
To Commerce Commission
From Tiaki Wai
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Tiaki Wai submission on Commerce Commission's Resilience Principles for Investment Decision Making

Answers to Consultation Questions

Making our guidance clear and effective

1. Is the draft guidance clear about its purpose and practical status, including the level of analysis and rigour the Commission expects for more material resilience expenditure proposals?

The guidance would benefit from a clearer statement of purpose including the resilience problem the Commission is seeking to address, the long-term outcomes it expects to achieve through economic regulation, and how resilience should be reflected in regulatory decision-making and pricing.

The guidance would also benefit from a clearer description of the specific problem the Commission is seeking to address through economic regulation. It is not currently clear whether the primary concern is under-investment in resilience, inconsistent decision-making, insufficient consideration of long-term risks, inability to justify resilience expenditure, or another issue. A clearer articulation of the problem being addressed would help infrastructure providers understand the intended purpose of the framework and how it should influence investment and operational decisions.

Principles are explained but not clear how organisations are expected to translate those principles into everyday practices.

The draft guidance clearly articulates the underlying resilience principles however it does not provide sufficient clarity on how critical infrastructure providers are expected to translate those principles into practical investment and operational decision making.

Indicative timeframes and transition guidance would enable Tiaki Wai to plan capability development and progressively embed the framework within existing investment and asset management processes.

2. Is it clear how the draft guidance should be applied proportionately across sectors with different levels of maturity?

No. An organisation can have maturity with respect to technical expertise but be starting out in terms of governance processes, templates, risk management processes and organisational investment discipline

Tiaki Wai has strong technical expertise, modelling capability, and operational knowledge but is at an early stage of development for investment governance decision-making frameworks templates and organisational investment discipline.

3. Are there implementation barriers, overlaps, or accountability issues in the wider resilience and regulatory landscape that may affect how this guidance is applied in practice?

Yes. We face high demands in terms of meeting and reporting on regulatory obligations, asset management, managing funding constraints and meeting customer driven operational priorities.

Tiaki Wai operates within a complex regulatory environment and must balance multiple and sometimes competing obligations in addition to the Commerce Commission's economic regulation requirements. For example:

- Water Services Authority requires compliance in relation to resilience expectations for drinking water standards source water risk management and maintaining secure and reliable drinking water services.
- Councils require compliance with resource consents, environmental discharge limits, freshwater management requirements, flood management, and other responsibilities under environmental legislation.
- The National Emergency Management Agency (NEMA) requires us to prepare for and respond to recovering from natural hazards and emergencies including provision of essential lifeline services.
- The National Cyber Security Centre requires us to strengthen cyber resilience of operational technology and critical infrastructure systems.
- Commerce Commission requires us to apply robust investment management practises including demonstrating value for money strategic alignment and sound business case development for significant investments.

These obligations sit alongside broader expectations to manage ageing assets operate within funding constraints and meet customer service expectations.

The Commission should also clarify how resilience expectations relate to existing regulatory obligations. For regulated utilities, expenditure that improves resilience will often also support compliance with drinking water, environmental, health and safety, asset management, emergency management, or cyber security obligations. Without greater clarity there is a risk that resilience is perceived as an additional regulatory requirement rather than an integrating framework for existing obligations and investment decisions. The Commission should therefore explain

how resilience considerations are intended to complement, rather than duplicate, existing regulatory requirements.

The guidance should give a clear definition of the scope of resilience that it is intended to address. Across the wider regulatory landscape resilience is interpreted in different ways ranging from asset and service resilience to environmental resilience hazard management and broader community outcomes. While these concepts are related they are not always used consistently.

4. What areas should the Commission prioritise in further work (for example, business case guidance, resilience measures, maturity assessment, interdependency information, or reporting)? Completeness and usefulness

1) Practical implementation

The Commission should prioritise practical guidance that helps organisations embed resilience into existing planning and investment processes. This should include templates worked examples and proportionate business case expectations as well as guidance on incorporating resilience into water service strategy and existing planning frameworks.

2) Alignment across Government

The Commission should work with other relevant regulators to align resilience expectations. A consistent approach across critical infrastructure sectors would reduce duplication and improve decision-making.

3) Regulatory integration

The Commission should clearly articulate how resilience expectations are intended to operate alongside sector-specific regulatory requirements. For the water sector, resilience-related obligations already arise through water safety planning, source water risk management, wastewater and stormwater risk management planning, emergency management responsibilities, and long-term infrastructure planning.

Sector specific considerations are important. Stormwater flooding is a key resilience risk for water services (as evidenced by the increase of major flooding events observed in recent years) but this framework would not prioritise it because Storm Water services are not subject to economic regulation.

Additional guidance should focus on integrating these existing requirements into a sector specific decision-making framework rather than creating an additional layer of assessment and reporting.

4) Future direction

The Commission should clarify the current and intended future role of the guidance, including how it may evolve into future regulatory expectations and how infrastructure providers should progressively build capability over time.

5) Measurement

The Commission should clarify how resilient outcomes should be demonstrated. The guidance should build on existing asset management, business case and risk

management practises rather than introducing a separate resilience assessment framework.

Completeness and usefulness

5. Which aspects of the draft guidance are most helpful for informing your investment decision making, and why?

This guidance supports the inclusion of long-term resilience considerations in business cases and reinforces the importance of embedding disciplined business case practice across the organisation.

6. Which parts of the draft guidance are unclear, unnecessary, or could be improved? Please explain.

The guidance would benefit from clearer definition of terms including what is meant by resilience related decision-making processes. It is not clear whether the guidance is referring to strategic planning and investment decisions individual project decisions or operational decision-making clearer terminology would improve consistency and interpretation.

The guidance is written at a high level and will benefit from greater practical direction. It should clearly explain how resilience principles fit within the existing regulatory and planning environment rather than the guidance being interpreted as an additional layer of requirements.

For the water sector, the guidance should acknowledge existing resilience related obligations such as drinking water safety plans and wastewater and stormwater risk management plans required by the Water Services Authority. Recognising these existing frameworks would help demonstrate how the guidance complements current practise rather than duplicating it.

The guidance should address the role of customers and communities in resilience decision making, this also needs to be contemplated in the context of the LGWSA requirement for organisations to have significance and engagement policies that guide community engagement approaches and provide clarity to the communities as to when they can expect to be engaged in relation to decisions. It is not clear how the Commission expects community preferences to inform decisions about resilience investment or how trade-offs between resilience affordability service levels and other outcomes should be considered.

The guidance should also acknowledge the statutory framework for community and shareholder engagement under section 236 of the Local Government Water Services Act 2025 (LGWSA) and explain how this existing framework should interact with the Commission's expectations for resilience investment decision making.

Resilience should be understood primarily as an outcome experienced through the continued delivery and recovery of essential services rather than through the

presence of particular assets, investments, or capabilities. Asset redundancy, emergency preparedness, operational flexibility, demand management and network investment are all potential means of improving resilience, but none should be confused with resilience itself. The framework should consistently distinguish between desired resilience outcomes and the interventions used to achieve them.

The guidance should be careful not to create incentives that focus organisations on demonstrating compliance with resilience indicators rather than improving actual resilience outcomes. Resilience is inherently difficult to measure and there is a risk that prescribed metrics become a proxy for resilience itself. Where this occurs, organisations may optimise performance against measures without necessarily improving the continuity, recoverability, or adaptability of essential services. The framework should therefore place greater emphasis on resilience outcomes and decision quality than on compliance with prescribed indicators or processes.

The guidance should place greater emphasis on how resilience investment decisions are expected to balance resilience outcomes, affordability, service levels, public health objectives and environmental outcomes. Economic regulation inevitably requires trade-offs between these competing objectives. Clearer direction from the Commission would assist organisations and communities to make more informed and transparent decisions regarding acceptable levels of resilience and the associated costs of achieving them.

Under the LGWSA, consultation on the draft Water Services Strategy is required with shareholders in addition to the engagement with communities, clearer guidance would also reduce the space for disagreement from shareholder consultation on new Water Services Strategies.

This is particularly important where community willingness to pay may differ from the level of resilience required to meet statutory public health, environmental and service obligations.

Overall, the guidance would be strengthened by demonstrating how it integrates with existing regulatory frameworks and supports informed transparent decision making across the critical infrastructure sector.

7. Are any principles missing? Are there areas of overlap where the principles could be simplified or streamlined?

1) Accountability and Influence

The guidance should distinguish between accountability and influence. Infrastructure providers are accountable for the assets and services they own and operate, but many resilience outcomes depend on the actions of multiple organisations. Water service resilience during major emergencies relies on electricity providers, telecommunications networks, transport access, fuel supply chains, emergency management agencies, suppliers, customers and communities. The framework should therefore clearly distinguish between resilience outcomes

that utilities are directly accountable for delivering and those that can only be achieved through collective action across the wider infrastructure system.

2) Response and recovery

The guidance should provide clear expectations for:

Coordination: engagement with emergency management agencies, regulators and other infrastructure operators to align planning and response activities.

Communication: sharing timely and relevant information during both preparedness and response phases to support system-wide situational awareness.

Decision-making : contributing to collective decision-making where processes were interdependencies exist while retaining responsibility for decisions within their own operational control

3) Simplifying principles

There is opportunity to simplify the guidance by bringing together related principles particularly those covering risk resilience, interdependencies and long-term planning. Presenting these as an integrated decision-making approach would improve clarity and make the guidance easier to apply in practise.

8. Are there any missing frameworks or evaluation tools that should be included or referenced?

1) National Framework

The guidance presents an opportunity to establish a common framework for consistent strategic resilience investment across New Zealand's critical infrastructure sectors. To achieve this, it;

- should be positioned within a national resilience framework rather than as a standalone Commerce Commission initiative;
- expectations should be aligned with Treasury and other government agencies that have resilience responsibilities to provide a consistent and coordinated approach across the public sector;
- requires greater sector specific guidance particularly for the water sector including integration with expectations set by sector specific agencies such as Water Services Authority Taumata Arowai; and
- it requires stronger integration with existing national resilience frameworks and agencies for example New Zealand Infrastructure Commission, NEMA, and the National Cyber Security Centre.

2) Maturity Model

The guidance would be strengthened by including a simple maturity model or capability framework that recognises different dimensions of organisation maturity such as governance investment processes technical capability information and data and decision-making this would enable organisations to assess their current capability identify areas for improvement and apply the guidance proportionately as

their capability matures over time rather than assuming a single level of organisational maturity.

Your current approach and experience

9. To what extent do you already apply these principles in your resilience-related decision making processes? If not, what currently guides your resilience-related investment decisions?

Many of the underlying principles are already reflected in our decision making although they are not necessarily described using the terminology in the guidance. Resilience considerations are incorporated through risk-based decision-making, service planning, option analysis, and strong technical modelling, alongside considerations such as affordability customer outcomes and regulatory obligations.

At a strategic level, the Local Government Water Services Act (2025) requires water services strategies to set objectives for providing water services that are resilient to external factors including climate change and natural hazards and to describe how those objectives will be achieved over a 10-year planning horizon. These strategies provide an important foundation for resilience investment decisions.

Additional guidance would be valuable on how resilience should be reflected in investment appraisal and pricing decisions including how resilience benefits should be identified assessed and balanced alongside affordability and statutory obligations.

Resilience considerations are rarely assessed separately from other investment drivers. In practice, resilience benefits are often embedded within projects that also address compliance obligations, growth requirements, asset condition, environmental outcomes, customer service expectations, and affordability objectives. Guidance that supports consideration of these factors collectively would likely be more useful than a stand-alone resilience assessment process.

10. Do you have practical examples of applying these principles - in a specific sector, or cross-sector - that could be shared to support other users of the guidance?

Section 1.18–1.20 Resilience in infrastructure decision-making

Tiaki Wai strongly supports the recognition that resilience extends beyond asset hardening and includes service delivery, organisational capability, preparedness and investment planning.

However, the guidance should place greater emphasis on service outcomes rather than asset outcomes. For three waters providers, consumers experience resilience through the continued availability of safe drinking water, wastewater disposal and stormwater management, rather than through the performance of individual assets.

The guidance should also acknowledge that integrated management of drinking water, wastewater and stormwater can create resilience benefits that would not be apparent if these services are assessed independently.

Section 2.9–2.10 Principle 1 – Multi-hazard risk awareness

For water services, the framework should explicitly recognise compound and cascading hazards, particularly:

- Earthquake impacts on water supply, wastewater and stormwater systems.
- Drought combined with high demand periods.
- Flooding combined with wastewater overflows and drinking water contamination.
- Extended power outages affecting treatment plants, pump stations and telemetry systems.

Given Wellington's hazard environment, a stronger emphasis on concurrent and cascading events would be valuable.

Section 2.11–2.13 Principle 2 – Understanding risk at different scales

The framework should recognise that the consequences of water service disruption are not solely measured by customer numbers affected.

Loss of service to hospitals, aged care facilities, emergency response facilities, marae, schools, growth areas and major economic centres can have disproportionately large consequences relative to the number of customers affected.

The framework should also recognise public health consequences as a distinct category of assessment rather than treating them solely as part of broader community impacts.

The principle is unclear whether the impact assessment relates to the impact of the event itself or to the impact of the service disruption.

The "what we expect to see" section only refers to specific assets being considered for replacement, but risk assessments also need to be applied at the system level and in wider planning processes.

It is not clear whether this risk assessment is expected to factor in existing mitigations (such as emergency response plans) or is the raw, unmitigated risk.

It would be useful to articulate the measurement of risk against a specific set of standards, likelihood, and consequences so everyone is assessing risk based on the same set of criteria. This would allow for a uniform approach to the understanding of the risks themselves.

Section 2.14–2.16 Principle 3 – Accounting for interdependencies

This is one of the most important principles for water services.

The framework should explicitly recognise that water services are simultaneously dependent on:

- Electricity.
- Telecommunications.
- Transport access.
- Fuel supply.
- Chemical supply chains.

Water services are also critical enablers for many other sectors, including healthcare, emergency management, education and industrial production.

Interdependency assessment should therefore consider both dependencies on other sectors and dependencies of other sectors on water services.

Section 2.17–2.18 Principle 4 – Distributional impacts

The guidance should recognise that willingness to pay is often an imperfect measure for essential services.

Customers may have limited ability to pay while still experiencing significant public health, sanitation and wellbeing consequences from service interruption.

The framework should explicitly recognise basic levels of drinking water, wastewater and stormwater service as essential community outcomes that cannot be determined solely through willingness-to-pay assessments.

Section 2.19–2.21 Principle 5 – Risk tolerance and risk-bearing capacity

The framework correctly distinguishes between risk tolerance and risk-bearing capacity.

For water services, however, community preferences should be balanced against statutory public health, environmental and drinking water obligations.

There is a risk that willingness-to-pay approaches may undervalue investments that are necessary to maintain minimum acceptable levels of service or public health protection.

Additional guidance would be helpful on how regulated entities should balance customer preferences with statutory obligations.

Section 2.22–2.25 Principle 6 – Clearly defined asset criticality

The guidance should encourage asset criticality frameworks that are service-based rather than asset-based.

For example, the criticality of a reservoir, trunk water main or treatment plant should be assessed in terms of:

- Population affected.

- Duration of outage.
- Availability of alternatives.
- Public health consequences.
- Environmental consequences.

This is particularly important where a relatively low-value asset may underpin an essential service outcome.

Tiaki Wai supports the principle of asset criticality but recommends that criticality assessments remain focused on service outcomes rather than asset attributes.

Experience overseas demonstrates that investment programmes often became focused on individual projects and compliance obligations rather than the long-term service outcomes customers valued. This contributed to under-appreciation of long-term asset replacement requirements and deferred understanding of future resilience risks. Asset criticality frameworks should therefore explicitly consider service consequences, recovery impacts and long-term community outcomes rather than relying solely on engineering or asset-based criteria.

Section 2.26–2.28 Principle 7 – Structured optioneering

The framework should place greater emphasis on non-asset and demand-side measures.

For water services, resilience options can include:

- Demand management.
- Universal metering.
- Leakage reduction.
- Alternative operating arrangements.
- Emergency preparedness.
- Strategic water storage.
- Community preparedness measures.

These approaches can often provide resilience outcomes at lower cost than major infrastructure expansion.

Tiaki Wai strongly supports the principle of structured optioneering.

Overseas experience demonstrates that regulatory settings can unintentionally favour lower-cost or lower-risk short-term interventions at the expense of more effective long-term solutions. Circumstances include where lower cash-cost projects were preferred over higher-value whole-of-life investment options, and where innovation opportunities were not pursued because benefits extended beyond the current regulatory period.

The Commission should therefore encourage investment assessments that evaluate whole-of-life outcomes, adaptive pathways and long-term resilience benefits rather than focusing primarily on expenditure within a particular planning period.

Section 2.29–2.30 Principle 8 – Comprehensive costs and benefits evaluation Support.

The principle needs to be supported with guidance around what the benefit stream is for resilience which benefits should be monetized and what should be qualitative.

The guidance should recognise that many resilience benefits are difficult to monetise but remain material.

Examples include:

- Public health protection.
- Environmental outcomes.
- Community confidence.
- Reduced disruption during emergencies.
- Strategic resilience for future generations.

The Commission should make clear that qualitative and multi-criteria assessment approaches remain appropriate where monetisation is impractical.

Tiaki Wai supports the principle that resilience investment decisions should consider comprehensive costs and benefits.

Overseas experience demonstrates that resilience investment decisions can have important consequences that only become apparent over multiple decades.

Significant investment programmes may initially focus on improving compliance and supporting growth, while the future cost of replacing and renewing these assets may not be fully understood. A shared detailed understanding of long-term replacement requirements will likely only become clear after many years of regulatory experience.

For long-lived infrastructure such as water supply, wastewater and stormwater networks, investment appraisal should explicitly consider:

- Long-term asset replacement obligations.
- Intergenerational impacts.
- Future funding requirements.
- Long-term service resilience outcomes.

This would help avoid situations where investments appear efficient in the short term but increase costs and resilience risks for future generations.

Section 2.31–2.32 Principle 9 – Option effectiveness

The framework could more explicitly recognise adaptive pathways approaches for long-life water assets.

Many water infrastructure assets operate for 50–100 years, making flexibility and future adaptability important considerations alongside immediate resilience benefits.

Section 2.33–2.35 Principle 10 – Investment prioritisation

The guidance should explicitly encourage prioritisation at a network and service level rather than project-by-project optimisation.

The guidance should recognise the challenge of balancing competing investment priorities, including regulatory compliance, renewals and service levels, growth, and resilience, within constrained funding. It should provide a clear framework for making these trade-offs transparent and evidence-based, particularly where different regulators have competing priorities.

For three waters providers, resilience outcomes are often achieved through coordinated programmes of works rather than through individual projects.

Prioritisation frameworks should support this system-level perspective.

Tiaki Wai supports investment prioritisation frameworks that recognise long-term resilience outcomes and system-level benefits.

Overseas experience demonstrates that prioritisation processes focused primarily on individual regulatory periods can unintentionally favour projects with lower immediate expenditure requirements over investments that provide greater long-term value. Instances include where projects were selected based on short-term affordability considerations rather than best whole-of-life value or service outcomes.

The Commission should therefore emphasise that resilience investment prioritisation should take account of:

- Long-term service outcomes.
- Intergenerational equity.
- Asset stewardship obligations.
- Portfolio and programme-level benefits.
- Future adaptability.

This is particularly important for water infrastructure where asset lives commonly extend beyond 50 years and resilience benefits may only be realised over several decades.

Section 2.36–2.37 - Principle 11 – Dealing with uncertainty

For water infrastructure flexibility redundancy and stage investment can often provide more resilient and affordable outcomes than attempting to harden every asset against all foreseeable hazards.

The framework should recognise Dynamic Adaptive Policy Pathways (DAPP), real options and adaptive planning as leading practices for managing uncertainty associated with:

- Climate change.
- Population growth.
- Changes in water demand.

- Regulatory change.
- Evolving customer expectations.

Adaptive approaches are likely to be more appropriate than fixed long-term solutions for many water resilience investments.

Tiaki Wai strongly supports the principle relating to uncertainty and considers it one of the most important elements of the framework.

Overseas experience demonstrates that initial estimates of investment requirements significantly understate the level of future expenditure ultimately required. Early assumptions about investment needs proved substantially lower than actual requirements over time. This reflected both optimism bias and the difficulty of understanding long-term infrastructure risks and obligations at the outset of reform.

The Commission should explicitly recognise that uncertainty is an inherent characteristic of resilience planning, particularly where decisions involve:

- Climate change impacts.
- Natural hazards.
- Population growth.
- Technological change.
- Long-lived infrastructure assets.

Adaptive pathways, real options approaches and staged investment strategies can provide more robust outcomes than attempts to optimise investment decisions against a single forecast future.

Community, Māori and place-based considerations

11. How should the framework recognise and reflect iwi, hapū, and Māori perspectives, including capability, resources, and relationships that support resilience, particularly in smaller or more isolated communities?

The framework should recognise the role of Te Mana o te Wai in shaping resilience outcomes and acknowledge that its application continues to evolve at both national and local levels. It should provide clear guidance on how Te Mana o te Wai should be reflected in resilience decision-making while recognising that implementation and relationships with iwi and hapū will vary across regions and communities.

12. Which cross-sector vulnerabilities and interdependencies should the framework place the greatest emphasis on, and expect infrastructure providers and the Commission to pay closest attention to?

The framework should place the greatest emphasis on interdependencies between water services and other lifeline utilities, public health, and contamination risks. As a critical lifeline utility, water underpins the functioning of communities, emergency

response, and essential services. The framework should recognise these interdependencies as the highest priorities for resilience planning and investment.

Particular attention should be given to dependencies on electricity supply, telecommunications, transport access, fuel supply and critical chemical supply chains. Failure of any of these systems can significantly affect the ability of water service providers to maintain drinking water, wastewater and stormwater services.

The framework should also recognise that publicly funded water service providers must prioritise investment to maintain agreed levels of service for the communities they serve while balancing wider interdependencies and resilience outcomes.

The Commission should consider how its resilience guidance can provide greater clarity on resilience expectations and trade-offs to support consistent and informed community and shareholder engagement. This would help reduce the potential for disagreement where resilient investment decisions are considered through the Water Services Strategy process.