

Wastewater environmental performance standards



Water Services Authority
Taumata Arowai

NZTIWF conference

13 August 2025

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Water Services Authority – Taumata Arowai



What are the benefits?



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Standards are expected to:

- provide the consistency and certainty needed to enable wastewater infrastructure improvements
- improve public health and environmental outcomes
- create cost efficiencies for councils and communities
- support improved performance through increased transparency
- ensure communities have access to better information
- ensure that overflows are better understood and managed
- make compliance and enforcement for regional councils easier



Striking a balance

Treatment quality vs cost

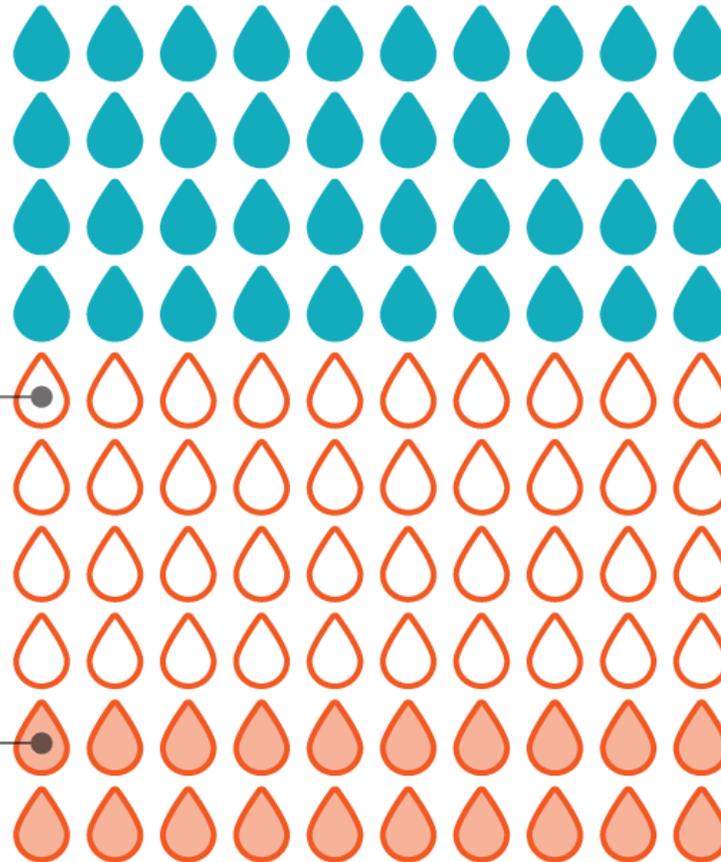
Rationale for change



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Around 60% of public wastewater infrastructure will require reconsenting in the next decade.

Of this number, 20% of plants are currently operating on expired resource consents.



KEY:

- Current
- Due to expire
- Expired

Legislative framework



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- The Local Government (Water Services) Bill provides that wastewater standards are **enacted by the Minister through an Order in Council.**
- Under the Bill, standards may be made for discharges to air, water, or land; biosolids and any other byproducts from wastewater; energy use, and waste that is introduced by a third party into a wastewater network (for example, trade waste).
- Standards **only apply to public wastewater networks.** (combined streams included)
- Standards have direct effect on resource consents (WWTP) at renewal.
- There are specific Treaty settlement obligations we must consider.
- The Authority has other functions that may be used alongside the standards.

Bill 3 interaction and timelines



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- The Local Government (Water Services) Bill on track to be enacted in August.
- Following enactment, we anticipate wastewater standards being passed ASAP subject to Ministerial and Cabinet processes. (Sept 25 TBC)
- Implementation over time as standards are implemented through new and renewed consents. Also upgrades over time enabled within consents
- 5 year lead in time
 - The Bill provides that if a consent expires in the three years following enactment of the Bill, it will be extended to three years after enactment.
 - Sunset clause on section 124 consents – change to maximum of 2 years, coming into effect 3-years following Bill passing.

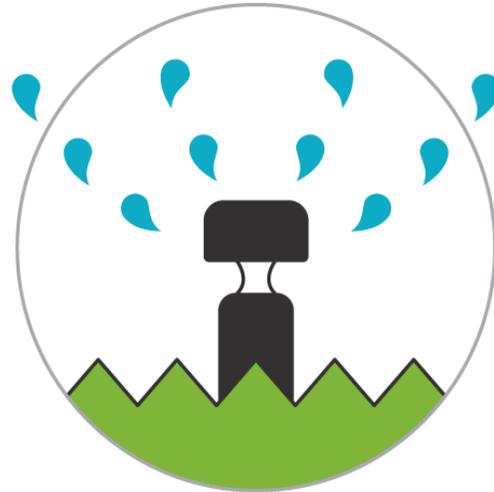
What the standards cover



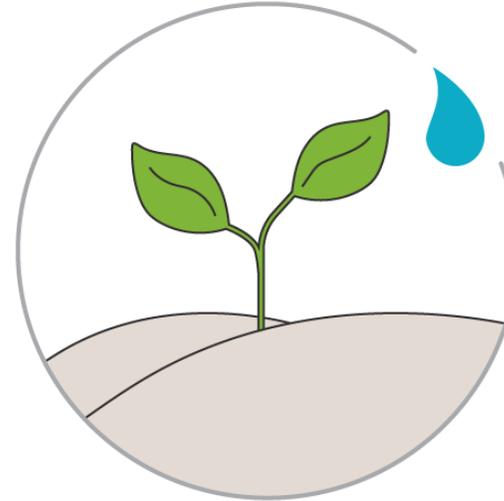
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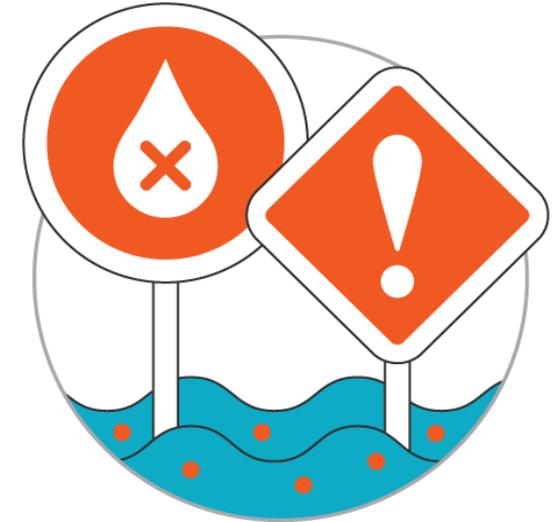
Discharges to water



Discharges to land



Beneficial
reuse of
biosolids



Overflows and
bypasses



Discharge to water



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What this standard proposes:

- **Categorises waterbodies** (e.g. lakes, rivers, ocean) based on their sensitivity.
- **Sets treatment requirements** for key contaminants found in treated wastewater, tailored to the category of waterbody, at a level to protect the health of communities and the environment.
- **Requirements for monitoring and reporting** to ensure treatment requirements are met.
- **Includes tailored treatment requirements** for existing small wastewater treatment plants.
- **Implemented through consent conditions** - regional councils can't require higher or lower levels of treatment for listed contaminants.
- **Note that a 35-year consent must be issued** when standards are complied with.
- **Proposes exceptions where standards do not apply** – e.g. pristine water bodies or where the discharge is to a very low dilution water body.

Discharge to water standard feedback

Support for the intent of the standards with varied recommendations and concerns, such as:

- **Receiving environments** – clarity in definitions and application, maximum coverage, concern with dilution ratio, existing environment conditions, cumulative effects, and lack of cultural consideration
- **Exceptions** – request for further exceptions such as statutory acknowledgment waterbodies
- **Small plants** – recommendations for alternative qualifying criteria, tailored treatment requirements, proportionate monitoring and reporting requirements
- **Treatment limits** – concern with pathogen and open ocean limits, support for QMRA and periphyton risk assessments
- Significant **iwi and hapū opposition** to the ongoing discharge of wastewater to water

Areas of further work:

- Review of concentration limits for pathogens and open ocean discharges
- Approach to QMRA for discharges near shellfish gathering and periphyton risk assessments for discharges to hard-bottomed rivers and streams
- Confirming receiving environment definitions, including standards for very low dilutions rivers and streams
- Operational requirements for small plants and refinements to qualifying criteria
- Clarity on how the standards apply to blended industrial and municipal streams



Discharge to land



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What this standard proposes:

- Requires a **site-specific risk assessment** that enables councils to determine at an early stage if land is suitable for discharging treated wastewater and what the likely cost will be.
- Sets **treatment requirements** and application limits for key contaminants based on the risk classification of the land.
- Sets **requirements for monitoring and reporting** to ensure treatment requirements are met.
- **Implemented through consent conditions** - regional councils can't require higher or lower levels of treatment for listed contaminants.
- Note that a **35-year consent must be issued** when standards are complied with.
- **Guidance** will be developed to support implementation.

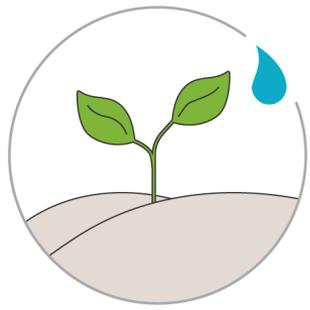
Discharge to land standard feedback

General support for discharge to land standard and direction but requests for additional detail about key elements of the standard:

- **Exceptions** – support for the range of exclusions proposed with emphasis on ensuring cultural sites are protected from discharges
- **Application limits** – concern that the proposed application limits were too permissive, particularly for nutrients on Class 1 sites
- **Further refinement** – many calls for further detail on how the site-specific assessment and corresponding land classification and application limits will respond to site-specific characteristics such as soil type and underlying hydrology.

Areas of further work:

- Developing standard for rapid infiltration systems (within discharge to land)
- Application of standards across dual discharge schemes
- Identifying key topics to inform guidance on baseline assessments and shortlisting of sites
- Confirming details of the site-specific assessment
- Review of application limits
- Confirm Management and Operations Plan and general monitoring requirements



Reuse of Biosolids

What this standard proposes:



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- Sets out an approach for grading biosolids.
- Sets out how specific grades of biosolids can be safely used and corresponding activity status.
- Establishes restrictions for biosolids with a lower grade.
- Includes monitoring and reporting requirements to ensure that each grade of biosolids is being used appropriately and safely.
- Based on long-standing Water NZ guidelines that have been reviewed and already implemented in consents and regional plans
- Implemented through consent conditions. Guidance will be developed to support implementation.

Reuse of biosolids feedback

General support for the overall intent of the standards and use of existing Water NZ guidelines

- Varied comment on **activity statuses** (support for proposed and stricter statuses suggested).
- Concern regarding **cumulative effects** of biosolid application.
- Management of **cultural effects** such as significant sites, transport across boundaries, use on sites with food production.
- Importance of **monitoring and reporting** on biosolid application.
- **Clear categorisation** of biosolids with corresponding **contaminant thresholds**.
- Support for the inclusion of **emerging contaminants of concern**.

Areas of further work:

- Permitted activity standards, matters of control, matters of restricted discretion
- Grading requirements to be made clearer in standard.
- Level of detail to provide in the standard, schedules, guidance, and leave to existing guidelines
- Approach to incorporating PFAS requirements into the standard (to reflect 2025 guidelines)



Overflows and bypasses



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What this standard proposes:

- Makes all existing overflow points from networks and bypasses of treatment plants a controlled activity under the RMA, applying ability to set activity status through the Local Government (Water Services) Bill.
- Sets specific requirements for monitoring and reporting of overflows from the network or treatment plant bypass, based on the risk to public health and the environment.
- Telemetric monitoring required at all engineered overflow points that are classified as high risk. new overflow points and pump stations as they are built and uncontrolled overflow points where overflows happen often.
- Reporting is separated into 'first response' and 'follow-up' reporting.
- Implemented through consent conditions. Guidance will be developed to support implementation.

Overflows and bypasses standard

General support for the move towards consistent consenting arrangements and monitoring and reporting requirements

- **Support for risk-based approach** to managing overflows and bypasses, provided minimum requirements were not deferred or avoided.
- Requests for **global overflow consents** to be mandatory and that **wastewater risk management plans** inform consent applications.
- Suggested refinements to **definitions**
- Requests that monitoring and reporting requirements are **practical and proportionate**

Areas of further work:

- Relationship and impact on existing network overflow consents and requirements in regional plans
- Matters of control
- Matters to be addressed in the risk assessment

Guidance and implementation



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- **Plain English guidance** for key elements or requirements of the standards, for example:
 - Descriptions for monitoring and sampling requirements such as 90th percentiles
 - Clear indications where standard provisions are to be adopted as consent conditions
 - Defining parameters of a breach and expected responses
- More detailed guidance, including **best practice examples** for procedural elements, e.g.:
 - Baseline and site-specific assessments for discharge to land (including rapid infiltration)
 - QMRA and periphyton assessments for discharge to water
 - Risk assessment and mapping for overflows
- The biosolids standard will be supported by the **2025 Beneficial Reuse Guidelines**.
- Working with Te Uru Kahika, territorial authorities, land treatment collective and individual sector experts to ensure that standards are workable and guidance is helpful

Impact of standards for trade waste



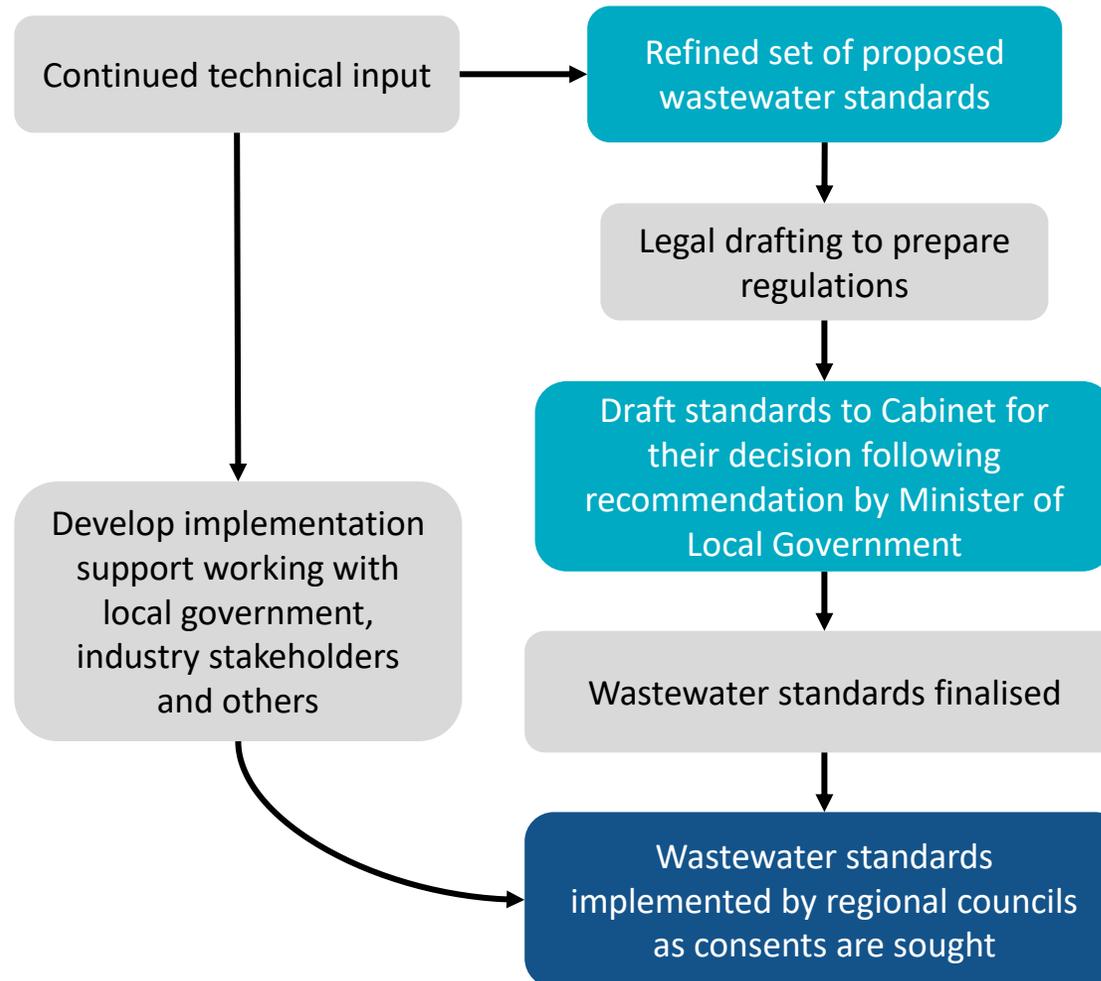
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- Worked with relevant councils to ensure standards don't disrupt consenting for combined streams
- The first set of standards will not set treatment limits for heavy metals. **Regional councils have ongoing discretion to control contaminants not covered by the standards**
- Trade waste arrangements will continue to be set locally, including for operators discharging directly to water or land (e.g., not joining the municipal wastewater stream)
- The standards provide greater certainty for infrastructure upgrades (and investment).

What next for the standards?



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Future Opportunities



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We will continue to explore opportunities for standardisation, including of:

- discharge to air / odour
- trade waste

The Local Government (Water Services) Bill also provides the Authority with new regulatory tools including:

- **National Engineering Design Standards** – these will set performance-based design requirements for water infrastructure, together with codes of practice – they will apply to new developments and upgrades of existing infrastructure;
- **Infrastructure Design Solutions** – these provide a blueprint design for wastewater / stormwater infrastructure that if implemented result in fast-track consents;
- **Stormwater standards** – these are similar to wastewater standards (implemented through consents) and could target quantity, containment or green infrastructure treatment



Questions? Discussion

What are your priority trade waste issues suitable for national regulation?

What should any future trade waste standards cover?