

Understanding Stormwater and Wastewater Discharges

Freshwater Consultation Document

June 2024



The purpose of this document is to begin discussions about some of the high level changes to the regional rules for stormwater and wastewater discharges in Taranaki to help you provide feedback that will be used by the Council to prepare targets, limits and actions to manage and protect freshwater.

Throughout these documents we pose specific questions that we would like your feedback on. Look for the question mark to guide your responses.

This fact sheet is one of a suite of documents (listed below) that explore the specific water quality challenges facing the Taranaki region. The documents include analysis of the current state of play for each issue in the context of national standards as well as examining trends. They also discuss potential actions and responses to address the identified issues.

- Understanding Water Quantity and Water Allocation
- Understanding *E. Coli*
- Understanding Sediment
- Understanding Nutrients
- Understanding Earthworks and Land Disturbance
- Understanding Stormwater and Wastewater Discharges
- Understanding How Farm Practices can Help Water Quality
- Understanding Animal Effluent
- Understanding the Taranaki Economy

What we have heard so far

The information and options in this document reflect previous conversations with the community where we heard not only what people value about freshwater, but also what outcomes they want to see. The results of our previous conversations with the community can be found on the Have Your Say section of our website: <https://haveyoursay.trc.govt.nz/>

Working with iwi

Through the development of the proposed Land and Freshwater Plan, work has been ongoing with Nga Iwi o Taranaki Pou Taiao to understand and develop our knowledge of Tangata Whenua freshwater values. In developing the content of these fact sheets we have had regard to the information shared and discussed with us, and this is reflected in the management options presented. We will continue to work with Tangata Whenua to further refine approaches as the development of the proposed Plan continues.

We want to hear from you

Responses can be made via our online survey at <https://trc.govt.nz/helpshapetherules> or by getting along to one of the 16 public meetings around the region. Meeting dates and locations are available online. You can also respond in writing to the Council at policy@trc.govt.nz



This phase of community consultation begins on Monday, 10 June and ends Friday, 2 August.

There will be additional opportunities to engage on the proposed Plan as we move toward Plan notification in mid-2025. See the timeline in the next steps section of this document for further details.

Want to know more?

The information contained in this factsheet is informed by the Council's scientific investigations into environmental issues affecting the region's freshwater including sediment, *E. coli*, nutrients, and water allocation. The technical memorandums and supporting materials are available on the Council's website at <https://trc.govt.nz/helpshapetherules>.

Types of stormwater and wastewater discharges

Discharges need to be managed to help protect people and the environment from any contaminants that may be present. This fact sheet examines issues relating to different types of stormwater discharge as well as the various forms of wastewater discharge – all of which are described in the graphic below.



Discharges

Generally, discharges are fluids mixed with waste or excess products that require disposal. The Council must manage discharges and any contaminants they include when they enter the environment.

Effects of discharges on water quality

Discharges need to be managed to help protect people and the environment from any contaminants that may be present.

Poorly managed discharges can cause an accumulation of contaminants in our waterways. Inappropriate management of the flow rate and volume of a discharge can also cause erosion of river and stream banks and increase water levels in the receiving water body. These impacts can result in degraded water quality, increased human health risks when swimming, as well as reduced aquatic health and fish mortality.

What do our community want?

Our community has told us that they want healthy waterways and swimmable rivers. Our new framework will be designed to help us achieve these aspirations.

Introduction of a regionally consistent approach to water quality standards

Currently, various considerations are applied when determining the appropriate quality of a discharge, with different approaches to discharge consents being used on a case-by-case basis. This means that one discharge may be held to a higher standard than another.

Going forward, we are looking at developing receiving water quality standards based on the characteristics of a water body. This means that all discharges, regardless of their source, will have to meet these standards that reflect the characteristics of the water body they are discharging to.

It will allow us to focus on the overall health of the water bodies across the region, improve

consistency, address cumulative effects within a catchment and assist in monitoring progress towards freshwater goals, such as targets for *E. coli* and nutrients.

Promoting discharges to land

In the Proposed Land and Freshwater Plan (Proposed Plan) we will be promoting discharges to go to land where it is appropriate to do so. Discharging to land can offer additional treatment before the discharge enters water, and will assist in moving towards achieving improved water quality.

Discharges to land can reduce direct environmental effects on water bodies and aligns better with cultural values of tangata whenua. However, simply diverting discharges to land does not remove the risk of having an effect on freshwater. When discharging to land, it is important to consider the soil's ability to absorb and treat the discharge effectively and to avoid the contamination of groundwater.

In areas where soils are unsuitable and groundwater is connected to surface water, contaminants can easily reach water bodies such as lakes, rivers and estuaries, particularly when the soil is saturated following rainfall. In proposing a framework that prefers discharges to land, criteria such as distance to freshwater and groundwater systems, along with geology, slope, drainage, climate and erosion susceptibility will also need to be taken into account.

Stormwater

Stormwater is the water that runs off our roads and roofs when it rains. In urban centres the roof water from homes and businesses is either discharged via soak holes in gardens and green areas or is diverted by pipes into the urban reticulated stormwater network (the network).

Stormwater that accumulates on roads within towns and cities flows directly into the network via the storm drains seen on the sides of streets and roads. The stormwater collected from different parts of towns and suburbs is then directed and channelled via the network before being discharged into land via settlement ponds and swales or directly into streams, rivers or the sea.

Stormwater picks up an array of contaminants as it travels across roads, pavement and other impermeable surfaces. These contaminants can include nutrients (such as nitrates and phosphates), harmful microorganisms (such as *E.*

coli), sediment, heavy metals (from roofing and car tyres), hydrocarbons (from our roads and driveways), litter and microplastics.

In Taranaki, like other regions, stormwater predominantly occurs in urban centres and on roads and state highways, where the largest areas of impermeable surfaces are found. The amount of stormwater that accumulates is directly related to the area of cover, with larger towns requiring more significant and costly infrastructure to control stormwater flow. The rural environment, in contrast, rarely has to manage stormwater due to the extent of natural surfaces that allow rainfall to naturally infiltrate into the ground or runoff into rivers and streams.

We are considering the introduction of a more rigorous approach to the management of stormwater discharges. Further detail on what we are proposing and why are detailed in the next section.



Do you support a more rigorous approach to manage stormwater discharges?



Proposed changes to stormwater direct discharges

Currently most stormwater discharges, regardless of volume, are enabled as permitted activities. While smaller volume stormwater discharges from households to land are appropriately managed through a permitted activity, we are concerned about the cumulative impacts from larger reticulated networks on our urban water bodies. We are therefore considering the introduction of a more comprehensive and fit for purpose framework that can differentiate between the volume, type and discharge location (eg to land or to water).

The introduction of a more comprehensive fit for purpose framework will provide the support we need to move towards achieving our regional aspirations for water quality and achieve targets for *E. coli* and nutrients.

New vs existing stormwater discharges

Due to the significant infrastructure that is already in place, particularly for public stormwater systems, we need to think carefully about how we manage existing discharges of stormwater.

Under our new approach, we are proposing to handle existing stormwater discharges differently from new ones, acknowledging historical issues that may require significant investment. To prevent further exacerbation of impacts, new developments will be held to higher standards from the get-go, implementing natural solutions,

requiring discharge to go to land where conditions allow, and promoting stormwater reuse wherever possible to reduce stormwater volumes needing to be discharged.

To address our historic challenges, we propose to allow some time for upgrades to be implemented using a targeted consenting pathway. All urban reticulated networks will require a resource consent under the new framework, and homeowners and businesses will be encouraged to either discharge to land or recycle their stormwater through a permitted framework.

As well as impacts to water quality, poor stormwater management in urban areas also increases the risks of localised flooding, especially in a changing climate. In the proposed updated approach, existing networks will also be encouraged to think about innovative ways to reduce discharge volumes by recycling and reusing water where possible to reduce volumes. This will help future proof our urban environments to climate change and support community resilience to floods.

Industrial and trade stormwater

The current framework already requires larger industrial and trade premises to apply for a resource consent to discharge stormwater. Smaller trade and industrial premises may discharge as a permitted activity without the need for a consent. Due to the diverse nature of trade and industrial activities and the types of contaminants that can arise we want to ensure appropriate mitigation measures are in place.

So we are considering the benefits of requiring stormwater from industrial and trade premises to get the approval of a resource consent.



- *Over what timeframe should we consider transitioning the urban reticulated stormwater network: 5 years, 10 years, 10-20 years?*
- *Do you support using level of risk to the environment for the management of stormwater from industrial and trade processes?*

Wastewater

Wastewater is generated in places where people live, gather, or work and is managed differently based on its proximity to urban centres.

There are three types of wastewater:

- Industrial and trade wastewater (from manufacturing or processing)
- Sewage (human waste) and
- Greywater (typically from bathrooms and kitchens).

Contaminants in wastewater, such as sediment, nutrients (nitrogen and phosphorus), bacteria (*E. coli*), and other contaminants, can all degrade water quality if not managed properly.

Industrial and trade wastewater is the liquid waste produced by commercial and industrial activities. These premises are often located near urban centres to use local services, but in Taranaki, significant industrial and trade operations also exist in rural areas. In such cases,

wastewater is either transported to a treatment facility or treated on-site before being discharged into the environment. The composition of this wastewater varies greatly depending on the operation's scale, size and type of activity. Industrial and trade wastewater can include cooling water from process heat, truck wash, meat processing fluids and wastes from producing asphalt and concrete.

In urban areas, all three types of wastewater - industrial and trade, sewage, and greywater - are usually transported from homes or businesses through a wastewater network to a centralised treatment facility. Here, the wastewater is treated before being released into the environment.

These networks and treatment facilities are operated by the three district councils. The regional council approves discharges from these systems, setting conditions for how the discharge should be managed and treated.



In rural areas, sewage and greywater can be managed using on-site wastewater management systems (OWMS), where the wastewater is discharged directly into the land. OWMS includes various systems for properties not connected to the main wastewater network. One common type is the septic tank, which needs a suitable area of land (an effluent field) to absorb the liquid waste. The solids must be removed by a specialist truck every few years and are taken to a wastewater treatment facility. Other examples of OWMS include pit latrines (long drops) and composting toilets. When properly maintained, these systems have low environmental impact.

No matter the location, type of wastewater or system used to collect, treat and discharge, all wastewater must be properly treated to meet public health and environmental standards before being released into land or freshwater

Proposed management approaches

To mitigate the environmental impact of wastewater discharges, protect human health and enhance water quality, we have proposed several options which are outlined below.



Management of industrial and trade wastewater discharges

The methods for managing industrial and trade wastewater in the Current Plan are considered effective and will likely need only minor changes in the Proposed Plan.

The new approach will continue to allow low-risk discharges, such as cooling water and truck wash, to be released onto land with certain conditions to prevent soil contamination and degradation.

More significant activities will still need resource consent, which will evaluate the specific effects of the discharge on the environment on a case-by-case basis. This approach, along with improving water quality standards, may lead to better treatment methods for both new and existing discharges.



Proposed changes for wastewater treatment facilities

Our Current Plan allows wastewater treatment facilities to discharge to both land and freshwater on a case-by-case basis, using a flexible but stringent approach.

The Proposed Plan continues a discretionary activity pathway but will require all new discharges from wastewater treatment facilities to be to land only. We propose to make new direct discharges of wastewater from treatment facilities to freshwater a non-complying activity. Retaining a preference to land unless the adverse effects are considered to be of a greater consequence.

We acknowledge that transitioning existing facilities to land-based discharge will be costly and requires careful implementation.

Existing discharge permits have different expiration dates, giving some resource consent holders limited time to switch to land-based discharge.



- *Do you support the current approach of:*
 - *maintaining permitted pathways for discharges of low risk activities to land (ie cooling water and truck wash) and*
 - *consented pathway to land and water for more significant activities?*
- *If so, are there other low risk activities (beside cooling water and truck wash) that we should consider?*

This transition could have significant financial impacts for some districts. It's important that resource consent holders and the community understand the standards they need to meet and are given enough time to make necessary changes. We are reviewing the merits of a transitional approach for moving existing wastewater treatment facilities to land.

We want your feedback on reasonable period for transitioning from water to land discharges. The table below sets out options for phasing out discharges to water from existing wastewater treatment facilities. Tell us what you think.

Option	Description	Phase out ends	Flexibility	Fairness
Immediate transition	All consents that currently discharge to freshwater must transition to land when their current resource consent expires	2041	Low	Low
Staged Transition	All consents expiring before a certain date (for example, 2030) can be replaced once, with a short duration resource consent (5 years). This approach would likely provide those with early expiry dates similar transition times to those with later expiry dates and would likely speed up the overall phase out.	2041	Moderate	High
Individual transition	All consents can be replaced once with a duration that is based on the individual circumstances of the district and the changes/ upgrades required to shift to a land discharge up to a maximum of ten years. This approach would likely allow for a longer transition period for all current resource consent holders but also delay the improvements to water quality.	2051	High	High



Which of these options do you prefer? Are there any other options we should consider?



Improving septic tanks

Issues with septic tanks usually occur locally and acutely.

Over time, these issues can collectively lower the water quality of the surrounding areas. This has been observed in areas like Urenui and Onaero.

In some cases, these systems fail to protect human health and the environment, often due to aging tanks or newer systems that are poorly designed, installed or maintained.

Problems can also arise when non-compliant septic tanks discharge directly or unintentionally into freshwater or groundwater.

The Current Plan allows for a relatively permissive approach to septic tanks. We think the Proposed Plan needs stricter standards to better protect human health and the environment.

It is appropriate to continue allowing new septic tanks or modifications to existing systems that meet best practice and industry standards. However, replacing existing systems to meet new standards can be expensive.

So we are proposing a permitted or controlled pathway for existing septic tanks provided there are no adverse effects on human health or the environment. The two options are outlined in the table over the page. Tell us what you think.

Option	Description	Phase out ends	Flexibility	Fairness
Permitted pathway for existing septic tanks	All discharges from existing septic tanks continue to be a permitted activity, as long as they do not have an adverse effect on human health or the environment. It would largely be up to private individuals to determine if their system is compliant with the new rule.	High	Moderate	High
Controlled pathway for existing septic tanks	All discharges from existing septic tanks would be a controlled activity, meaning a resource consent is required but Council must grant. This would allow for TRC to make assessments on each application, aligning to the matters of control, and to apply conditions of resource consent to be monitored, so that adverse effects on human health or the environment do not occur.	Moderate	Moderate	Low



Do you think existing septic tanks should be managed as permitted or controlled activity in the Proposed Plan?



Introducing permitted rules for managing pit latrines and composting toilets

The Current Plan for Taranaki does not have specific rules for pit latrines or composting toilets. Instead, they fall under a general discretionary process for land discharges.

In the Proposed Plan, pit latrines and composting toilets will be allowed without a consent, as long

as they meet certain conditions that will avoid adverse effects on the environment. Some of these conditions will include: appropriate distance from waterbodies, ensuring placement above the highest seasonal water table, and backfilling the area after use. Including these new rules is seen as an effective solution for managing these systems.



Do you support a permitted pathway for pit latrines or composting toilets?

Next steps: setting the targets

Feedback you provide through this process ultimately helps shape the rules that the Council will put in place to protect and manage freshwater. The rules will appear in the Proposed Land and Freshwater Plan (Proposed Plan) that will replace the region's Current Freshwater Plan (Current Plan) which is more than 20 years old.

Next steps for the Council are:

- Continue to develop the science on sediment, nutrients, *E. coli*, effluent and a range of other measures of water health as well as the potential options to manage these challenges
- Use your feedback on proposed targets to help shape rules that apply to discharges in the Proposed Plan.
- Work toward further community engagement on refined policy options and additional science.

We want to hear from you

There are many ways that you can share your view with us:



Join us at one of 16 **community meetings** around the region. Meeting dates and locations are available online.

You can also **write to us**:

Policy Manager, Freshwater Consultation,
Taranaki Regional Council, 47 Cloten Road,
Stratford.

Email us at policy@trc.govt.nz

Take our online survey at
<https://trc.govt.nz/helpshapetherules>

Timeline



Jan 2021–Sept 2022

Understanding the story so far

Collating the story of what's happening with Taranaki freshwater to inform conversation with the community, special interest groups and iwi.



Apr 2021–Dec 2022

Vision, values and FMUs

A chance for people across Taranaki to give their feedback on the region's draft FMUs, the visions that will establish the long-term goals for those units and the values which apply to them.



2023

Te Mana o te Wai

Exploring how Te Mana o te Wai can be applied in Taranaki and how our planning framework can improve the way that tangata whenua and communities are involved in freshwater management decisions.



Sept–Oct 2023

Freshwater outcomes and change drivers

Closing the loop on what we learned with our engagement so far and what it will mean for how we go forward with improving the quality of our water, the timelines and where the pinch points might be.



June–July 2024

Setting targets

Exploring potential targets for key areas linked to improving water quality.



Nov–Dec 2024

Limits

Exploring the potential rules that may be introduced through the proposed Land and Freshwater Plan to drive the change to achieve the targets we set for freshwater.



Feb–April 2025

Feedback on Draft Plan

Iwi, special interest groups and stakeholder engagement and feedback on the draft Land and Freshwater Plan.



Mid 2025

Plans notification

The Land and Freshwater Plan will be publicly notified prior to a formal submissions and hearing process.



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