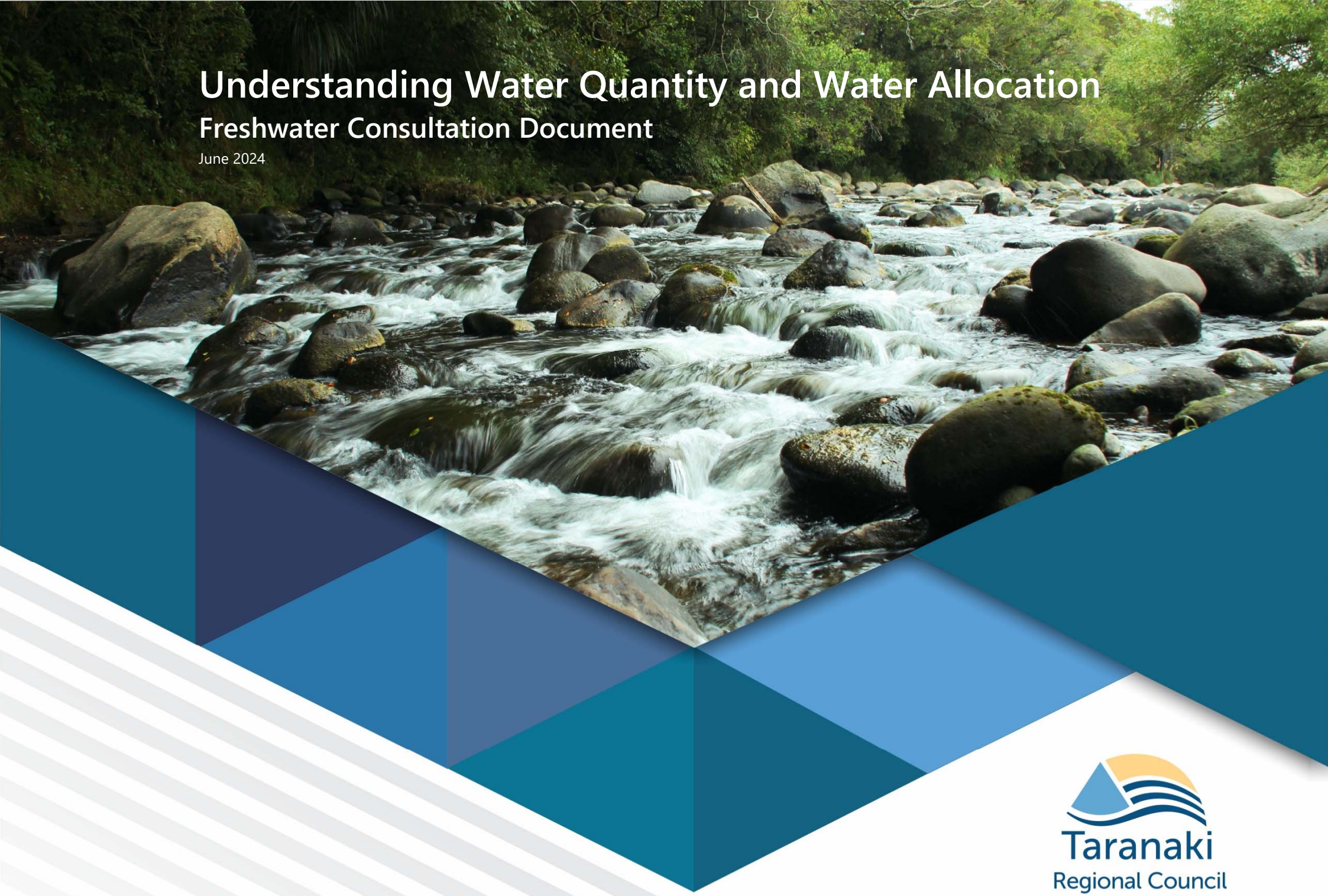


Understanding Water Quantity and Water Allocation

Freshwater Consultation Document

June 2024

Taranaki Regional Council

The purpose of this document is to seek feedback about high-level changes to the regional rules for water allocation. Taranaki Regional Council ('the Council') will use your comments to prepare targets, limits and actions to manage and protect freshwater.

This fact sheet is one of a suite of documents that explore the specific water quality challenges facing Taranaki. 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 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 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://trc.govt.nz/helpshapetherules.

Contents

Freshwater in Taranaki

Taranaki has a lot of freshwater due to its rainfall and topography, both on land (in rivers and lakes) as well as underground (in aquifers). Although there are few major river catchments, there are more than 500 named rivers and streams in the region. More than 300 rivers and streams flow from the flanks of Taranaki Maunga in a distinctive radial pattern across the ring plain. Ring plain rivers are usually short, small and fast flowing.

There are 12 underground groundwater systems or aquifers in Taranaki. The largest groundwater aquifer covers a large part of the region. The amount of water available for use each year within this aquifer alone is equivalent to almost nine times the amount of water in Lake Taupō.

Overall, there is enough freshwater in Taranaki to meet current demand. However, too much water is taken in some places and very little is taken in other places. Most water is taken from small streams, where the impacts can be more significant than in larger water bodies. Rivers and streams have typically been preferred to groundwater sources because water can be taken at a much lower capital cost.

What is the Council's role?

The Council is responsible for controlling the quantity, level and flow of water in water bodies and the taking and use of water. This includes setting environmental flows and levels and take limits for all water bodies in the region. Flows, levels and limits will be set to achieve the community's aspirations for freshwater, which are described in the environmental outcomes for values in each Freshwater Management Unit (FMU).

Water bodies are over-allocated if the water taken is more than their take limit or it results in the flows and levels set for them being unmet. The Council needs to phase out over-allocation and avoid future over-allocation. The number of catchments considered over-allocated depends on the flows and levels and take limits in place.

The Government has directed Council to group all of its water bodies into Freshwater Management Units (FMUs). This allows Council to set targets and management options that respond to the needs of those water bodies.

Environmental flows and levels and take limits

River flow influences all parts of a river's health, including its form and channel structure, how sediment moves downstream and the amount of habitat for fish. River flows are not constant; they change through time due to weather events, seasonal cycles and climate variability. To protect the health of our water bodies and avoid too much stress on their ecosystems we need to recognise this variability.

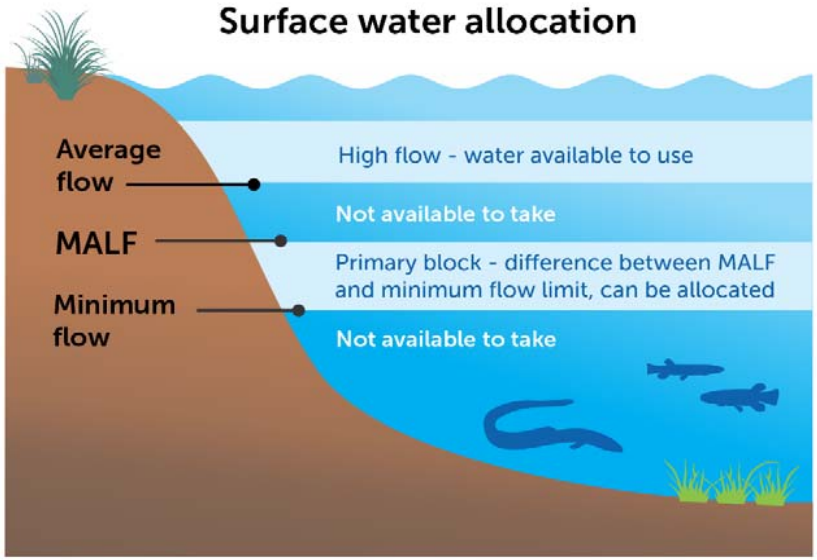
Low flows have a big impact on water bodies, so it is important to set a minimum flow. This is the lowest flow a river can have and still support communities of healthy fish and aquatic insects. When a river gets down to its minimum flow, people have to stop taking water until the flow rises again.

We also set limits on how much water can be taken or allocated for different activities. These are called take limits. Minimum flows and take limits are levers that work together to ensure the amount of water taken, and when, keeps water bodies healthy. They help to manage water takes under different conditions and provide certainty to users of their obligations.

Current approach

Most water users need a reliable supply of water, for example, so they can irrigate crops at the right time. Reliability refers to how much of the time people can take water. Under the Current Freshwater Plan (Current Plan), reliability of supply is 97% to 100%. This means there are up to 11 days per year when users have to stop taking water because the river has dropped to its minimum flow. However, most takes are from small streams which feel the impacts of water abstraction much more than larger rivers. The Current Plan does not differentiate between different sized rivers, which is necessary to protect the health of smaller water bodies and ensure water users have a reliable supply throughout the year.

The graph below depicts the catchments that are over allocated under the current approach.



In Taranaki, minimum flows are expressed as a percentage of the river's mean annual low flow (MALF). Percentages of MALF are a way to show the amount of change in a river compared to its natural state. The higher the percentage, the more water stays in the river and the higher the minimum flow is. Under the Council's Current Plan, all rivers and streams (regardless of their size) have a minimum flow of 66% of MALF. This was designed to protect two-thirds (66%) of a river's habitat or, alternatively, allow the loss of one third of the river's habitat as a result of taking water.

Mean annual low flow (MALF) describes how much water flows in a river during its driest periods each year. By knowing the MALF, we can predict how much water will be available during dry spells and make better decisions to ensure there is enough for people, animals and plants.

There are currently 114 consents to take surface water in Taranaki. Of these, 51 (45%) have more than 33% of MALF allocated[1] and 44 (39%) do not have a minimum flow set.

The amount of groundwater allocated is very low, with only minor increases in demand over the last 10 years. The highest allocations are in the Whenuakura aquifer, which has around 11% of its sustainable yield allocated, and the Matemateāonga aquifer, which has around 3% allocated. All other aquifer allocations combined make up less than 1% of the region's available groundwater.

A new approach

We want to ensure Taranaki continues to meet the social and economic needs of its residents and communities while, at all times, ensuring water is available to allow the ecological functioning of our waterways and to protect their values.

We are proposing a new approach based on three key principles:

- Managing different sized rivers in different ways
- Achieving 90% species protection
- Accounting for the likely effects of climate change

Managing different sized rivers in different ways

One of the key factors that affects how rivers are impacted by water take is their size, with smaller streams more affected than larger rivers. Our research found that rivers in Taranaki could be grouped into three categories based on their mean flow: small (<5 m^3/sec), moderate (5-30 m^3/sec) and large (>30 m^3/sec). This research also found a relationship between minimum flows, water allocation and the level of species protection achieved, and that different sized streams need to have different flows and limits.

About 95% of Taranaki rivers are classified as small. However, the smaller size of these rivers does not diminish their value. Moderate rivers can handle slightly larger allocation limits and lower minimum flows than small rivers can tolerate. The Waitara River is the only river in Taranaki classified as large. For the Waitara River, we will look at setting lower minimum flows and higher allocation volumes. These can still provide appropriate protection because of the amount of water in the river.

Do you agree with our proposal to have different flows and limits based on size of rivers??

[1] Thirteen of these consents include storage that makes allocation limits look higher than 33%.

Rivers in Taranaki can be grouped into three categories based on their mean flow: small (<5 m^3/sec), moderate (5-30 m^3/sec) and large (>30 m^3/sec).

Species protection

To protect fish and aquatic insects, we need to leave enough water in the river so that it is cool and flowing. That allows them to move about without too much stress and to have enough food. This is called species protection. Different levels of species protection can be used to inform flows and limits. We need to find a balance between river health and providing for the well-being of our communities.

Previous community feedback has shown us that ecosystem health is important to Taranaki. You want water bodies to be able to support the abundance and protection of freshwater dependent biodiversity. Our community recognises that healthy ecosystems are reliant upon the extent and variability in the level and flow of freshwater. Level and flow are important factors in achieving aspirations such as maintaining hydrological connectivity, supporting aquatic habitats and providing for the life stages of aquatic biodiversity. Water quantity therefore connects to the overall health of ecosystems.

The only way to have 100% species protection is to have no water takes, which is not realistic. We propose to use 90% species protection as the target for our new framework for managing water. Our research indicates that a 10% reduction in habitat has a minimal effect on the river's health and still allows enough water take to support communities.

We also looked at 80% in some of our scenarios to provide a comparison. Research suggests that 80% species protection will avoid significant adverse effects while still allowing water takes to continue, but will not provide as much protection to water bodies as 90% protection. To achieve the draft environmental outcomes previously consulted upon with the community, we think a 90% species protection level is most appropriate. This level of protection balances water takes and reduced flows with providing suitable flow and habitat for insects and fish.

Incorporating the likely effects of climate change

Our climate is changing and it is important our Proposed Land and Freshwater Plan (Proposed Plan) recognises this. Current climate projections for Taranaki (regional climate change projections used are RCP 4.5, described as 'moderate' and RCP 8.5 described as the high risk) suggest:

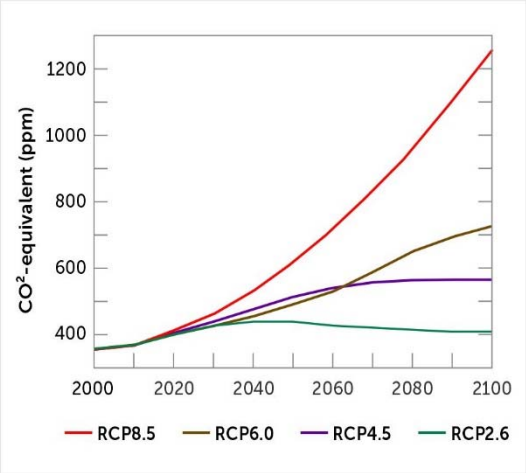
- Mean annual discharge is likely to remain stable (± 5%) to 2050, but in some coastal areas of north and west Taranaki there could be a slight increase (10-20%) by the end of the century.
- By 2050, most rivers and streams are likely to experience decreases in MALF (up to 50% in some places).
- By 2100, large decreases in MALF (up to 50%) are likely for the majority of the region as well as small increases in some southern catchments.
- Total yearly rainfall is expected to remain roughly the same, but we are expected to get longer dry periods and heavier, more intense rainfall events (storms).

We propose to use 90% species protection as the target for our new framework for managing water.

Did you know?

Representative concentration pathways, or RCPs, are used in climate change scenarios to project future greenhouse gas concentrations. The four RCPs range from very high (RCP 8.5) through to very low (RCP 2.6). The numerical values of the RCPs (2.6, 4.5, 6.0 and 8.5) refer to the concentrations of greenhouse gasses in 2100.

IPCC Representative Concentration Pathways



These are climate change scenarios to project future greenhouse gas concentrations. These pathways describe future greenhouse gas concentrations and have been formally adopted by the IPCC.

The four RCPs range from very high (RCP 8.5) through to very low (RCP 2.6) future concentrations. The numerical values of the RCPs (2.6, 4.5, 6.0 and 8.5) refer to the concentrations of greenhouse gasses in 2100.

It should be noted that these climate change projections are highly uncertain, but reflect the best information currently available to account for the potential effects of climate change. These projections have been accounted for in the following scenarios to show the potential effects of climate change on stream flow and reliability of supply. Historical flow records were reduced to represent possible reductions in MALF from low (5%), moderate (20%), to high (50%), where a 5% reduction was equivalent to retaining 95% of stream flow.

Do you agree with the approach we are proposing to take into account the effects of climate change?

Options for environmental flows and levels and take limits

Different combinations of minimum flows and take limits can achieve the same species protection level. The two levers are linked. If the minimum flow is high, then the allocation can also be high because the flow provides a greater level of protection for the river. However, this reduces reliability of supply because there are more instances when users cannot take water. If the minimum flow is lower, the allocation also needs to be lower to mitigate the impacts on the river of spending more time at low flows. Using these principles, we prepared five scenarios with different minimum flows and take limits. Each scenario has different impacts, including on reliability of supply and the amount of over-allocation in the region. The sections below outline the impacts of each scenario, including a comparison to the other scenarios.

Scenario 1

Here we lay out the details of the first option or scenario. At the end of this section is a comparison of all scenarios.

Species protection level	Minimum flow (% of MALF)	Take limit (% of MALF)	Number of consents over allocated	Reliability of supply (excluding climate change effects)
90%	100%	Small: 20% Moderate: 40% Large: 50%	71	77%-95% (18-84 days of partial restrictions)

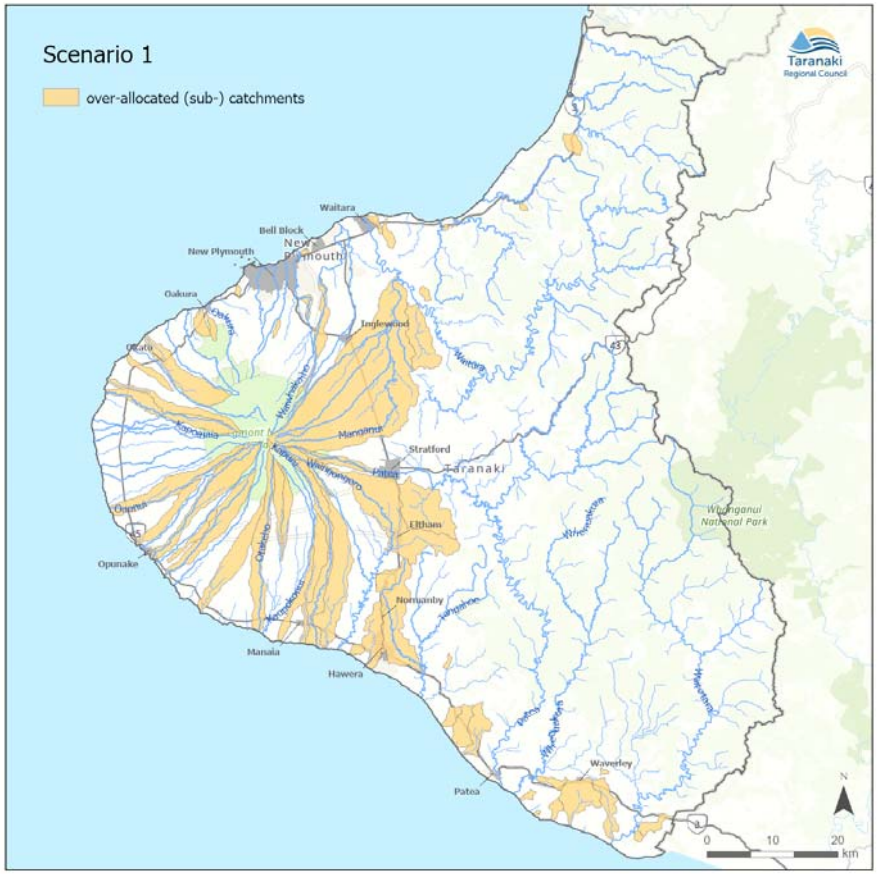
Under this scenario, the minimum flow is set to 100% of MALF, which ensures that water users do not cause the stream to fall below MALF unnaturally. The proposed take limits could result in rivers remaining at MALF for longer periods than they would under natural conditions, which affects their health and their ability to flush sediment downstream. There would be 71 consent locations considered over-allocated (mostly small streams), compared to the 51 inferred under the Current Freshwater Plan (Current Plan). Over half of these locations (40) are in the Volcanic Ring Plain Freshwater Management Unit (FMU), with between five and nine in other FMUs.

Reliability of supply (the percentage of time people can take water) would decrease compared to the current plan but the decrease differs between FMUs:

- Coastal Terraces: 91% (all rivers)
- Northern Hill Country: insufficient flow information
- Pātea Catchment (main stem and tributaries): 95% (all rivers)
- Southern Hill Country: 86% (small rivers) to 76% (moderate rivers)
- Volcanic Ring Plain: 86% (small rivers) to 77% (moderate rivers)
- Waitara Catchment (main stem and tributaries): 93% (small rivers) to 95% (moderate rivers) and 94% for the Waitara River

Overall, partial restrictions would occur on 18 - 84 days per year compared to 0 – 11 days under the Current Plan. Supply reliability decreases under all of the climate change projections.

The graph below depicts the catchments that modelling predicts will be over allocated under this scenario.



Scenario 2

Here we lay out the details of the second option or scenario. At the end of this section is a comparison of all scenarios.

Species protection level	Minimum flow (% of MALF)	Take limit (% of MALF)	Number of consents over allocated	Reliability of supply (excluding climate change effects)
90%	90%	Small: 10% Moderate: 30% Large: 40%	84	85%-98% (7-55 days of partial restrictions)

This scenario provides the same level of species protection as Scenario 1 but reduces the minimum flow to 90% of MALF, which improves the reliability of supply. However, the reduced minimum flow means there is less water available to take because the take limit is also reduced. Reducing the take limit allows for greater flow variability which is required to help flush fine sediment and periphyton and to initiate spawning migration. Because of the lower take limit, 84 consent locations would be considered over-allocated (mostly small streams), compared to the 51 inferred under the Current Plan. Over half of these locations (46) are in the Volcanic Ring Plain FMU, with between five and 11 in the other FMUs.

Reliability of supply (the percentage of time people can take water) is higher under this scenario compared to Scenario 1, and reliability is generally more consistent across the FMUs:

- Coastal Terraces: 96% (all rivers)
- Northern Hill Country: insufficient flow information
- Pātea Catchment (main stem and tributaries): 98% (small rivers) to 97% (moderate rivers)
- Southern Hill Country: 94% (all rivers)
- Volcanic Ring Plain: 94% (small rivers) to 85% (moderate rivers)
- Waitara Catchment (main stem and tributaries): 97% (small rivers) to 98% (moderate rivers) and 94% for the Waitara River

Overall, partial restrictions would occur on 7 - 55 days per year compared to 0 – 11 days under the Current Plan.

The graph below depicts the catchments that modelling predicts will be over allocated under this scenario.

Scenario 3 (the Council's preferred option)

Here we lay out the details of the third option or scenario, which is Council's preferred way forward. At the end of this section is a comparison of all scenarios.

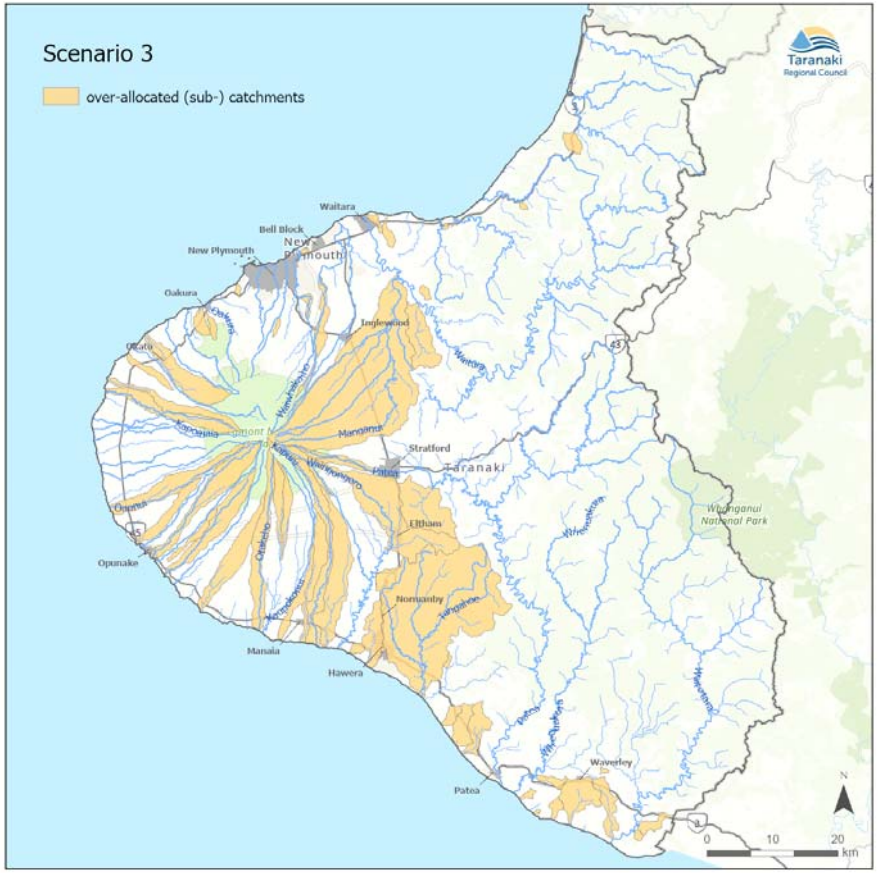
Species protection level	Minimum flow (% of MALF)	Take limit (% of MALF)	Number of consents over allocated	Reliability of supply (excluding climate change effects)
90%	Small: 100% Moderate: 90% Large: 90%	Small: 20% Moderate: 30% Large: 40%	75	85%-98% (7-55 days of partial restrictions)

This scenario achieves a 90% species protection level by employing a combination of minimum flows and take limits based on river size. Setting the minimum flow to 100% of MALF for small streams allows for more water availability but requires consent holders to stop taking water sooner. As larger rivers are able to sustain their habitat at lower flows, reducing the minimum flow to 90% of MALF for moderate and large rivers improves reliability by allowing consent holders to take for a longer period of time (though it also means there is less water available to use, given the accompanying take limits). There would be 75 consent locations considered over-allocated (mostly small streams), compared to the 51 inferred under the Current Plan.

Reliability of supply (the percentage of time people can take water) is higher under this scenario compared to Scenario 1 but lower compared to the Current Plan and Scenario 2. There is variation across the FMUs:

- Coastal Terraces: 91% (all rivers)
- Northern Hill Country: insufficient flow data
- Pātea Catchment (main stem and tributaries): 95% (small rivers) to 97% (moderate rivers)
- Southern Hill Country: 86% (small rivers) to 94% (moderate rivers)
- Volcanic Ring Plain: 86% (small rivers) to 85% (moderate rivers)
- Waitara Catchment (main stem and tributaries): 93% (small rivers) to 98% (moderate rivers) and 94% for the Waitara River

Overall, partial restrictions would occur on 7 - 55 days per year compared to 0 – 11 days under the Current Plan. The graph below depicts the catchments that modelling predicts will be over allocated under this scenario.



Scenario 4

Here we lay out the details of the fourth option or scenario. At the end of this section is a comparison of all scenarios.

Species protection level	Minimum flow (% of MALF)	Take limit (% of MALF)	Number of consents over allocated	Reliability of supply (excluding climate change effects)
90%	110%	Small: 40% Moderate: 50% Large: 60%	39	70%-94% (22-110 days of partial restrictions)

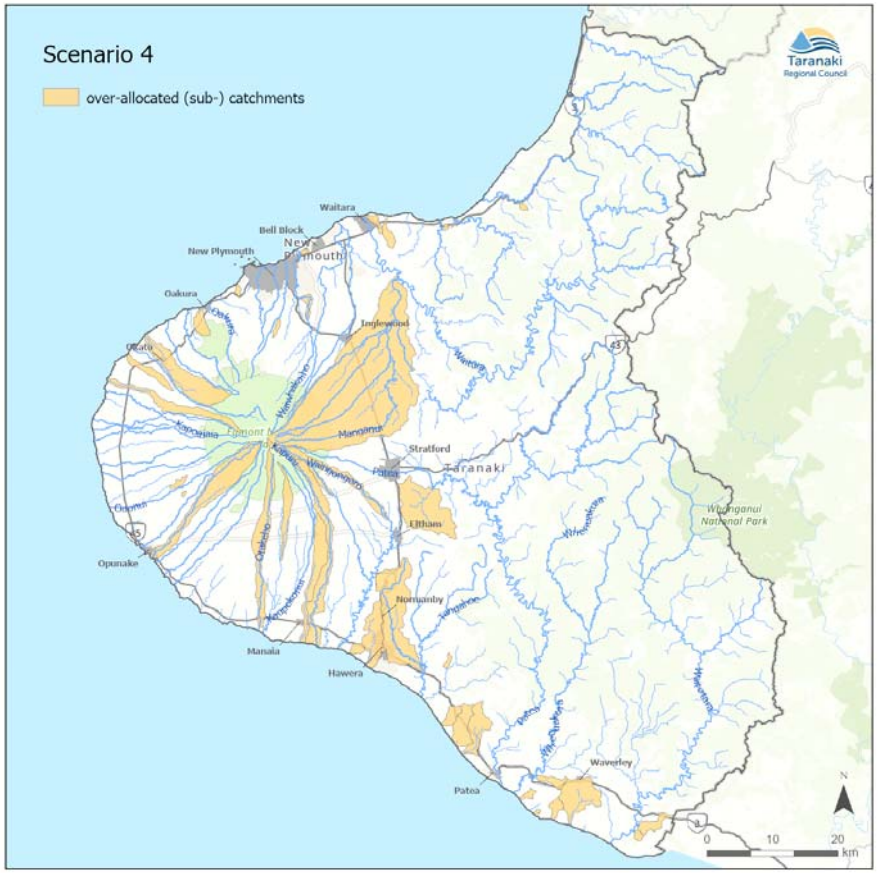
This scenario achieves a 90% species protection level by setting higher minimum flows than previous scenarios, which also allows more water to be taken. This has the lowest reliability of supply of all the scenarios because the minimum flows are higher so there are more days when people can't take water. Streams would reach the minimum flow more quickly (resulting in more restrictions for water users) and remain there for longer periods. Under Scenario 4, there are significantly fewer over-allocated consents (39) compared to the previous scenarios due to the higher take limit.

Reliability of supply (the percentage of time people can take water) is the lowest of all scenarios but there is variation across the FMUs:

- Coastal Terraces: 81% (all rivers)
- Northern Hill Country: insufficient flow data
- Pātea Catchment (main stem and tributaries): 92% (small rivers) to 94% (moderate rivers)
- Southern Hill Country: 73% (small rivers), 85% (moderate rivers)
- Volcanic Ring Plain: 76% (small rivers), 70% (moderate rivers)
- Waitara Catchment (main stem and tributaries): 91% (small rivers), 94% (moderate rivers), 93% for the Waitara River

Overall, partial restrictions would occur on 22 - 110 days per year, a significant increase from the Current Plan.

The graph below depicts the catchments that modelling predicts will be over allocated under this scenario.



Scenario 5

Here we lay out the details of the fifth option or scenario. At the end of this section is a comparison of all scenarios.

Species protection level	Minimum flow (% of MALF)	Take limit (% of MALF)	Number of consents over allocated	Reliability of supply (excluding climate change effects)
80%	Small: 80% Moderate: 60% Large: 50%	Small: 20% Moderate: 30% Large: 50%	70	94%-100% (0-22 days of partial restrictions)

Unlike Scenarios 1-4, Scenario 5 achieves 80% species protection rather than 90%. This allows minimum flows to be lower and makes more water available to use. However, reducing the minimum flow for small rivers reduces their natural character and flow variability. This would also cause the rivers to reach low flow sooner and remain there for longer periods.

Under this scenario, 70 consents are considered over-allocated, which is still more than under the Current Plan (51). The main difference between this scenario and others is in the reliability of supply, which is greater in this scenario as minimum flows have been set lower, at the expense of habitat protection.

Reliability of supply (the percentage of time people can take water) is similar to the Current Plan and higher than all other scenarios. There is minor variation across the FMUs:

- Coastal Terraces: 99% (all rivers)
- Northern Hill Country: insufficient flow data
- Pātea Catchment (main stem and tributaries): 99% (small rivers) to 98% (moderate rivers)
- Southern Hill Country: 94% (small rivers), 100% (moderate rivers)
- Volcanic Ring Plain: 94% (small rivers), 96% (moderate rivers)
- Waitara Catchment (main stem and tributaries): 99% (small rivers), 100% (moderate rivers), 100% for the Waitara River

Overall, partial restrictions would occur on 0 - 22 days per year, only a small increase from the Current Plan and less than every other scenario.

The graph below depicts the catchments that modelling predicts will be over allocated under this scenario.

Summary of scenarios

The table below summarises the impacts on over-allocation and reliability of supply for all of the scenarios, including the Current Plan. It also demonstrates the effects of climate change under different scenarios. Our climate change projections indicate that by 2050, most rivers and streams are likely to experience decreases in MALF (up to 50% in some places). This will significantly decrease reliability of supply in some rivers under all of the scenarios, meaning there will be more days when water can't be taken from rivers. There are ways to mitigate those impacts on users, for example by enabling storage and better use of groundwater sources (see next section). It is important we set up a framework that protects the health of our water bodies and ensures communities are well placed to respond to any changes to water availability in the future.

Scenario	Species protection level	Number of consents over allocated	Reliability of supply (days with partial or full restrictions)			
			Reliability of supply	Effects of climate change		
				5% reduction in MALF	20% reduction in MALF	50% reduction in MALF
Current Plan	-	51	97% - 100% (0 - 11 days)	98% - 100% (0 - 7 days)	93% – 100% (0 – 26 days)	76% – 97% (11 – 88 days)
1	90%	71	77% - 95% (18 – 84 days)	75% - 92% (29 – 91 days)	59% – 86% (51 – 150 days)	19% – 73% (99 – 296 days)
2	90%	84	85% - 98% (7 – 55 days)	83% - 96% (15 – 62 days)	67% – 89% (40 – 120 days)	28% – 77% (84 – 263 days)
3	90%	75	85% - 98% (7 – 55 days)	83% - 96% (15 – 62 days)	59% – 86% (51 – 150 days)	19% –77% (99 – 296 days)
4	90%	39	70% - 94% (22 – 110 days)	68% - 93% (26 – 117 days)	51% – 83% (62 – 179 days)	15% – 69% (113 – 310 days)
5	80%	70	94% - 100% (0 – 22 days)	92% - 100% (0 – 29 days)	75% – 94% (22 – 91 days)	36% – 86% (51 – 234 days)

Scenario 3 is the Council's preferred option because it protects the natural character of the small streams while still allowing water to be taken from them. It recognises that more water can be taken from moderate and large rivers without the same degree of impact on their health. This option maintains enough flow to protect in-stream species and enough variation in flow to ensure that freshes are big enough to help flush fine sediment and algal growth. It also maintains relatively high reliability for water users.

The Council's recommendation for water allocation is Scenario 3. Do you agree with this? If you disagree, what scenario would you like to see used?

Changes required - policy options to support water allocation framework

Despite the abundance of water in Taranaki, all scenarios (including the Current Plan) result in considerable over-allocation, especially on small rivers. We need to reduce demand on water bodies that are under pressure and make sure that the impacts of any future reduction in water availability are minimised for users. There are different ways to do this. Some options we are considering include:

- Improving the efficiency of water takes, to reduce the amount of water they use. For example, by using more efficient irrigation techniques, improving conveyancing infrastructure, or using leak detection technology.
- Reducing 'paper' allocation (i.e. water allocated to people that is not being used).
- Where appropriate, enabling people to switch to groundwater sources to reduce the pressure on rivers.
- Enabling high flow harvesting and storage to improve reliability of supply.

There are costs associated with most of these options, for example, drilling a new bore or constructing a storage pond. However, they will provide long-term resilience to reductions in water availability that we expect because of climate change.

Which of these options to reduce over allocation do you support? What are the challenges you will have to implement any of those options?

Taking and using water as a permitted activity

Not all water takes require a resource consent from the Council. Some are permitted, subject to specified limits. At present, Taranaki has some of the highest limits for permitted takes in the country. Currently, there is no requirement to notify the Council of permitted takes, so we don't have much information on how many permitted takes there are, where they are located, or how much water is being taken. This can make it difficult to know how much these takes impact water bodies or other water users.

If you are a farmer, do you get your stock water, shed water and other farm water from groundwater, surface water, or a combination of both?

To gain a better understanding, we have estimated dairy and dry stock numbers throughout Taranaki and applied stock water demand volumes using water demand figures for specific animal types from Horizons Regional Council (2007). These include estimates for both peak and average dairy cow water demand (including stock drinking water and water used by dairy sheds), as well as peak demand estimates for beef cattle and sheep.

These estimates suggest that permitted takes make up between 0% and 5% of MALF across most rivers. However, six catchments have a total estimated permitted take exceeding 5% of MALF, which is high relative to the size of the catchment. This is likely having a significant effect on the overall amount of

water available in the catchment, due to the small size of the rivers and the amount of water potentially being taken:

FMU	Catchment	River size	MALF (L/s)	Estimated permitted use	MALF allocation
Coastal Terraces	Waiau 1	Small	67	4	6%
	Hauroto	Small	4	1	25%
Volcanic Ring Plain	Heimama	Small	37	5.2	14%
	Motumate	Small	32	4.5	14%
	Pungaereere	Small	104	14.6	14%
	Werekino	Small	34	2.7	8%

We propose to do further investigation and may need to take an alternative approach for these small catchments where demand is high.

To assist with future work, we are considering a range of options relating to permitted activity limits including:

- Linking permitted take limits to river size (i.e. small, moderate and large) so that the limits are lower for smaller rivers.
- Setting higher permitted volumes for groundwater than surface water to reflect that there is generally more groundwater available.
- Recording the locations of permitted takes, by registering them with the Council or by including them in Freshwater Farm Plans.
- How many permitted takes should be allowed on one property?
- Improving the information available on actual usage by:
  - requiring all permitted takes to be metered, or
  - requiring a representative subset of properties to be metered.

What do you think about these options for permitted activity limits? Tell us which option(s) you agree with, and which you disagree with.

Next steps

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. This Plan will replace the Current 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 water allocation in the Proposed Plan.
- Work toward further community engagement on refined policy options and additional science.

Timeline

Jan 2021 – Sep 2022	**Understanding the story so far** We collated the story of what was happening with Taranaki freshwater to inform conversation with the community, special interest groups and iwi.
Apr 2021 – Dec 2022	**Vision, values and Freshwater Management Units (FMUs)** People across Taranaki gave feedback on what they valued about freshwater, the draft FMUs and the visions to establish the long-term goals.
2023	**Te Mana o te Wai** Explored how Te Mana o te Wai could be applied in Taranaki and how our planning framework could improve the way that tangata whenua and communities are involved in freshwater management decisions.
Jun 2024 - Jul 2024	**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.
Nov 2024 - Dec 2024	**Setting targets** Exploring potential targets for key areas linked to improving water quality**.**
Nov 2024 - Dec 2024	**Limits** Exploring the potential rules that may be introduced through the Land and Freshwater Plan to drive the change to achieve our freshwater targets.
Feb 2025 - Apr 2025	**Feedback on draft Plan** Iwi, special interest group and stakeholder engagement on the draft Land and Freshwater Plan.
Mid 2025	**Plan notification** The Land and Freshwater Plan will be publicly notified prior to a formal submissions and hearing process.

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