

Taranaki Regional Natural Resources Plan – Freshwater Management Units consultation¹

Climate Justice Taranaki Submission, October 2023

Question 1: What do you think about the objective of giving effect to Te Mana o te Wai?

1. We support the objective of giving effect to Te Mana o te Wai.

Question 2: Do these provisions cover everything that is important to you? Please let us know if there is anything missing.

2. There needs to be specific focus on understanding groundwater and greater effort in protecting the integrity of groundwater and its relationship with surface water.
3. The consultation documents focus heavily on rivers and lakes whereas groundwater is hardly mentioned, despite our reliance on groundwater for some drinking water supply, the impacts from some industrial uses and potential user conflicts. There is no description of the hydrogeological and hydrogeochemical characteristics and their zonation in the different freshwater management units (FMUs). Baseline assessments were only presented for rivers and lakes, ignoring groundwater altogether, despite the connectivity between surface and groundwater. It is possible, perhaps likely, that a significant proportion of nitrate from intensive agriculture has leached into our groundwater, as has occurred elsewhere in the country. We cannot possibly manage freshwater well if groundwater is excluded because we don't have the data or don't understand it enough.
4. It is good to see climate change mentioned in places in the documents. A dedicated climate change section would be very helpful, for a Taranaki-wide freshwater document, drawing together available information that is relevant to Taranaki. A climate change section is also needed for each FMU document, highlighting the potential implications for each FMU.

Question 3: Tell us to what extent you agree or disagree with these draft provisions in the objective.

5. We agree with the draft provisions in the objective by large.
6. Provision (e) "*providing for waterbodies to behave [naturally] as they wish*" is a difficult one. As the impacts of climate change escalate, it may not always be possible to distinguish what is 'natural' and what is not. While the need and responsibility to protect human habitation and critical infrastructure may necessitate interventions in some cases, it is important to consider nature-based solutions first.

Question 4: What do you think about the draft long-term vision for ... FMU?

7. We see huge gaps between the current reality and the long-term vision. We are unsure about setting a single date or timeframe for the vision because the statements proposed are mostly aspirational. There are also likely to be quite a lot of variations in what can be achieved when and where even within an individual FMU. It would be more useful and practical to set timeframes such as **interim targets for specific actions** proposed for target attribute states later in the document. While recognising the all-encompassing common vision, it would be good to have a few more tailor-written vision statements for the different FMUs.
8. We are concerned about provision 6(a) "*taking into account historical cumulative effects of intensive land use on the environment*" in the FMU documents for the Volcanic Ring Plain, Waitara Catchment, Patea Catchment, Northern Hill Country and Southern Hill Country.
9. This provision is open to interpretation and can easily be used as an excuse to continue, or even increase, activities that cause adverse environmental effects. It is the classic '**shifting baseline**' syndrome whereby people gradually forget 'what it used to be like' and accept the 'shifted baseline' which almost always involve environmental degradation. It is then easy for policy makers and environmental managers to become complacent and do little or nothing about it.

10. In the case of freshwater management in New Zealand, *“There are many examples of ‘shifting baselines’ where limits have been progressively weakened through agency regulatory capture and political expediency”*, Joy and Canning (2020)².
11. **Volcanic Ring Plain FMU:** It is extremely concerning that there is no limit to the amount of water that can be allocated. Twenty streams across 19 catchments in the ring plain FMU have more than 33% of the mean annual low flow (MALF) allocated, threatening hydrological connectivity and stream ecology.
12. It is also extremely concerning that all ten primary contact sites and 80% of the rivers and streams on the ring plain are unsuitable for swimming due to *Escherichia coli* while Lake Rotomanu poses high health risks due to cyanobacteria. Clearly intensive dairying has exceeded the carrying capacity of this FMU and needs to be scaled back and transitioned to low input, regenerative farming. A case in point, during the monitoring period of 2021-2022, the Fonterra Kapuni lactose plant and farms continue to increase the groundwater concentrations of nitrate-N, at times above or even twice the drinking water standard³. The nitrogen application rates on these Fonterra farms in that period ranged high from 350-425 kg/ha/year.
13. Indeed, intensive dairying demands high input of synthetic fertilisers. Annual compliance monitoring reports at the Ballance Kapuni ammonia-urea fertiliser plant have revealed elevated nitrogen concentrations in shallow groundwater, soil and nearby tributaries, as well as two concentrated plumes of ammonia in the groundwater⁴. This is a huge cost on a precious public resource.
14. We know that farming can be done a lot better. Many farmers are already on the right track towards regenerative organic farming. A number of studies have shown that the most resilient farms have low stocking rate, low nitrogen input, high profitability, almost all feed home grown, low leaching rates and low greenhouse gas emissions and a high standard of management (Alan Thatcher, pers coms. Oct 2023).
15. *“The message of rewarding poor compliance on some farms, and by the failure to monitor the true effects of some activities by regional authorities – is the wrong message for our agricultural industry right now. Change is here, we have increased public scrutiny and pending pressures from climate change, nutrient restrictions, consumer perceptions and an increasing demand for transparent and ethical behaviours. We have had a few decades now, where the leaders in agriculture have been penalised via unfair allocation systems and rewarding pollution, and tardy behaviours endorsed. NZ has a problem. The best performers should be rewarded.*
16. *Industry leadership is also increasingly under the spotlight, being asked for ethical, transparent behaviours. What does swimmable rivers really mean? Is it the threshold that is double the level of E. coli we had in 2003? Does it mean only the big rivers will be swimmable by 2040, as per the NPS FW?”* Alison Dewes⁵.
17. Thanks to the foresight and determination of a small group of locals, the Hangatahua River has been protected by a Local Water Conservation Notice since 1984, the first of its kind. There is no reason why more of Taranaki’s waterways cannot be protected. Notably, the recently gazetted Water Conservation Order for Te Waikoropū Springs⁶ near Tākaka recognises and protects the water body’s outstanding values. It also requires the management of four water quality attributes within the springs to specified limits, including a two-step approach to reducing nitrate concentrations to 0.41 mg/L. This precedent-setting win⁷ spearheaded by Ngāti Tama and local campaigners also emphasizes the importance of understanding and protecting groundwater.
18. Our vision for the ring plain would be lush and vibrant with crisp clean waters that criss-cross a mosaic of native vegetation with thriving indigenous species and small farms producing a diverse range of food, fibre and timber for Taranaki communities supported by community-run distributed renewable energy systems.

19. **Coastal Terraces FMU:** The provision on *“historical cumulative effects...”* for this FMU is replaced by *“sensitivities of ecosystems and habitats”*. We fully support this, given the sensitivities of the unique dune lakes present, the various Acutely Threatened remnant indigenous vegetation and wetland species including the Nationally Endangered Australasian bittern *Botaurus poiciloptilus*, the regionally distinctive spotless crane *Porzana tabuensis plumbea*, fernbird *Bowdleria punctata* and other ‘At Risk’ species. We ask that provision 7 be expanded so that the sensitive ecological values of Lake Herengawe⁸ are maintained as well as its *“excellent state for human contact”*.
20. Notably, ecologically sensitive Lake Kaikura and Lake Taumaha⁹ are in close proximity to two active ‘landfarms’ where petroleum drilling and other contaminated wastes have been spread. The Waste Remediation Services (WRS) Waikaikai landfarm¹⁰ actually encompasses a coastal lake and is very near to Lake Kaikura. The statements in the consultation document *“In the southern areas, some farmers have also undertaken ‘land farming’ to combat the dry conditions. This involves adding inert muds from hydrocarbon drilling activities to topsoil to encourage it to hold moisture and be more nutrient rich for growing in”* are one-sided and misleading. At the WRS Symes Manawapou landfarm northwest of Lake Taumaha, chloride levels in some groundwater bores have been rising, total dissolved solids had repeatedly breached consent limit, and toluene and hydrocarbons have been detected¹¹.
21. Critically, WRS has expressed serious concern, *“In effect the countdown of remaining acreage for land farming in the region is underway; once this is exhausted, the operational areas - turnarounds and pits- will be returned to functional farmable paddocks by removing the pits, recontouring the ground and spreading the last of the waste accepted. At this point the efforts undertaken by the consent holder to construct and maintain the impermeability of the storage pits, now transfer points, will have immediately become a futile exercise in respect of avoiding discharge to ground, cost, and efforts by all during the entire operational life of the land farm.”* The fact that the Pātea population in the adjacent FMU relies on groundwater in the coastal terraces for drinking warrants utmost efforts to protect the integrity of this water.
22. Our vision for the Coastal Terrace FMU would see all groundwater and unique coastal dune lakes and surrounding fragile ecosystems protected and restored, with no more destructive, polluting industries.

Question 5: To what extent do you agree or disagree with the draft long-term vision?

23. We are in general agreement with the draft long-term vision for the various freshwater management units (FMUs) but have some concerns (See above).

Question 6: Have the right values been identified for the ... FMU?

24. We agree with the values identified for the various FMUs but hold the opinion that ‘Drinking water supply’ should be a compulsory value rather than non-compulsory. Surely it is of greater importance than ‘Animal drinking water’ which is considered a non-compulsory value in the document.

Question 7: What do you think of the draft environmental outcomes identified for each value in the ... FMU?

25. We do not agree with the draft environmental outcomes of some of the non-compulsory values identified. We are especially concerned about over allocation for large-scaled animal farming, irrigation and industrial activities to the detriment of ecological health. If not managed carefully, irrigation, cultivation and production of food and beverages for profit-driven export could jeopardise local and domestic food resilience necessitated by increasing climate chaos. It is also important to recognise that some commercial and industrial activities are inherently unsustainable (e.g. fossil fuels exploration and production, synthetic fertiliser production like at Kapuni) and we should not be providing them with quality freshwater when there are far greater needs for people, local communities and ecosystems.

26. **Pātea Catchment FMU:** It is great to read about the increasing interest in horticulture¹² in this FMU. Diversification of our primary industry is key to building resilience, not just economically but in providing fresh local foods for communities, especially when supply chains become interrupted by extreme weather or political instability. However large-scale monoculture horticulture operations rely heavily on chemicals and in some cases irrigation as well; both would impact adversely on surface and ground water. The planning and management of horticulture development therefore needs to be holistic and innovative so that it benefits the environment and communities, rather than adding to the problems.
27. Many farmers are already doing the right things including destocking, putting in sheltered standoff areas, upgrading effluent systems and diligently monitoring and lowering their nitrogen leaching and greenhouse gas emissions¹³. Locally, members of the Makuri catchment group, with some government funding, have re-created wetlands, installed solar pumps and fencing, planted a community orchard, and continued to do pest control in remnant bush areas. The group also runs sheep as a community with profits going to maintain the community hall and support young people. Many such groups need ongoing support from government agencies so that they can continue with the work on the ground, with firsthand knowledge and commitments to their land. This is far more cost effective than paying consultancies to write plans after plans, reports after reports.

Question 8: What do you think of the principles for setting target attribute states?

28. While we agree that target attribute states must be maintained or improved, we are concerned that the 'baselines' are not set high enough or that the methods of measuring the target attributes may not be scientifically robust. Over the century of dairy intensification, it is likely that baselines have shifted significantly in much of Taranaki. Sampling on the borders of Te Papa-Kura-o-Taranaki may provide some insight into true baseline conditions for many of the FMUs (See our response to Q4 on 'shifting baseline').
29. We cannot emphasize enough the need to review and improve the coverage, design and methodology of freshwater monitoring across the region, to generate quality, science-based data for assessing and managing freshwater. One aspect is the large number of small Order 1 and 2 streams that flow, some ephemerally, through industrial dairy farms as part of their route. These are likely to carry high nutrient loads, in surface flow and as a conduit to groundwater. These are not well assessed in the present monitoring scheme, or the modelling of nutrients. One example is Ōkato's Mangatete Stream, source of the village's reticulated potable supply. Nitrate levels as monitored for the past several years by New Plymouth District Council range up to 3 mg / litre, typically during the wet winter months. Nitrate levels fluctuate throughout the year, typically between 1 and 3 mg / litre, presumably peaking with rainfall and urea applications to adjacent dairy farms. This raises the additional critical issue of use of mean values in baselines. Although a useful statistic, more important for ecosystem health are the peaks in nutrient levels than annual averages. This is well illustrated by the apocryphal example of the biostatistician who drowned in a river of average depth on one metre!
30. Re timeframe, it is useful to set interim targets to drive actions, irrespective of the vision and environmental outcomes (See our response to Q4 on timeframe).
31. Of all the principles proposed, we believe number 3 "*When identifying and assessing target attribute states, identify all **actions/approaches/mitigations** that would be required to achieve improvements at each NOF band*" is the most important. Without actions, the entire exercise would seem rather futile. Furthermore, council needs to apply the Precautionary Principle much more, to avoid any additional adverse impacts on freshwater and the environment at large.
32. **Northern and Southern Hill Country FMUs:** Based on pollen record, much of the natural erosion had occurred during ice ages after which native bush regenerated and erosion stopped. The bush clearance by early Europeans for pasture has since re-exposed the hill countries to erosion. It is thus not correct or helpful to blame 'natural' erosion for the failed land management. Given the prominence of production forestry in both FMUs, any changes in how forestry is managed will have

impacts, either positive or negative, on freshwater. With the amended National Environmental Standards for Commercial Forestry¹⁴, Council now has more power and responsibility to consider more factors when making rules about forestry in your plans, including locations.

33. With increasing climate disruption, likely associated with extreme storms and floods, a precautionary approach is critical to avoid plantation forestry and harvest causing harm to land and properties. Continuous cover forestry¹⁵ has multiple benefits when compared with clear felling. It is also becoming increasingly clear that permanent native forests and scrubs are better at stabilising soil and withstand extreme weather (including fires) than exotic monoculture pine plantations.
34. The most cost-effective solution is retiring the most vulnerable areas from productive forestry and farms, and rewild them. This would also help to protect and improve the health of the numerous lakes (e.g. Rotokare) and wetlands that these hill country areas are blessed with. Greater investments in pest and weed control (avoiding chemical and GE approaches) and rewetting drained wetlands will create good local jobs that are healthy for people and the environment.

Question 9: What is important for the Council to consider when setting target attribute states for the ... FMU?

35. While it is definitely good to pay attention to climate change, we are not sure what the requirement to *“have regard to the foreseeable impacts of climate change”* in all assessments of target attribute state entails.
36. In addition to the principles proposed, we believe that leaderships by tangata whenua are crucial especially in understanding te mauri o te wai and mahinga kai. As an example, the Mauri Compass¹⁶ is already being used to assess the historic, current and aspirational state of mauri of rivers in Taranaki. The application of the Mauri Compass showed that the mauri of both the Urenui and Mimitangiatua rivers in the Northern Hill Country FMU had undergone steep decline since European settlement. *“Three of the twelve Mauri Compass indicators focus on the health and well being of our freshwater sentinel taonga, the Tuna. Species richness, tuna abundance, and tuna health had each fallen 80%, which is a talisman for the decline in Ngāti Mutunga connection, Tikanga, mahinga kai practices, and overall wairua of our tupuna awa,”* (Benson, et al. 2020)^{17, 18}. In more recent times, the Mimitangiatua river was further degraded by the Remediation NZ composting site near Uruti which had accepted huge quantities of petroleum, industrial food and other wastes^{19, 20}.
37. The understanding of connectivity and relationships between systems is often overlooked, resulting in ineffective management and poor environment outcomes. For example, threatened endemic fish species such as whitebait species and eels, require much more than protecting freshwater quality and quantity for their population recovery, because parts of their life cycles are in coastal or marine waters offshore, and because of fishing pressures. Collaborations amongst regulatory, management, research and community organisations as well as iwi hapū are much needed in ensuring the long-term survival and wellbeing of such species. Wai Kōkopu²¹ offers an example of a community-led programme to replenish and revitalise the health of the Waihi Estuary in the Bay of Plenty.
38. **Waitara River Catchment FMU:** The consultation document acknowledges that *“Across the FMU improvements are required to provide for safe contact with freshwater... Three river and two lake swimming sites fail to achieve minimum standards...”* Just last month in September, Council issued a toxic algae bloom warning at Lake Ngangana²². The poor state of the Waitara River²³ illustrates several connectivity issues. Although Waitara’s municipal wastewater has been piped to the New Plymouth wastewater treatment plant since October 2014, the Waitara marine outfall still discharges contaminants from industries, with unknown effects on the tidal stretch of the river. Methanex holds various discharge consents for treated wastewater and stormwater into streams or at the marine outfall. The Motunui plant, while located in the Coastal Terrace FMU, discharges chemical laden wastewater into the marine outfall off the Waitara River Catchment FMU. The Waitara Valley plant does the same, with a daily discharge limit of 5,000m³ at a maximum rate of 60L/s. Like most

industries, Methanex also has consents for water take. Compliance is based heavily on self-monitoring^{24, 25}.

39. It is extremely sad to see erected signs that warn of swimming or kaimoana collection at the Waitara river mouth, or anywhere else. Instead of accepting a 'shifted baseline', we need to bring back memories and records of the old days when shellfish abound and kete were full²⁶, and work in earnest to restore the health of our river and coastal ecosystems²⁷.

¹ <https://trc.govt.nz/environment/freshwater/next-steps-for-our-freshwater/>

² Joy, Mike and Adam Canning, 2020. Shifting baselines and political expediency in New Zealand's freshwater management. Marine and Freshwater Research, October 2020.

³ https://openaccess.wgtn.ac.nz/articles/journal_contribution/Shifting_baselines_and_political_expediency_in_New_Zealand/13114649

⁴ <https://trc.govt.nz/assets/Documents/Environment/Monitoring-Industry/2022/22-71-Fonterra-Kapuni-Monitoring-Programme-Annual-Report-2021-2022-3087200.PDF>

⁵ <https://trc.govt.nz/assets/Documents/Environment/Monitoring-Industry/2022/22-80-Ballance-Agri-Nutrients-Kapuni-Ltd-Monitoring-Programme-Annual-Report-2021-2022-3101696.PDF>

⁶ <https://www.wai-kokopu.org.nz/leaders-do-the-right-thing/>

⁷ <https://environment.govt.nz/acts-and-regulations/water-conservation-orders/waikoropupu-springs-water-conservation-order/>

⁸ <https://www.stuff.co.nz/environment/118124276/environmental-group-issues-sos-over-te-waikoropupu-springs-in-golden-bay>

⁹ <https://trc.govt.nz/assets/Documents/Research-reviews/KNEs/kne10.pdf>

¹⁰ <https://trc.govt.nz/assets/Documents/Research-reviews/KNEs/kne3.pdf>

¹¹ <https://trc.govt.nz/assets/Documents/Environment/Monitoring-OGWaste/22-30-Waste-Remediation-Services-Ltd-Waikai-Landfarm-Monitoring-Programme-Annual-Report-2021-2022-3128128.PDF>

¹² <https://trc.govt.nz/assets/Documents/Environment/Monitoring-OGWaste/2022/22-27-Waste-Remediation-Services-WRS-Ltd-Symes-Manawapou-Landfarms-Monitoring-Programme-Annual-Report-2021-2022-3079817.PDF>

¹³ <https://www.stuff.co.nz/taranaki-daily-news/news/300172036/taranakis-207000hectare-horticultural-potential>

¹⁴ <https://www.wai-kokopu.org.nz/leaders-do-the-right-thing/>

¹⁵ <https://environment.govt.nz/acts-and-regulations/regulations/national-environmental-standards-for-commercial-forestry/>

¹⁶ <https://www.horizons.govt.nz/HRC/media/Media/Land/Continuous-Cover-What-is-it.pdf?ext=.pdf>

¹⁷ <https://www.mauricompass.com/>

¹⁸ Benson, Marlene, Anne-Maree McKay, Manawa, Riaki and Ian Ruru, 2020. Te Rūnanga o Ngāti Mutunga Mauri Compass Assessment of the Urenui River and the Mimitangiatua River. <https://www.mauricompass.com/uploads/1/0/9/8/109843396/trc.pdf>

¹⁹ https://trc.govt.nz/assets/Documents/Environment/SOE2022/TRC_State-Of-Environment_A4_Web-Spreads-Maori-Freshwater-Values.pdf

²⁰ <https://www.rnz.co.nz/news/national/443469/taranaki-composting-business-eyes-appeal-of-consents-decision>

²¹ <https://www.rnz.co.nz/news/national/463251/taranaki-composting-plant-flunks-latest-environmental-report>

²² <https://www.wai-kokopu.org.nz/>

²³ https://www.stuff.co.nz/taranaki-daily-news/news/132974099/health-warning-algae-bloom-in-lake-ngangana-in-waitara?utm_source=ground.news&utm_medium=referral

²⁴ <https://www.rnz.co.nz/news/national/314582/environmentalists-take-to-water-to-highlight-waitara-river-pollution>

²⁵ <https://trc.govt.nz/assets/Documents/Environment/Monitoring-Industry/2022/22-20-Methanex-Motunui-and-Waitara-Valley-Combined-Monitoring-Programme-Annual-Report-2021-2022-3078619.PDF>

²⁶ <https://trc.govt.nz/assets/Documents/Environment/Monitoring-Industry/2021/MR20-Methanex.pdf>

²⁷ <https://fionaclark.com/portfolio-item/kai-moana-local-politics/>

²⁸ <https://www.rnz.co.nz/news/ldr/483803/iwi-set-to-spend-thousands-during-kaimoana-ban>