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Water Services Authority Taumata Arowai
Level 2, 10 Brandon Street
PO Box 628
Wellington 6140

Emailed to: neds@taumataarowai.govt.nz

Tēnā koutou,

Feedback from the Manawatū District Council on the National Engineering Design Standards Proposal Document

The Manawatū District Council (MDC) thanks the Water Services Authority Taumata Arowai for the opportunity to provide feedback on the proposed National Engineering Design Standards Framework (NEDS).

The case for change presented in the proposal document is that the current use of different engineering standards by councils has resulted in a fragmented system, with inconsistent requirements across the country. The proposed NEDS seek to address this through a nationally consistent framework intended to make the planning, design, approval and construction of water infrastructure more efficient and cost-effective.

MDC supports the objective of improving consistency where this can reduce unnecessary duplication, cost and uncertainty. However, MDC does not consider that the existence of local variation in engineering standards is, in itself, evidence of a problem that requires those standards to be replaced by a new national code-based framework. Local requirements can be appropriate and necessary to reflect the capacity, operation, maintenance and resilience needs of the receiving network.

MDC's Engineering Standards for Land Development, like those of many councils, are based on the existing national standard NZS4404:2010. MDC considers that, before establishing a new national code-based framework, the Authority should consider whether the simpler and more cost-effective approach would be to review and update NZS4404:2010 and use this as the national baseline for water infrastructure design. This would provide a common national foundation while continuing to allow provider-specific requirements where these are necessary to respond to network or local conditions.

MDC has also considered the submission prepared by Water New Zealand and supports a number of the principles and recommendations it contains. In particular, MDC agrees

that the NEDS framework needs to retain sufficient flexibility to accommodate legitimate local conditions, affordability, innovation and resilience, and that Codes of Practice need to be practical and workable across the range of provider and network contexts. MDC also supports Water New Zealand's emphasis on proportionality, affordability and whole-of-life value, and the need for representative sector involvement as the detailed requirements and Codes of Practice are developed and tested.

MDC's position differs from Water New Zealand in the level of support for the proposed NEDS framework. Water New Zealand supports the proposed framework as a sound foundation for achieving greater national consistency. MDC is more cautious and considers that the case for replacing established local engineering standards with an extensive new national code-based system has not yet been demonstrated. MDC also takes a different view on the role of national Codes of Practice and the assessment of alternative solutions. These differences are explained further in this submission.

MDC is concerned that an outcomes-based framework supported by national deemed-to-comply codes could create unintended complexity. While the proposed performance standards are intended to allow flexibility and innovation, experience with other outcomes-based regulatory frameworks demonstrates the potential for different interpretations and for deemed-to-comply pathways to become the default in practice. The NEDS framework therefore needs to ensure that appropriate local standards and alternative solutions remain genuinely viable and are not subject to disproportionate evidential, approval or liability requirements.

A further concern is that, although the proposed national codes of practice would be optional, a nationally published deemed-to-comply pathway could become the default benchmark used by designers, reviewers, insurers and auditors. Alternative solutions may then carry additional design, evidence, approval and liability costs. This could make an optional code effectively mandatory in practice and discourage proportionate, innovative or locally appropriate solutions.

If the Authority proceeds with national codes of practice, MDC considers that they should be limited, modular and clearly subordinate to the mandatory performance requirements. They should operate as non-exclusive means of demonstrating compliance. Water service providers should retain the ability to specify additional or alternative requirements where these are reasonably necessary to respond to receiving network or local conditions, provided these are consistent with the mandatory NEDS requirements.

Responses to individual questions

- 1. The overall NEDS framework.** *Is the proposed NEDS framework clear, practical and useable for the sector? What would make it more practical?*

The three-layer concept is understandable, but MDC considers that further work is required to ensure the framework is practical and workable for water service providers. The relationship between mandatory performance standards, national codes of practice, local engineering standards and other provider-specific requirements, and alternative solutions needs to be much clearer.

The framework should explicitly recognise the ability of water service providers to respond to legitimate network and local conditions within the national compliance system. Local requirements remain necessary because connection and vesting decisions directly affect the capacity, operation, maintenance, resilience and future cost of the receiving network.

MDC also supports Water New Zealand's recommendation to establish a mechanism for sharing approved alternative solutions and supporting evidence where these have wider applicability, including to inform future updates to the national Codes. This could reduce duplication and assessment costs while supporting innovation across the sector. MDC considers that shared solutions should remain guidance rather than becoming prescribed standards, with providers retaining the ability to determine their suitability for local circumstances.

To make the framework practical, MDC recommends that the Authority do the following:

- a) express the mandatory layer as a limited set of measurable performance requirements and test methods, rather than detailed design rules;
- b) recognise the ability of water service providers to specify additional or alternative requirements where these are reasonably necessary to address receiving network capacity, configuration, operational requirements, local hazards or other relevant local conditions, provided these are consistent with the mandatory NEDS requirements;
- c) ensure a national code pathway has no legal or administrative preference over an approved local or project-specific solution;
- d) publish a simple and nationally consistent process for assessing alternatives, including decision timeframes and proportionate evidence requirements;
- e) distinguish clearly between requirements for new assets and triggers applying to repairs, maintenance, renewals and upgrades of existing assets;
- f) establish a mechanism for sharing approved alternative solutions and supporting evidence where these have wider applicability;

- g) coordinate requirements with water services bylaws, Water Services Strategies, drinking water rules, environmental performance standards, resource consent conditions, planning requirements and FENZ responsibilities; and
- h) provide implementation funding, training, digital tools and an adequate transition period, particularly for smaller providers.

Do you think this framework will be enduring as the Authority regularly reviews, updates and adds to the standards and codes of practice over time?

MDC considers that the framework could be enduring if it remains genuinely outcomes-based and is founded on stable principles. However, a growing library of detailed codes risks becoming increasingly complex to navigate, maintain and keep internally consistent. Frequent changes to national requirements could also impose repeated costs on council bylaws, specifications, procurement documents, digital systems, staff training, consultants and development agreements.

An enduring framework therefore needs formal change control and versioning, regulatory impact and whole-of-life cost assessment, sector consultation, and appropriate minimum transition periods. Requirements should not change simply because preferred technical practice changes. Changes to the mandatory layer should be evidence-based and respond to an identified material risk or demonstrable system-wide benefit.

2. Common Objectives. *Do you think the proposed common objectives capture the most important outcomes that water infrastructure must support?*

The seven objectives broadly capture the core technical outcomes. MDC supports them as a starting point, provided they remain high-level and are applied in a risk-based way. 'Context suitability and network integration' should explicitly recognise the receiving network's capacity, existing configuration, operational practices, maintainability, local hazards and planned level of service.

Are there other objectives you think should be included in the NEDS?

Yes. MDC recommends that a specific objective be added for proportionality, affordability and whole-of-life value. Suggested wording is:

Proportionality, affordability and whole-of-life value - Requirements and compliance evidence are proportionate to the scale, risk, function, service level and local context of the infrastructure, and support the most efficient whole-of-life outcome for customers and communities.

This should be a substantive decision criterion, not only explanatory guidance. It is particularly important for smaller and constrained schemes. For example, a national requirement relating to firefighting flow and pressure could require substantial upgrades in a network such as Sanson. The relationship between firefighting service expectations, water service provider responsibilities and funding responsibilities needs to be clearly resolved and should not be transferred into drinking water standards without explicit policy, affordability and proportionality analysis.

MDC made a submission on Standards New Zealand's consultation on DZ PAS 4509:202X – Firefighting Water Supplies – Code of Practice. A copy of this submission is attached for your information. This submission raises proportionality concerns and seeks the inclusion of flexible, site-specific solutions for achieving firefighting water supply outcomes, particularly in rural and non-reticulated areas. It is not clear from the proposal document how the NEDS fits with this proposed Code of Practice.

MDC also supports Water New Zealand's recommendation that asset criticality and the risk being managed should inform the development of mandatory performance requirements. The level of performance required should be proportionate to the risk and consequences of asset failure, including consideration of whether different minimum requirements are appropriate for different risk or criticality profiles.

MDC supports Objective 4 (Lifecycle performance and asset integrity), including its explicit recognition of maintainability and operability. MDC considers that, when this objective is translated into performance requirements, it should ensure that whole-of-life operational and maintenance needs are considered at the design and acceptance stages. This should include matters such as safe access, compatibility with the provider's operating model, the ability to isolate and maintain assets, and appropriate supporting asset information, manuals, telemetry and availability of spares.

3. Codes of Practice. *Should codes of practice be structured by component, lifecycle activity, or both?*

MDC considers that, before determining how individual codes of practice should be structured, the Authority should first determine which matters genuinely benefit from national standardisation and which are better addressed through local engineering standards and professional judgement.

For those matters where a national code of practice is appropriate, MDC considers that a modular, component-led structure is likely to be easier for day-to-day design and review, supported by a small number of cross-cutting lifecycle modules for matters such as commissioning, handover, asset data, operation, maintenance and decommissioning. This would avoid unnecessary duplication across separate lifecycle chapters while recognising that some requirements apply across multiple infrastructure components.

MDC also supports Water New Zealand's recommendation that proportionality, affordability and whole-of-life value be considered when determining the technical requirements contained in the codes of practice. The level of specification should be proportionate to the performance outcome being sought, particularly where different design approaches can achieve the required outcome at materially different cost.

Codes of practice should remain focused on providing practical pathways for demonstrating compliance with the mandatory performance requirements and should not develop into exhaustive national design manuals.

Does the proposed structure reflect how sector users apply compliance pathways?

Only partly. Designers and reviewers commonly work by asset or component, while operators and asset managers work across lifecycle activities. The more important practical issue is that providers approve connections and accept vested assets into existing networks. They need to assess network effects, operational compatibility, access, future renewal and local service constraints, not merely whether a component matches a national detail.

MDC considers that national standardisation is likely to provide the greatest value in areas such as common definitions, asset data fields, as-built information, commissioning evidence, handover requirements, performance test methods and standard drawing conventions. Detailed sizing, configuration, material selection and local hydraulic or stormwater design may require greater flexibility to reflect receiving network conditions and should remain subject to provider-specific requirements where these are necessary to achieve the mandatory performance requirements.

Any code should state clearly that:

- a) it is one non-exclusive means of demonstrating compliance;
- b) water service providers retain the ability to specify additional or alternative requirements where these are reasonably necessary to address receiving network capacity, configuration, operational requirements, local hazards or other relevant local conditions, provided these are consistent with the mandatory NEDS requirements;

- c) no adverse inference arises merely because a national code is not used;
- d) alternative solutions are assessed against the mandatory performance requirements, rather than against the detailed solution contained in the code; and
- e) evidence requirements are risk-based, proportionate and comparable across compliance pathways.

4. The Prioritisation Approach. *Do you think the two prioritisation questions capture the most important things we should consider when prioritising the first set of NEDS? Is there anything else we should consider?*

They are relevant but incomplete. “Would national direction make a material difference?” should require evidence that local variation is causing a material problem, rather than treating variation itself as a problem. “How quickly can the area be standardised and codified?” risks favouring topics that are easy to codify rather than those where national standardisation would deliver the greatest benefit.

MDC’s position is consistent with Water New Zealand’s view that the expected material benefit of national standardisation should be given greater weight than how readily an area can be codified. MDC also supports Water New Zealand’s recommendation that the scale and frequency with which requirements are applied should inform the assessment of material benefit, and that dependencies between different areas of NEDS should inform the sequencing of development.

The prioritisation assessment should also consider:

- a) the net whole-of-life benefit after implementation, transition, assurance and alternative-solution costs;
- b) whether national intervention is the least-cost and least-restrictive response to the identified problem;
- c) the need for local variation due to geography, climate, hazards, network configuration, receiving environments and service levels;
- d) the effect on affordability for small communities and constrained schemes;
- e) interaction with existing regulation, consent conditions, standards and provider accountabilities;
- f) technical maturity, evidence quality and the risk of locking in a preferred solution or inhibiting innovation;
- g) provider capability, workforce and digital-system impacts;
- h) whether the proposed requirement can be objectively tested and audited;

- i) the scale and frequency with which the requirement is applied; and
- j) dependencies between different areas of NEDS that may affect the appropriate sequencing of development.

Looking at the full lifecycle of water supply, wastewater and stormwater infrastructure (from design and construction through to operation, maintenance and decommissioning), what are the areas where you currently see the most challenges and inefficiencies?

MDC considers that the most significant lifecycle challenges and inefficiencies are:

- a) incomplete or inconsistent as-built records, asset attributes and geospatial data;
- b) variable commissioning, testing, defect close-out and handover information;
- c) assets designed without sufficient consideration of whole-of-life operational and maintenance requirements, including safe access, isolation and future renewal;
- d) unclear and inconsistent evidence requirements for alternative solutions;
- e) poor integration between new development infrastructure and the capacity or operating constraints of existing networks;
- f) uncertainty about how new requirements apply to existing assets, including at the point of maintenance, renewal or upgrade; and
- g) duplication or conflict between regulatory instruments, consent requirements and provider standards.

Which areas do you think would benefit most from having a consistent national standard and code of practice?

MDC considers that the first tranche should focus on nationally useful interfaces, information and evidence requirements where consistency can deliver clear benefits, before moving into more detailed areas of engineering design where local context may be more significant.

Priority	MDC view
High priority	Common asset data definitions and minimum attributes; as-built and geospatial formats; commissioning and acceptance evidence; handover information; common terminology; and performance test methods.

Priority	MDC view
Selective priority	Outcome-based requirements for resilience, failure containment, safe access, isolation, whole-of-life operability and maintainability, network integration and monitoring, where national benchmarks can accommodate local risk, network and service context.
Lower priority for national codification	Detailed network sizing, local firefighting capacity, prescriptive materials or products, standard physical configurations, and detailed stormwater or hydraulic design where local context and receiving-network conditions are decisive.

Additional matters

Existing infrastructure and compliance triggers

MDC requests that the Authority clearly define how NEDS will apply to the maintenance, repair, renewal, upgrade and replacement of existing water services infrastructure. In particular, the framework should specify when work on an existing asset triggers a requirement to meet current NEDS requirements, and the extent to which any resulting obligation applies beyond the asset or component being worked on.

MDC would strongly oppose routine maintenance or minor works triggering disproportionate upgrades to existing infrastructure or connected networks. Compliance triggers should be risk-based and proportionate, take account of affordability and the remaining life and condition of existing assets, and provide for staged implementation where appropriate. These triggers should be subject to specific consultation before being finalised.

Water services bylaws

The proposal states that councils must implement water services bylaws setting out the process for inspection and approval. MDC is already reviewing its water services bylaws in response to the new requirements of the Local Government (Water Services) Act 2025 (“the Act”). Territorial authorities must complete their initial review of water services bylaws for consistency with the requirements of the Act no later than 27 August 2027 (s263 of the Act), with any amended or replacement bylaw made no later than 27 August 2030. MDC has already drafted amendments to its Trade Waste Bylaw and will be consulting on these amendments, along with its draft Trade Waste Discharge Plan, in March 2027.

MDC understands that statutory consultation on NEDS is scheduled for mid-2027, with a transition period during 2028/29. This creates a sequencing issue given the statutory timeframe for councils to undertake their initial review of existing water services bylaws.

MDC requests that the Authority provide clear guidance on how councils should take the developing NEDS into account when undertaking their initial bylaw reviews, and clarify the relationship between NEDS and the inspection, connection and approval provisions that will need to be included in water services bylaws. Model provisions and appropriate sequencing and transition arrangements should be provided sufficiently early to inform councils' bylaw work. Requirements confirmed too late could result in councils and water organisations having to revisit and amend bylaws shortly after completing statutory reviews or adopting replacement bylaws.

Administration and assurance

The proposal states that water service providers will administer the new arrangements. For councils such as MDC that continue to deliver water services through an in-house business unit, the practical implications of this role need to be clarified.

MDC requests that the Authority clarify how in-house water service providers will be expected to demonstrate compliance for their own infrastructure works, including what verification or independent assurance will be required, how any potential conflicts between compliance and infrastructure owner/operator functions should be managed, and what compliance information must be provided to the Authority.

Any assurance requirements should be proportionate to the nature and risk of the work and should avoid imposing unnecessary additional processes or costs on in-house providers.

Technical representation

The proposal notes that a technical reference group will provide specialist advice as the NEDS are developed. MDC considers that the technical reference group should include representation from small and medium-sized councils, rural and mixed networks, operators and asset managers with appropriate expertise covering drinking water, wastewater and stormwater, alongside other sector expertise. This will help ensure that the NEDS are practical and proportionate across different provider scales, network types and operating environments. This is consistent with Water New Zealand's recommendation that the Codes be developed and tested with a representative cross-section of the sector to ensure they are workable across different provider and network contexts.

MDC wishes to register its interest in participating in relevant technical workstreams as the NEDS are developed.

Water Services Strategies and investment planning

MDC understands that the NEDS are expected to have a transition period during 2028/29, before moving into a steady-state system from 2030/31. This creates a significant sequencing issue for water service providers that must adopt their first Water Services Strategies by 30 June 2027, before the detailed NEDS requirements and their potential cost implications are known.

MDC requests that the Authority provide guidance on the assumptions providers should make about NEDS when preparing Water Services Strategies and associated investment programmes before the detailed requirements are finalised. The Authority should also clarify how subsequent NEDS requirements are expected to be incorporated into adopted investment programmes, particularly where compliance would require additional or accelerated capital expenditure.

Implementation arrangements should recognise existing investment commitments and provide sufficient flexibility and transition time to avoid undermining affordability or requiring significant reprioritisation of adopted programmes.

Cost-savings claims

The proposal document includes estimates of potential OPEX and CAPEX savings over the lifecycle of water services infrastructure. MDC requests independent validation of these forecast savings and disclosure of the assumptions and evidence underlying the estimates. As noted in Water New Zealand's submission, the technical requirements ultimately adopted through NEDS will themselves have direct implications for infrastructure costs.

Any assessment of the net benefits of NEDS should account for the full costs of implementation, including bylaw and specification changes, training, systems, assurance and verification requirements, assessment of alternative solutions, transition costs, and any additional investment in existing infrastructure that may be triggered through renewal, upgrade or other compliance requirements.

The assessment should also consider how costs and benefits are distributed across different provider types and network sizes, including small and medium-sized providers and constrained schemes.

Liability and decision rights

MDC requests that the Authority clarify how liability will be allocated under the proposed NEDS framework, particularly where a water service provider approves or accepts an asset that has been designed and constructed in accordance with a national codes of practice but subsequently proves to be defective or fails to perform as expected. The liability implications of approving alternative solutions should also be made clear, so that providers are not inadvertently incentivised to favour the national code pathway because it is perceived to carry less risk.

The NEDS framework should also preserve the ability of water service providers to decline or condition connection or vesting where there are legitimate concerns about receiving network capacity, operational compatibility, maintainability or whole-of-life risk, even where an individual asset otherwise complies with the national performance requirements or a code of practice.

More generally, liability settings should appropriately reflect the respective responsibilities of designers, constructors, developers, water service providers and other relevant parties under the NEDS framework.

Recommendations

Manawatū District Council recommends:

1. That the Authority consider whether reviewing and updating NZS4404:2010 could provide a simpler and more cost-effective national baseline for relevant aspects of water infrastructure design before developing an extensive new suite of national codes of practice.
2. That the NEDS framework allow water service providers to specify additional or alternative requirements where reasonably necessary to address receiving network capacity, configuration, operational requirements, local hazards or other relevant local conditions, provided these are consistent with the mandatory NEDS requirements.
3. That national codes of practice operate as non-exclusive means of demonstrating compliance, with alternative solutions assessed against the mandatory performance requirements rather than against the detailed solutions contained in national codes, and without disproportionate evidence, administrative or liability requirements.
4. That the Authority establish a mechanism for sharing approved alternative solutions and supporting evidence where these have wider applicability, including to inform future updates to the national codes, while ensuring that shared solutions remain guidance rather than prescribed standards.
5. That proportionality, affordability and whole-of-life value be included as a common NEDS objective, so that requirements and compliance evidence are proportionate to scale, risk, function, service level and local context. These considerations should inform the technical requirements contained in the codes

of practice, with mandatory performance requirements also taking account of the risk being managed and asset criticality, including whether different minimum requirements are appropriate for different risk or criticality profiles.

6. That the performance requirements developed under Objective 4 ensure that whole-of-life operational and maintenance needs are considered at the design and acceptance stages, including safe access, isolation, compatibility with provider operating practices and appropriate supporting asset information.
7. That the Authority expand its proposed prioritisation assessment to consider evidence of material problems arising from current variation, net whole-of-life benefit, proportionality and affordability, the need for local variation, interaction with existing requirements, technical maturity and implementation impacts, rather than prioritising areas primarily because they can readily be standardised.
8. That the first tranche of NEDS prioritise areas where national consistency can provide clear value, including common asset data and as-built information, commissioning and acceptance evidence, handover requirements, terminology and performance test methods, before detailed design matters where local network and site context may require greater flexibility.
9. That the Authority clearly define when maintenance, repair, renewal, upgrade or replacement of existing infrastructure triggers compliance with current NEDS requirements, with triggers that are risk-based, proportionate and affordable and do not result in routine maintenance or minor works requiring disproportionate upgrades to existing assets or networks.
10. That the Authority provide early guidance, model provisions and appropriate transition arrangements explaining how NEDS should be reflected in water services bylaws, enabling councils to meet their statutory bylaw review obligations without unnecessary duplication or subsequent rework.
11. That the Authority clarify how in-house water service providers will demonstrate compliance, including verification or independent assurance requirements, management of potential conflicts and information requirements, with assurance requirements proportionate to the nature and risk of the work.
12. That the Authority provide early guidance on the assumptions water service providers should make about NEDS in Water Services Strategies adopted before the standards are finalised, and provide transition arrangements that allow subsequent NEDS requirements and costs to be incorporated into adopted investment programmes in an affordable and orderly manner.
13. That the Authority independently validate the forecast OPEX and CAPEX savings from NEDS and publish the underlying assumptions and evidence, taking account of the full implementation and transition costs and the distribution of costs and benefits across different provider and network types.
14. That the Authority clarify liability allocation under NEDS, ensure that alternative compliance pathways do not create disproportionate liability for water service providers, and preserve providers' ability to decline or condition connection or vesting where receiving-network, operational or whole-of-life risks are unacceptable.

15. That the Authority clarify how NEDS will interact with PAS 4509 and other firefighting water supply requirements, including the respective responsibilities of water service providers and other parties, and ensure that any firefighting requirements applied through NEDS are subject to explicit affordability and proportionality assessment and allow appropriate site-specific solutions.
16. That the Authority ensure the NEDS and codes of practice are developed and tested with a representative cross-section of the sector, including small and medium-sized councils, rural and mixed networks, and operators and asset managers with appropriate expertise covering drinking water, wastewater and stormwater.

Closing Matters

Manawatū District Council supports greater national consistency where it can demonstrably reduce unnecessary duplication, cost and uncertainty. MDC considers that the NEDS framework should focus national standardisation where it will deliver clear benefits, while retaining sufficient flexibility for water service providers to respond to receiving network conditions, local risks and operational requirements. The framework should be proportionate, affordable and focused on achieving efficient whole-of-life outcomes.

MDC thanks the Authority for the opportunity to provide feedback and welcomes the opportunity to participate in further consultation and relevant technical work as the NEDS are developed.

MDC agrees to this submission being made publicly available.

Yours sincerely,



Lyn Daly

Acting Chief Executive

Attachments:

- Submission from the Manawatū District Council on DZ PAS 4509:202X Firefighting Water Supplies – Code of Practice