

Under the optimised pricing scenario (i.e., where investment is maintained at current projected levels), the operating revenue collected by the WSCCO would be \$2 million lower over FY29-FY34 compared with the status quo. How this affects consumers in the respective districts, and the long-term impacts are discussed in detail on the following pages.

	Total revenue, incl. DCs (FY29-FY34)	FFO-to-debt (FY34)
S1 Increased investment	~\$876 million	10%
S2 Optimised prices	~\$871 million	10%
In-house	~\$873 million	11%

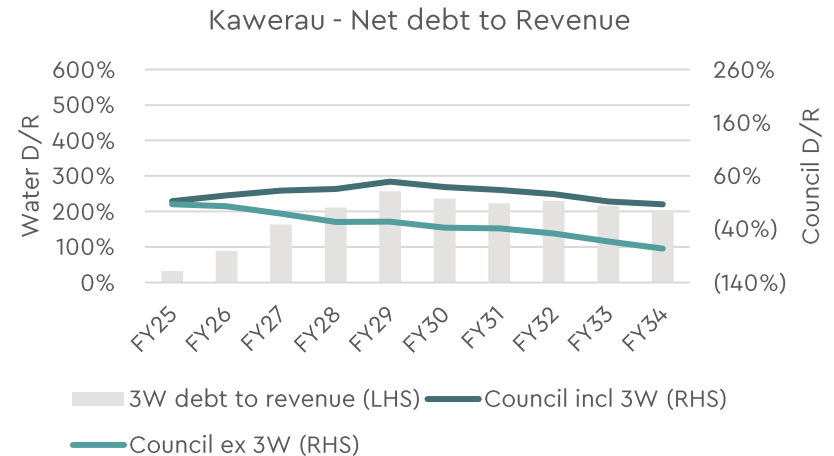
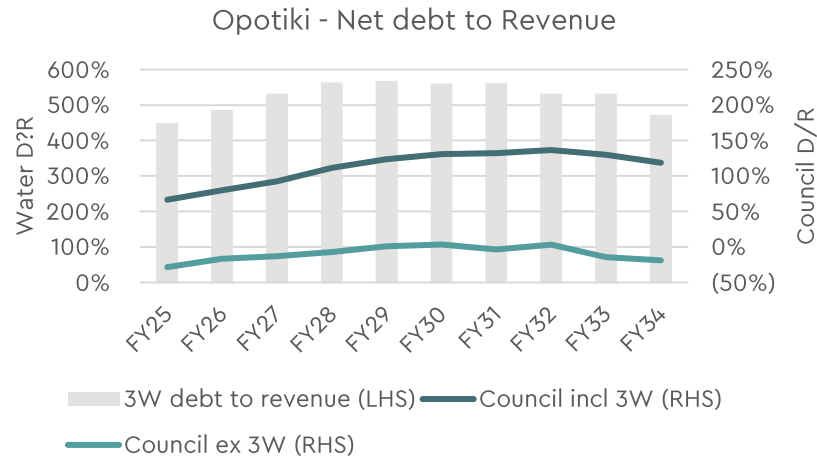
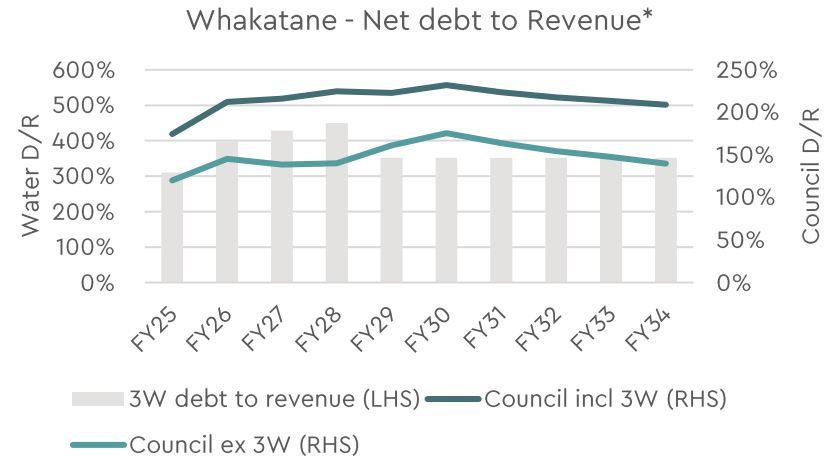
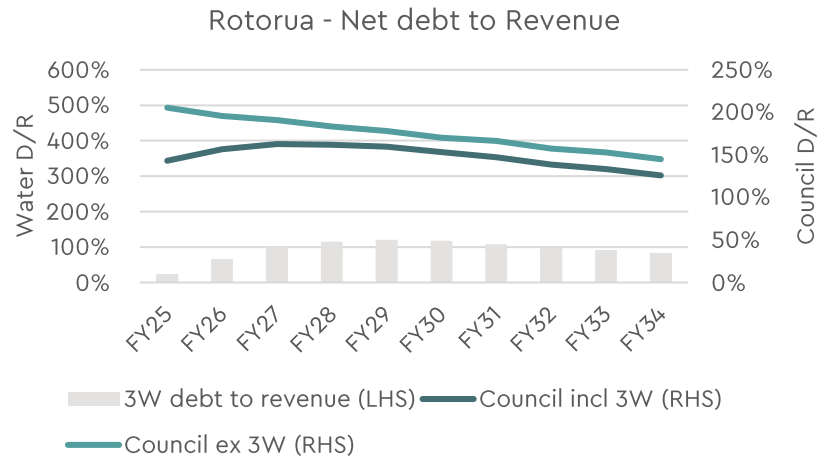


Debt sustainability



Net Debt to Revenue with and without water services

The four councils operate with significantly different levels of water debt to revenue, ranging from Rotorua where water debt to revenue peaks at 120% in FY29, to Ōpōtiki where water debt to revenue peaks at 568% in FY29. These different levels of gearing result in a different distribution of benefits from a WSCCO. For Whakatāne and Ōpōtiki, and to a lesser extent Kawerau, significant benefits would accrue from a reduction in Council debt burden (and servicing costs) and increased council capacity to manage shocks. The flipside of this benefit is that water consumers benefit less from an increase in the WSCCO's debt capacity.

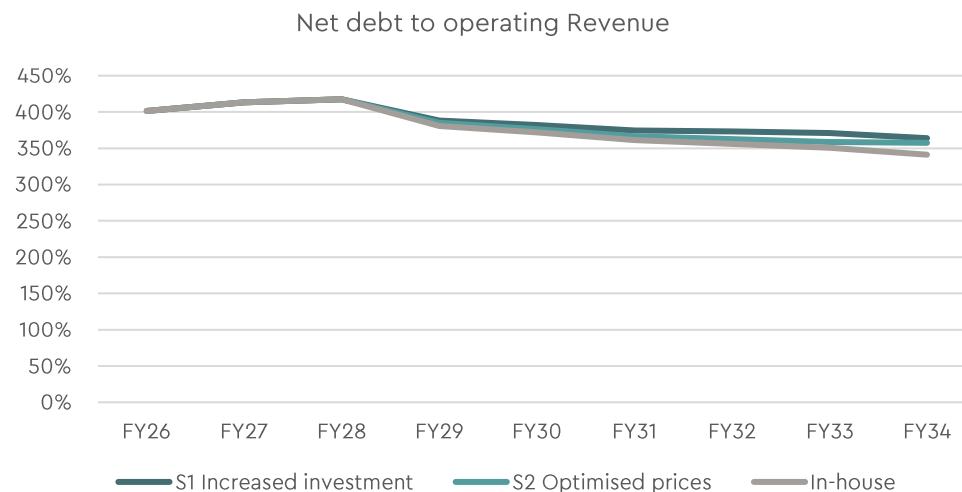
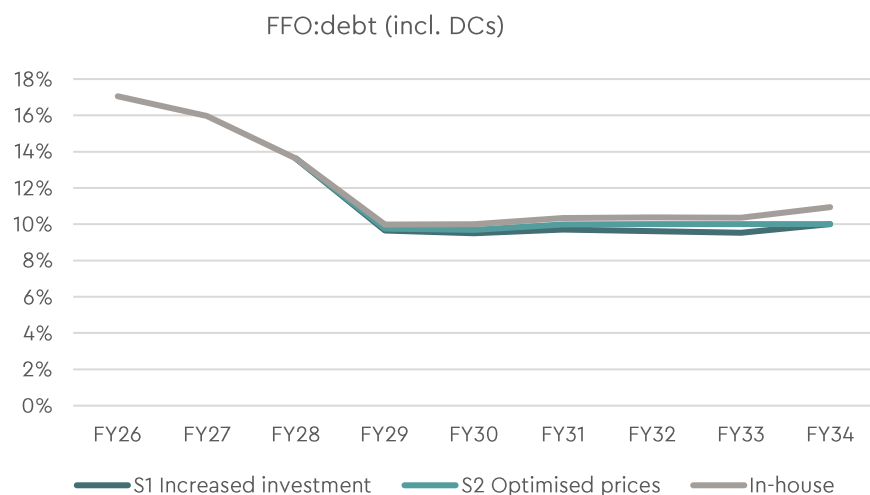


*For Whakatāne MartinJenkins modelled an in-house 3W business unit targeted a debt-to-revenue ratio of 350% from FY29.



WSCCO Debt Sustainability

Under a WSCCO model, the company targets a long-term FFO to net debt ratio of 10%, consistent with minimum LGFA lending covenants plus a one percentage point prudential margin. Compared with In-House delivery, this results in a smoother price path and more consistent financing strategy across the four councils. As noted on the previous slide, the transfer of water debt to a WSCCO would reduce the debt-to-revenue ratio for all four councils, effectively eliminating debt in the case of Ōpōtiki and Kawerau.



Borrowing for investment

Based on the information supplied, the funding sources for councils' projected **\$389 million of water infrastructure investment between FY29 and FY34** are as follows:

- **\$66 million (17%)** is to be debt funded.
- **\$47 million (12%)** is to be funded via DCs.
- **\$274 million (71%)** is to be funded through operating revenues and
- **\$0.8 million (0.2%)** is to be funded by other capital revenue and subsidies.

Capital structure

As outlined in DIA guidance, it is inefficient to fund investment in long-lived infrastructure primarily through operating revenues. Under the LWDW framework, capital investment is expected to be funded through capital sources (i.e., borrowing and development contributions), while operating revenues must be sufficient to maintain debt repayments and ensure debt remains within LGFA lending limits* for water CCOs.

Scenarios 1 (increased investment) and 2 (optimised prices) target a FFO-to-debt ratio of 10%.

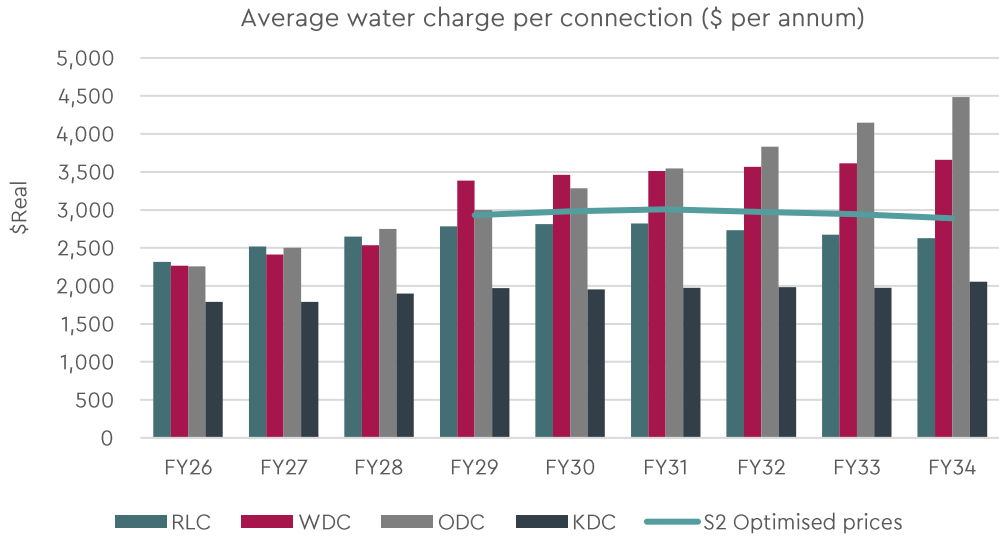
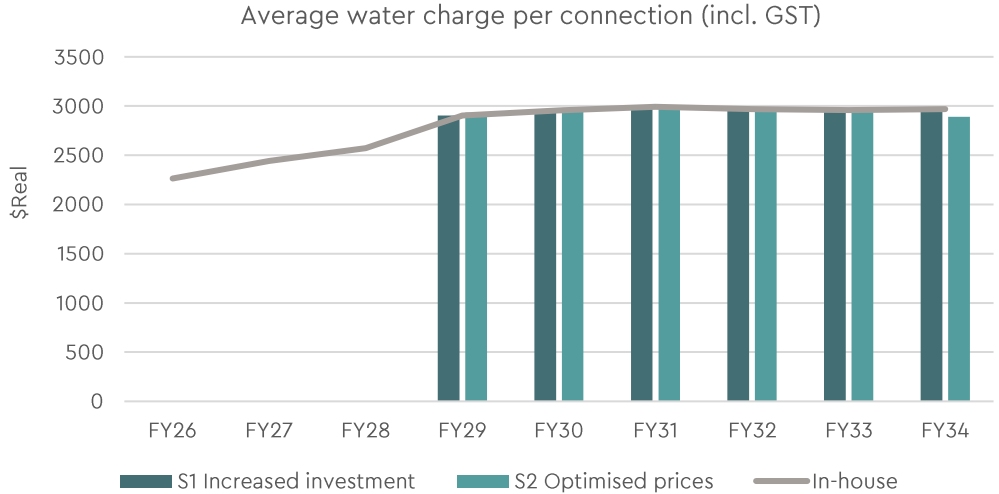
**If LGFA approved a lower FFO-to-debt ratio for the CCO, then this would further increase the additional investment or further reduce prices relative to the modelled scenario.*



Comparative price paths



Comparative price paths



Water charges per connection

Under In-house delivery, the average annual water charge per connection across the four councils is projected to exceed **\$2,970 per connection in FY34** (in today's terms). A **WSCCO could reduce this to \$2,890 per connection** by FY34 across the councils, a reduction of around 3%. Consumers can expect more meaningful differences over a longer time period, as the efficiencies compound.

Consistent pricing methodology (harmonised prices)

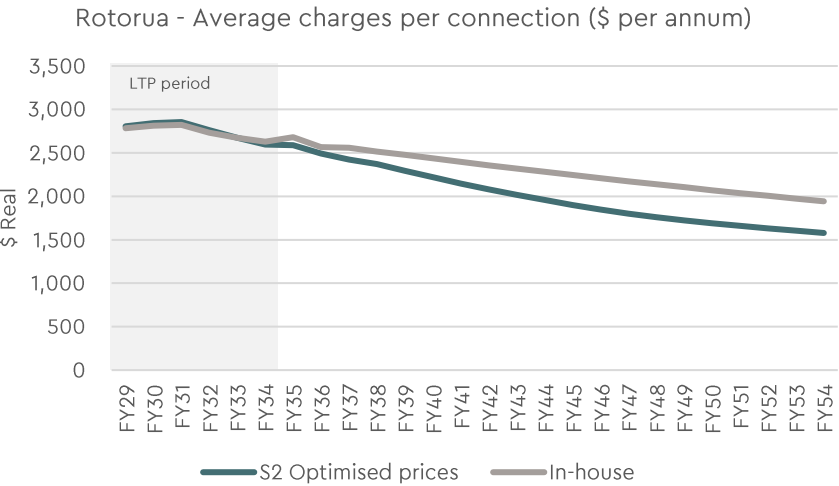
For illustrative purposes, we have included a harmonised price path. This approach reflects an entity level price per connection. We note that, in practice, customers will likely be subject to different tariff structures as they are currently. For ease of reference, individual council price paths are located in Appendix A.

Harmonising prices means that there are consistent pricing methodologies for similar households and users across the area served by the WSCCO. Good pricing principles would likely drive the setting of these charges over time to ensure the approach reflects the long-term costs of delivering water services, regardless of the specific point in time investment requirements of those communities.

Indicative cost per connection in FY34 (\$real)				
WSCCO scenario	RLC	WDC	ODC	KDC
S2 - Optimised prices	~\$2,595	~\$3,460	~\$3,800	~\$1,975
S2 - harmonised	~\$2,890			
In-house	~\$2,630	~\$3,660	~\$4,485	~\$2,055



Rotorua comparative price paths

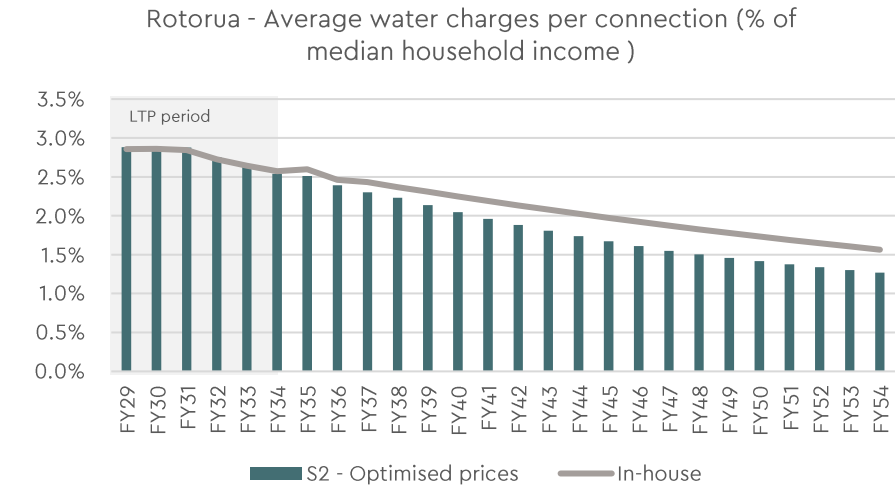


Water charges per connection

General pricing outlook: Rotorua's average price per connection is forecast to trend downward from FY31, driven by a reduced capex programme, low growth in operating costs, and inflation eroding the real value of debt over time.

Pricing comparison: Under an Optimised Prices WSCCO scenario, each Rotorua consumer is expected to save ~\$216 per year compared to an in-house model over the FY29-FY54 period. This totals ~\$5,600 over the FY29-FY54 period, or a saving of about 9%. By FY54, the average charge per connection is expected to be approximately 19% lower under a WSCCO model.

This is achieved by means of the WSCCO realising capital expenditure efficiencies of ~\$80 million (or 11%) and operating expenditure savings of a further \$80 million (or 6%). Consumers are not expected to see material savings from a WSCCO until after FY34.

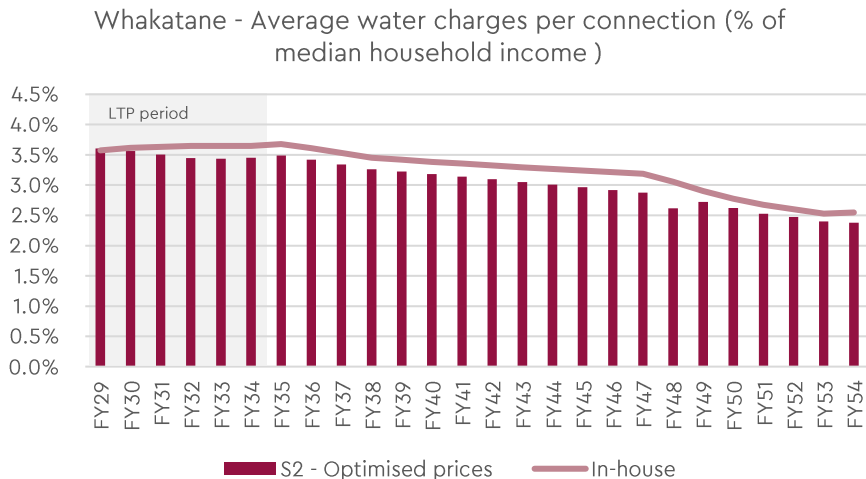
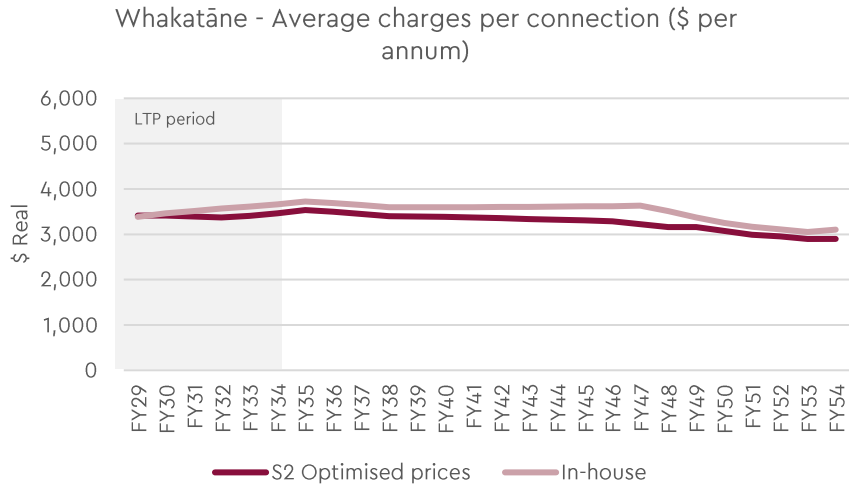


Affordability of water charges

Water charges are forecast to become more affordable for the Rotorua community under the cost-to-serve scenario compared with the in-house scenario. By FY54, the in-house rate is projected to reach 1.6% of median household income, whereas the water charge under a WSCCO would be 1.3%.



Whakatāne Comparative price paths



Water charges per connection

General pricing outlook: Between FY29 and FY54, Whakatāne’s average price per connection is projected to trend sideways before decreasing from FY47.

Pricing comparison: Whakatāne consumers are projected to save about ~\$210 annually, totalling ~\$5,560 per connection from FY29 to FY54, under a joint WSCCO model compared to in-house delivery. This represents a saving of about 6%, due to operating cost savings of \$50 million (7% reduction) and capital efficiencies of \$80 million (11% reduction), offset by higher interest costs.

Greater financial flexibility: The transfer of water debt to a WSCCO would significantly improve Council’s financial flexibility and capacity to absorb shocks, reducing peak debt-to-revenue from 232% to 176%.

Affordability of water charges

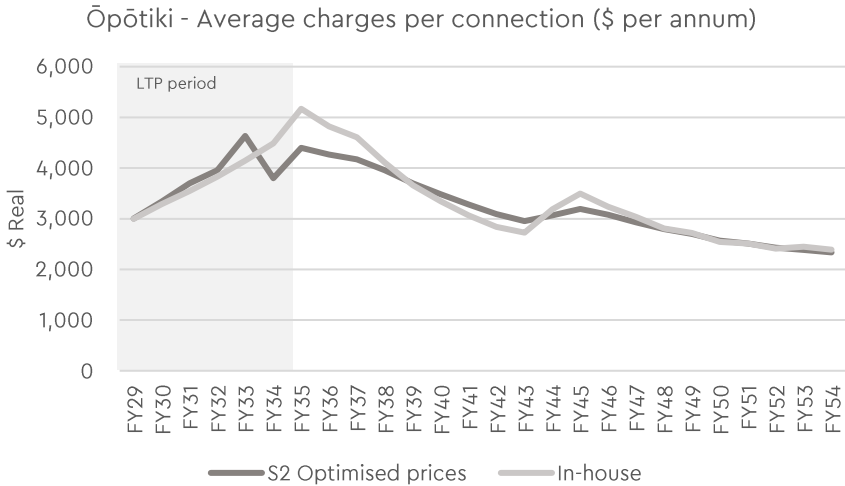
Affordability is expected to improve for the Whakatāne community under a WSCCO compared with In-house service delivery.

By FY54, the in-house water charge is projected to reach 2.5% of median household income, compared to 2.4% under the WSCCO.

Savings to customers would be higher, relative to In-house delivery, if the Council was not already projecting significant borrowing for three water investment.



Ōpōtiki Comparative price paths



Water charges per connection

General pricing outlook: After an initial increase in prices over the LTP period, prices are expected to trend downwards, albeit with variability due to peaks in the capital programme. Price variability is more pronounced under In-house delivery, as revenue is calculated with reference to a 350% debt-to-revenue target. The spike in FY44-FY45 is due to Ōpōtiki's Waste Water Treatment Plant upgrade.

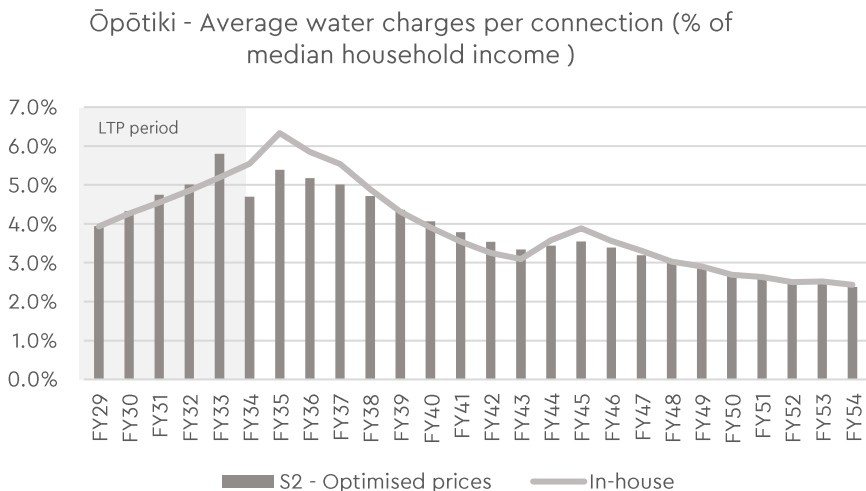
Pricing comparison: Customers in Ōpōtiki are expected to save on average about \$70 each year under a WSCCO model compared to In-house delivery over the FY29-FY54 period. This represents a total saving of around ~\$1,710 per connection by FY54. A WSCCO is expected to generate \$8 million in operating savings (6% reduction) and \$9 million in capital efficiencies (8% reduction).

Financial flexibility: Consumer savings under a WSCCO are smaller than the operational efficiencies achieved, because the In-house model relies heavily on debt to fund water investment. Transferring water debt to a WSCCO would materially strengthen councils' financial flexibility and capacity to absorb shocks, cutting peak debt-to-revenue from 137% to 3% — effectively eliminating council water borrowing.

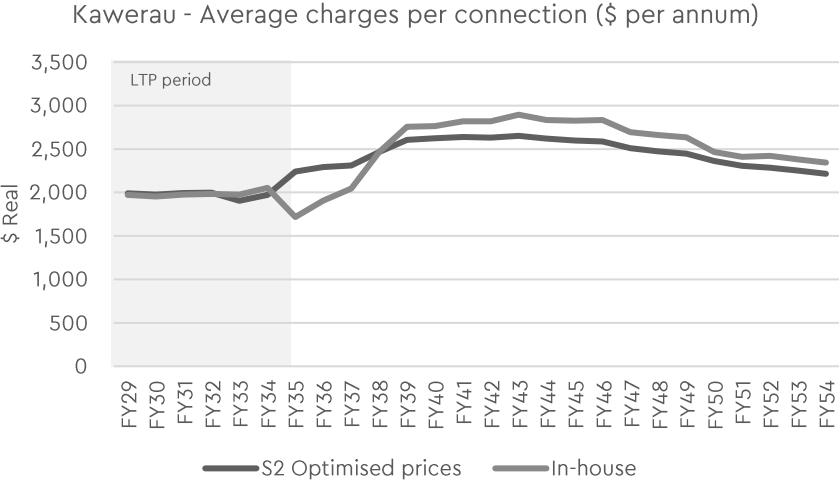
Affordability of water charges

Water charges are forecast to become more affordable for the community under either model, decreasing from above 5% of median household income to less than 3% by FY54.

However, affordability outcomes are not significantly different between the two models due to the In-house model's high reliance on borrowing to fund investment over the forecast period.



Kawerau Comparative price paths

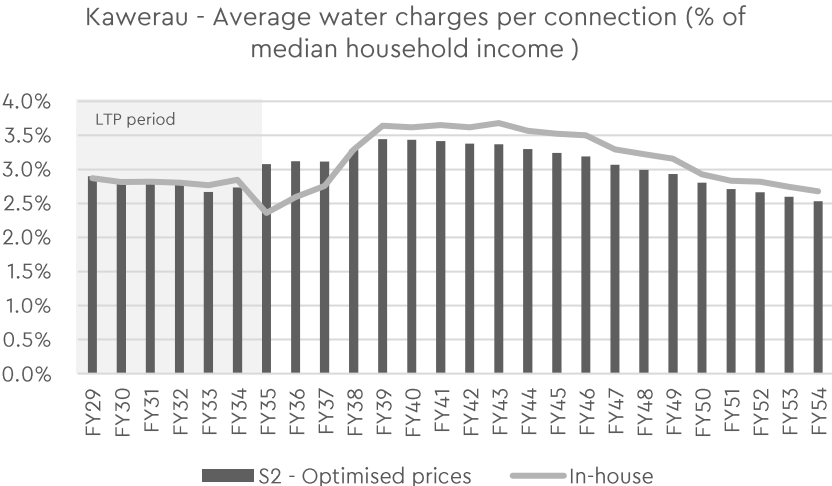


Water charges per connection

General pricing outlook: Kawerau's water charges are expected to increase in real terms from FY35, while showing more volatility. Prices are expected to decrease from the mid-2040's under both the WSCCO and In-house scenarios.

Pricing comparison: Each Kawerau consumer is expected to save about ~\$60 per year under a WSCCO model compared with In-house delivery. Projected consumer savings total ~\$1,650 per connection over the FY29 to FY54 period. Savings from the WSCCO include a reduction of \$10 million in operating expenditure (-7%) and capital efficiencies of \$8.5 million (-11%).

Financial flexibility: The WSCCO does not deliver savings for consumers that are proportionate to the operational savings achieved. This is due to the In-house model's significant reliance on debt. If water debt was transferred to a WSCCO, this would create significant additional flexibility and capacity to absorb shocks, effectively eliminating council borrowing.



Affordability of water charges

Water charges are expected to become more affordable for the Kawerau community under a WSCCO model compared to an in-house model.

The in-house option is forecast to reach 2.7% of median household income by FY54, whereas the cost-to-serve rate in a WSCCO is forecast to be 2.5%.



Sensitivity of price path to efficiency assumptions



Sensitivity of price path to efficiency assumptions

Sensitivity testing across operating and capital expenditure efficiency assumptions confirms the savings case for all four councils is robust. Under the Base Case (OPEX 0.75%, CAPEX 1.2%), cumulative savings per connection over FY29–54 range from \$1,650 (Kawerau) to \$5,600 (Rotorua), with Whakatāne at \$5,550 and Ōpōtiki at \$1,700.

Under the most conservative scenario (OPEX 0.5%, CAPEX 0.6%), savings remain positive for three councils, ranging from \$1,350 (Ōpōtiki) to \$4,150 (Rotorua). Under a low-efficiency scenario, Kawerau would not achieve savings because its ability to take on additional debt would be constrained by FFO limits, while it would still bear its share of the additional costs associated with the WSCCO.

Under the higher efficiencies scenario (OPEX 1.0%, CAPEX 1.2%), savings increase to between \$2,600 (Kawerau) and \$6,400 (Whakatāne).

Cumulative savings per connection comparing base case with lower, medium and higher efficiencies FY29-54 (\$ real)					
Scenario	Efficiency rate	Rotorua	Whakatāne	Ōpōtiki	Kawerau
Lower efficiencies scenario	Opex lowered to 0.5% Capex lowered to 0.6%	~\$4,150	~\$2,900	~\$1,350	~(\$250)
Medium efficiencies scenario	Opex held at 0.75% Capex lowered to 0.9%	~\$5,250	~\$4,650	~\$1,150	~\$1,150
Base Case*	Opex at 0.75% Capex at 1.2%	~\$5,600	~\$5,560	~\$1,710	~\$1,650
Higher efficiencies scenario	Opex increased to 1.0% Capex held at 1.2%	~\$6,350	~\$6,400	~\$2,650	~\$2,600

A higher level of capex efficiencies was agreed in the Base Case, reflecting the existing maturity of asset management within the participating councils. As there is greater uncertainty around the potential for capex efficiencies, we maintained the mid level of efficiencies assumptions for the operating expenditure.

* Figures have been rounded to the nearest multiple of 50; accordingly, small variances may occur compared with other figures in this presentation.



Appendix A

Modelling approach and key assumptions



Base assumptions

Assumption	Commentary	Basis of assumption / source
Financing	LGFA has indicated that for multi-council CCOs the borrowing margin would be based on the weighted average borrowing margin of the participating councils. Default weighting will be based on ownership structure per LGFA guidance.	LGFA
Inflation	Each Council will have created their FIS with potentially different inflation rates. We rely on nominal inputs and do not attempt to normalise. We will present nominal and real figures for capital and operating spend.	BERL LGCI
Governance and management costs (incremental)	Incremental governance and management costs associated with the WSCCO are assumed to be \$0.9 million p.a., from FY29. <i>The model is not sensitive to this assumption.</i>	Watercare Services Limited and council statistics
Establishment costs (one-off)	Establishment costs are assumed to be: • \$9 million for four council entity scenarios • \$8 million for three council entity scenarios This covers transition activities, including legal, commercial and other due diligence, and fit out of premises and basic IT hardware. <i>The model is not sensitive to this assumption.</i>	<i>Note: We assume that operating costs associated with establishment will be capitalised.</i>
Stormwater	Stormwater has been included for the purposes of the modelling.	Agreed by councils
Levies	Already included within each Council's WSDP	Agreed by councils
Optional price harmonisation	For the testing of price harmonisation, scenario 2 is used, with price harmonisation being phased in from year two of the entity's establishment, achieving full price harmonisation by FY34.	Agreed by councils
Establishment date	The joint WSCCO is operational from 1 July 2028 (FY29), with all councils joining at the same time.	Agreed by councils

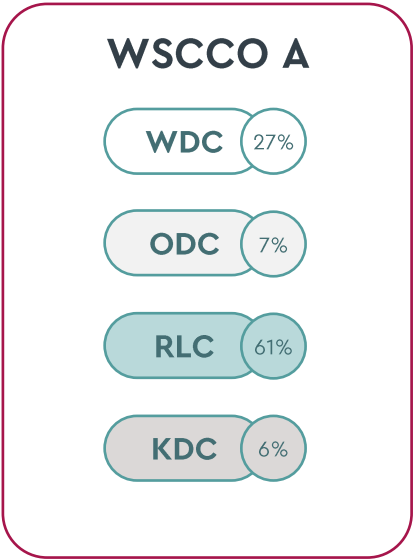


Base assumptions (allocations)

Assumption	Commentary		
Allocation of efficiencies, costs and revenues (non-harmonised)	Adjustments possible through the following →	• Connections • Population	• Net Asset value (book or replacement value)
Efficiencies have been allocated using an average of each of the options identified above. Table 1 , below, sets out the relative weightings of each measure to the participating councils.			

Table 1: Allocation methodologies

Allocation methodology	WDC	ODC	RLC	KDC
Total connections	28%	5%	61%	7%
Population	29%	8%	57%	6%
Net Asset Value	23%	7%	65%	5%
Average	27%	7%	61%	6%



30 Year inputs and assumptions

Capital expenditure

Nominal figures as provided by each Council.

Operating expenditure

Rotorua and Kawerau provided forecasts.

Projections for Whakatāne and Ōpōtiki were derived by indexing FY34 costs forward at 3% per year, and allowing 1.5% of growth capital expenditure spend as consequential opex.

Finance costs

Rotorua provided forecasts.

For Kawerau, Ōpōtiki, and Whakatāne, FY34 finance costs were rolled forward.

All new debt carries a cost of 5.25% per year.

Revenue for the 'as provided' scenario

Rotorua provided revenue forecasts.

Revenue requirements for the other three councils were calculated by setting debt : revenue at 350%, in line with the national average water debt. This level is expected to provide sufficient debt headroom for other Council activities.

Efficiencies allocation

Opex and capex efficiencies peak in FY47 at 11.7% and 18.1%, respectively. These efficiencies are allocated across the four councils based on their level of expenditure over the forecast period. Notably, capex efficiencies allocated to RLC and WDC are similar, as WDC's programme is weighted towards the later years of the assessment period, allowing it to benefit more from higher efficiency rates.

	RLC	WDC	ODC	KDC
Capex	Provided	Provided	Provided	Provided
Opex	Provided	FY34 index forward at 3% + 1.5% consequential opex	FY34 index forward at 3% + 1.5% consequential opex	Provided
Finance Costs	Provided	Forecasted based on 5.25% interest rate	Forecasted based on 5.25% interest rate	Forecasted based on 5.25% interest rate
Revenue	Provided	Calculated by MartinJenkins	Calculated by MartinJenkins	Calculated by MartinJenkins
average % of opex efficiencies allocated	53%	34%	6%	7%
average % of capex efficiencies allocated	47%	47%	3%	2%



Main adjustments to data provided

Inputs

General

Macro level inputs, applicable to all scenarios and councils

Council inputs*

Assumptions for each individual council (FIS statements, expenditures, debt etc.)

FIS adjustments*

Adjustments applied to the FIS, over the base FIS information supplied

Delivery model adjustments

Adjustments applied to reflect the combined entity impacts

Scenarios

Scenarios agreed by councils

**Denotes council supplied information*

For the 30 year forecast we have applied the assumptions noted in 30 Year inputs and assumptions slide. In addition some adjustments include:

Whakatāne District Council

- In the initial information provided, water services utilised a significant portion of Council's remaining debt headroom. In the event of unforeseen circumstances, Council will have limited means of responding. As an alternative, MartinJenkins have modelled an in-house 3W business unit targeting a debt-to-revenue ratio of 350%, which is more consistent with the approach taken by many other councils in their WSDPs.

Ōpōtiki District Council

- Adjustment to finance costs to reflect the appropriate interest rate.



Efficiency assumptions for different entity permutations

It is necessary to adjust the efficiency assumptions for 3-council scenarios because of the different size and density of the different service areas. In particular, we note that Rotorua brings both population size and urban density to the WSCCO, which can be expected to translate into greater scope for efficiency benefits, relative to a scenario (WSCCO B) where Rotorua is excluded.

	WSCCO A (all four councils)	WSCCO B (WDC, KDC, ODC)	WSCCO C (RLC, WDC, ŌDC)
Characteristics			
No. of councils	4	3	3
Population (2023 census)	~129,000	~55,000	~121,000
Proposed assumptions			
Opex efficiencies p.a.	0.5% – 1.0% 0.75%	0.2% - 0.4% 0.3%	0.4%-0.9% 0.65%
Capex efficiencies p.a.	0.6% - 1.2%	0.25% - 0.5%	0.5%- 1.1%
Efficiency ramp	Efficiencies begin to develop two years after establishment, continuing to build over the next two years and will compound over time. The efficiency frontier is reached 15 years later.		
Efficiencies by FY34	2.6% opex and 4.1% capex	1.0% opex and 1.7% capex	2.3% opex and 3.8% capex
Efficiencies by FY47	11.7% opex and 18.1% capex	4.8% opex and 7.5% capex	10.2% opex and 15.8% capex

The above efficiencies represent a MartinJenkins view of reasonable efficiency assumptions that could be applied to support financial assessment of alternative options. These represent professional judgments based on an examination of international experience. Further information on the evidence supporting efficiency benefits is contained in Appendix E. Note the above efficiency parameters apply only to operating costs (excluding depreciation and finance costs) and after adding establishment and incremental operating costs.



Appendix B

3-District WSCCO Scenarios



Entity permutations

As a sensitivity test, we were asked to test the sensitivity of the financial assessment under two additional 3-council WSCCO scenarios:

- WSCCO B presents a scenario where Rotorua District Council (the largest council by asset value) does not participate*
- WSCCO C presents a scenario where Kawerau District Council (the smallest council by asset value) does not participate*

The establishment cost and efficiency assumptions vary for each of the permutations modelled, and are documented in Appendix E.

WSCCO A

WDC

ŌDC

RLC

KDC

WSCCO B

WDC

ŌDC

KDC

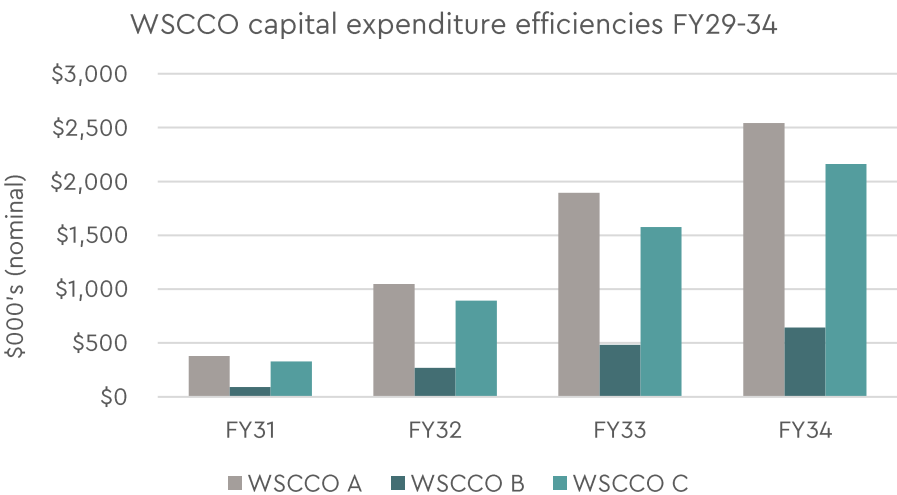
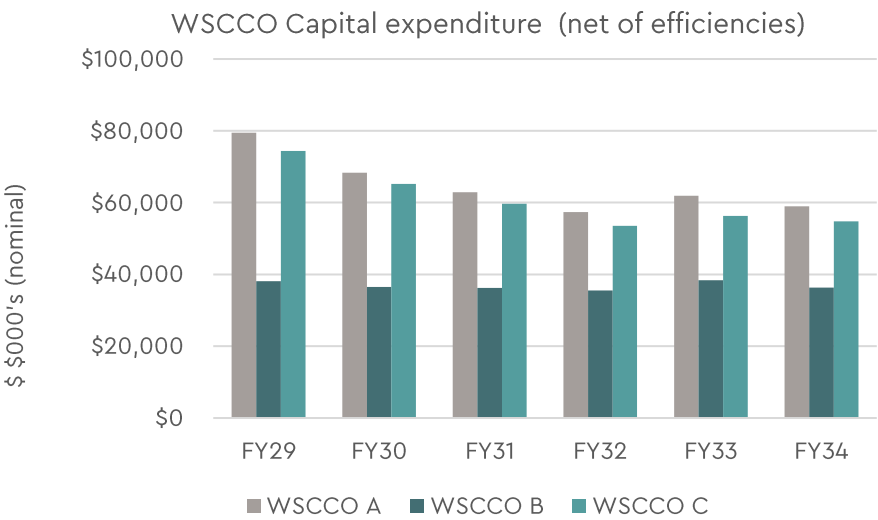
WSCCO C

RLC

WDC

ŌDC

Capital Expenditure



WSSCO B (excluding Rotorua)

Capital expenditure under WSSCO B between FY29–34 is projected to reach approximately \$220 million. Through targeted efficiencies growing at 0.5% per year, WSSCO B would deliver the same level of investment for approximately **\$1.5 million less** than current council arrangements, while also lowering costs for consumers.

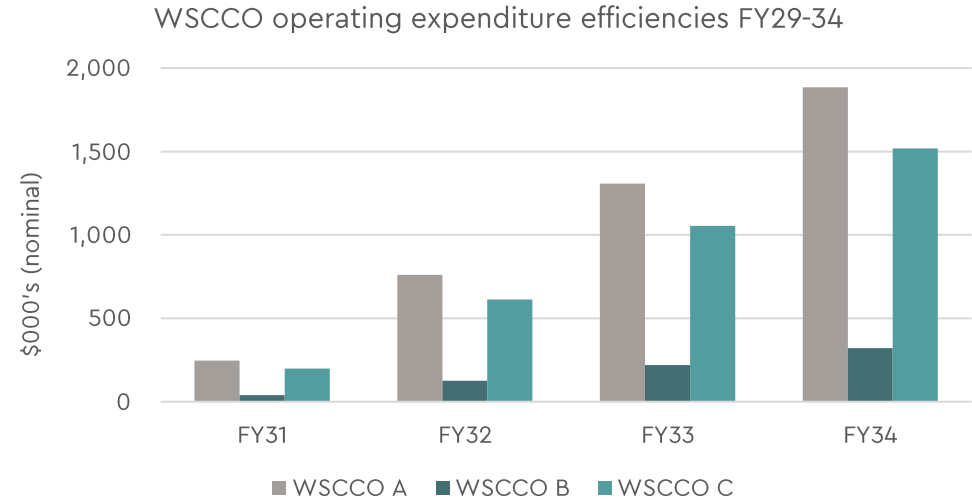
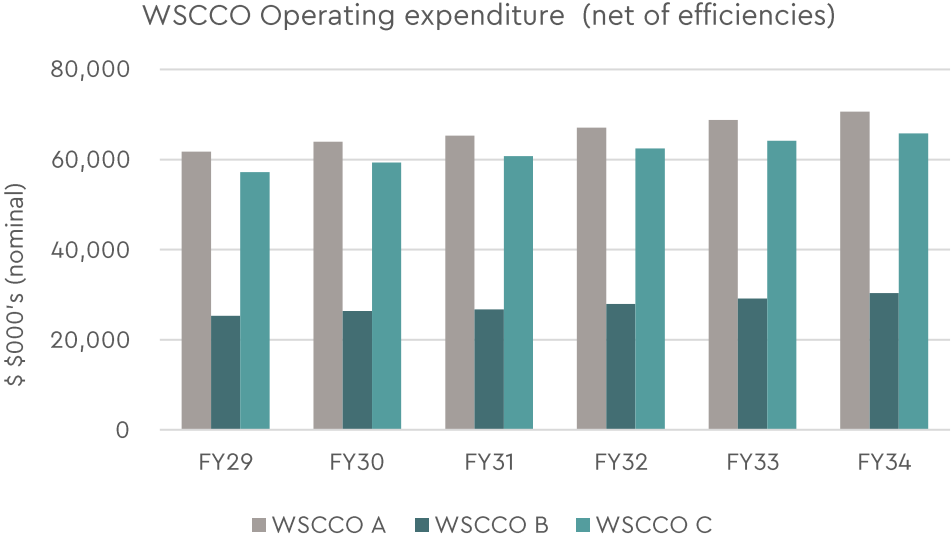
WSSCO C (excluding Kawerau)

Over the same FY29–34 period, WSSCO C’s capital expenditure is estimated at approximately \$360 million. The WSSCO C would provide the same level of investment at a cost around **\$4.9 million lower** than existing council arrangements, with efficiencies growing at 1.1% per year.

WSSCO scenario	Total capex including efficiencies (FY29-FY34)	Capex efficiencies (FY29-FY34)
WSSCO B	~\$220 million	~\$1.5 million
WSSCO C	~\$360 million	~\$4.9 million
WSSCO A	~\$388 million	~\$5.8 million



Operating Expenditure



Operating expenditure

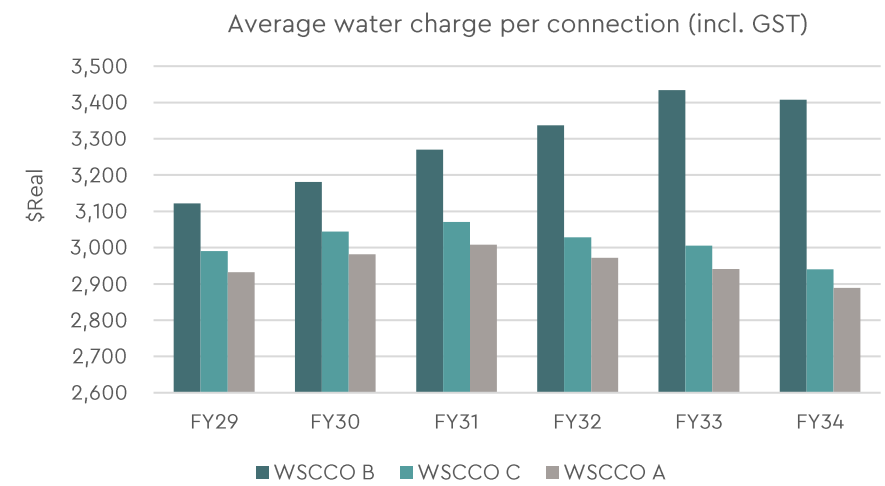
Projected operating expenditure for WSSCO B across FY29-34 totals approximately \$165 million, yielding around \$0.7 million in efficiencies (0.4%). Under WSSCO C, the operating expenditure forecast is ~\$370 million, generating \$3.4 million in efficiencies (0.9%).

WSSCO C delivers greater absolute savings than WSSCO B due to its larger expenditure base, but these remain below those of WSSCO A, which includes all four councils and achieves efficiency levels of approximately \$4.1 million (1.1%).

WSSCO scenario	Total opex including efficiencies (FY29-FY34)	Opex efficiencies (FY29-FY34)
WSSCO B	~\$165 million	~\$0.7 million
WSSCO C	~\$370 million	~\$3.4 million
WSSCO A	~\$395 million	~\$4.1 million



Comparative price paths



Water charges per connection

Total connection count is a key input when assessing options. A larger consumer base reduces per user costs because the additional operating costs of a WSCCO are spread across a wider base. Dense urban areas also reduce unit costs, increasing the level of operating cost efficiency that can be achieved.

As such, prices for consumers in WSCCO B (which excludes Rotorua) are forecast to result in the highest prices across the various permutations.

Due to WSCCO C having a population only 7,700 less than WSCCO A, consumers are expected to see prices only marginally higher than WSCCO A but significantly lower than WSCCO B.

The results shown in the graph reflect a harmonised pricing strategy. However, similar percentage changes would be expected for consumers in the individual districts under a Cost to Serve approach.

WSCCO scenario	Indicative water charge per connection in FY34 (\$real)	Indicative total water charge per connection FY29-34 (\$real)
WSCCO B	~\$3,410	~\$19,750
WSCCO C	~\$2,940	~\$18,080
WSCCO A	~\$2,890	~\$17,725

Appendix C:

30 Year Capital and Operating expenditure per council



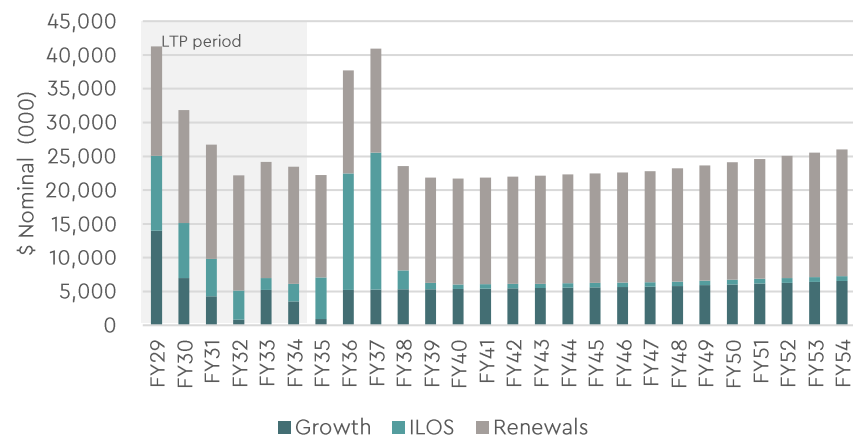
Capital expenditure



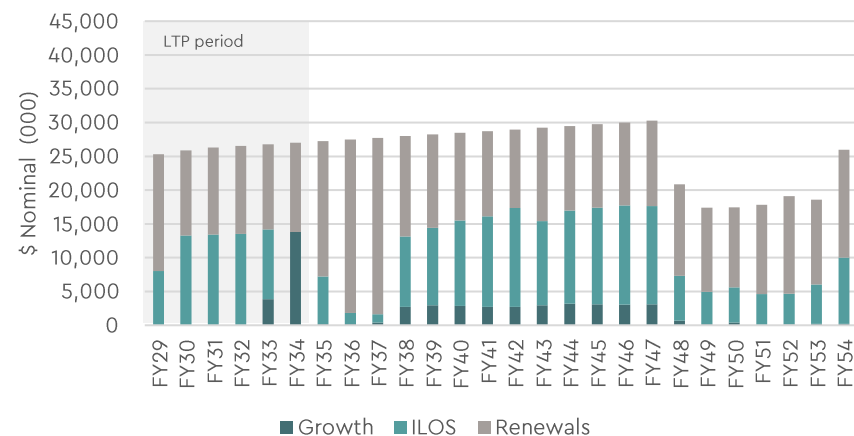
Projected Capital Expenditure (including efficiencies)

The following data was supplied by councils based on their 30-year infrastructure strategies.

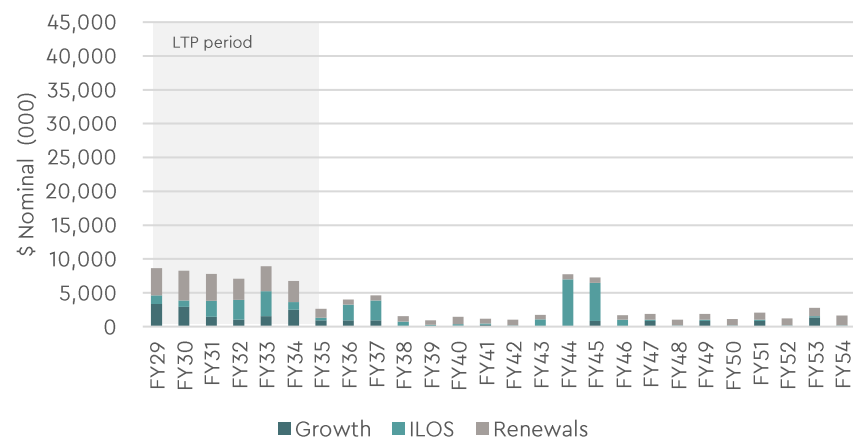
Rotorua - Three Waters Capital Expenditure (FY29-54)



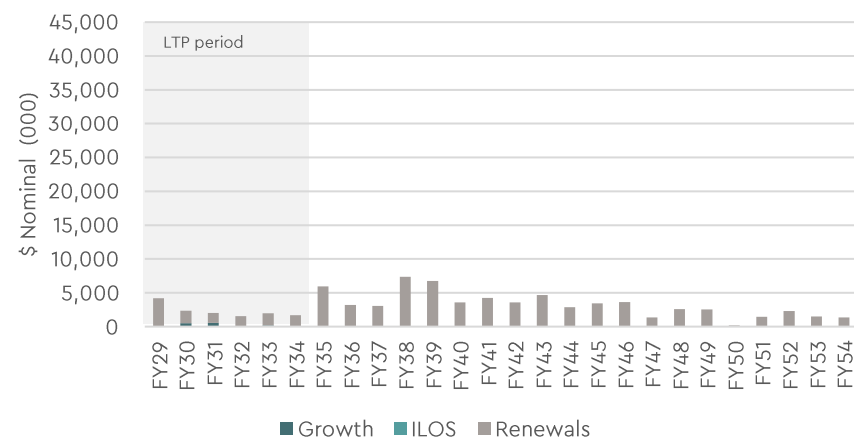
Whakatāne - Three Waters Capital Expenditure (FY29-54)



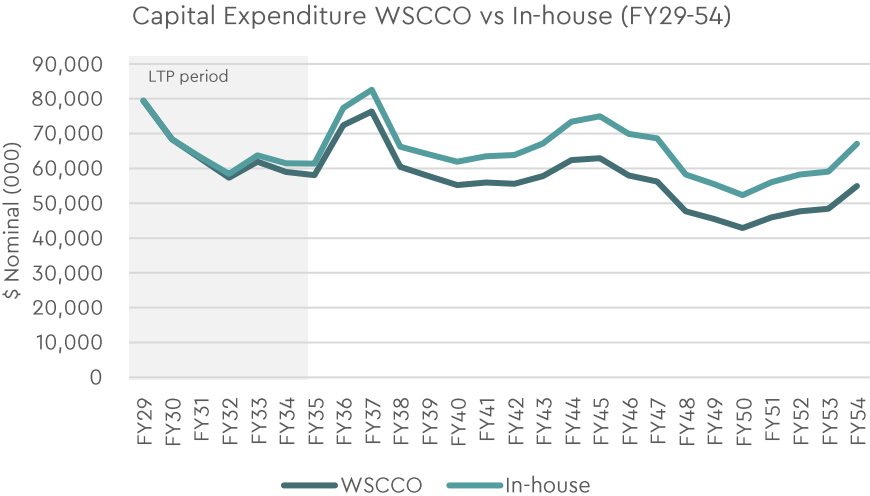
Ōpōtiki - Three Waters Capital Expenditure (FY29-54)



Kawerau - Three Waters Capital Expenditure (FY29-54)



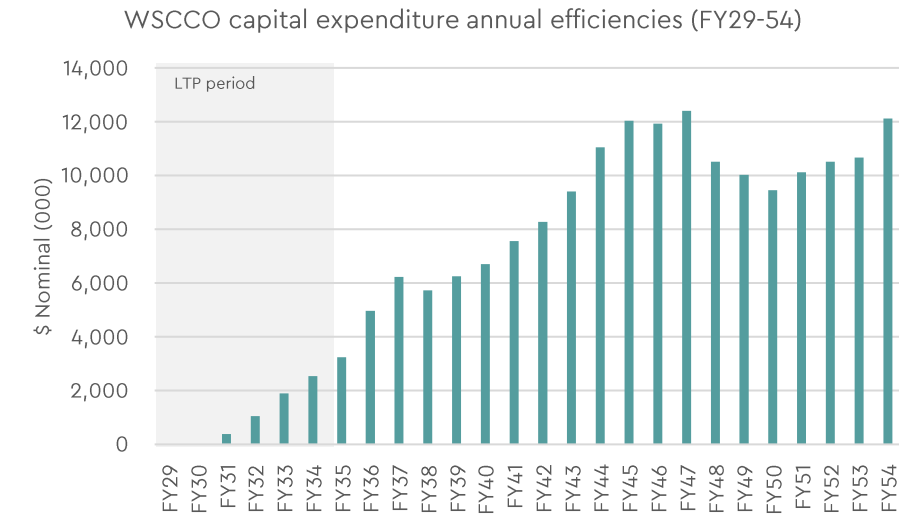
Projected Capital Expenditure WSCCO vs In-house



Capital expenditure benefits of the WSCCO

The WSCCO is forecast to be able to deliver the capital expenditure programme for ~\$1.5 billion over 30 years, which is about ~ \$185 million, or around 11%, lower than the existing plans of ~\$1.7 billion due to efficiencies.

Efficiency benefits are expected to commence in FY31, accumulate progressively, and peak at 18.1% in FY47. These savings are assumed to be sustained at FY47 levels.



	Total capex including efficiencies (FY29-FY54)	Capex efficiencies (FY29-FY54)
WSCCO scenario	~\$1,510 million	~\$185 million
In-house	~\$1,695 million	N.A.

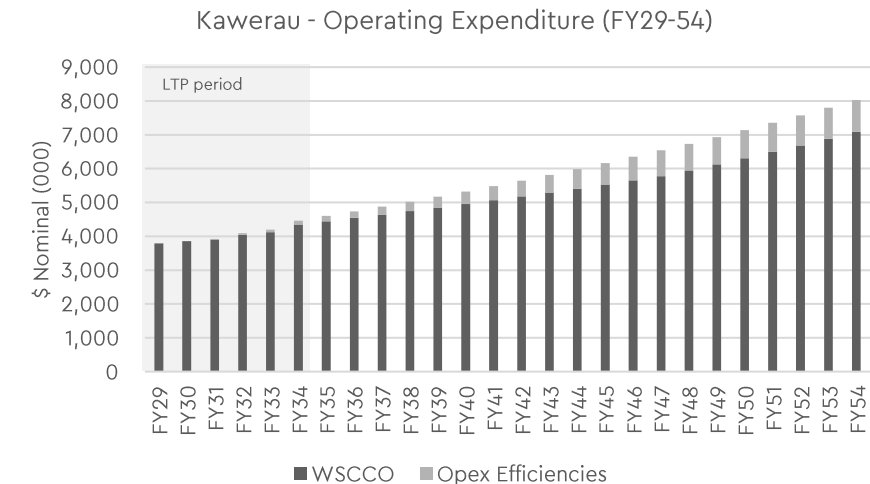
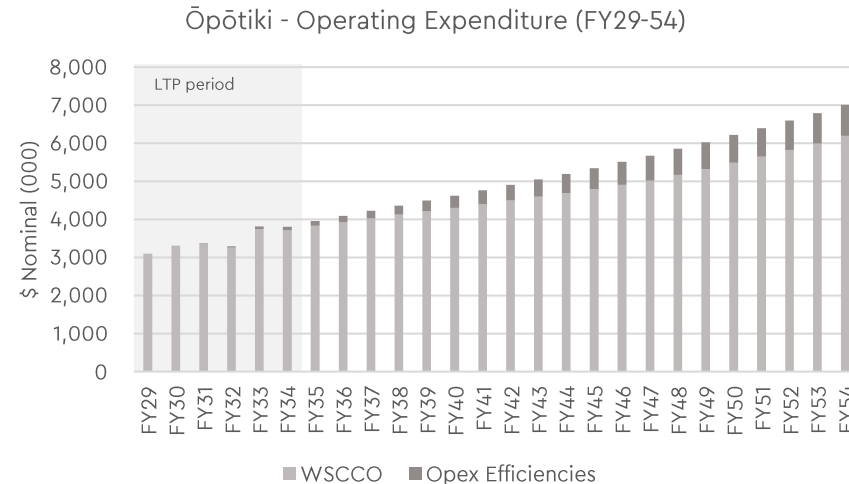
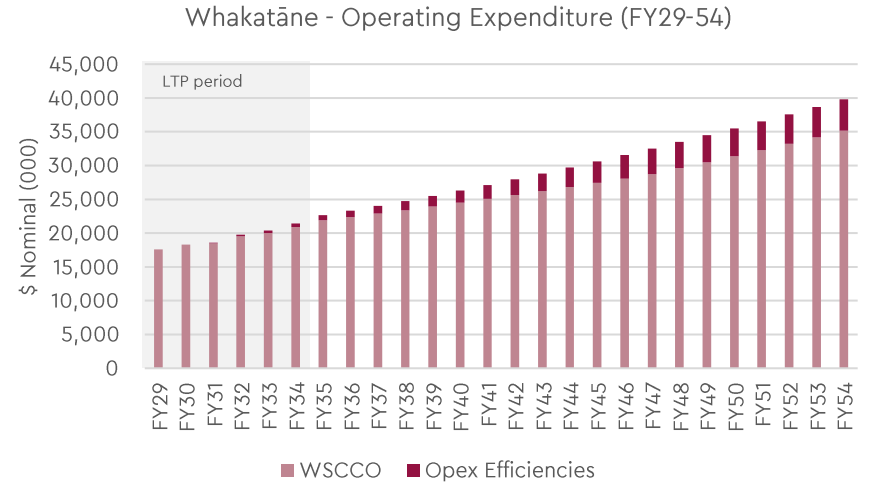
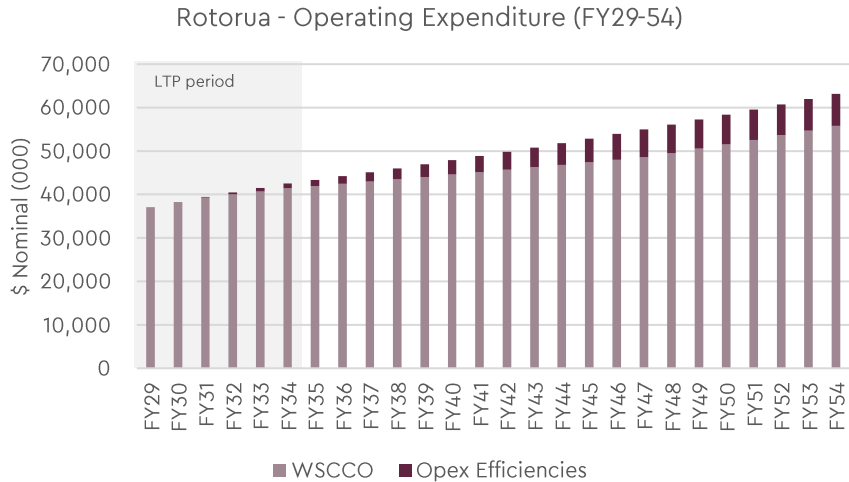


Operating expenditure



Projected Operating Expenditure (including efficiencies)

Data for the period FY29 – FY34 is supplied by councils and then modelled from FY25 onward.



Appendix D

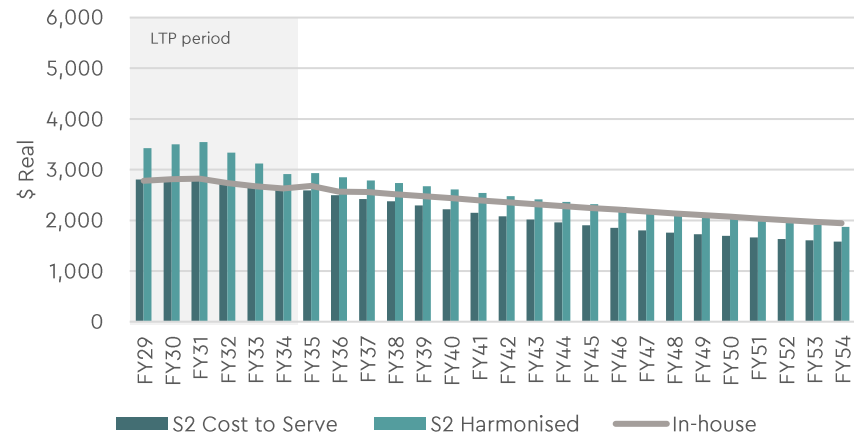
Harmonised Price



Comparative harmonised price path

We were asked to model a harmonised price path for illustrative purposes. The following charts illustrate the results for each council.

Rotorua - Average charges per connection (\$ per annum)



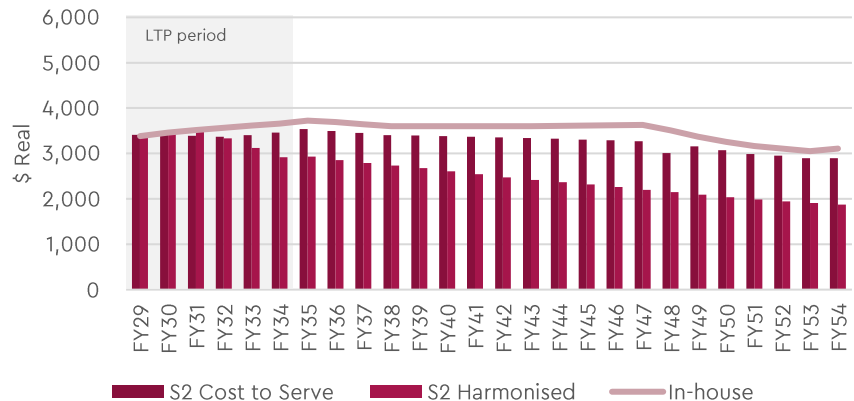
Water charges per connection

A price-harmonised WSCCO would result in total cumulative charges higher than both the cost-to-serve and in-house scenarios for Rotorua's customers. Under a harmonised pricing model, the efficiency gains achieved through consolidation do not fully offset the other districts' higher costs to serve.

In real terms, on average over the period, Rotorua's customers would pay \$190 more per year under a harmonised scenario than under an in-house scenario. A harmonised pricing model is expected to result in lower prices than the in-house model by about FY50.

If efficiencies were shared in different proportions across the four districts, it is possible that this price disadvantage could be offset under a price harmonised scenario.

Whakatāne - Average charges per connection (\$ per annum)



Water charges per connection

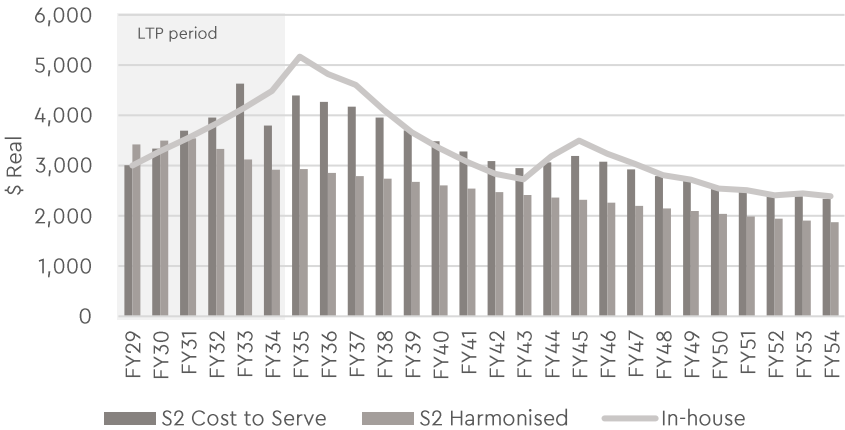
Whakatāne consumers would benefit from a WSCCO under both the harmonised and cost-to-serve scenarios.

On average over the assessment period, under a harmonised model a Whakatāne customer would pay \$920 less per year compared to in-house, delivering cumulative savings of approximately \$23,925 per connection between FY29 and FY54.



Comparative harmonised price path

Ōpōtiki - Average charges per connection (\$ per annum)

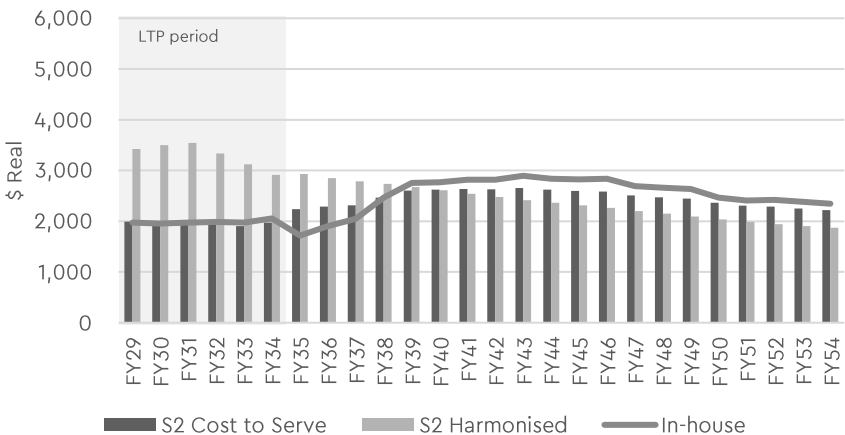


Water charges per connection

Over the period, Ōpōtiki consumers benefit under both the harmonised and cost-to-serve scenarios.

On average over the assessment period, under a harmonised model, an Ōpōtiki customer would pay \$790 less per year than under an in-house scenario, delivering cumulative savings of approximately \$20,435 per connection between FY29 and FY54.

Kawerau - Average charges per connection (\$ per annum)



Water charges per connection

A price-harmonised WSCCO would result in higher charges than both the cost-to-serve and in-house scenarios for Kawerau's customers.

Kawerau's harmonised price is initially higher than in-house, but consumers are expected to have lower water charges by the end of the period. The harmonised price would initially be up to \$1,550 higher in FY29, but by FY54 it would be \$470 lower.

On average over the assessment period, under a harmonised model, a Kawerau customer would pay \$168 more per year than under an in-house scenario.

If efficiencies were shared in different proportions across the four districts, it is possible that this price disadvantage could be offset.



Appendix E

Additional information on efficiencies



Evidence base to support efficiency assumptions

Significant improvements in efficiency have been achieved in overseas jurisdictions that have pursued reform of a similar nature to that proposed in New Zealand. For example:

Productivity Commission

- In Australia, the Productivity Commission found that service delivery reform has helped to improve efficiency and deliver significant benefits for water users and communities. [National Water Reform - Draft Report \(pc.gov.au\)](https://www.pc.gov.au/reports/industrial/water-reform-draft-report)

Frontier Economics

- In its review of the experience with water services aggregation in Australia, Great Britain, Ireland and New Zealand (Auckland) finds that there is "strong and consistent evidence" that reforms have led to significant improvements in productivity and efficiency. [Review of experience with aggregation in the water sector \(dia.govt.nz\)](https://www.dia.govt.nz/publications/review-of-experience-with-aggregation-in-the-water-sector)

FarrierSwier

- In its review of WICS methodology, FarrierSwier commented on the potential that exists for efficiency gains from amalgamating water services in New Zealand and notes significant improvements are possible through aggregation and associated reforms, including improving the ability to attract and retain skilled management and staff, more effective procurement functions, asset level optimisation and reduction in corporate overheads and duplicative functions. [Farrierswier - Three Waters Reform Programme - Review of WICS methodology and assumptions underpinning economic analysis of aggregation - 2 May 2021 \(dia.govt.nz\)](https://www.farrierswier.co.uk/reports/waters-reform-programme-review-of-wics-methodology-and-assumptions-underpinning-economic-analysis-of-aggregation-2-may-2021)

- In an independent review of the Essential Services Commission's PREMO regulatory model in Victoria, Australia, FarrierSwier found that water companies set efficiency targets through its 2018 Price Review ranging from 1.0% p.a. to 2.7% p.a. (averaging 1.8% p.a. across 15 regulated water authorities). While all but two companies delivered reductions in controllable opex per connection, the actual opex savings reported were lower than the target (ranging from 2.2% to -0.2% and average 0.9% p.a.) [Victoria's water sector: The PREMO model for economic regulation](https://www.vic.gov.au/victoria-water-sector-premo-model-economic-regulation)

WICS

- WICS reports that Scottish Water has been able to reduce its operating costs by over 50% since reform, while improving levels of service to customers and absorbing the new operating costs associated with its investment programme. [WICS Supporting Material 2 - scope for efficiency \(dia.govt.nz\)](https://www.dia.govt.nz/publications/wics-supporting-material-2-scope-for-efficiency)

UK Water Trade Association

- A report for the United Kingdom water trade association found that reform of the water industry in England resulted in annual productivity growth of 2.1% or 64% over 24 years when adjusted for service quality improvements. [Water-UK-Frontier-Productivity.pdf](https://www.water-uk-frontier-productivity.pdf)



The Victorian model is a strong example of driving greater focus on customer, and driving cost efficiencies and reducing customer bills

In the mid-1990s, Victoria's water industry underwent significant restructuring. The provision of water services was largely corporatised, so that over 80 water providers became 20. This reform had an impact on the price consumers pay for water, as well as the terms of service delivery. As part of the restructuring process (in conjunction with the privatisation of the energy industry), the Kennett Government established the Office of the Regulator-General, which later became the ESC. On 1 January 2004, the ESC became the economic regulator for all water businesses in Victoria.

In the State of Victoria in Australia, the Essential Services Commission makes individual price determinations using its PREMO framework for four metropolitan water businesses (South East Water, Yarra Valley Water, Greater Western Water, Melbourne Water) and 11 regional urban water authorities (Barwon Water, Central Highlands Water, Coliban Water, East Gippsland Water, Gippsland Water, Goulburn Valley Water, Lower Murray Water (urban), North East Water, South Gippsland Water, Wannon Water and Westernport Water). These entities range in size, from 20,000 customers (Westernport Water) to 2 million customers (Yarra Valley Water).

There is strong evidence that regulation under the PREMO regime, combined with well governed and managed water businesses, led to a much greater focus on their customers and improved customer outcomes (see two independent reviews by FarrierSwier of the PREMO model on the Essential Service Commission's website). Under the PREMO framework, water businesses are required by the regulator to commit to a range of customer outcomes and associated performance measures and targets as part of their price submissions.

The PREMO model in Victoria has been effective in incentivising water businesses to pursue cost efficiencies and minimise prices for customers. Water businesses' opex efficiency improvement targets averaged 1.3% in the 2023 price review. This is lower than the 1.8% average opex efficiency hurdle in the 2018 price review, but higher than the standard 1.0% rate the commission applied prior to the introduction of PREMO.

The lower efficiency hurdles in the 2023 price reviews reflects the view that Victorian water businesses are now operating close to the 'efficient frontier' following years of regulation.



Analysis of Victorian utilities demonstrates potential deliverable efficiencies may improve with scale

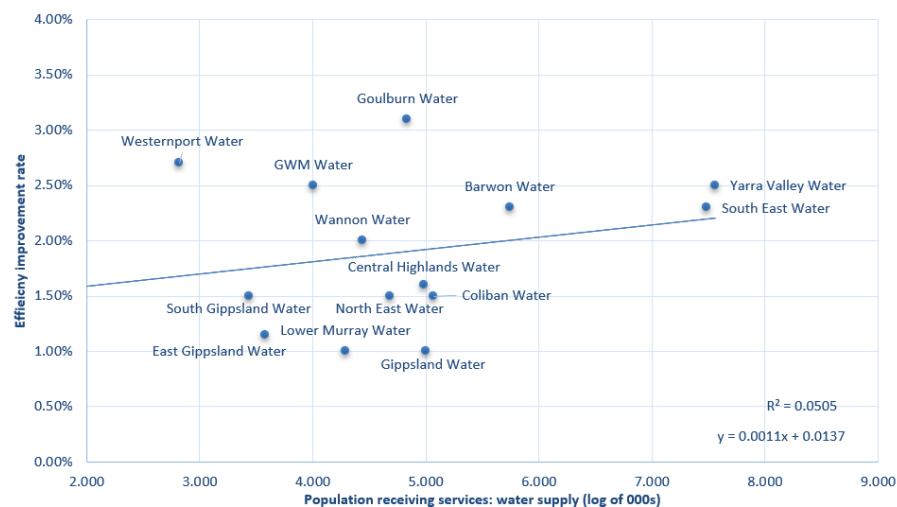
While actual performance data across Victorian utilities is limited and inconsistent (discussed on the next slide), analysis of regulatory efficiency targets (hurdles) provides valuable insights into the relationship between scale and expected improvements.

We have analysed the efficiency improvement hurdle imposed by or agreed with the Essential Services Commission in Victoria for each of the price reviews in 2018 and 2023 against scale (measured by population served).

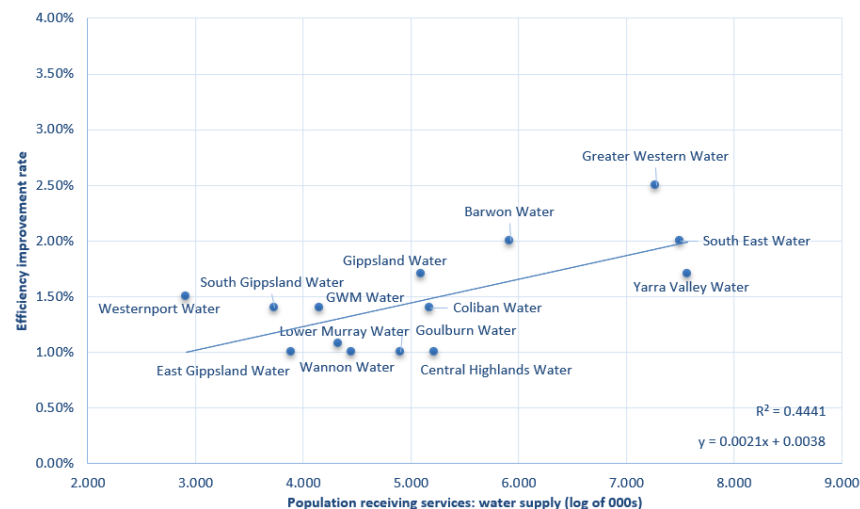
The analysis highlights a clear relationship in the 2023 price review where larger entities were set a higher efficiency improvement hurdle for the ensuing five years. Larger entities were set efficiency hurdles of 1.5 – 2.5% per annum despite already being regulated for over 15 years.

The relationship in the 2018 price review is less clear (largely driven by a number of smaller entities with efficiency improvement hurdles of 2.5 – 3.0%), reflective of a greater weighting on industry-wide catch-up efficiency. The larger entities in this price review were still set efficiency targets of approximately 2.5% per annum for the ensuing 5 years. We also note that most entities serving 200,000 or less population (5.3 on X-axis) were set targets of 1 – 1.5% in both price reviews.

2018 efficiency improvement rate to population receiving services



2023 efficiency improvement rate to population receiving services



Source: Essential Services Commission, Victoria Water Price Reviews 2018 and 2023



The Australian national performance report does not measure efficiency however average operating expenditure per property can be analysed

This analysis captures all Australian water utilities however does not track actual efficiency improvement and as such is only intended to be used for verification rather than in determining the efficiency opportunity purposes. We note that inferences from this data should be undertaken with caution given the limited sample size in each category (shown below graph) and the numerous factors influencing operating costs per property. External variables such as geographic dispersion, water sources, treatment requirements, growth impacts and infrastructure delivery methods make comparisons challenging (despite averaging approach).

Operating costs vary significantly by utility size

Major utilities (100,000 plus connections) consistently demonstrate the lowest operating costs per property (around \$900–1,000) likely partly due to economies of scale as well as higher density.

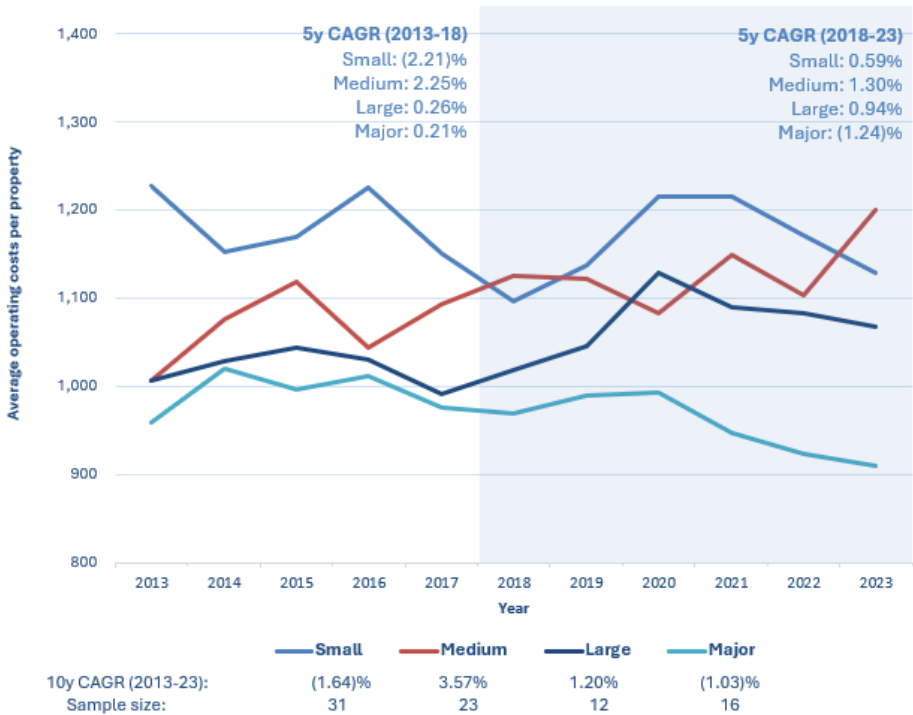
10-year horizon highlights benefit of scale

Major utilities annualised growth over the period 2013 – 2023 outperformed large and medium utilities by 2.2% and 4.6% respectively. Small utilities average operating cost per property reduced by more than the major utilities however off a substantially higher base.

Dataset highlights variability over time

We note there are limited differences between medium, larger and major utility cost per property changes in the first five-year period (2013 – 2018) with all of the differential occurring in the second five-year period (2018 – 2023). The small utility dataset shows an irregular pattern over time.

Australian Average Opex per Property by Corporation Size



Source: Urban NPR Dataset 2023
 Note: four outliers with extreme operating costs per property have been removed from the Small utility group dataset.
 Note: CAGR stands for 'Compound Annual Growth Rate', which is the cumulative average annual growth rate over the period.

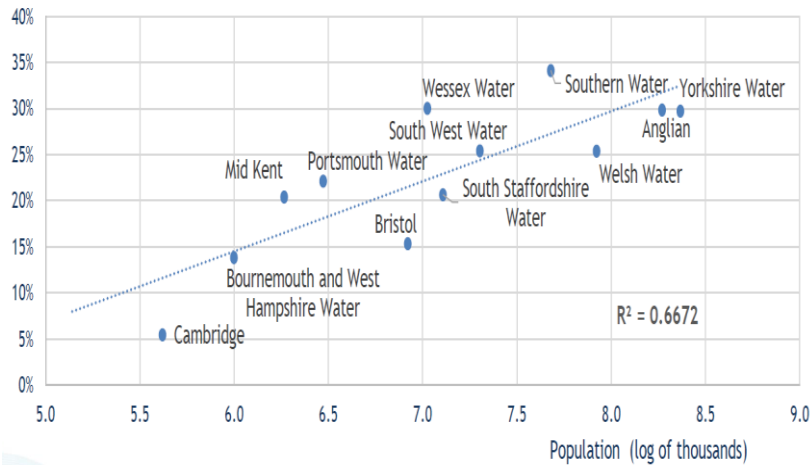
Small	Medium	Large	Major
Less than 20,000 connected properties	Between 20,000 and 50,000 connections	Between 50,000 and 100,000 connections	Over 100,000 connections

WICS compared efficiency for different scale UK water utilities following corporatisation, and used this to inform estimates for NZ councils

Water Industry Commission for Scotland (WICS) undertook analysis of the observed operating efficiency improvement for the different UK entities over a six-year period commencing with corporatisation (between 1994 and 1996) relative to the population served. In terms of quantifying the gains, the evidence indicates a non-linear relationship between scale (measured as population size or number of connections) and potential efficiency (see graph below). The WICS models are based on models developed by Ofwat and have been in use for 20+ years in England, Wales and Scotland.

There are diminishing returns to scale, with maximum scale reached with a connected customer base of 600,000-800,000. For councils below 60-70,000 population there is minimal scope for efficiency gains. This is consistent with management theory, whereby small entities are unable to achieve high levels of asset management maturity, procurement gains etc. WICS utilised the below to estimate efficiency gains for different scales of entity. WICS reduced the potential efficiency gains by a factor of 5 for scenarios where economic regulation, strong corporate governance and clear policy objectives were considered not present.

WICS calculated improvement in efficiency (over 6-year period following corporatisation) for UK water utilities and assessed catch-up potential for NZ



Source: Water Industry Commission for Scotland

The table above shows the estimated potential efficiency improvement (%) that each NZ council could achieve relative to Watercare (i.e., New Zealand's most efficient water company), based on the observed efficiency improvements of similar-sized UK water utilities in their first 6 years following corporatisation.

Council Area	LGNZ classification	Population served (thous)	Log of population	Assessed catch-up based on observed experience
Auckland	Metro	1,758	7.47	100%
Christchurch	Metro	385	5.95	55.1%
Wellington City	Metro	223	5.41	38.9%
Hamilton	Metro	162	5.09	29.6%
Tauranga	Metro	143	4.97	25.9%
Dunedin	Metro	121	4.80	21.0%
Palmerston North	Metro	89	4.49	11.8%
New Plymouth	Provincial	64	4.16	2.0%
Hastings	Provincial	64	4.15	1.9%
Upper Hutt	Metro	63	4.14	1.6%
Rotorua Lakes	Provincial	62	4.13	1.3%
All other Councils		<60	4.1	0%

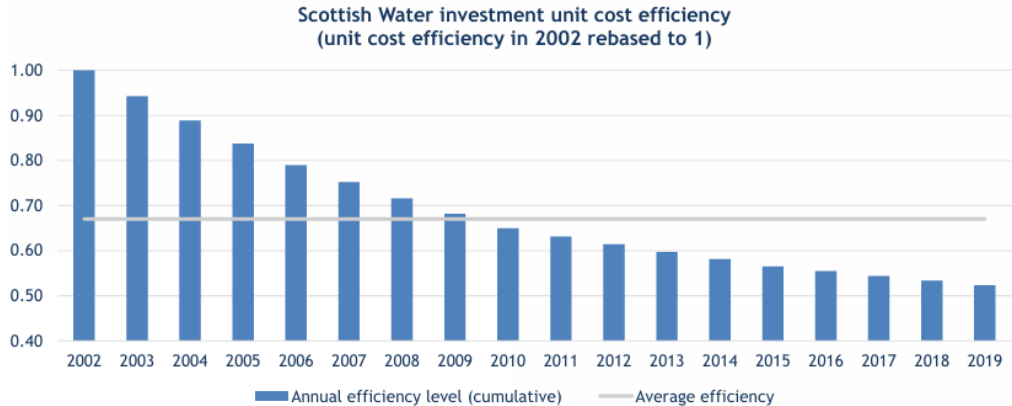


The capital efficiency evidence base is less robust due to information scarcity. WICS utilised the capital efficiency achieved in Scotland reforms to estimate potential efficiency deliverable in NZ

There is limited international information readily available that enables a robust estimate of the potential capital efficiency gains possible from water reform in New Zealand. This reflects a lack of investment unit cost efficiency reporting which is necessary to ensure capital efficiency can be identified (as opposed to capital expenditure deferral or other driving factors).

WICS are the economic regulator for Scottish Water under a detailed and comprehensive economic regulation model. As such WICS have a detailed understanding of the Scottish Water investment unit cost efficiency over time. This information is presented below and highlights that as a result of reform, Scottish Water achieved approximately 45-50% lower capital expenditure unit costs between 2002-2019. WICS also noted that Scottish Water had recently committed to achieving further 0.75% real improvements in capital expenditure unit costs annually until 2040 suggesting significant further long-term efficiency gains were possible.

WICS considered that under the previous NZ water reform model (including necessary scale, professionalisation of Boards / governance and strong-form economic regulation) that NZ entities could achieve similar improvements. WICS worked closely with Watercare (and other councils) to understand potential differences between NZ and Scotland that would limit the potential capital efficiency achievable and edit efficiency targets to account for these differences.



Source: Water Industry Commission for Scotland

FarrierSwier in reviewing the WICS approach noted that:

- While this represents a reasonable starting point the analysis suffers from several limitations, including that Scottish Water's experience could differ markedly from what may be achievable in New Zealand.
- The top-down efficiency assumption was also not adjusted to account for differences between Scotland and New Zealand in key expenditure drivers, potential for asset optimisation and any other driving factors.
- Without such adjustments or comparison to other case studies, it is hard to say whether the Scottish Water experience is a reasonable guide for what is achievable in New Zealand.

As such we believe it is prudent to use a significantly more conservative capital efficiency assumption (relative to WICS) and vary this less with increasing scale. We can provide further detail on our professional judgement of the expected capital efficiency opportunities if useful.





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