

Understanding Earthworks and Land Disturbance

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 earthworks and land disturbances to help you provide feedback. Taranaki Regional Council (the Council) will use to prepare targets, limits and actions to manage and protect freshwater.

This factsheet is one of a suite of documents that explore the specific water quality challenges facing the Taranaki region. They 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.

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

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 those conversations can be found on 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 Ngā iwi o Taranaki Pou Taiao to understand and develop our knowledge of tangata whenua freshwater values. In developing these factsheets, we have had regard to the information shared and discussed with us, and this is reflected in the management options presented. We will continue work with tangata whenua to refine approaches as development of the proposed Plan continues.

We want to hear from you

Have your say via our online survey at <https://trc.govt.nz/helpshapetherules> or by getting along to one of 16 community drop-in sessions around the region. Meeting dates and locations are available online.

You can also respond in writing to the Council at 47 Cloten Road, Stratford or email policy@trc.govt.nz.



This phase of community consultation begins on Monday, 10 June and ends on 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 for further details.

Want to know more?

This factsheet is informed by the Council's scientific investigations into environmental issues affecting the region's freshwater including sedimentation, *E. coli*, nutrients, effluent and water allocation. The technical memorandums are available at <https://haveyoursay.trc.govt.nz/>.



Effects of earthworks on water quality

Earthworks refers to activities like excavation, drilling, contouring, blading, filling and earth movement, which manipulate soil and land surfaces. Gardening, cultivation and disturbance of land for the installation of fence posts are not considered earthworks.

Land disturbance and earthworks are required when preparing land for both urban and rural development. If earthworks are not well managed they can have significant environmental impacts, particularly on freshwater and aquatic habitats.

This fact sheet focuses solely on earthworks conducted on land, excluding earthworks and disturbances within riverbeds or lake beds.

Erosion and sediment loss

Sedimentation poses a significant threat to aquatic habitats and jeopardises the flood carrying capacity of rivers and streams. When proper practices are neglected, earthworks can trigger soil erosion and sediment loss into nearby waterbodies.

The risk of erosion and sediment loss escalates under the following conditions:

- sparse vegetation cover
- steep terrain
- proximity to riverbanks or lakes
- disturbance of land
- areas with high and intensive rainfall
- soil characteristics particularly soils with a high amount of medium (silt)-sized particles.

Given these conditions, certain catchments, such as those in hill country areas, face a heightened risk of sediment loss compared to others across the region. The severity of the impact of sedimentation increases significantly when earthworks occur on contaminated land, owing to the concentrated presence of contaminants in sediment loads.

Recent data on sediment concentrations in waterbodies across the region indicate that load reductions are required to achieve national bottom lines as well as to achieve community aspirations for ecosystem health and other values.

Groundwater contamination

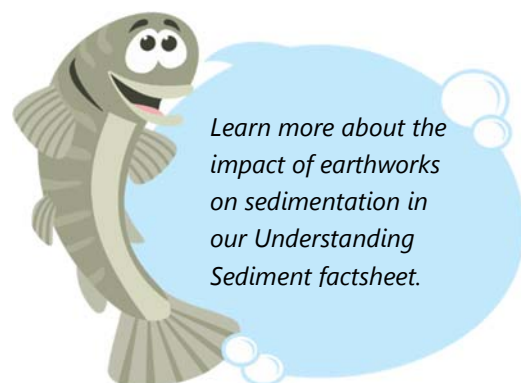
Earthworks can negatively affect groundwater quality by disturbing and destabilising natural aquifer confining layers that prevent contaminants from reaching groundwater. Additionally, earthworks can alter the flow patterns of surface water, potentially redirecting run-off containing pollutants towards groundwater sources. If earthworks occur in areas with existing contamination, disturbances to the soil can mobilise contaminants, polluting groundwater.

Land instability

In addition to surface water and groundwater risks, earthworks can lead to land instability. Instances of land instability may be created where excavations undercut a hillside, or where excavations result in un-retained or bare hillsides.

Increased flooding and reduced flood carrying capacity

Earthworks can create or worsen hazard potential. For example, embankments and channel creation can alter the natural flow patterns of rivers, reducing their flood carrying capacity by constricting channel widths and increasing the water velocity. These alterations can exacerbate flood risks downstream, leading to more frequent and severe inundation events in adjacent areas.



Learn more about the impact of earthworks on sedimentation in our Understanding Sediment factsheet.

Proposed actions for managing earthworks and land disturbance

The current Freshwater Plan manages the discharge of stormwater and sediment resulting from earthworks, but does not include rules for the earthworks activities themselves. The Proposed Plan will introduce a set of rules to address this gap.

Due to the potential impacts on the quality of freshwater, drinking water and aquatic habitats, we are proposing to introduce a regulatory framework to manage the localised effects of earthworks, land disturbance and sediment run-off.

To ensure a risk-based approach to the management of these activities the Council is investigating a suite of potential management approaches as follows:



Allowing small-scale earthworks, land disturbance and sediment run-off to occur as a permitted activity (no resource consent required)

Under the new framework, the Council is seeking to allow small-scale earthworks to continue, provided earthworks sites are not located near potentially sensitive receptors (such as freshwater bodies, drinking water supplies and culturally sensitive areas). This is intended to allow small-scale activities for the purpose of maintenance and development without resource consent.



- *Do you support the proposed management approach (actions 1, 2, 3 and 4)?*
- *What impact would the proposed management approaches have on you?*



Requiring resource consents for larger scale earthworks, land disturbance and sediment run-off

The Council is seeking to manage larger scale earthworks that are near sensitive receptors (such as freshwater bodies, drinking water supplies and culturally sensitive areas). This will mean that where the area of earthworks exceeds 2,500m² (quarter of a rugby field) per site in any consecutive 12 months, a resource consent will be required.



Do you consider 2,500m² per site in any consecutive 12 months to be an appropriate threshold for large scale activities? Why?



Additional management controls

Earthworks on contaminated or potentially contaminated land will also require resource consent. Land is most often contaminated as a result of historical activities and industries when a lack of knowledge or suitable legislation meant hazardous substances were inappropriately used, stored or disposed of. This consent requirement is intended to ensure any other contaminants (such as hydrocarbons from petrol stations and heavy metals) that may be within disturbed soil do not cause harm to freshwater, drinking water quality or aquatic habitats.



What on-site practices do you use to manage earthworks?



Erosion and sediment control plans

For all activities enabled through a resource consent, the Council is seeking the adoption of erosion and sediment good management practices. Erosion and sediment control plans are increasingly adopted for earthwork activities nationwide. An erosion and

sediment control plan summarises the characteristics of a site and project and describes the erosion and sediment control tools to be used on site. Erosion and sediment control plans are adaptable and able to be applied for all scales of earthwork activities. Having a clear plan for erosion and sediment control can minimise the adverse effects on the environment from earthworks and provide benefits to the project.



Do you undertake forestry-related earthworks? If so, how would the management options impact on your operation?



The current Freshwater Plan manages the discharge of stormwater and sediment resulting from earthworks, but does not include rules for the earthworks activities themselves. The Proposed Plan will introduce a set of rules to address this gap.

Next steps: Setting the targets

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

Next steps for the Council are to:

- 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 earthworks and land disturbance in the Land and Freshwater 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 views 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.



Regional and district council responsibilities

Regional and district councils are responsible for controlling different aspects of earthwork activities. Typically regional councils focus on the effect of earthworks on water quality and ecosystems, while district councils focus on land-use effects such as amenity values, historic heritage and land stability. To prevent confusion the Council works with district councils to avoid unnecessary duplication of consent processes in relation to earthwork activities as policy development continues.



Phone: 06 765 7127

Email: info@trc.govt.nz

Web: www.trc.govt.nz

Facebook: TaranakiRegionalCouncil