Ministry for the Environment
Manatū Mō Te Taiao

Ministry for Primary Industries
Manatū Ahu Matua

National Policy Statement for Freshwater Management Implementation Review

West Coast – Te Tai o Poutini

New Zealand Government

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Regional overview

The West Coast region in the South Island covers some 23,300 square kilometres of land between Kahurangi Point in the north and Awarua Point in the south. The eastern two-thirds of the land is mountainous, falling westward from the Southern Alps down to a relatively narrow strip of alluvial coastal plains. Three-quarters of the region is covered in native bush.[1]

Although the West Coast is one of New Zealand's larger regions, it is home to only around 32,500 residents – most of whom live in Hokitika, Greymouth and Westport. Moreover, it is the only region with a decreasing population overall.[2]

More than 80 per cent of the region is held in public trust, including all or part of five national parks (Arthur's Pass, Mount Aspiring, Kahurangi, Paparoa and Westland Tai Poutini) and part of the Te Wāhipounamu – South West New Zealand World Heritage Area. These natural areas draw millions of tourists annually, bringing their own impacts on water.

Most rivers in the region have their headwaters in the Southern Alps, resulting in rivers that are often short and steep (figure 1). The largest rivers are the Karamea, Buller, Grey, Hokitika and Haast. The West Coast region also has multiple lakes, which are highly valued for recreation. Most are in catchments dominated by native forest.

The West Coast experiences rainfall between 2500 to 11,000 millimetres per year, resulting in an abundance of water available for use.[3] This, combined with a cool climate and low intensity land use in most catchments, means it experiences less quantity pressure on its freshwater resources in comparison with most other regions.

Groundwater resources are primarily located among the alluvial deposits near the coast. Useable aquifers in the region typically have low levels of confinement and, due to the high levels of rainfall, recharge quickly. The region has around 450 bores, most of which are associated with dairy farms located on the alluvial plains of the large river valleys and flat coastal strips.

The West Coast Regional Council (WCRC) reports no known over allocations of water quantity at present. However, water availability is coming under increased seasonal pressure in some sub-catchments, particularly during summer dry periods. Irrigation accounts for the greatest consumption of water, totalling over half of the consented allocation (see figure 2). The remainder is divided between industrial and municipal uses.

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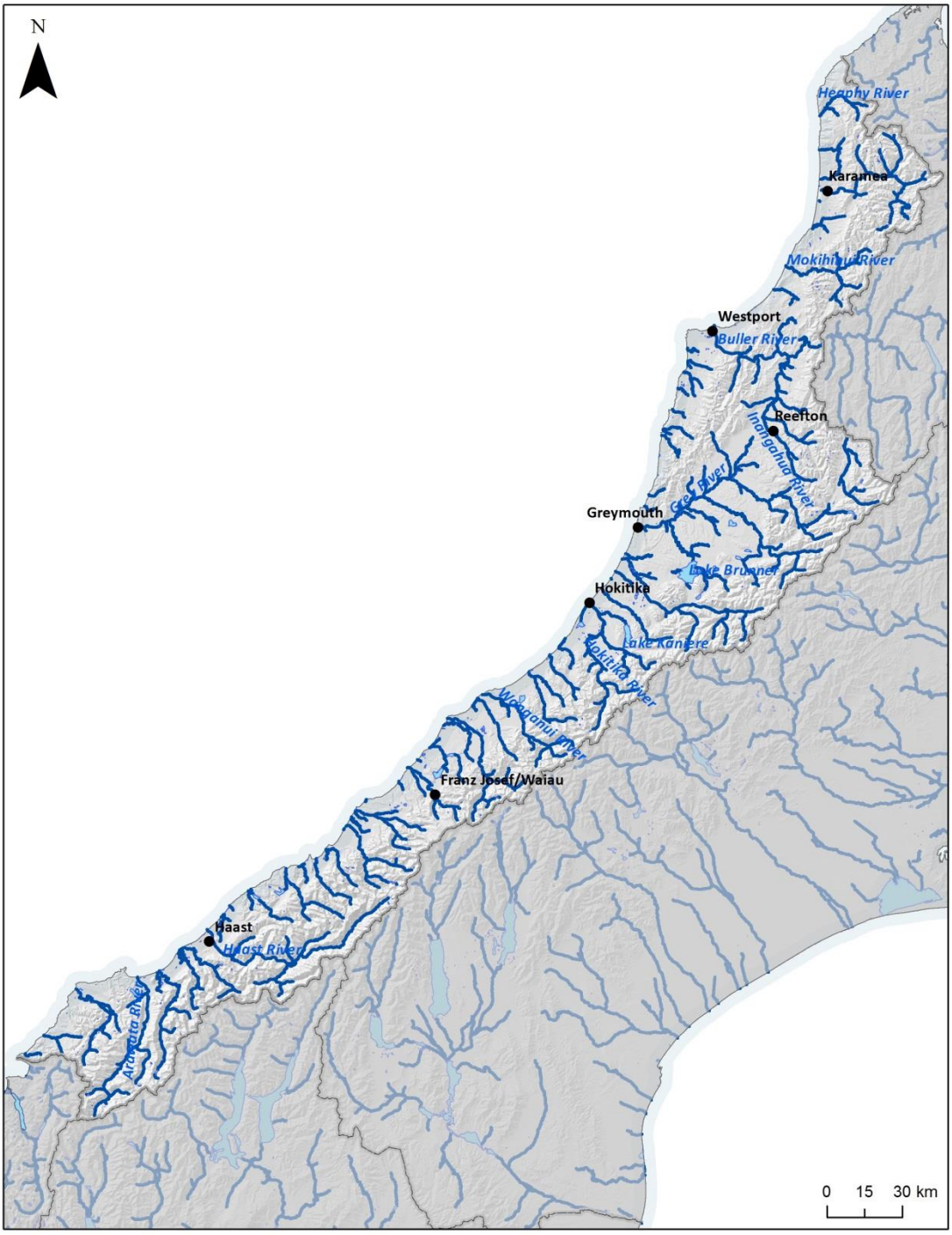
1 See Statistics New Zealand. No date. Agricultural area in hectares by usage and region. Retrieved from http://stats.govt.nz/~/media/Statistics/browse-categories/industry-sectors/agriculture-horticulture-forestry/ag-census-2012/ag-areas-hect-by-usage-region.xls (22 June 2017).

2 See Statistics New Zealand. No date. Subnational population estimates (RC, AU), by age and sex, at 30 June 1996, 2001, 2006-16 (2017 boundaries). Retrieved from http://nzdotstat.stats.govt.nz/wbos/Index.aspx?DataSetCode=TABLECODE7501 (22 June 2017).

3 West Coast Regional Council. 2012. *West Coast Hydrometric and Climatological State of Environment Report*. Greymouth: West Coast Regional Council.

Figure 1: Major water bodies in the West Coast region



Source: Ministry for the Environment

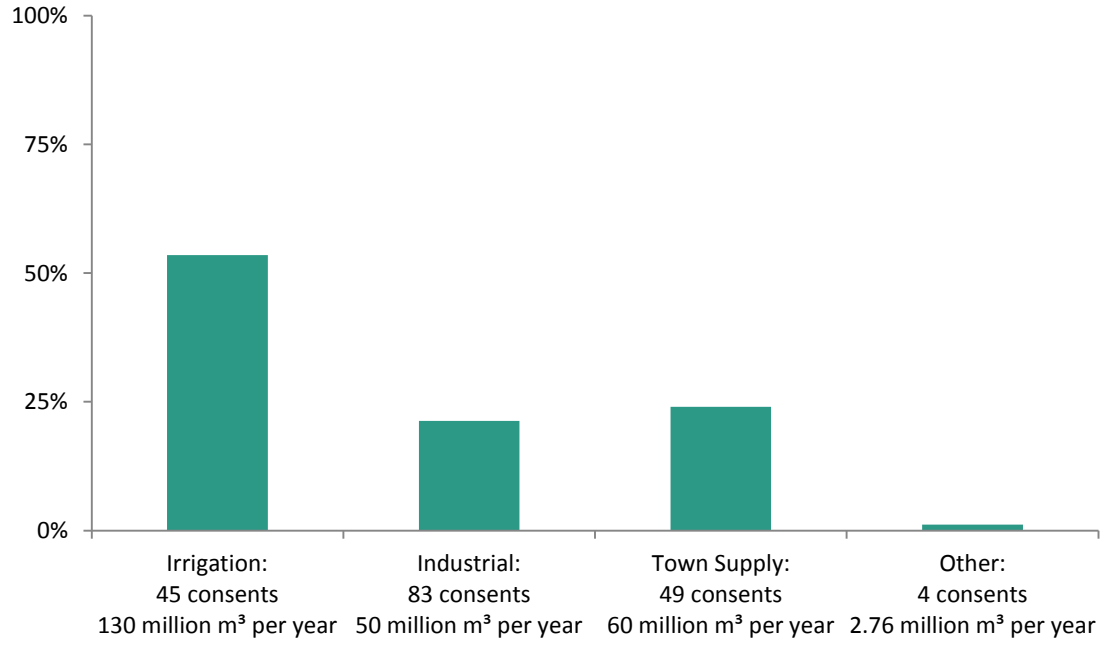
Water quality is generally high, but monitoring has identified pressures in catchments with greater levels of mining, agriculture and other human activity. The towns of Karamea and Greymouth both have creeks with significant water quality issues. Historic acid mine drainage is of concern, and many of the sites involved are orphan sites[4] on Crown land where remediation is difficult to manage.

[4] Sites where the polluter could not be identified or the polluter refused to take action or pay for the clean up.

According to WCRC's most recent State of the Environment report, water quality in most rivers and lakes is in the A band for most attributes in appendix 2 of the National Policy Statement for Freshwater Management (NPS-FM), and most waterbodies are well above national bottom lines.[5] Sediment is not a major issue except in coastal areas where rivers pass through softer, more erodible rock and near some current and historic mining activity. Nitrate and total nitrogen, while still relatively low overall, are increasing in some areas, such as the Grey and Buller rivers and Lake Brunner. Periphyton growth is infrequent. Most monitored sites score in the A band for microbiota and are considered excellent quality for swimming and other primary immersion recreational activities.

Groundwater quality is generally good; however, some monitored wells have microbial levels above guidelines for human drinking water or elevated levels of iron or other minerals. Rising nitrate levels are also a concern in some places. Because of the time required for contaminants to work through the groundwater system, the full effects of past land use may not have appeared.

Figure 2: Water take consents by primary use



Data source: Land, Air, Water Aotearoa

[5] West Coast Regional Council. 2015. *West Coast Surface Water Quality*. Greymouth: West Coast Regional Council.

Review methodology

The information and analysis contained in this report are based on evidence collected from a questionnaire completed by WCRC, 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 WCRC executives and elected councillors, senior WCRC staff, tāngata whenua and stakeholder representatives. Additional interviews and panel discussions were held with representatives from national sector organisations. 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 accounts where possible, much of the information included in the review is based on the perspectives of those involved and often cannot be verified independently.

These participants 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 WCRC'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 WCRC, iwi and hapū or stakeholders in this region have been omitted from this chapter.

Regional context for freshwater management

Water is currently managed under WCRC's Land and Water Plan, which became operative on 27 May 2014 and replaced three previous separate plans for Water Management, Land and Riverbed, and Discharge to Land.

WCRC also notes that it has a small rating base dispersed across a large region. With around 50 staff members and an operating revenue of under $10 million per year, WCRC has the fewest staff and smallest operating budget of all regional authorities in the country. The territorial authorities in the region, the Grey, Buller and Westland district councils, face similar resource limitations.

WCRC says that it experiences little in the way of public concerns or demands regarding freshwater management issues. The prevailing perception among its residents is that the West Coast does not have water quality or quantity issues. The impact of coastal erosion is increasingly a priority issue competing for council resources and drawing public attention away from fresh water. Given the current state of many of its water bodies, WCRC initially questioned whether freshwater planning would be the best use of its resources.

Iwi and rūnanga context

Te Rūnanga o Ngāi Tahu is recognised as the mandated iwi authority for the West Coast region. Having reached a Treaty of Waitangi settlement more than 20 years ago, Ngāi Tahu is one of the better resourced iwi in the country. Two rūnanga of Ngāi Tahu are mana whenua on the West Coast, Te Rūnanga o Makaawhio and Te Rūnanga o Ngāti Waewae, and both are represented on WCRC's Resource Management Committee. Tāngata whenua of the West Coast are also referred to collectively as Poutini Ngāi Tahu.

Approach to implementing the NPS-FM

Progressive implementation programme

When the 2011 National Policy Statement for Freshwater Management (NPS-FM) was released, WCRC produced a report that concluded it had largely implemented the national policy through its existing regional plan. Following amendments to the NPS-FM in 2014, WCRC says it is considering whether more changes will be required. It is currently at the project planning stage, including setting up an implementation team that will look at the requirements of the NPS-FM and the National Objectives Framework in detail and decide what further work needs to be done.

WCRC has not formally adopted a progressive implementation programme. Staff say that they will recommend approaching implementation by addressing each catchment consecutively, but they have not prioritised what order they will address each catchment, nor has this been discussed or agreed by WCRC. Staff want to have this roadmap together before the end of 2017. They say they ideally want to achieve implementation with two or three plan changes over the next 10 years.

Priorities

As part of this planning process, WCRC will prioritise which catchments to work on and will attend to them consecutively. This will be based on the State of the Environment report, to identify which catchments and waterbodies are underperforming. For example, some water bodies are within the C and D bands for attributes in appendix 2 of the NPS-FM, particularly for *Escherichia coli*. Although water availability issues are uncommon in the region, WCRC will also consider how much freshwater resource is available for allocation.

Lake Brunner had already been prioritised for specific management actions before the NPS-FM due to declining water quality. The community has managed to improve water quality through improved land management and collaboration, as mentioned above.

In addition to Lake Brunner, WCRC has identified other areas to work on. Water availability has come under increased seasonal pressure in the past, due to extraction for irrigation in the Upper Grey Valley. The region experienced a drought in 2013 that resulted in some farmers applying for consents for irrigation systems.

NPS-FM implementation progress in major catchments

LAKE BRUNNER

Lake Brunner had increasing phosphate levels resulting in a slow decline in water quality. In 2003, WCRC started a voluntary farm-planning initiative. Eighty per cent of farmers took part in this initiative.

A plan change was carried out in 2010 that introduced objectives, policies and rules that included special provisions for Lake Brunner. The Regional Plan requires any development in the Lake Brunner catchment to have a resource consent. Applying fertiliser and capital dressings to newly developed land also requires resource consent.

The community has managed to turn the declining trend around through improved land management, including effluent management strategies and fencing waterways, planting and stock bridges. This dramatically increased costs to farmers.

Through a combination of regulatory and non-regulatory measures, the target was met in August 2015, some five years earlier than expected. The success at Lake Brunner is in part attributable to the contributions received from the Government's Fresh Start for Freshwater Clean-up Fund.

Achieving the objectives of the NPS-FM

Setting freshwater management units

The first implementation workshop WCRC holds will likely consider how and where to set freshwater management units (FMUs). WCRC wants community input when setting FMUs but is concerned about burdening people with over-consultation.

Limit setting and allocation

WCRC's Land and Water Plan sets freshwater quality limits for aquatic ecosystems and contact recreation purposes (under policy 8.3.1). This policy applies to all surface water bodies within the region. WCRC says that the purpose of setting such standards is to give effect to the objectives of the NPS-FM.

Chapter 7 of the Land and Water Plan sets minimum flow levels and details specific criteria that must be met in order to obtain consent for takes when those minimum flow levels cannot be met.

Community engagement

Staff are currently planning for the most effective method to engage with their communities. Resources to effectively implement the NPS-FM are constrained so they say it is important the planning stage is conducted thoroughly.

WCRC says that economic growth is seen by many in the community as a major priority, and restrictions around land use and fresh water are seen as inhibitors. Given the current economic climate, the community has other priorities, such as jobs, reversing population decline and maintaining infrastructure.

WCRC says it is often difficult to get adequate numbers of people to come forward to discuss resource management issues. Getting engagement around fresh water may be difficult because water quality is perceived to be good.

Lake Brunner was a success, so WCRC wants to build on what it achieved there, considering the resource constraints it has. It wants to promote Lake Brunner as a model to show the community the potential of what can be achieved in improving freshwater quality. Specifically, it says it was a useful model that could be built on for future collaborative processes with Fish and Game New Zealand, the Department of Conservation and iwi. When the regulation plan change was drafted for public consultation, only a few submissions were received from the agricultural sector, and the points they made were minor.

Competing against local values are national-level operating non-governmental organisations (NGOs). WCRC says that it has previously had problems with NGOs circumventing local engagement processes. NGOs do not always have a presence in local communities yet they have significant sway in what is decided upon through litigation and lobbying.

WCRC does not have significant interaction with the tourism sector regarding freshwater management, and it considers that this is an area it might wish to work on in future.

It also says that the mining sector is reasonably well organised and engaged when it comes to communicating with WCRC. The various companies sometimes make joint submissions or arrange meetings with WCRC.

Stakeholder views

The agricultural sector considers that it has capacity and knowledge to take part in collaborative processes. It believes it is very important for these processes to continue and for farmers to take part in them. It is a costly exercise, but the outcomes are positive.

Iwi views

A rūnanga representative we spoke to said that NPS-FM implementation is a daunting task for the West Coast, and it will be a struggle. Challenges for management of fresh water on the West Coast include dairy and mining land uses, they are both in the water game. Dairy farmers are under pressure with the low milk prices.

Engaging with iwi

Both rūnanga of Ngāi Tahu are involved in decision-making on freshwater matters through the Resource Management Committee. In addition, a list of all consent applications received is distributed to the rūnanga for their information, so they are aware of all applications being made in the region. WCRC notes that the rūnanga can and do make submissions on policy development and consent applications through the Resource Management Act 1991 (RMA) process.

The rūnanga are resource constrained. WCRC wants to work with them but cannot always do so, due to these constraints. It can ask Ngāi Tahu to support them, but their resources are also stretched dealing with other central government entities.

Overall, WCRC says that both rūnanga say they are happy with the planning framework. An issue they do bring up is better managing waterways for food gathering, maintenance of cultural value and recreation.

Iwi views

A rūnanga representative we spoke to said that connections with WCRC are really good. For years this was not the case, but WCRC has made the effort to come talk to rūnanga and has moved the relationship to the next level. The WCRC team has learned a lot and 'won't make a move without giving us a yell'. The representative said the Regional Policy Statement process was fantastic and moved the relationship to another level.

They said that resourcing is a challenge, but they can draw on support from Ngai Tahu resources. The region has a huge geographical spread, which has its own challenges. WCRC has resourcing challenges too.

Territorial authorities and communities

WCRC works with territorial authorities on issues of urban development and sewage.

In Greymouth, *E.coli* readings in Sawyer's Creek are within the National Objectives Framework D band, and WCRC is working with the Grey District Council to implement a $48 million sewerage system upgrade. This is intended to raise levels above the national bottom line within two years.

Seasonal influxes of tourists in Haast and Hokitika place pressure on the current sewerage infrastructure. The region receives 1 million tourists a year to the glaciers and half a million to Pancake Rocks so upgrades are needed to cope with seasonal pressures. Resourcing to pay for these upgrades is an issue among the territorial authorities.

Capacity and capability

As the nation's smallest regional council, WCRC faces significant capacity and capability challenges. It reports a noticeably higher demand on staff time and expects that implementation of the NPS-FM will place ever greater demands on its planners and scientists.

WCRC has received assistance from Envirolink to fund technical advice. However, it expects much more work will be required to develop spatial data and modelling systems and other inputs needed to implement the NPS-FM. WCRC fears this will exceed the resources that either it or Envirolink can provide.

To minimise the research burdens, WCRC has been, and intends to continue, partnering with industry and research agencies such as the National Institute of Water and Atmospheric Research, Dairy NZ, Westland Milk Products and AgResearch. Much of the science is transferable across catchments. It has also received support through shared projects with neighbouring Environment Canterbury.

Stakeholder views

Agricultural representatives we spoke to consider that the sector has very little money to spend on achieving good management practice standards. A survey of the 22 farmers in the Lake Brunner catchment revealed that the average cost to farmers was around $100,000 per farm (planting, effluent systems, bridges, herd homes, related labour and lost revenue from retired land). This represents a significant investment for farm businesses, but having a shared kaupapa with support can help. There was good support from councils to roll out farm plans.

In addition, the sector can help inform the science. However, it has to be strategic about where it chooses to conduct research.

Information

WCRC operates 50 surface water quality monitoring sites across several catchments. Eight sites are paired upstream and downstream, to track changes along the length of a river. Only four lakes are regularly monitored for water quality and only two are monitored year round (Lake Brunner and Lake Haupiri). Lake Mahinapua and Lake Kaniere are monitored for recreational health over the summer period.

WCRC prioritises monitoring in representative waterways where there is greater human activity in order to use resources efficiently. It says that current State of the Environment monitoring is fit for the purpose it was intended for, and still has an obligation to adhere to, under the RMA. However, with the arrival of the NPS-FM, the programme may be altered to cater for both RMA needs and community initiatives arising through NPS-FM implementation. Despite a comprehensive data set, WCRC might find that communities want data in areas where there is none, requiring additional monitoring.

WCRC wants to engage with communities to understand where their priorities are, and it may need to expand capability and capacity in science and information. It says that it has worked with other agencies, including the National Institute of Water and Atmospheric Research, to determine where its knowledge gaps are in the hydrology area.

WCRC says that, in the future, it would need outside assistance to conduct economic analysis in additional catchments. It recognises how essential economic analysis is. It has done economic analysis work in relation to Lake Brunner, which it has learned from.

Stakeholder views

Stakeholders consider that WCRC needs to gain a better understanding of the contributing factors to water quality. They would like to see these gaps in knowledge filled but suspect that the national direction is to prioritise outcomes over data certainty. One sector representative believes that WCRC will struggle with the research and monitoring required to set objectives and limits effectively.

Despite WCRC's lack of capacity, the sector considers that the Council is very pragmatic. Stakeholders feel the comparatively high water quality in West Coast catchments makes the job easier but capacity issues mean WCRC will struggle to make changes on the ground. They want to continue conversations with WCRC so as to remain informed about where and when they can contribute.

Iwi views

A rūnanga representative we spoke to said that tāngata whenua have considerable knowledge to add to the process but this has not been used as well as it could be. They recognise WCRC has a big job ahead to get good information to work with, and its state of knowledge is getting better.

The rūnanga has put a lot of work into monitoring resource consent conditions, this way it knows how a company is performing when it reapplies for consents, and it can keep an eye on good and poor performers. The rūnanga reports having a good relationship with the compliance team at WCRC as well.

Plan implementation

Stakeholder views

From a policy perspective, the agricultural sector is attempting to raise the industry environmental standard, reduce the impact that plan changes have on farmers and make sure those plan changes work for farm systems. The sector says it will endeavour to ensure plan changes can actually achieve the outcomes councils set and that they are feasible for farmers to implement.

It has noticed a shift in WCRC's approach to freshwater management from a heavy-handed regulatory approach to consideration of non-regulatory approaches for achieving water quality outcomes. It feels that this has worked particularly well, and it supports working alongside communities to achieve better water quality outcomes.

It does not believe the existing Land and Water Plan will have a significant impact on farms. It could be interpreted as a first step in raising awareness for freshwater management issues. The Plan allows for targeted catchment plans, such as the Lake Brunner plan, to take place. It does not appear to be significantly different from limit-setting processes seen in other regions.

Farmers will incur some costs from this plan but also some gains. If good management practices are achievable, and are explicitly related to water quality, then the sector will be content incurring those costs. The sector has done some work on irrigation effectiveness in the Grey Valley catchment. It views dairying in the catchment as simply needing to catch up with efficient irrigation practices already seen in areas such as Canterbury.

Conclusion and recommendations

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

- WCRC, iwi, stakeholders and the community generally agree that they have good working relationships and want to ensure these continue through any freshwater decision-making processes.
- In order to fully implement the NPS-FM 2014, it is recommended that WCRC continues to work with iwi, stakeholders and the community to identify FMUs, values and limits for its freshwater resources.
- WCRC should consider working in the most stressed FMUs first. It could set region-wide policy for the management of low pressure areas, for example, the conservation estate, and initiate community processes for identified high pressure areas or issues within the FMUs.