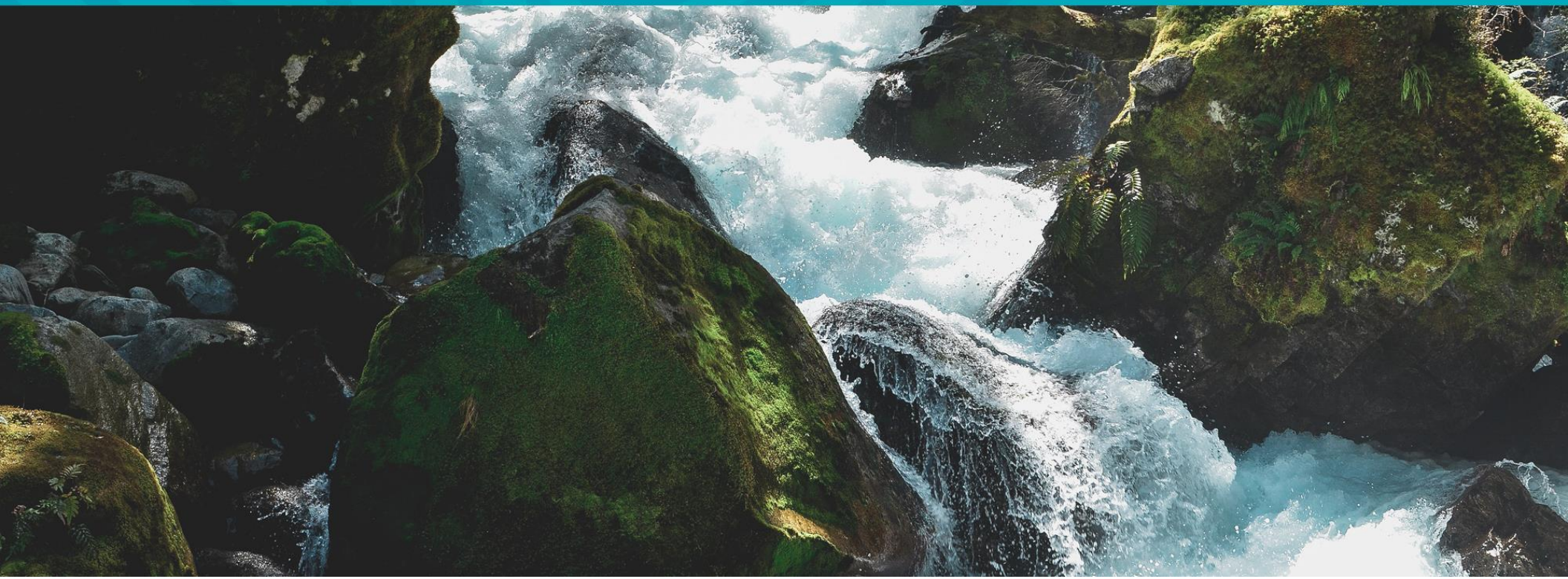
Unclassified

Wastewater Standards Technical Review Group

Wastewater Environmental Performance Standards: Discussion Document



Karakia tīmatanga

Whakataka te hau ki te uru
Whakataka te hau ki te tonga
Kia mākinakina ki uta
Kia mātaratara ki tai
E hī ake ana te atākura
he tio, he huka, he hau hū
Tihei Mauri Ora!

Cease the winds from the West
Cease the winds from the south
Let the breezes blow over the land
Let the breeze flow over the ocean
Let the red tipped dawn come with a sharpened air
A touch of frost, a promise of a day!
Sneeze, the breath of life!

Legislation update

Local Government (Water Services) Bill

Provides for arrangements for the new water services delivery system, including:

- Structural arrangements for water services provision such as establishment, ownership, and governance of water organisations
- Operational matters such as arrangements for charging, bylaws, and management of stormwater networks
- Planning, reporting, and financial management

Establishes a new economic regulation and consumer protection regime based on the existing regime in Part 4 of the Commerce Act (currently applies to electricity lines services, gas pipeline services, and airport services).

Introduces changes to the water quality regulatory framework and the water services regulator, including:

- Changes to the Water Services Act 2021 to reduce the regulatory burden of the drinking water quality regime and improve proportionality in the application of regulatory powers.
- A change in approach to Te Mana o te Wai
- A new 'single standard' approach for wastewater and stormwater environmental performance.

The Bill was introduced to Parliament in December 2024. Select Committee process is underway (submissions close on 23 February 2025). The Bill is expected to be enacted in mid-2025.

Discussion document overview

Structure of the discussion document

- **Introduction**:
  - Context, roles and responsibilities, relevant legislation
  - Our wastewater environment
  - Process to date to develop the standards

- **Proposed standards**:
  - Context, existing arrangements and useful definitions
  - The opportunity
  - Case study findings
  - Proposed approach – key considerations, exceptions, monitoring and reporting arrangements

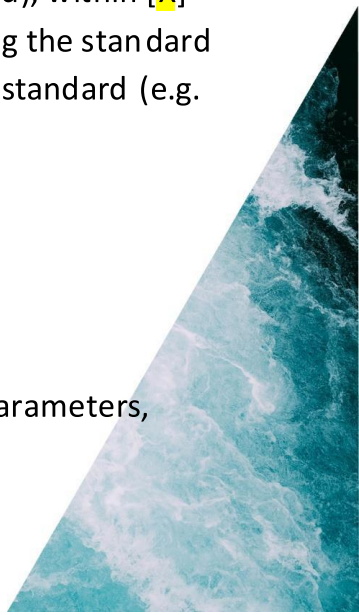
Discussion prompts

- Is the document easy to navigate and understand?
- Was there any information missing that would have been useful?
- Are there any changes that you think would improve the accessibility or readability of the document?

Proposed standards

Discharge to Water Standard

- Outlines treatment limits for specified **contaminants** that will vary depending on different types of waterbodies.
- **Receiving environment categories**: lakes and wetlands; rivers and streams; estuaries; low energy coastal and open ocean.
- Provides that, where a consent applicant is able to demonstrate they will meet treatment requirements imposed by the standard, the consent authority must issue a discharge consent with a 35-year timeframe.
- Sets tailored requirements for small wastewater treatment plants that are designed to service a peak population of less than 1,000 people.
- Proposes **exceptions** for discharges to high quality / pristine waterbody, aquifer, natural wetland (unlined, unsealed), within [X] metres of a drinking water abstraction point, or to a water body with naturally high levels of a parameter exceeding the standard limits. In such situations the existing resource consenting process will apply. For contaminants not covered by the standard (e.g. heavy metals), the existing resource consenting process will also apply.
- Imposes **monitoring and reporting** arrangements for treatment requirements.
  - End of pipe monitoring, based on 90th percentile
  - Graduated monitoring requirements based on WWTP size and complexity
  - Immediate reporting of breaches to the regional council, public monthly reporting on performance against parameters, annual reporting of compliance to regional council and the WSA.



Periphyton

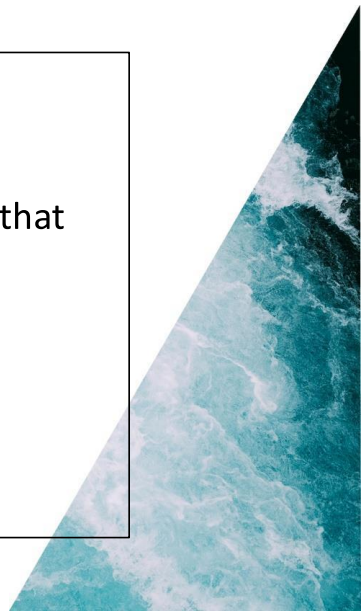
In most cases, proposed approach for Total Nitrogen and Total Phosphorous aligns with existing guideline limits. For Total Phosphorous, the proposed approach is less restrictive than suggested guideline limits.

Options to manage this:

1. for discharges to hard-bottomed waterbodies, developing a stricter site-specific standard for total phosphorous.
2. requiring a form of offsetting, such as planting riparian margins, where treated wastewater is discharged to hard-bottomed waterbodies.

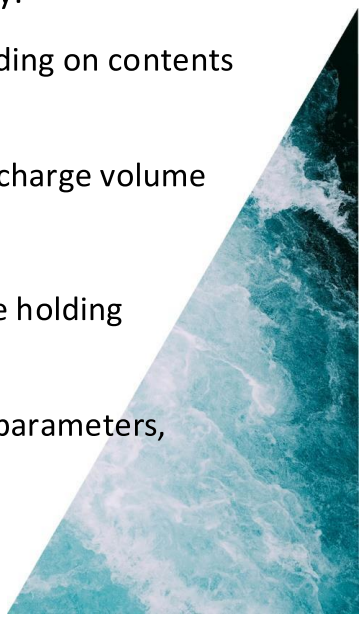
Discharge to Water discussion prompts

- Are we proposing to monitor the right parameters? Do these parameters reflect most of the effects that could result from treated wastewater discharge?
- Are the arrangements for small treatment plants set at an appropriate level?
- Are the exceptions appropriate?
- Which option for is more appropriate for monitoring periphyton growth?
- Are the monitoring and reporting arrangements proportionate?
- Will monitoring requirements support and facilitate operational efficiency?



Discharge to Land Standard

- Provides a framework for assessing the risk of specific discharge to land scenarios and then sets limits for total Nitrogen, total Phosphorus and *E.Coli* based on risk profile ('classes'). Each class will have a stand alone 'Management and Operation Plan', which will set out monitoring and reporting requirements to assist with operation.
- Provides that, where a consent applicant is able to demonstrate they will meet treatment requirements imposed by the standard, the consent authority must issue a discharge consent with a 35-year timeframe.
- Proposes **exceptions** for specific types of land that are not included by the standard (e.g. sloped land, heavy clay or porous soils), and land conditions to which wastewater should not be discharged (e.g. saturated or frozen land, or land at risk of flooding). For contaminants not covered by the standard (e.g. heavy metals), the existing resource consenting process will apply.
- Imposes **monitoring and reporting** arrangements for treatment requirements (note further technical advice pending on contents of Management and Operation Plans). Such arrangements may include:
  - End of pipe monitoring for all contaminants, based on 90th percentile, at a frequency determined by the discharge volume
  - Groundwater monitoring to assess impact upstream and downstream of the discharge site
  - Soil sampling where effluent has been discharged to land for more than 5 years to understand impact to the holding capacity of the soil
  - Immediate reporting of breaches to the regional council, public monthly reporting on performance against parameters, annual reporting of compliance to regional council and the WSA.



Discharge to Land discussion prompts

- Are we proposing to monitor the right parameters?
- Are the exceptions appropriate?
- Are the monitoring and reporting arrangements proportionate?
- Will monitoring requirements support and facilitate operational efficiency?

Beneficial reuse of biosolids Standard

- Outlines a **grading system** for processing biosolids, with corresponding activity status under the Resource Management Act 1991 for how and where biosolids can be reused. The grade will reflect the extent to which the pathogen content of the biosolids and vector attraction has been controlled, as well as the level of metals and organic chemical contaminants in the product.

	Contaminant grade 1	Contaminant grade 2
Pathogen grade A	Permitted activity planning control	Reuse under a specific discretionary resource consent or safety disposed of to landfill.
Pathogen grade B	Controlled activity planning control	

- Where biosolids have been processed to the highest grade (A1), application to land will be treated as a permitted activity. Biosolids with a lower grade will attract additional requirements – application to land will be a controlled or discretionary activity and therefore will require a resource consent.
- Proposes **exceptions** for specific types of land that are not included by the standard. In such situations, the existing resource consenting process will apply.
- Imposes **monitoring and reporting** arrangements reflecting the grade of biosolids.
  - People applying biosolids to land in significant quantities will need to provide records of their nitrogen application rate to a regional council.
  - Manufacturers who process biosolids will need to certify that biosolids meet the grading requirements of the standard to demonstrate they are safe for consumers.
  - Soil sampling where biosolids have been applied to land for more than 5 years to test contaminant levels

Biosolids – contaminants of emerging concern

Some **contaminants of emerging concern** are not included in the proposed standard (for example, PFAS). Instead, we propose keeping the matter under active review and may update the standard as new developments occur. The discussion document invites feedback on two options about how PFAS, as a contaminant of emerging concern, should be addressed in the short-term:

- **Option One:** Guidance to support implementation of the standards could include advice on contaminant grade areas of potential concern – such as organic contaminants like microplastics or PFAS. These areas could be brought into the standard over time, as research continues and there is greater capacity in the New Zealand market to test for contaminants of emerging concern.
- **Option Two:** This option would build on guidance issued as part of Option One. Alongside guidance, risk analysis could be undertaken to determine which wastewater treatment plants should test for contaminants of emerging concern. This would provide a local baseline for quantities of these contaminants that might trigger stricter regulation.

Beneficial reuse of biosolids discussion prompts

- Are the exceptions appropriate?
- What is your view on the options for addressing contaminants of emerging concern?
- Are the monitoring and reporting arrangements proportionate?
- Will monitoring requirements support and facilitate operational efficiency?

Monitoring and reporting arrangements for overflows

- Establishes risk-based planning, monitoring and reporting arrangement for wastewater network overflows. This will include:
  - Requiring network operators to use wastewater risk management plans to identify where risks of overflows are, and how they should be managed, controlled, monitored and eliminated.
  - Monitoring and reporting requirements for overflows from wastewater networks, with a focus on implementing telemetric monitoring for high risk overflows in the first instance, rapid public reporting of overflow events and follow up reporting on how an overflow was managed, its public health and environmental impact.
  - Making overflows a controlled activity under the Resource Management Act 1991, consistent with proposed changes through Local Water Done Well. This will require overflows to be consented, with the monitoring and reporting arrangements described above applied as consent conditions. This approach will ensure overflows are recorded and reported, improving our understanding of network performance and facilitating significant network efficiency, public health and environmental benefits over time.

Monitoring and reporting of overflows discussion prompts

- What conditions and matters of control should be apply to overflows as a controlled activity?

Overarching discussion prompts

Discussion prompts

- What is your view of how the standards work together across the four technical areas? Are they complementary?
- Are the treatment limits and receiving environment categories internally consistent and relative across all standards?
- Do you see any potential unintended consequences for what is proposed? E.g. overly stringent limits in one area creating in incentive to do something in another area
- Does the proposed standard for monitoring and reporting arrangements for overflows represent a proportionate and effective response to the problem?

Iwi and hapū perspectives

Case studies

- Iwi and hapū perspectives are an important consideration in the wastewater standards programme, particularly where Treaty of Waitangi settlement obligations arise.
- Engagement was undertaken with iwi, hapū, and marae who were involved in wastewater treatment arrangements at six wastewater treatment plants and individual case studies developed.
- The discussion document addresses the high level insights and themes from these case studies. The key insights included:
    - Human waste is considered tapu (prohibited) and must go through a process of whakanoa (cleansing) before it can be discharged back to the environment;
    - Discharges of wastewater should, where possible, be treated to the highest level to reduce environmental impacts;
    - Discharge to land is preferred, however there are circumstances where discharge to water is a more suitable option and has been agreed to due to cost and practicalities;
    - Resource consenting processes make good engagement difficult at times, and additional funding is needed to enable good engagement.

Did you have any feedback on the iwi and hapū perspectives shared in the discussion document?

Next steps

- The next version of the discussion document will include:
  - Consideration of how the draft standards are aligned to iwi and hapū perspectives.
  - More extensive narrative detailing relevant insights from iwi management plans and the case studies.
- We are also undertaking work with Kahu Environmental to further inform the develop of the standards. This work will also inform some of the narrative included in the next iteration of the discussion document.

Do you have any feedback on any other content we should include?

Close

Karakia whakakapi

Unuhia, unuhia
Unuhia ki te uru, tapu nui
Kia wātea, kia māmā
Te ngākau, te tinanga
Te wairua I te ara tangata
Tīhei Mauri Ora

Draw on, draw on
Draw on the supreme sacredness
To clear, to free the heart
The body, and the spirit of people
Sneeze, the breath of life!