Ministry for the Environment
Manatū Mō Te Taiao

Ministry for Primary Industries
Manatū Ahu Matua

National Policy Statement for Freshwater Management Implementation Review

Taranaki

New Zealand Government

Published in August 2017 by the
Ministry for the Environment
Manatū Mō Te Taiao

This document is available on the Ministry for the Environment website: www.mfe.govt.nz.

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Regional overview

The Taranaki region covers around 7200 square kilometres on the west coast of the North Island. A large ring plain with deep, fertile volcanic ash soils around Mount Taranaki in the west gives way to steep hill country with soils of low productivity in the eastern half of the region. Nearly half of the 116,700 (approximately) residents live in New Plymouth.[1]

Around 60 per cent of the land is used for high-intensity farming – primarily dairying on the ring plains with sheep and beef farming in the eastern hill country.[2] Because the Taranaki region has had intensive dairying for a long time, the Taranaki Regional Council (TRC) reports that the region is not seeing the same level of new conversion to, and intensification of, dairying that many other regions are. Most of the remaining 40 per cent is indigenous vegetation with small pockets of urban and industrial land. Only around 8 per cent of the natural wetlands in the region remain.

The ring plain is characterised by hundreds of short steep fast-flowing streams and rivers radiating from the native bush on Mount Taranaki that flush comparatively quickly to the sea (figure 1). The Pātea River is the longest of these. In the eastern hill country, rivers are generally longer and slower flowing with short tributaries contained by narrow valleys.

Rainfall is high but unevenly distributed, due to the influences of Mount Taranaki. The mountain itself averages up to 8 metres per year.[3] Much of this is stored as ice and snow in winter then released during summer melts, resulting in relatively consistent supply. In contrast, New Plymouth and some coastal areas average 1500 millimetres or less annually.

Water quantity is generally plentiful, and TRC estimates that less than 5 per cent of surface water is allocated; however, data indicates that some sources in a small number of catchments are, or are approaching, over allocation and demand is increasing.[4] During droughts, this creates a challenge in balancing the need to maintain environmental flows against demands for stock water and urban supply. Most of the region's water takes use surface water, with only 12 per cent of takes using groundwater. While most surface water is used for irrigation or industrial purposes, most groundwater use is for domestic and municipal supply (figure 2).

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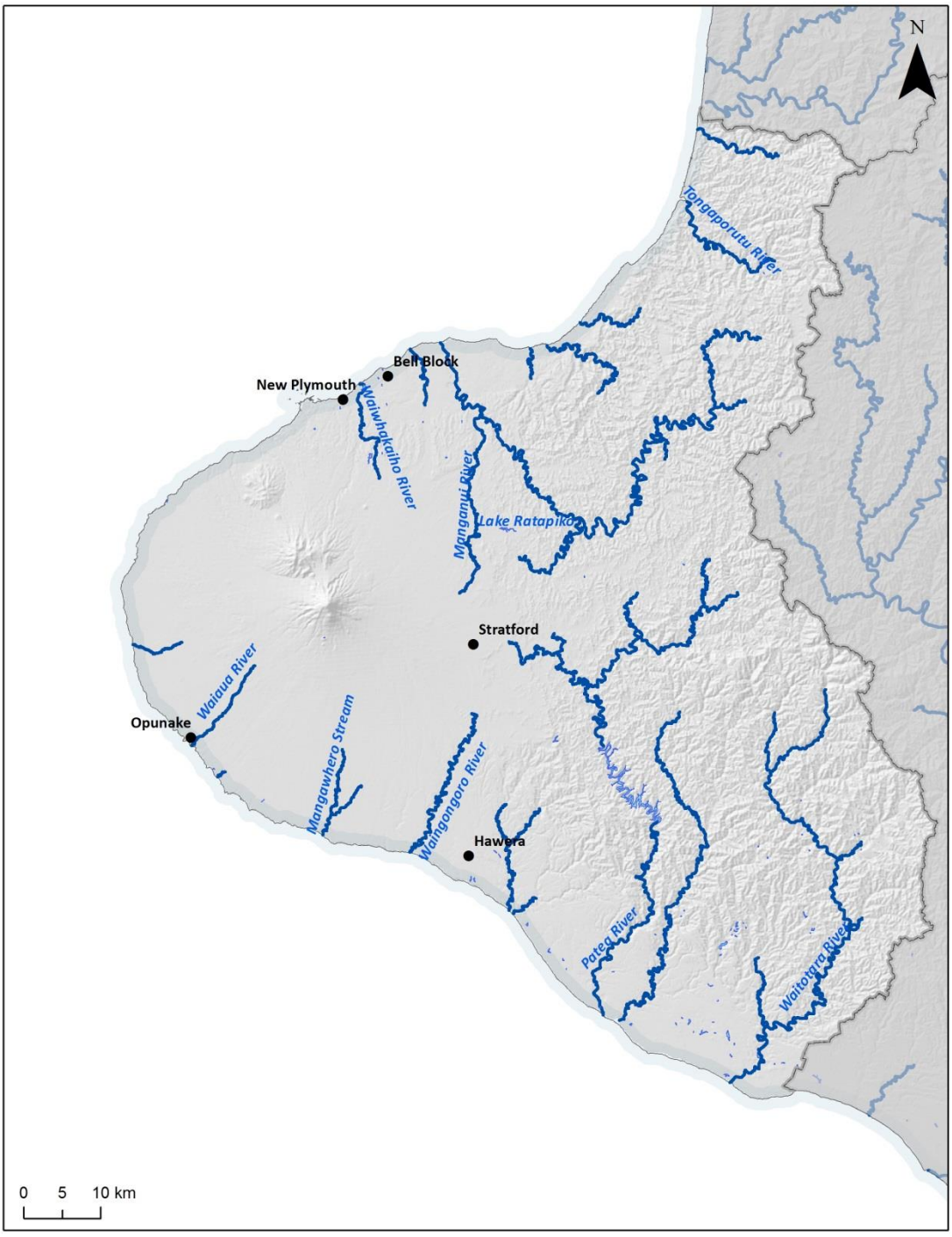
1 Statistics New Zealand. No date. *Subnational population estimates (RC, constituency), by age and sex, at 30 June 2013–16*. Retrieved from http://nzdotstat.stats.govt.nz/wbos/Index.aspx?DataSetCode=TABLECODE7508 (28 June 2017).

2 Land, Air, Water Aotearoa. No date. *Taranaki region*. Retrieved from www.lawa.org.nz/explore-data/taranaki-region (28 June 2017).

3 Taranaki Regional Council. 2015. *Taranaki as One – Taranaki Tāngata Tū Tahi*: *State of the Environment Report 2015*. Retrieved from https://trc.govt.nz/council/plans-and-reports/environmental/state-of-the-environment-report-2015 (28 June 2017).

4 Taranaki Regional Council. 2015. *Taranaki as One – Taranaki Tāngata Tū Tahi*: *State of the Environment Report 2015*. Retrieved from https://trc.govt.nz/council/plans-and-reports/environmental/state-of-the-environment-report-2015 (28 June 2017).

Figure 1: Major water bodies in the Taranaki region



Source: Ministry for the Environment

State of the environment reporting from TRC shows that overall surface water and groundwater quality in the region is in the A or B band for most attributes in appendix 2 of the National Policy Statement for Freshwater Management (NPS-FM), and is being maintained or improving.[5] Surface water quality in upper reaches is generally very good; however, lowland

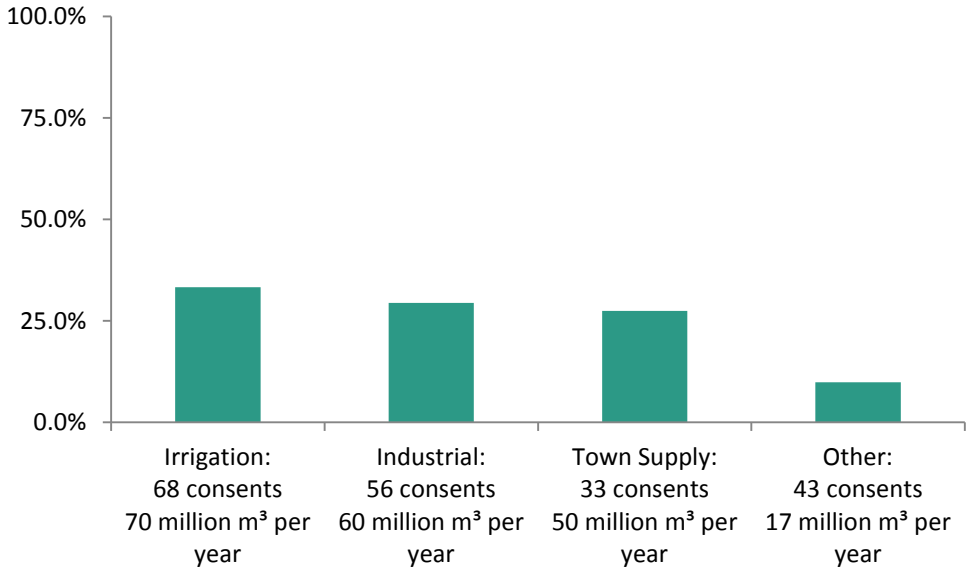
[5] Note that the data contained in this overview come largely from TRC via reporting on the Land, Air, Water Aotearoa website and published State of the Environment reports. See the Information section for a discussion on water quality monitoring methodology and important caveats about the data above.

rivers in catchments with urban areas or more intensive agriculture use are often degraded. Microbial levels sometimes exceed guidelines for swimming and other primary recreation in several sites, although TRC reports this is often due to bird life. Cyanobacteria blooms have been reported at Lake Rotokare and Lake Rotomanu, and benthic cyanobacteria is found in some rivers. In the eastern hill country, the papa (mudstone or muddy sandstone) soils are highly vulnerable to erosion resulting in high sediment loads in many rivers that pass through this zone.

Groundwater quality is generally good but monitoring indicates rising levels of nitrate associated with intensive agriculture in the volcanic aquifers. Some sites also have naturally high mineral and acidity levels that exceed guidelines for human drinking water.

Increased use of supplementary feed for dairy farming and increased stocking rates have the potential to increase nutrient run-off to surface water and seepage to groundwater.

Figure 2: Water take consent volumes by primary use in the Taranaki region



Source: Land, Air, Water Aotearoa

Review methodology

The information and analysis contained in this report are based on evidence collected from a questionnaire completed by TRC, a series of interviews and panel discussions with relevant parties, planning documents and associated reports, and the Ministry for the Environment's ongoing relationships and projects across the region. The overall review team consisted of officials from the joint Ministry for the Environment and Ministry for Primary Industries Water Directorate with the assistance of two independent consultants who are both certified hearings commissioners with more than 30 years of experience in freshwater management.

The review team conducted a series of panel discussions with TRC executives and elected councillors, senior council staff, Māori representatives and stakeholder representatives. Only one iwi group and one non-governmental organisation accepted our invitation to participate formally in the review, and we recognise this as a significant limitation. The following comments are based, therefore, on evidence gathered through the Ministry's ongoing conversations and relationships with representatives in the area and additional interviews and panel discussions with representatives from national sector organisations. The report must be read with this caveat in mind. Following each meeting, attendees were given the opportunity to revise or supplement the meeting notes to ensure their views were recorded accurately.

While the review team has made efforts to confirm information where possible, much of the information included in the review is based on the accounts and perspectives of those involved and often cannot be verified independently.

Stakeholder and tāngata whenua representatives did not necessarily speak with mandate as official representatives of their organisation nor are they presumed to represent all in their wider communities. They were, however, primary sources with direct experience of TRC's work.

Because of varying regional contexts, some issues are considered more or less relevant in different regions. Therefore, some topics that appear in other regional chapters but that were not raised by TRC, iwi and hapū or stakeholders in this region have been omitted from this chapter.

Regional context of water planning

Freshwater use in Taranaki is currently managed under the Regional Fresh Water Plan 2001. The plan has some provisions for water quantity, including quantity limits and minimum flow levels but does not contain water quality limits.

Non-regulatory protection of waterways

TRC is leading the way nationally with its work on riparian planting and the fencing of waterways in the region. It reports that riparian plan holders have planted 70 per cent of their waterways. Planted waterways include drains and waterways that are smaller than are required by the proposed stock exclusion regulations. TRC staff noted that the voluntary riparian management programme has resulted in around 4.3 million plants being supplied to landowners, 99.5 per cent of dairy farms having a riparian plan and 84.4 per cent of plan holders fencing their streams. The programme covers 14,500 kilometres of streambank. TRC is introducing requirements for most farmers to discharge effluent on land instead of to waterways.

Stakeholders agreed that the programme has been successful, noting that, even during the downturn in milk prices, farmers have planted 390,000 plants per annum and that the programme has delivered clear benefits for water quality on the ring plains.

Iwi and hapū contexts

Eight iwi have rohe within the Taranaki region. Ngaa Rauru Kiitahi, Ngāti Mutunga, Ngāruahine, Ngāti Ruanui, Ngāti Tama, Taranaki Iwi and Te Atiawa have signed Treaty of Waitangi settlement agreements. The Crown is in discussions with Ngāti Maru.

Under the Treaty of Waitangi settlements, three iwi representatives will be appointed to each of TRC's two main standing committees: the Policy and Planning Committee and the Consents and Regulatory Committee. TRC has stated that all iwi in the region will be involved in a selection process to find appointees to nominate for Council approval.

Approach to implementing the NPS-FM

Since the NPS-FM came into effect in 2011, TRC has largely focused on strengthening its existing riparian planting and monitoring and enforcement programmes to protect water quality. It has made little tangible progress towards implementing the national direction in plans. TRC considers that this approach will have a greater impact on environmental outcomes than planning. Given the state and trend of water quality and quantity for the region, it does not see reason to spend money changing management. If it thought a new freshwater plan was necessary for progress towards environmental outcomes, it says it would complete it sooner.

The timeframe for NPS-FM implementation also reflects a strategy to manage risk. TRC considers that recent and proposed changes to the Resource Management Act 1991 (RMA), NPS-FM and other national direction have added complexity to its efforts and created an uncertain regulatory environment. TRC says it would not be practical to make final planning decisions until national direction is settled.

TRC released a draft Freshwater and Land Management Plan for the Taranaki region for pre-notification comment in 2016. The draft plan would establish freshwater management units and set objectives and maximum in-stream concentrations for water quality attributes. It also contained rules requiring stock exclusion and riparian planting on land used for intensive pastoral farming, effluent discharge to land and forestry setback distances from waterways. Following comments received on the draft, TRC reports it is now carrying out further consultation and investigations, with the intention of notifying a proposed plan within five years. It considers the additional time will also allow for changes to the RMA and NPS-FM to be incorporated

TRC's Progressive Implementation Programme states that the plan will be operative by 2023.[6] In the meantime, TRC notes that actions to give effect to regional aspirations signalled in the draft plan are already being given effect to operationally through the current policy framework and as documented in its guide *Taranaki Regional Council Requirements for Good Farm Management in Taranaki*. TRC further notes that limits are routinely imposed through its consenting process.

Stakeholder views

Several agricultural sector stakeholders at the national level praised the practical improvements being made under TRC's non-regulatory work programme. Some considered this to be a pragmatic and cost-effective approach to improving water quality.

Two local stakeholder representatives challenged TRC's claim that it is maintaining and improving freshwater quality in Taranaki as well as it suggests. They point to evidence of declining macroinvertebrates over the length of some streams and degraded water quality in many lower river reaches, particularly in the Waiwhakaiho River. They and iwi representatives were distrustful of TRC reporting.

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6 The full text of the progressive implementation programme is available on the TRC website.

Achieving the objectives of the NPS-FM

TRC stressed that it considers the NPS-FM to have a 'one-size-fits-all' approach that is inappropriate in Taranaki because of its many small rivers and generally high water quality. TRC's concern is that the focus on planning and numeric limits for specific attributes has distracted attention and resources away from practical work to achieve environmental outcomes. Staff also feel the NPS-FM directs them to manage inputs without regard to whether any beneficial ecological outcome will be gained. For example, because algal growth is the result of multiple interacting factors, TRC argues that the focus must be on managing algal growth overall rather than how to limit nutrient inputs. Similarly, it questions the need to prioritise dissolved inorganic nitrogen if nitrate in groundwater is low and periphyton is not an issue.

TRC reports that it considered water quality limits as part of developing its draft freshwater plan and determined that numeric limits would not be fit for purpose in the regional context. In particular, it does not believe that current models and data sources are sufficient to allocation contaminant loss limits at the property level. Instead, TRC would prefer to use narrative objectives and then manage pressures on a case-by-case basis through the consenting process and through non-regulatory incentives and interventions.

With regard to water quantity limits, TRC argues that the organisations promoting limit setting do not understand the practical realities and implications of setting and enforcing hard limits. In its view, managing the effects of droughts and maintaining stock and drinking water supplies is at odds with maintaining environmental health in a river or water body. It is unclear how TRC expects to maintain environmental flows without affecting water users.

> ⏩…[L]imits to preserve environmental flows are nice, but the reality is you will never simply turn off the tap for users when severe droughts arise.⏪
>
> TRC representative

TRC believes that limits imposed through the existing regional plans for water are robust and effective at protecting fresh water and achieving the plans' objectives. Historically, TRC has negotiated outcomes for reaches of rivers or streams through the consenting and planning processes and believes that this demonstrates the need for narrative values and numbers that are situation specific. TRC has identified its intended outcomes and has a clear idea about how to achieve its goals. It emphasises that this is driven by local aspirations, not the NPS-FM, but will be built into its future plan.

Community engagement

TRC uses a range of consultative processes including informal targeted consultation with stakeholder groups. TRC noted that this has been its approach for over 20 years. It reports having good relationships with its farming community. It has also included representatives from territorial authorities and farming sector groups on its Policy and Planning Committee.

TRC conducted informal, targeted consultation on a draft plan that highlighted several issues where further detailed work and consultation is needed. It says these issues will potentially have a significant impact on the shaping of the proposed plan. TRC staff noted that changes to the draft plan will include a review of limits in current rules and the inclusion of cultural values. It does not believe many people in the community are concerned about the delay in notifying a proposed plan.

In common with several other councils, TRC was concerned by the tendency for some interest groups to refer to their national office for final decisions. This is a complicating factor in the decision-making process, because the head office often lacks a regional context and an understanding of the compromises made by all sides when reaching agreements.

Stakeholder views

The stakeholders interviewed noted that TRC appears to realise that the more consultation it does at the beginning to define the issues, the better it is going to be for when it gets to the hearing and appeals stage. They felt that TRC is generally good about consulting beforehand.

We heard concerns, however, from territorial authorities that report that TRC has not been transparent about what it is considering as it revises its draft plan. They felt it difficult to make long-term infrastructure planning decisions without knowing what rules and limits were likely to come.

Engaging with iwi

At the time of the review, iwi engagement with TRC was undergoing a major change. Treaty of Waitangi settlements mean that TRC will need to ensure tāngata whenua are part of regional governance and decision-making, including for freshwater management, through representation on the Policy and Planning Committee and Consents and Regulatory Committee. At the time of writing, however, this had yet to be implemented.

TRC reports that it already consults regularly with iwi and hapū on a variety of issues relevant to their rohe, including on applications for resource consents. It has offered for iwi to use its geographic information system to record areas and issues that they value. TRC reports that its relationships with iwi are improving, and it anticipates that settlements will allow iwi to improve their capacity and capability for involvement.

Iwi and hapū views

The tāngata whenua representatives spoken to agreed that TRC had held meetings with iwi alongside stakeholders. They say there is more attendance at these meetings from iwi now, compared with a few years ago. However, despite iwi being represented, they felt iwi were not well included at the meetings they attended.

The representatives appreciated that TRC shares consent application reports with iwi, but they say consultation on these reports only occurs after TRC has made its decisions. They want to be more actively involved in these management decisions. They are concerned that not all information is provided up front so they have to ask TRC, which is a time-consuming process for both groups.

> ⏩The water in our rohe is over allocated, the limits are nonsense, fish health is appalling, wetlands are degraded. We have a very different definition of what water quality should be.⏪
>
> Review hui participant

The iwi representatives spoken to for the review say they have been trying to gain their own representation on TRC committees but there is a statutory limitation for them to get representation. They feel that three voices on these large committees will have little influence. They consider their ability to shape decision-making is limited and believe that three iwi representatives are very unlikely to make any transformative change quickly.

One iwi spokesperson noted that most of their rohe is used for dairy and farming, and this affects the state of the whole environment not just freshwater. The iwi spoken to believe that not enough of TRC's resources are being used to address freshwater issues.

Capacity and capability

TRC has good operational staff capability and capacity, which in turn has built community buy-in to programmes such as the riparian planting programme. TRC has identified a lack of in-house economic expertise as an issue, based on increased expectations for documenting socio-economic considerations as part of preparing Resource Management Act 1991 (RMA) section 32 reports.[7] TRC is also building in-house capacity to further include iwi views in plans in future, alongside the pre-existing iwi engagement process, and notes this will be a factor in the redrafting of the proposed plan.

Stakeholder perception is that TRC has quite a small team working on the NPS-FM, but stakeholders are uncertain how TRC compares with other councils around the country. One stakeholder noted that "TRC adapted a lot of the measures that had been adopted by Horizons Regional Council as part of their One Plan", which stakeholders were supportive of, but they suspect TRC could do more to learn from other councils' processes around the country to speed its own process for implementing the NPS-FM.

In common with other regions, some stakeholder groups in Taranaki often have small policy teams and are supported with advice from their national head office. Some are able to access funding for experts and advice, if necessary. A common issue councils raised about these groups is the tendency for the Wellington-based head office to override decisions reached in regions.

The iwi spoken to noted that TRC is willing to listen to their views but felt that TRC has limited capability to incorporate iwi views into documents and day-to-day work. The iwi noted that TRC has work in progress to build capability and capacity for iwi engagement.

[7] Section 32 of the RMA requires regulating authorities to assess and report on the social, economic and environmental costs and benefits of all proposed policies, plans and regulations. The reports are intended to inform decision-making and provide transparency of process.

Information

TRC has long-standing compliance monitoring programmes for all consented abstractions and discharges to water, and long-standing monitoring programmes for a range of water quality and water quantity measures. TRC reported that the State of the Environment monitoring programmes have been reviewed and revised to ensure they provide meaningful and representative measurements of attributes specified within the NPS-FM. Staff are also reviewing the existing State of the Environment monitoring programmes and reporting to see how well they align with the NPS-FM's requirement for an accounting system.

State of the Environment monitoring programmes have been in place in Taranaki since 1995 and are reviewed annually. TRC has already added new sites to take account of future freshwater management units. Monitoring, according to the revised programmes has started, but TRC noted that there is ongoing discussion around choice of measure for periphyton and protocols for continuous dissolved oxygen at the national level. TRC staff stated that, until these measures are resolved at national level, the regional monitoring plan cannot be finalised.

TRC does not monitor recreational water quality in summer if there has been rain within the previous three days. As a result, there have been occasions when recreational water quality has not been monitored for weeks or months at a time. This is inconsistent with the monitoring practices of other councils around the country. Because rainfall is typically associated with higher levels of contamination as run-off carries contaminants into streams and rivers, there is a risk that TRC's approach to monitoring is missing these contamination spikes and misrepresenting overall water quality. This is also a concern when national guidelines for recreational water quality recommend weekly monitoring. Note, however, the guidelines are non-regulatory and are not specific when it comes to requirements for monitoring. TRC reasons that it expects people not to engage in swimming or other primary contact within three days after rain. However, kayakers and other whitewater recreational users may be more attracted to rivers at these times.

Some councils are using OVERSEER® to model nutrient leaching as a tool for limit setting and monitoring. TRC supports the use of OVERSEER® as a farm management tool. However, it notes that it was not designed as a tool for regulation and does not support it being used as such. TRC considers that OVERSEER® modelling would not be sufficient proof that pollution is coming from one property or another for legal processes.

Mātauranga Māori

As part of the review of the Freshwater Plan, TRC prepared and undertook targeted consultation to identify water bodies with outstanding or significant freshwater values, including rivers with outstanding cultural, traditional and spiritual associations. Staff report that this work will be ongoing. The current Regional Policy Statement and regional plans all have provisions that explicitly address the values and interests of iwi and hapū. TRC reports that it is currently developing cultural assessment indicators and methods with two iwi.

Scientific and technical knowledge

TRC stated that its understanding of the current state of Taranaki's catchments is good and has been supported by independent studies carried out by the National Institute of Water and Atmospheric Research and GNS Science. TRC believes that this understanding allows policy decisions and limit setting to reflect the regional context. It notes that information can always be improved, but it has a high degree of satisfaction that the social, environmental and cultural information available is sufficient for planning.

Stakeholder views

Stakeholders were generally supportive of TRC's monitoring programme and consider the number and spread of sites is sufficient. Stakeholders also generally agree that TRC's data indicates that overall water quality is being maintained in the region, although some expressed scepticism.

Iwi views

Iwi representatives noted that the types of information and the way they are presented can be barriers to involvement for many iwi and hapū. TRC benchmarks for water quality and quantity are based on the modern situation and defined in scientific terms. However, iwi representatives say these baselines are not appropriate for tāngata whenua because they do not fully reflect their values or knowledge about historic states. Kaumātua tell stories about the different rivers that describe much better states than they are in currently with greater flows and an abundance of ika and tuna. This body of knowledge is not being used or reflected in planning. Many people in their iwi and hapū prefer to see, hear and smell the more tangible qualities of their water bodies rather than rely on numeric attributes.

> ⏩Numbers and figures don't reflect what we value about these water bodies.⏪
>
> Review hui participant

Although TRC reports it is working with two iwi to develop cultural indicators and monitoring programmes, the representatives we spoke with were unaware of this. They say they would welcome working with TRC but have not yet been approached.

The tāngata whenua representatives would like to see central government commit resources to develop national indicators for Māori cultural health as it pertains to fresh water. Iwi groups could then take the opportunity to tailor such national indices to their needs.

Plan implementation

At the time of writing, TRC had yet to release a proposed plan implementing the NPS-FM. While a draft was released in 2015, we understand that significant revisions will be made. Therefore, it is not possible to tell what the impacts of implementation will be.

TRC has focused on a voluntary non-regulatory approach for improving water quality from diffuse pastoral sources, including the riparian planting programme and hill country farm plans.

> ⏩There will be some that do not volunteer [for the riparian planting programme], and the Council will regulate them later through a revised Freshwater Plan.⏪
>
> TRC representative

Conclusions and recommendations

The following are the views of government officials about NPS-FM implementation in the region.

- TRC's riparian planting programme has contributed to the maintenance of water quality on the ring plains, and TRC is to be congratulated on this programme. Strong relationships between TRC staff and primary sector landowners have helped achieve further improvements in water quality.
- We are concerned at the lack of visible progress by TRC towards implementing the NPS-FM in its plans. TRC says that it is undertaking additional consultation and investigation before releasing a revised version of its draft regional plan. However, we have seen little tangible evidence of this. We encourage TRC to engage more with the community and to be more transparent about its plan development process.
- While we understand TRC's concerns about how changes to national direction may affect its planning processes, the RMA directs councils to implement national policy statements as soon as practicable. National policy development and regional planning must always be iterative processes that adapt to new pressures, new information and changing community aspirations. There is no reason why TRC should delay implementing national direction.
- Although TRC has stated that the plan currently being drafted will contain limits, it has not shared these proposed limits. Although the plan was still in draft form at the time of this review, it would be good for TRC to share its proposed limits with the wider community in Taranaki.
- TRC will need to work more effectively with iwi to give effect to Part D of the NPS-FM. Part D requires councils to work with iwi and hapū to identify tāngata whenua values, to reflect those values in plans, and to involve iwi and hapū in the management of fresh water and freshwater ecosystems. Feedback that we have received from iwi and hapū through this review and through our ongoing work programmes indicates at least some iwi and hapū have concerns about whether TRC is giving effect to that requirement adequately.
- Agreements made in Treaty of Waitangi settlements for iwi to be represented on decision-making committees will aid in increasing their involvement. However, it will be a challenge for all parties as they build capacity and capability. Central government should discuss with TRC and iwi how to support both in these processes.
- While State of the Environment reporting indicates that water quality is being maintained or improved across most attributes, we have concerns that the lack of monitoring following rain events may be giving an inaccurate picture of the current state. The Ministry for the Environment should continue working with all regional councils to develop national consistency in monitoring and reporting. In the meantime, we encourage TRC to ensure that its monitoring programme is more consistent with those of other councils.