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Improved options for Three Waters reform

Report to Communities for Local Democracy

JANUARY 2022

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Executive summary—part 1

There is a case for change—very clear problems in some localities with three waters regulation, investment and delivery

Critical wellbeing issue—local and central government, mana whenua and communities share the same objectives

Reform process has been flawed—premature selection of “mega model” without properly considering available evidence and alternatives

Credible alternative models deserve analysis—local authorities are now providing this constructive assistance

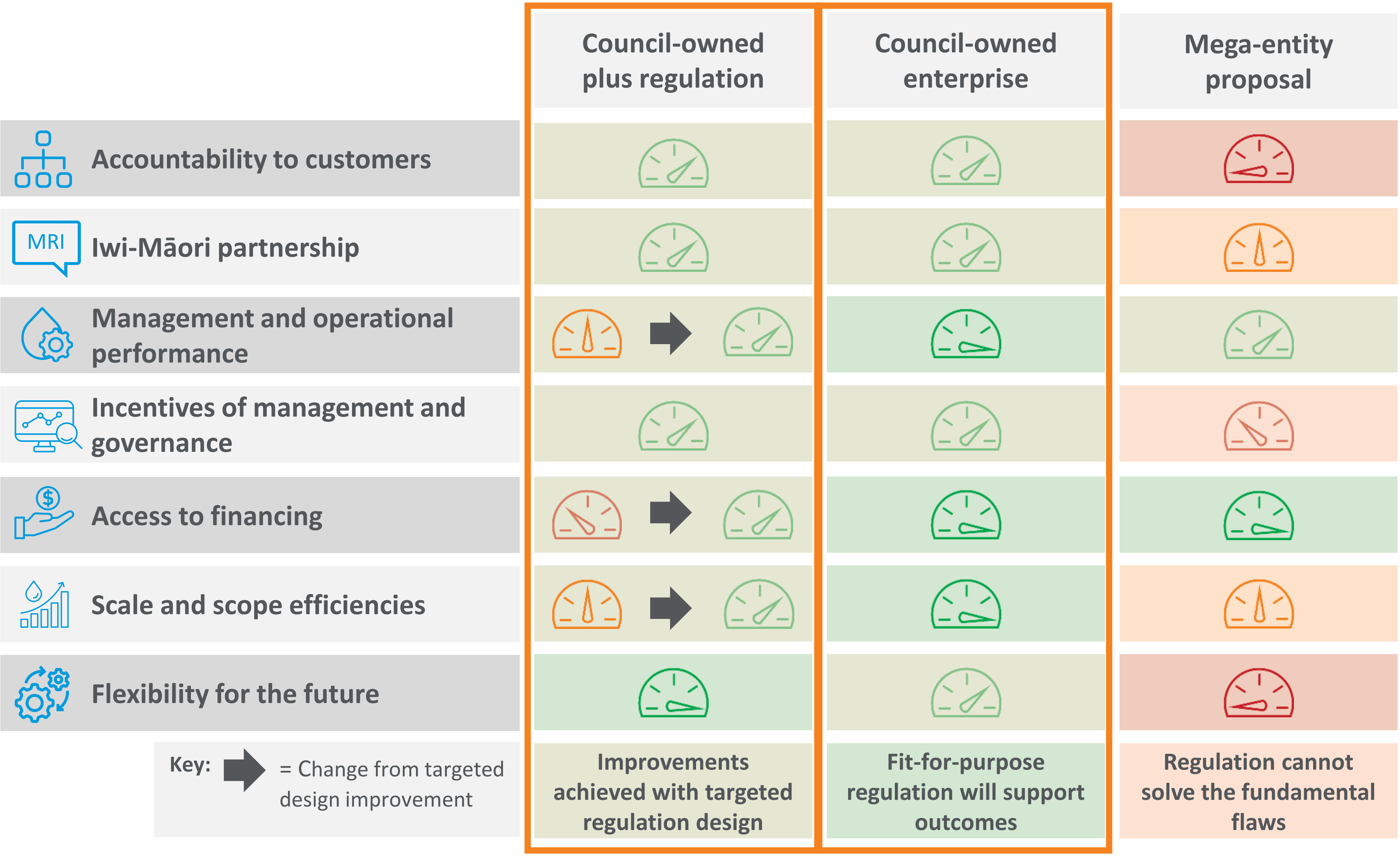
Executive summary—part 2

Castalia's assesses alternative models against neutral criteria—
already accepted by Joint Steering Committee

Castalia reviewed three models across a spectrum—all assume:

- Robust regulatory framework, with "backstop"
- Raised water quality, environmental and financial performance standards
- Good faith, facilitative role of central government

Executive summary—Evaluation results



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Shared objectives for Three Waters reform

Local government's objectives are consistent with the government's:

- Provide safe water services
- Iwi/Māori outcomes improved
- Lift resilience and reliability
- Ensure water service provision and tariffs are fair
- Improve customer responsiveness
- Services at least cost
- Improve environmental outcomes

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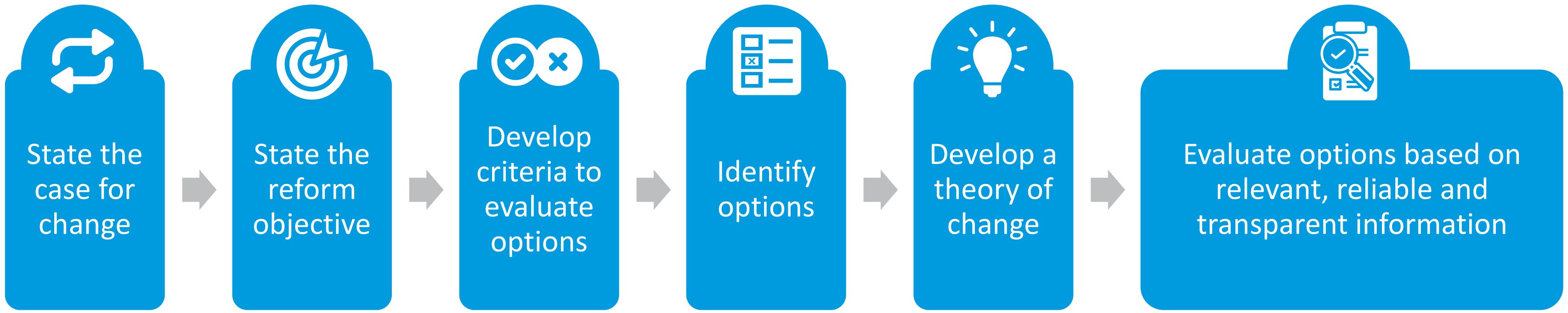
Major policy change deserves proper process

Water services are critical to wellbeing

It is important to carry out a proper policy process with agreed objectives which **fairly** assesses available options using relevant, reliable and transparent information

Standard policy process:



Unfortunately, standard policy process has **not been followed**. A preferred entity design was chosen before options properly identified and evaluated.

Evaluation criteria for water reform options

Local government provided neutral evaluation criteria that Joint Steering Committee had no objections to (expanded in Appendix B):

- Is the water delivery service **accountable to customers?**
- Will the reform option **improve iwi-Māori partnership**
- Does the option **improve competence of management and operations?**
- Are the **incentives of management and governance aligned** with objectives?
- Are providers able to **reliably raise the finance** needed for investment?
- Does the option achieve **economies of scale and scope?**
- Will the option be **flexible and adapt to change and new information?**

- See: Castalia (2020), Parameters for Parameters for Evaluating Aggregated Water Service Delivery Models, released by LGNZ

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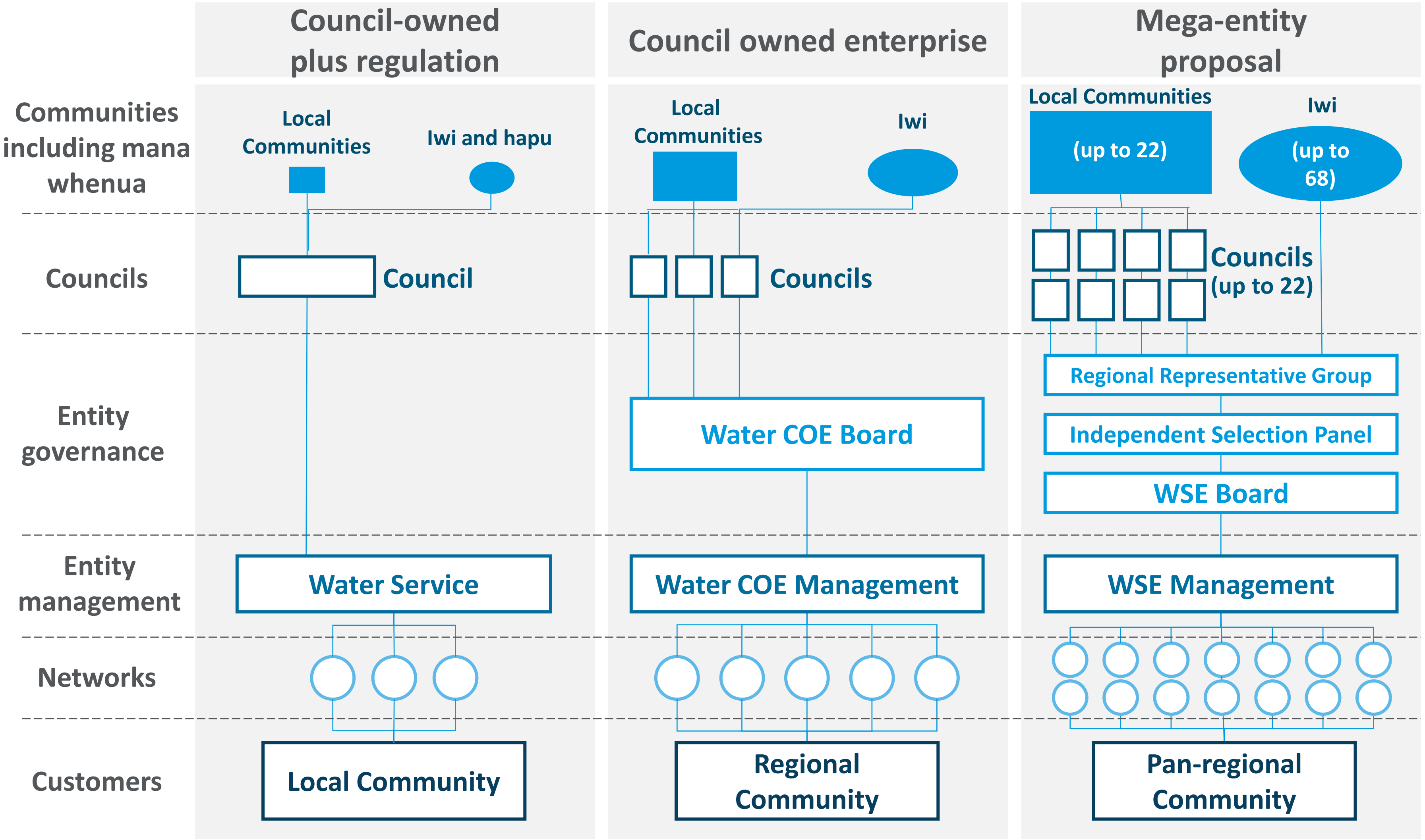
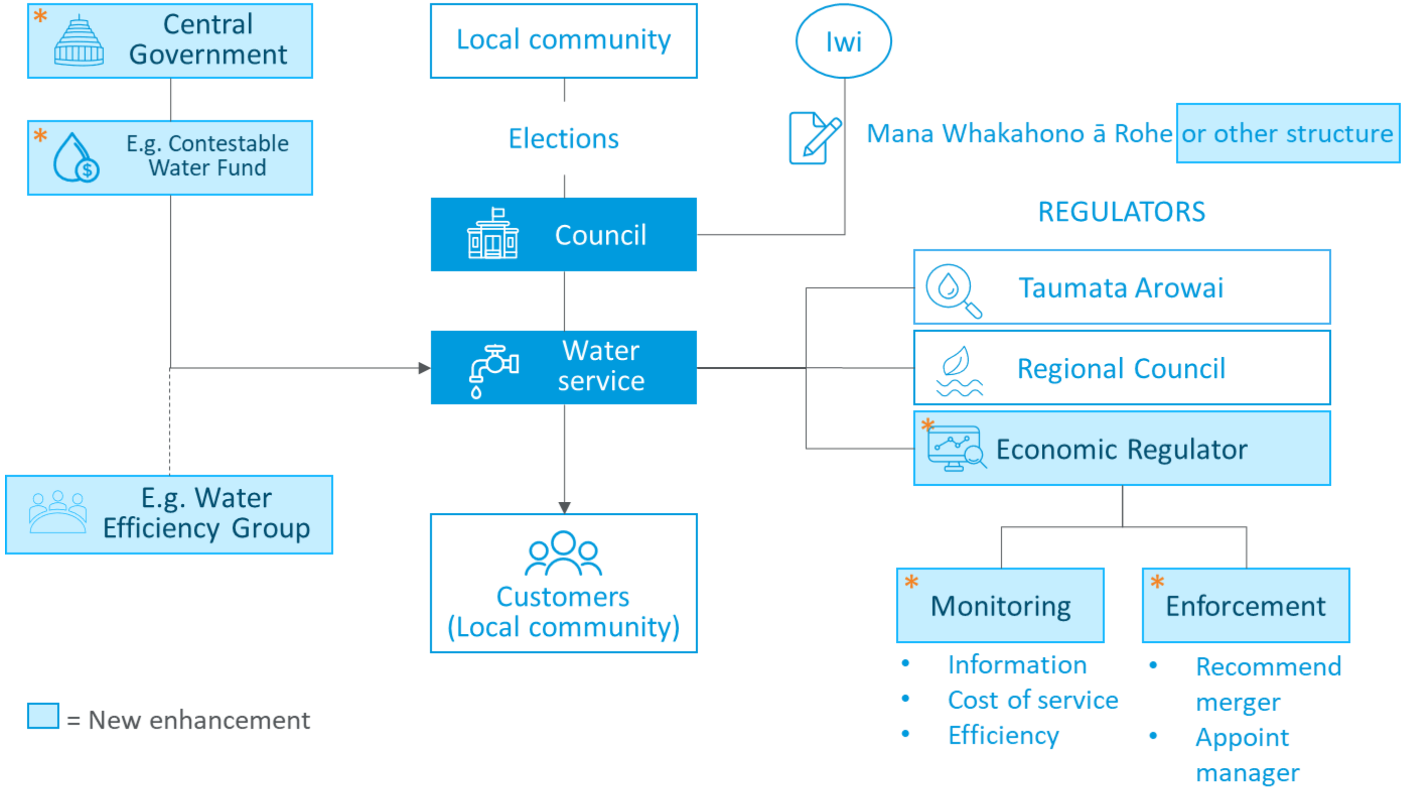
Castalia evaluated three models across a spectrum



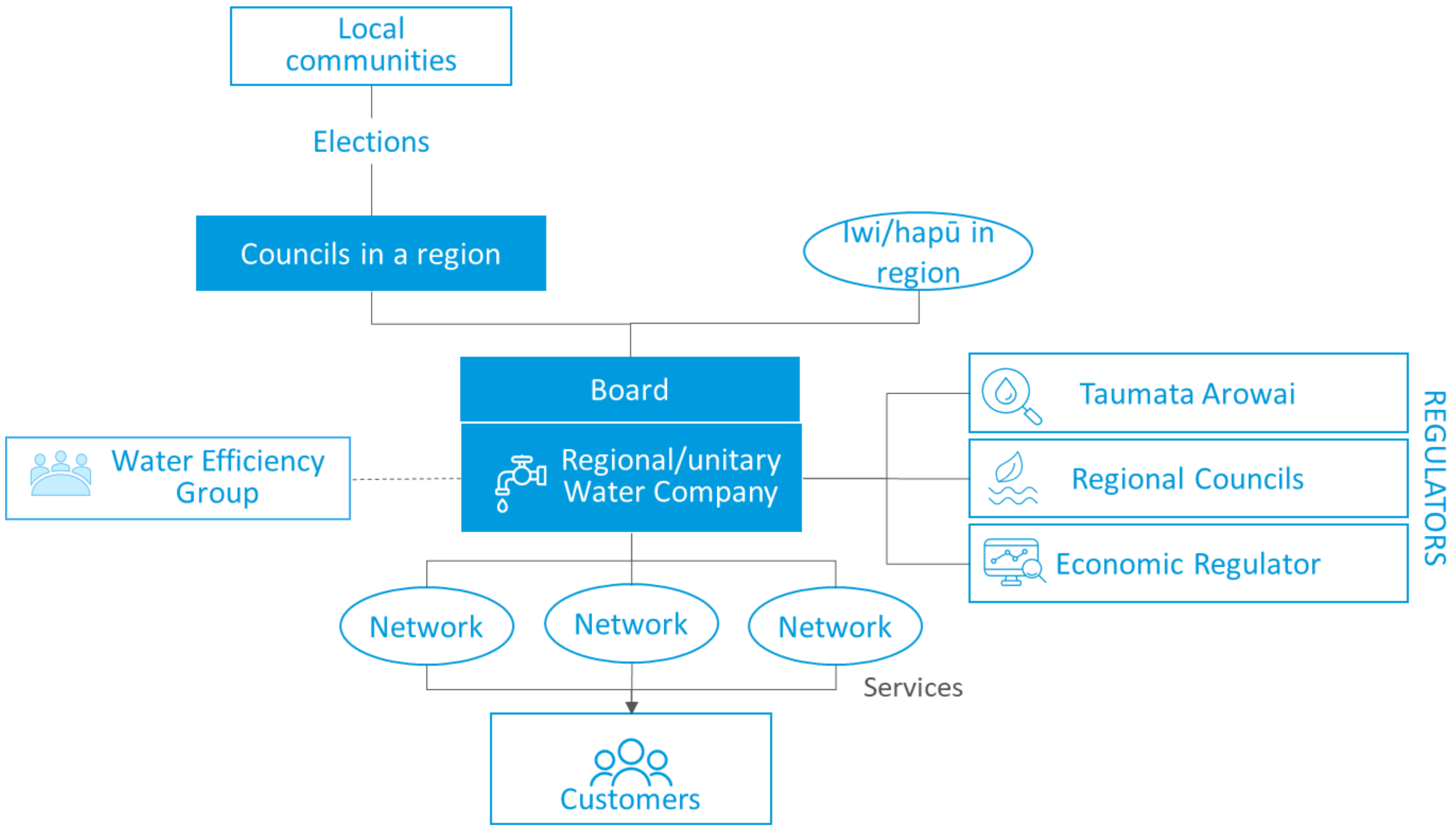
Model 1: Council-owned plus regulation

- Transition to locally appropriate and sized water services—backed by credible, enforced regulation and funding mechanisms
- Horses for courses: stand-alone, regional cooperation, regional merger—menu of options. Credible regulation incentivises adoption of appropriate model



Model 2: Council-owned enterprise

- Regional enterprise co-owned by relevant councils in proportion to assets or number of connections.
- No single council would control the entity (ie, must have <50% shares)



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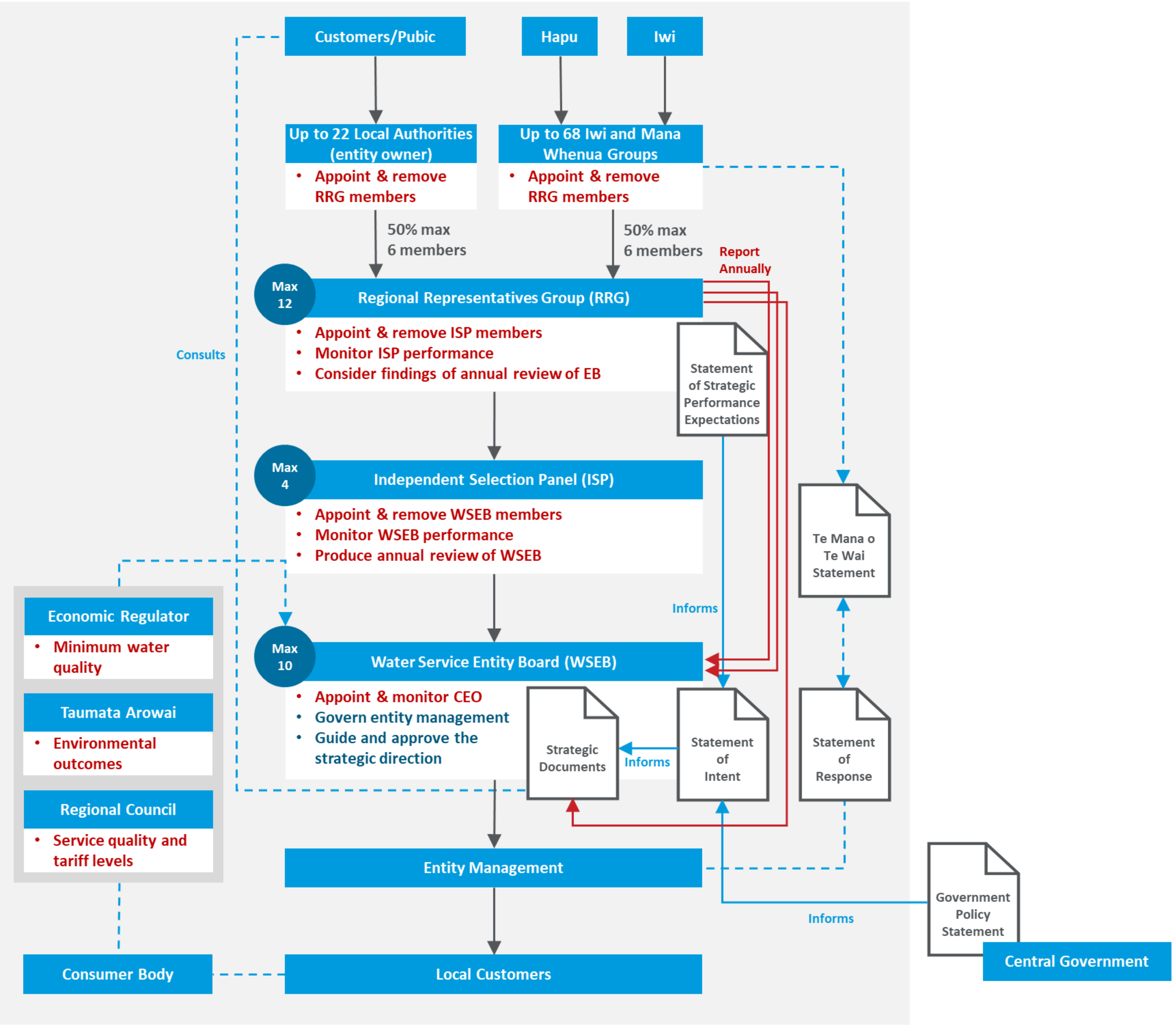
Model 3: Government's proposed mega-entity model



Evaluation results

	Council-owned plus regulation	Council-owned enterprise	Mega-entity proposal
Accountability to customers			
Iwi-Māori partnership			
Management and operational performance			
Incentives of management and governance			
Access to financing			
Scale and scope efficiencies			
Flexibility for the future			
Key: = Change from targeted design improvement	Improvements achieved with targeted regulation design	Fit-for-purpose regulation will support outcomes	Regulation cannot solve the fundamental flaws

Accountability to customers

Model	Council-owned plus regulation	Council owned enterprise	Mega-entity proposal
Score			

Evaluation	• Moderate to good outcomes likely
	• Elected councillors are responsible for the water service, and therefore can be held to account for poor performance
	• Some deficiencies due to information asymmetry problem which causes:
	  • Short-termism on tariffs and investment levels
	  • Interest group politics
		• Moderate to good outcomes likely
		• Elected councillors appoint COE board. Councillors accountable to public
		• Multiple entities means regulators can more effectively benchmark
		• Separate COE has "customer service" ethos
			• Very poor outcomes likely
			• Complex governance means low Accountability (four layers of governance)
			• Would require national-level political scandal to hold performance of WSE and regulator accountable if these fail

Improvements	• Fit for purpose regulation can improve outcomes	• Fit for purpose regulation can improve outcomes	• Regulatory framework and Accountability mechanisms (SOI and NPS) will not address fundamental problems

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Iwi-Māori partnership

MRI

Model	Council-owned plus regulation	Council owned enterprise	Mega-entity proposal
Score			
Evaluation	• Moderate to good outcomes likely on average • Local electoral law changed in 2021 • 29 councils will have Māori wards in 2022 local elections • Mana Whakahono ā Rohe an option which could be expanded—currently in place with several councils • Councils (as smaller unit of Government) can engage with hāpu and Iwi over specific issues, communities and water bodies • Locally appropriate solutions, aligned with rohe and takiwa more likely	• Moderate to good outcomes likely on average • Māori ward councillors will be involved in COE board appointment • Mana Whakahono ā Rohe an option which could be expanded—currently in place with several councils • COEs as a mid-sized, regional administrative unit can engage with hapu and Iwi over specific issues, communities and water bodies, aligned with rohe and takiwa • Regionally appropriate solutions more likely	• Moderate outcomes likely on average • Governance model unlikely to reflect diverse Iwi and hapu needs across wide geographic and culturally diverse area • Most Iwi have low RRG representation • Entity A: 27 Iwi (5.4 Iwi per seat) • Entity B: 68 Iwi (13.4 Iwi per seat) • Entity C: 35 Iwi (7 Iwi per seat) • Entity D: 1 Iwi (0.2 Iwi per seat)
Improvements	• Effective partnership with Māori over Te Tiriti rights and interests (MRI) may require additional policy change (for example, recognition of property rights in water resources)	• Effective partnership with Māori over Te Tiriti rights and interests may require additional policy change (for example, recognition of property rights in water resources)	• Unlikely to change as a result of additional policy

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Management and operational performance

Model	Council-owned plus regulation	Council owned enterprise	Mega-entity proposal
Score			
Evaluation	• Moderate outcomes likely (but poor in some areas) • Many councils struggle to recruit and retain staff • Some councils cannot justify hiring for some expertise • Castalia analysis and Auditor General report confirm issues	• Good outcomes likely • Larger size eases recruitment and retention of staff • Castalia analysis confirms size correlates with better asset management	• Moderate to good outcomes likely • Larger size eases recruitment and retention of staff • Castalia analysis size confirms correlates with better asset management • Large organisations can become inefficient and bureaucratic • Difficult to manage staff over vast distances (100s of KMs) • Cannot enforce breaches effectively
Improvements	• Enforce quality, environmental and financial standards • Outsourcing can lift capability • Give regulator tools to drive change	• Enforce breaches of water quality, environmental and financial performance standards	• Change regulation to increase incentives on better managerial performance

Incentives of management and governance

Model	Council-owned plus regulation	Council owned enterprise	Mega-entity proposal
Score			
Evaluation	• Moderate to good outcomes likely • Councillors have incentive to reflect local community priorities • Requires competent and experienced individuals in governance roles • Will be limited by effectiveness of regulatory regime	• Moderate to good outcomes likely • Governance has incentives to implement local community interests • Corporatised entity would have competent and experienced individuals in governance roles • Competitive dynamic between COEs would encourage improvement of managerial talent • Will be limited by effectiveness of regulatory regime	• Poor outcomes likely Few incentives to reduce costs • Cross-subsidies can hide inefficiencies • Governance may have incentives to keep tariffs too low • NZ regulators unaccustomed to assess spending across multiple socio-cultural and economic objectives • Regulator has no viable way to enforce breaches
Improvements	• Effective regulation (at least information disclosure) would enable governance to monitor performance and hold management accountable	• Effective regulation (at least information disclosure) would enable governance to monitor performance and hold management accountable	• Requires significant overhaul of proposed regulatory system—still likely to fail • Price-quality regulation works better with profit motive

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Access to financing

Model	Council-owned plus regulation	Council owned enterprise	Mega-entity proposal
Score			
Evaluation	• Moderate to poor outcomes likely • Some councils are constrained in raising financing • Household bills higher than necessary due to inability to access additional debt finance for investment • Some councillors can be averse to debt due to short-term political pressures	• Good outcomes likely • Increased borrowing capacity • Provided no council owns or controls 50%, no balance sheet consolidation • Financed as independent company • If supported by robust information disclosure regulation, likely attractive to lenders	• Good outcomes likely • Standard & Poor’s advice confirms WSEs will be able to independently finance (up to 500% debt-to-revenue)

Improvements	• Effective regulation and , benchmarking improves incentives on councillors to raise finance
	• Explore alternative financing structures (revenue bonds)
		• Will not work for Auckland/Watercare
		• Explore alternative models:
		  • Owned by consumers or trust
		  • NZ Super/ACC own 51%
			• Relies on effective economic regulation so that WSEs make investments that can recover costs in long-run

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Scale and scope efficiencies

Model	Council-owned plus regulation	Council owned enterprise	Mega-entity proposal
Score			
Evaluation	• Moderate outcomes likely • Stand-alone councils cannot generate any additional efficiencies from scale • Scope efficiencies between urban planning and transport remain	• Good outcomes likely • Relatively minor scale efficiencies available in procurement and operating functions • Scope efficiencies possible from integrating regional urban and transport planning	• Moderate outcomes likely • No strong evidence of mergers causing significant capex cost savings from economies of scale • Due to complex interactions between volumes, connections, number of networks and transport • Relatively minor savings in procurement • Scope efficiencies from aligning urban planning, land transport and water services reduced
Improvements	• Effective regulation and monitoring would incentive regional cooperation and/or coordinated procurement	• Unlikely to change as a result of additional policy • Scope efficiencies will align with planned RMA reforms	• Unlikely to change as a result of additional policy

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Flexibility for the future

Model	Council-owned plus regulation	Council owned enterprise	Mega-entity proposal
Score			
Evaluation	• Councils have range of options to respond to change: merger, shared services, outsourcing • Better understanding of local conditions to adapt • Does not require multi-regional consensus to make decisions	• Moderate to good outcomes likely • Good understanding of local conditions to adapt • Effectiveness reduced somewhat by need to reach regional consensus	• Large entity has less understanding of multiple jurisdictions and networks • Can be difficult to keep different interest groups happy • Historically, regional public companies triggered further consolidation and in some cases eventually privatization (England and Wales 1989, Scotland 2002, and Tasmania 2013) • Tends towards excess bureaucracy
Improvements	• Unlikely to change as a result of additional policy	• Unlikely to change as a result of additional policy	• Unlikely to change as a result of additional policy

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Appendix A:
Answers to anticipated feedback

Answers to anticipated feedback

1	Economies of scale are needed—minimum 800,000 connections	Government misreads evidence: Limited scale benefits from administrative merger
2	COEs cannot raise finance independently	DIA did not ask question: accounting rules say yes
3	Solutions do not work for Watercare and Auckland Council	Design a solution for Auckland—Welsh, customer trust-owned, or KiwiBank model or Crown fiscal backstop
4	Some communities still face affordability challenges	Waka Kotahi-style targeted central government funding
5	Regional models have been proposed and shown not to work	Untrue – have not been examined properly

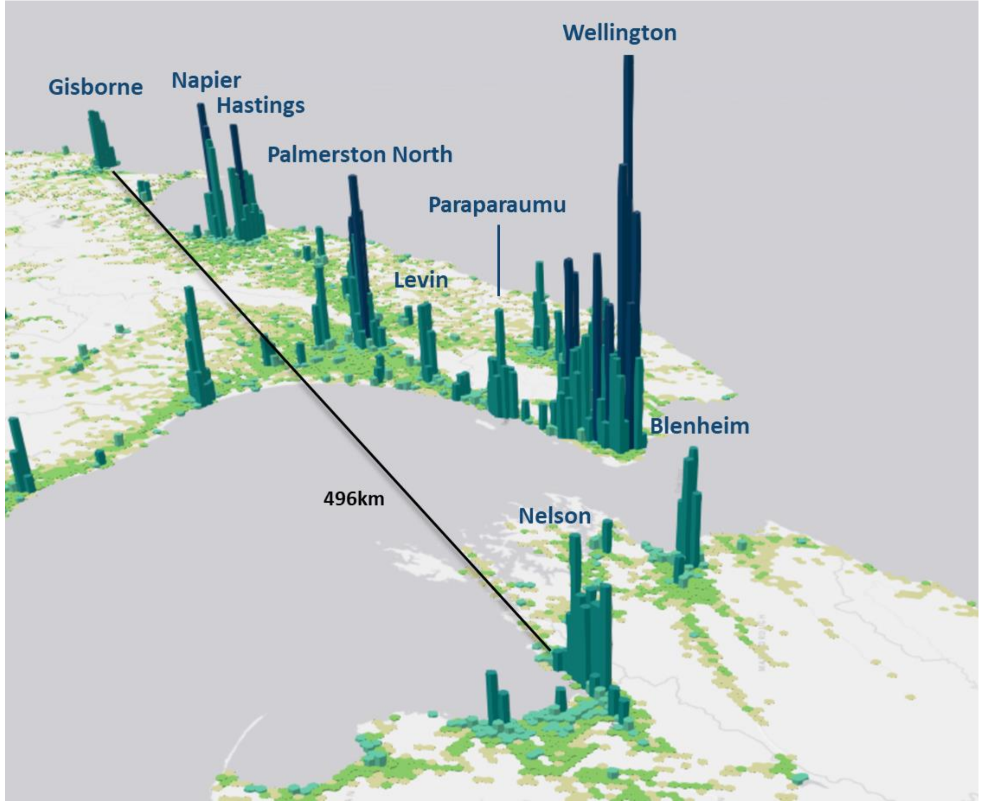
Objection 1: Economies of scale

Claim: Economies of scale are necessary at a minimum of 800,000 connections

- WICS modelling is crude, and based on “observations of UK experience” to justify 50 percent cost savings
- Government has confused the evidence of efficiencies from privatisation and regulatory reform (which we agree drives efficiencies) with evidence of reductions in costs from amalgamations
- WICS itself acknowledges that WICS’ claimed 50 percent capex cost saving is “a function of **several factors**: economy of scale, clarity of policy priority, robust water quality and environmental regulation, economic regulation and excellence in management.” **Translation:** WICS says it is not just about scale
- 800,000 connections in a continuous network usually means lower average costs than, say, 100,000 connections **but** merging eight towns with 100,000 each into a single company will not necessarily result in same lower average cost
- Castalia carried out analysis of available economies of scale for LGNZ in 2020. It found there are only limited opportunities for cost savings from administrative mergers. Report available at: https://www.lgnz.co.nz/assets/LGNZ-release-of-Castalia-reports-context-and-response-v2.pdf
- Review of Castalia economies of scale work by FarrierSwier was misdirected. Castalia agrees that regulatory reform (like in Victoria, England and Wales) can improve efficiency. However, cost savings from administrative amalgamations **alone** will not drive cost savings
- Academic consensus (including those cited by WICS and DIA) confirm that you cannot avoid spatially driven cost differences. WICS has not attempted to model the aggregation of different **networks** to determine efficiency frontier

Objection 1: Economies of scale

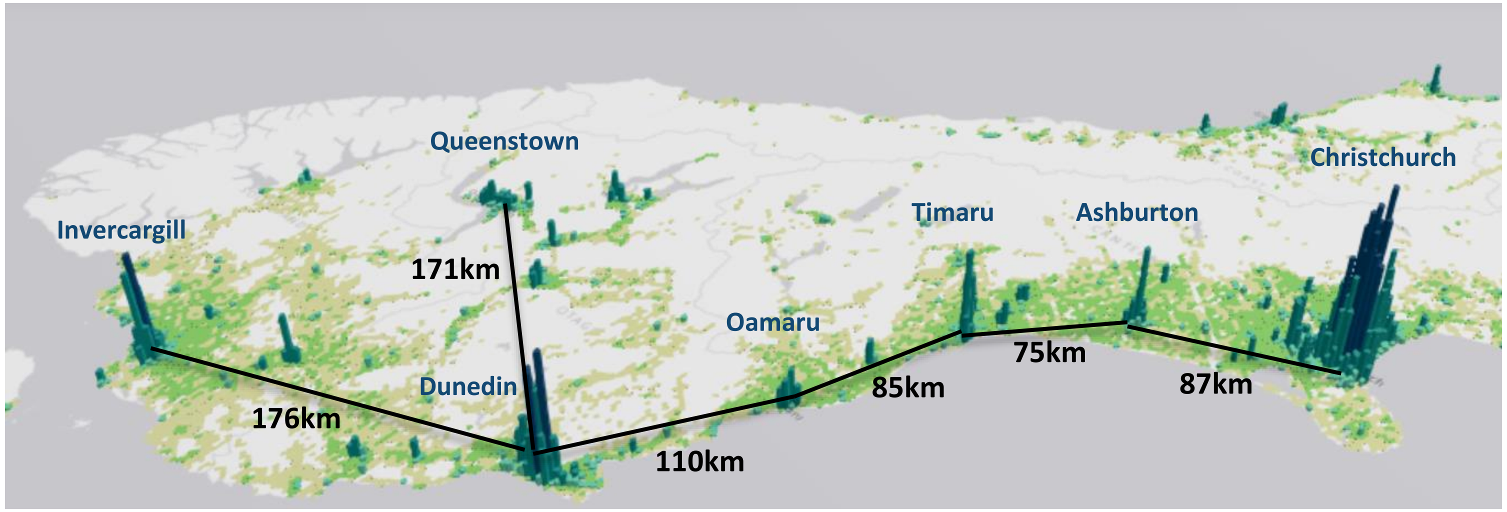
- Spatially-driven cost drivers:



None of these water networks will be merged (Wellington-Hutt water network has been merged since early 1900s)

Objection 1: Economies of scale

- Spatially-driven cost drivers:



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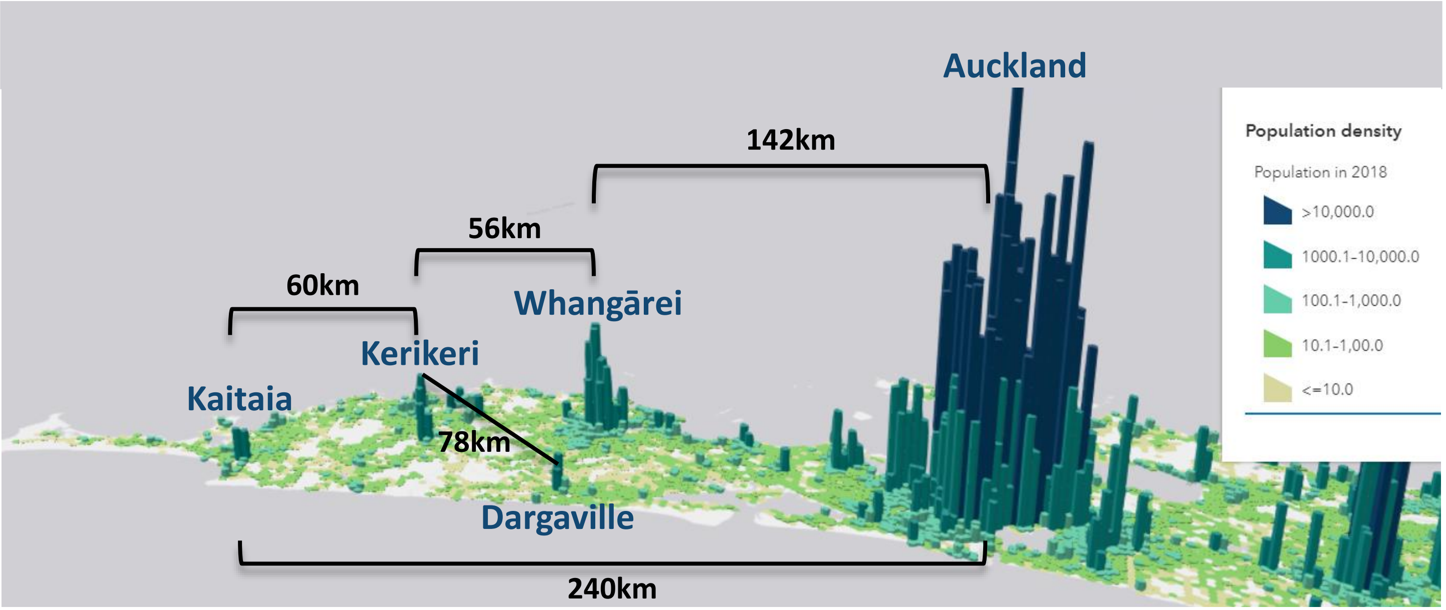
Objection 1: Economies of scale

- Spatially-driven cost drivers:



- Majority of these water networks will not be merged. Mangawhai (pop. 1,000 and under Watercare's jurisdiction) may connect to Whangarei network

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Objection 2: Raising finance independently

Claim: A council owned enterprise cannot raise the finance needed for future investment

- DIA did not ask Standard & Poors the obvious question: would a company with council shareholders, where no single council controls 50 percent impact the credit rating of those councils? See: NZ Herald https://www.nzherald.co.nz/nz/politics/three-waters-reforms-doubt-over-claims-watercare-model-properly-investigated/I6GPEWLGESZTKRV6L6YB7CMIWY/
- Plain reading of accounting rules (NZ IFRS 10) says that the regional council owned enterprise would not consolidate
- If still an issue, there are other options to achieve balance sheet separation:
  - Public good company owns water entity (Welsh model)
  - Co-operative ownership—one share per household/business connection (Fonterra?)
  - Trust ownership (like many NZ electricity lines companies)
  - Co-ownership with publicly-owned but commercial entity (NZ Super and/or ACC, like KiwiBank model)

Objection 3: Solutions do not work for Auckland

Claim: Only a fully independent model will work for Auckland and Watercare—this rules out the council owned enterprise model

- Watercare's major issue is a **financing constraint**: needs to finance massive investment, but cannot exceed Council's debt cap. Under status quo, customers will pay higher bills over next 10 years as current revenues used to pay for long-lived infrastructure. Castalia analysed this for Watercare in 2021 and agrees this is inefficient
- Alternative ownership models could separate Watercare from Auckland Council:
  - Public good company owns water entity (Welsh model)
  - Co-operative ownership—one share per household/business connection (Fonterra)
  - Trust ownership (like many NZ electricity lines companies)
  - Co-ownership with publicly-owned but commercial entity (NZ Super and/or ACC, KiwiBank model)
- Government credit backstop for Watercare: enable it to increase borrowing
- Should the "tail wag the dog"? Why does an Auckland problem drive solutions for rest of New Zealand?

Objection 4: Some communities still face affordability challenges

Claim: Some communities will never afford the needed investment, so amalgamation is necessary

- Many well-established policy mechanisms for addressing equity concerns exist —For example, Waka Kotahi/NZTA Land Transport Fund Funding Assistance Rates (NLTF FTAs)
- Improve funding mechanisms. Globally common models were not considered:
  - Use bond lenders' criteria to guide funding assistance decisions
  - Use local revenue mechanisms to recover costs of transient/tourist population
  - Allow councils to share in GST
  - National water fund and levy.
- Make subsidies transparent—not efficient to "smear" cross subsidies across vast geographic area
- Should the "tail wag the dog"? Why does this discrete issue for certain communities drive solutions for rest of New Zealand?

Objection 5: Regional models have been considered

Claim: Regional models have been proposed and will not work

- Some regions have considered an alternative model:
  - Hawkes Bay, Northland, Southland, Canterbury, Waikato, Bay of Plenty
- Many are positive about regional reform
- Others had only just began investigation and were not given the opportunity to progress work
- DIA's interpretation of Otago/Southland's work (cited in the DIA RIS) only concludes mega-entity reform would be better because rest of South Island could subsidise Otago/Southland. This is not a relevant assessment approach
- Wellington Water model is not proposed:
  - That model is shared management only—no investment decision-making, only advice
  - Has had same deficient central government regulatory regime

Appendix B:
Explanation of criteria

Evaluation criteria—explanation and more information

The following seven slides provide more detail on the seven evaluation criteria.

More information, and a fulsome description of six of the seven criteria is contained in work Castalia carried out for the Joint Steering Committee in 2020 on behalf of Local Government New Zealand:

- Castalia (2020) Parameters for Evaluating Aggregated Water Service Delivery Models
- Castalia (2020) Comparative Analysis of Institutional Forms in Water Services for Proposed New Zealand Reforms

Both reports are available to the public here: https://www.lgnz.co.nz/assets/LGNZ-release-of-Castalia-reports-context-and-response-v2.pdf

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Accountability to customers

- Ensures customers act on concerns and receive the level of service they demand for a fair price
- Subject to minimum standards, water service providers can deliver services of a range of different quality levels—minimum to high-quality:
  - Water services range from basic to high-end (not like electricity, “on” or “off”). Water service provider should meet customers’ demands
  - Differences in how some hāpu and iwi want cultural values reflected in service delivery. Water service entity needs to be accountable to those people
- Cost quality trade-offs generally should be made in a way that is accountable to customers
- Typically, this occurs via governance, regulation, contract with customers

Iwi-Māori partnership

MRI

This criterion assesses the extent to which the institutional design is likely to improve iwi/Māori partnership on rights and interests through the governance, management and operation of the water service entity

- Iwi-Māori rights and interests, and outcomes are important
- We can apply standard techniques of governance and management theory to determine whether iwi-Māori outcomes will be met under the model as those outcomes have been articulated by the government (which reflects iwi-Māori consultation as set out in Cabinet Paper Three). Castalia is not claiming any specialist expertise on this topic
- The Minister noted from engagement and feedback that iwi-Māori experience of water service delivery, and rights and interests in water resources is likely to be at the whanau/hapū level, as well as iwi level (Cabinet Paper three, paras 82.2, 92, 108)
- The criterion should assess the extent to which the institutional structure increases the likelihood that the water services entity has the ability to connect governance with delivery on the ground at a hapū/whānau level (Cabinet Paper three, page 26).
- Rohe and takiwa boundaries are relevant to how iwi-Māori rights and interests in freshwater, receiving environment for wastewater and stormwater management are respected by the institutions of government (local and central) and water service entities. The choice of boundaries for a water service entity therefore impact on promoting iwi-Māori rights and interest
- Protection of existing arrangements should transfer to any new entity

Management and operational performance

- Essential to safe and efficient water services
- Can be achieved by scale, competition, regulation and outsourcing
- Scale: Castalia analysis of New Zealand water asset management competence confirms it is correlated with scale
- Competition: Multiple providers competing to attract skilled staff increases competence
- Regulatory enforcement: Enhances competition if fines or public reprimand incentivises behavioural change
- Outsourcing: Contracting for expertise is a common model to lift competence locally and globally

Incentives of management and governance

- Institutional setting that incentivizes those charged with governance and management to make decisions that achieve the overarching objective
- Short- and long-term incentives should be aligned with objectives
- Short term incentives generally ensured by profit motive
- Long term incentives can also be aligned but requires more care
- Short time horizon of council decision making contrasts the long life of water infrastructure assets

Access to financing

- Essential to meeting investment needs
- How well can water service providers access finance that reflects the riskiness and revenues of the water business and its projects alone
- Water services involve high fixed cost assets with long lives and lumpy investments—financing can improve intergenerational equity and efficiency
- Financing barriers prevent efficient investment, including for future growth
- Many councils are constrained by overall indebtedness of councils consolidated balance sheet and caps imposed

Scale and scope efficiencies

- Scale and scope efficiencies exist where averages costs fall as scale or scope increases
- Scale economies are **independent** of other factors that coincide with greater scale but are also possible without scale
- Economies of scale in water services need to be carefully examined
- Proper empirical evidence required to measure extent of scale efficiencies. Distinction required between contiguous or separate networks
- Economies of scope can exist at both small and large scales
- Amalgamation risks increasing costs as scope economies are reduced

Flexibility for the future

- Technology, customer preferences, and society's expectation can change over time
- Climate change will require greater flexibility
- Water services must adapt to changes in housing development and urbanisation
- Providers closer to customers can generally adapt more easily due to better local knowledge and understanding
- Institutional settings can also ensure dynamism and responsiveness to customer demands over time
- It may be desirable to preserve the option for water services to change size and form over time

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