

# Submission to Canterbury Regional Council's Regional Policy Statement Review

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*\* indicates required fields*

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Submitter type (please select one)\*:

- ☐ Individual
- ☐ NGO
- ☒ Business/Industry
- ☐ Local Government
- ☐ Central Government
- ☐ Unspecified/Other

## General note for the submission

Barrhill Chertsey Irrigation Limited and Acton Farmers Irrigation Cooperative have been working in collaboration with Rangitata South Irrigation Limited, the Mid-Canterbury RPS Working Group and the Waihora-Selwyn working groups in the development of submissions to Environment Canterbury. While this submission is on behalf of Barrhill Chertsey Irrigation Limited and Acton Farmers Irrigation Cooperative, it will have themes common to submissions from these entities.

## Mid-Canterbury Community consultation and engagement

BCI and AFIC have been actively involved in the collective Mid-Canterbury community engagement process that has sought feedback on visions for the region.

We are totally supportive of the process followed and the collective outcomes from this work, including the Environmental, Cultural, Social and Economic considerations proposed.

The following submission from BCI and AFIC is intended to be read alongside the Mid-Canterbury community submission and provides additional and supporting points of importance to our shareholders.

### Who are we?

Barrhill Chertsey Irrigation Limited (BCI) and Acton Farmers Irrigation Cooperative (AFIC) are cooperative farmer-owned irrigation schemes in the Mid-Canterbury district. BCI has resource consent to take up to 17 m<sup>3</sup>/s of water from the Rakaia River to irrigate 160 farms between the Rangitata and Rakaia Rivers through 250 km of buried pipe network as well as utilising the Rangitata Diversion Race. AFIC utilises 3 m<sup>3</sup>/s of BCI water under license, irrigating a further 50 farms east of Rakaia. In addition to irrigation, we supply water to other community facilities, such as the Methven Hot Pools, Methven Rugby Club and the Methven Racetrack.

Shareholders of BCI and AFIC irrigation schemes utilise irrigation water for arable, sheep and beef, dairy, and dairy support farming systems, totalling nearly 60,000 ha (Figure 1). Nutrients from BCI and AFIC irrigated properties have been managed through a consented nitrogen load limit since 2013, with these consents recently renewed in 2021.

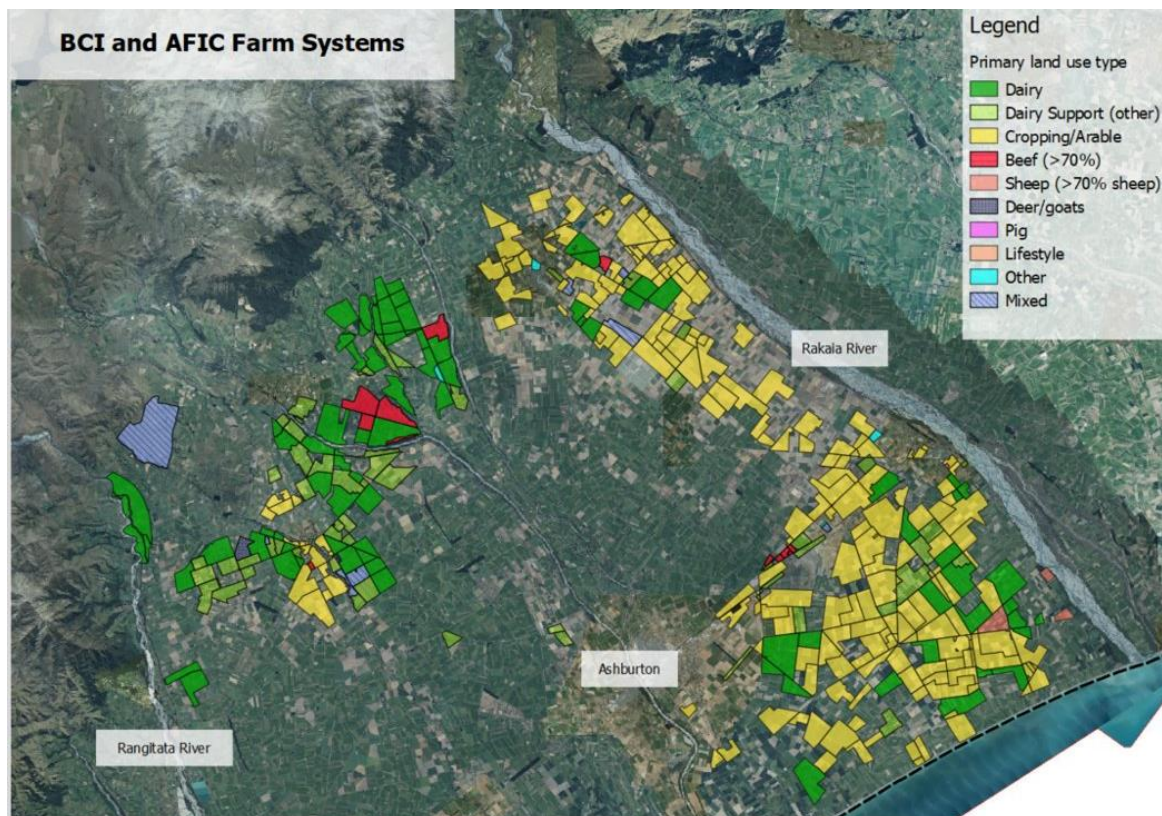
Prompted by the original nutrient discharge consent, BCI and AFIC initiated a scheme environmental programme in 2015, which included:

- An Audited Environmental Management System.
- One on one farmer support.
- Audited farm environment plans.
- Policies and processes to manage nitrogen losses from shareholder properties.
- An extension programme to promote Good Management Practice throughout the shareholder base and local supporting industries.

The 2021 renewed nutrient discharge resource consents include tougher nitrogen loss limits and reduction targets, controls on expansion of dairy, dairy support and intensive winter grazing activities, protection of sensitive receptors and introduction of water quality monitoring programme.

Our environmental programme has meant we are intimately connected to our shareholder base, understand their needs and what's required in our catchments to achieve water quality outcomes set by the National Policy Statement for Freshwater 2020 (NPS-FW).

Figure 1: BCI/AFIC Command Area (2022)



Our shareholder farmers have a multigenerational view of investment, with approximately 66% owner-operated, farming land held in their families for generations. We have been leaders in the implementation of the Canterbury Land and Water Regional Plan and have consistently demonstrated farmers will adopt better practices when they are supported and the benefits of their efforts are proven.

Our submission below shares our vision for the catchments we operate in and provide a pathway Environment Canterbury can use to give effect to the NPW-FW 2020.

## Catchment context

### Canterbury Plains Overview

The Canterbury Plains were formed from alluvial outwash and wind-blown sediment deposits from alpine braided rivers. The resulting terrain is largely flat and free draining, with deeper fertile soils immediately south of the major rivers, becoming stonier with increasing distance from the rivers. As groundwater starts to intercept land, soils tend to be heavy and more swampy.

Barrhill Chertsey Irrigation Limited and Acton Farmers Irrigation Cooperative take water from the Rakaia River and irrigate land in the Mid-Canterbury plains. We are connected to the Rangitata, Hekeao/Hinds, Hakatere/Ashburton and Rakaia River catchments and Mid-Canterbury groundwater zones.

In these freshwater catchments, surface water, groundwater and land use are interconnected as is typical for the Canterbury Plains. Rivers and land infiltration feed into groundwater, which in turn feed the springs and hāpua near the coast (Figure 2).

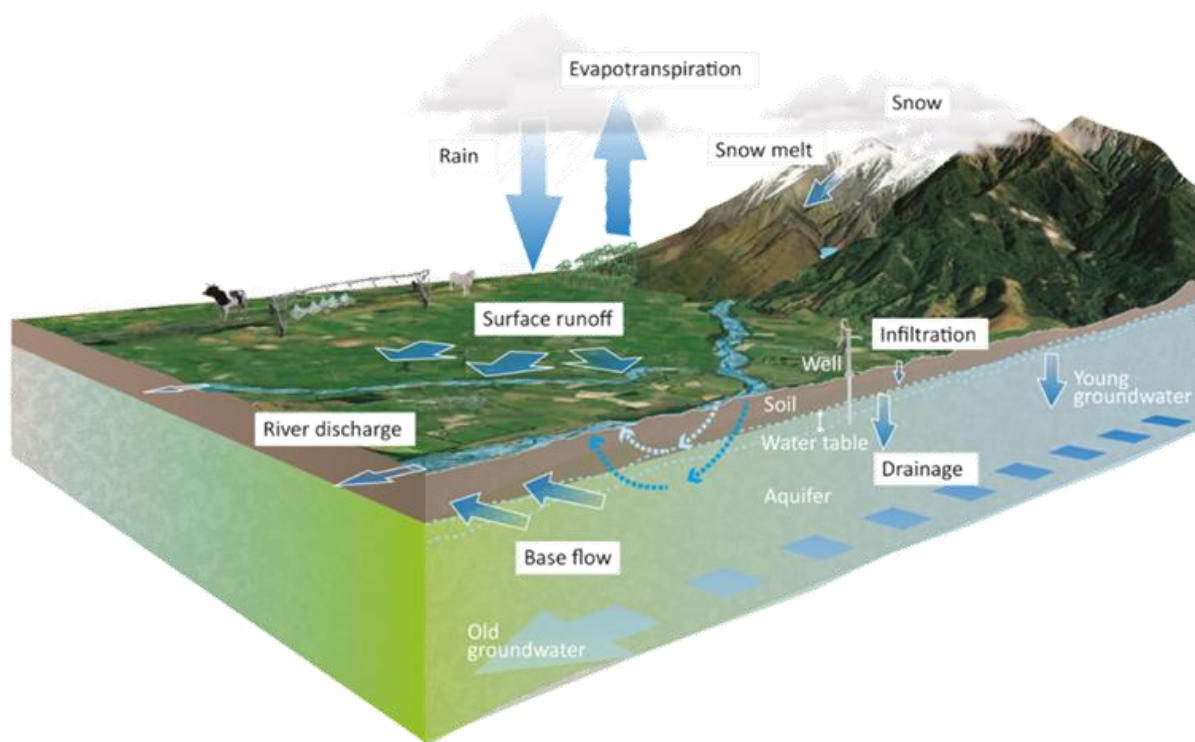


Figure 2: Image sourced from [NIWA](#) (2023)

## Development of the Canterbury Plains

The Canterbury Plains have witnessed some of the most dramatic transformations of land use within New Zealand. Indeed, the versatility of the plains have resulted in a series of significant land use changes, which have included fine wool production, finishing lambs, the introduction of border-dyke irrigation followed by various iterations of sprinkler irrigation, the growth of the dairy sector and an increasingly sophisticated arable sector.

These changes have been accompanied by investment in infrastructure to support the industries which have developed over this time. In addition to public infrastructure (roads, schools, health centres etc), there has been significant investment in infrastructure that has enabled highly productive farm systems, including irrigation schemes (canals, ponds, piping networks) in addition to the on-farm infrastructure (machinery, housing, dairy and packing sheds etc).

Private and public investment has involved significant finance over many decades. This has only been possible with long term surety of being able to utilise the benefits from this investment.

To invest in significant long-term infrastructure, long-term commitments and surety is required. This requires long time frames to adjust and adapt farm systems to new regulations, and, sufficient time to enable benefits to be achieved from the investment.

## Current Status

Availability of irrigation and the adoption of different land use systems have ensured Mid-Canterbury families could continue to farm land developed by their grandparents and great grandparents.

However, insufficiently regulated intensification of land use over the past 30 years has also resulted in elevated nitrate levels in the groundwater, more frequent and extended low flow events in our rivers and lower water tables in our groundwater. In some areas in our catchment, groundwater nitrate levels exceed drinking water standards and groundwater fed springs exceed the NPS-FW 2020 national bottom lines.

Over the past 8 years, effects of land use from BCI and AFIC shareholders have been managed under an Audited Self-Management programme, driving significant improvements to on-farm management. During this time, we have navigated four significant changes to regional plans, sub-regional plans and national regulations and two versions of our discharge resource consent.

## Working with farming families to manage environmental impact

Our experience with supporting farmers through these changes mean we understand their needs, drivers, motivations and challenges. We have found the current regulatory framework has created some key challenges and opportunities, such as:

1. Our communities are engaged in environmental programmes and have invested significant time and money to do what has been asked of them.
2. Farmers will improve their farming practice when it makes sense to the environment and their business.
3. Grandfathering of nutrients can promote intensification and disadvantage the least impact properties.
4. Multiple nutrient allocation zones or sub-regional plans can be useful for risk identification,

but add significant complexity and costs to implementation where their application is rigid for properties or business operating in different zones.

The proposed changes to the Canterbury Regional Policy Statement present an opportunity to reflect on what has worked well and endorse best practice principles to support the effective implementation of the NPS-FW 2020.

### Future Considerations

Canterbury remains one of the most productive food bowls in the world and is fortunate to have the soils, climate and water needed to grow a variety of crops. We can utilise alpine rain for irrigation, without the need to rely on ancient groundwater. High yields, flat land and efficient use of inputs mean many products we produce have low CO<sub>2</sub> emissions per kilogram of product produced.

Current [climate change projections](#) for Mid-Canterbury predict higher average temperatures, less snowfall, greater winter rainfall and higher drought potential. Higher average temperatures could create opportunities for farmers to grow crops which have traditionally been unviable.

For BCI and AFIC shareholders, these changes will mean:

1. Opportunities for diversifying land use.
2. Potential to improve productivity.
3. A reliance on the ability to capture and store high winter flow water to provide future drought resilience.

Furthermore, market drivers and consumer demand for low-emission products could provide opportunities for our farmers, who have the skill and resources<sup>1</sup> needed to quickly adapt to changes in market drivers.

### Critical success factors for achieving Te Mana o te Wai

From the engagement we have had across the community and with mana whenua, we consider that it is easy to reach agreement on:

- The rationale for ensuring that the quality of our environment and natural resources are prevented from deteriorating and are enhanced and protected (*the 'Why'*).
- Which areas of the environment need to be enhanced and protected (*the 'What'*).

However, the most challenging dimension is '*How*' these are to be achieved.

We note that Government guidance is that the implementation of the NPS should involve the setting of '*ambitious but reasonable*' goals for freshwater.

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<sup>1</sup> For instance, versatile soils, access to experts and infrastructure needed to deliver new products to market

Considerations need to include:

- Canterbury needs to identify how we will resource the changes that are required (i.e. who pays?).
- Need to enable long term investment. This involves allowing sufficient time to transition to land use and technologies that allow ambitious environmental goals to be achieved, while still ensuring that there is a reasonable and feasible pathway to achieve them.

### ***Te Mana o te Wai in a Mid-Canterbury Context***

*Te Mana o te Wai* seeks to protect the mauri of water by restoring and preserving the balance between the water, wider environment and the community and is a central concept to the implementation of the National Policy Statement for Freshwater 2020 (NPS-FW 2020).

There is a hierarchy of obligations in *Te Mana o te Wai* that prioritises:

- a. first, the health and well-being of water bodies and freshwater ecosystems
- b. second, the health needs of people (such as drinking water)
- c. third, the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future.

The NPS-FW 2020 also specifies the approaches ECan must take to give effect to *Te Mana o te Wai*, including:

1. Long-term visions for freshwater
2. Tangata whenua involvement
3. Integrated management
4. Transparent decision making

In addition to the above approaches, the NPS-FW 2020 specifies the National Bottom Lines and water quality attributes to be met.

### ***Mid-Canterbury Context for Te Mana o te Wai***

When considering *Te Mana o te Wai* from a Mid-Canterbury context, we believe that the following points are important:

1. All freshwater in our catchment is interconnected.
2. Plentiful, clean freshwater is essential for the success of the farming families and wider communities in our catchments.
3. Water availability in our catchment will vary with climate change.
4. In some areas within our catchments, water quality exceeds national bottom line limits.
5. Mid-Canterbury's infrastructure, soils, human capital and resources mean we are well placed to adapt to changes in market drivers and climate.
6. With sufficient time and support, Mid-Canterbury farmers can innovate and adapt their farms to meet water quality outcomes if regulations allow.

## BCI & AFIC Proposed Considerations for Visions

Our overall vision for BCI and AFIC shareholders is to ensure the intergenerational sustainability of their activities, allowing mid-Canterbury communities to continue to thrive and pass on resilient and viable farm businesses to their children and grandchildren, and to afford environmental improvements in the future.

To achieve our vision, the Canterbury Regional Policy Statement should allow for:

1. Freshwater to be safe to drink and available when needed for people, livestock, crops and pasture.
2. Reasonable timeframes to achieve freshwater outcomes.
3. Seamless integration and/or minimise duplication with other regulatory requirements.
4. Consistency between Freshwater Management Units with similar physiographic characteristics.
5. Innovative solutions or technologies which support improved environmental outcomes.
6. Storage to build resilience and adapt for climate change.
7. Appropriate intensification or flexibility of land use to meet market demand and/or take advantage of opportunities changes in climate may allow.

## BCI & AFIC Proposed Vision

The mauri (health and well-being) of water bodies and freshwater ecosystems in FMUs sustain abundant life and healthy and prosperous communities who, in turn, embrace the responsibility, and are enabled to protect and enhance the mauri of the wai (water).

This vision needs to include:

- The quantities and rates of flows for natural waters set in the Rakaia Water Conservation Order are being met.
- Water quality and minimum flows in the Rakaia River protect the river's outstanding character as a braided river and outstanding wildlife habitat, fisheries, and recreational values (including angling and jetboating) and provide for the continued operation of existing infrastructure and associated supply of irrigation water.
- Coastal wetlands and hāpua supports abundant food gathering and recreation opportunities.
- Wetlands are protected and where degraded are being enhanced.
- Domestic drinking water meets national standards.
- Communities that rely on water for their social, economic and cultural wellbeing are thriving while adopting best land and water management practices that are based on science and mātauranga.
- While meeting minimum flows within the Rakaia River, water from the Rakaia River is able to be transferred to adjoining FMUs to assist with achieving adjoining FMU visions.

- Rūnanga are actively involved in resource management decision making process and wāhi tapu and mahinga kai are protected and enhanced.
- Natural resources are managed to adapt and optimise outcomes in the face of a changing and more variable climate, and natural hazards are managed for the protection of our community.
- Progress towards goals occurs at a pace that optimises the time to adapt our use of resources, ensuring that no part of the community is disadvantaged or pays a disproportionate cost.

## Freshwater Management Units

BCI and AFIC would like to make the following submissions on factors for consideration in the development of Freshwater Management Units (FMUs)

**Develop overarching visions which apply to all interconnected FMUs.** One of Canterbury's unique features is the interconnectivity between the Alpine ranges, their rivers and the alluvial plains. The sub-regional planning development completed over the past 10 years has enabled significant community input and engagement into the management of freshwater within their catchments. However, as each sub-catchment works through their own plans, we have also seen an evolution of key concepts, such as "Good Management Practice" or methods to reduce nitrogen leaching which differ between neighbouring catchments. The result has added complexity to the implementation of the sub-Regional plans, added consenting and compliance costs, taking resources away from environmental improvements. Differences in approach need to be minimised wherever possible, with common approaches favoured across the region.

**Allow for pragmatism on the management of land which borders/crosses FMU boundaries.** A key implementation challenge has been the strict reporting requirements by Nutrient Allocation Zone and sub-regional boundaries. Our experience has demonstrated that any boundary will have numerous properties and land owners who operate across them. The current approach has required these farmers to obtain separate resource consents for the same farming enterprise, manage nutrient limits which differ within a paddock, or limit the options they have to improve the overall footprint of their farming operation. As a result, compliance costs for these properties are significant and disproportionate to the environmental benefit of managing effects of farming to that level of precision. Establishing FMUs through the RPS provides an opportunity to enable pragmatism in the management of these properties going forward.

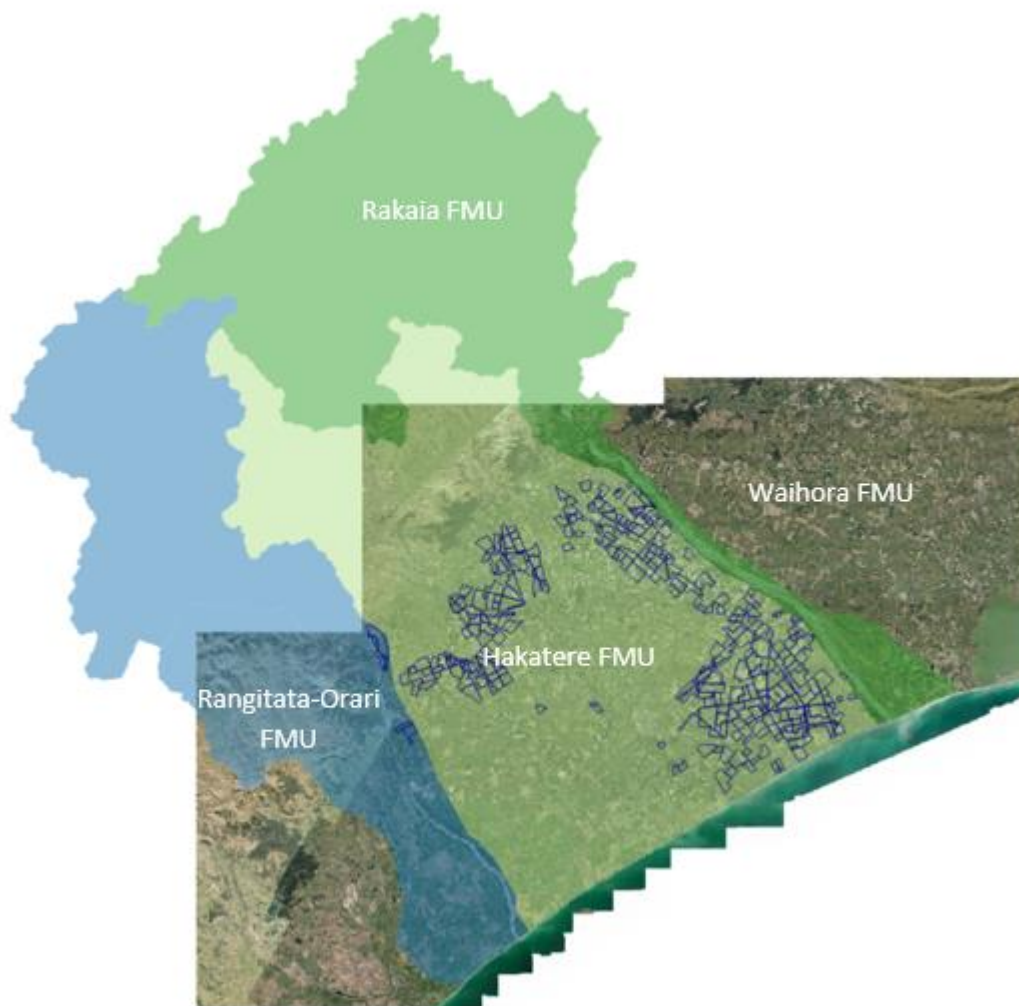
**Give consideration to how national tools, such as Certified Freshwater Farm Plans, could be utilised.** With the national roll-out of Certified Freshwater Farm Plans underway and due in Canterbury in 2025, there is an opportunity for the Canterbury RPS to lay the foundations to make this process more streamlined and consistent through setting catchment context clearly and identifying key risks to be managed. The existence of the national farm planning framework could provide options not previously available, allowing for broader consideration of an "appropriate" FMU and holistic management of effects from a farming activity.

## Specific Considerations for FMUs for Mid-Canterbury

**A mid-Canterbury FMU adjacent to a Rakaia and Rangitata FMU.** As shown in Figure 3, we propose a single FMU encompassing the area between a Rakaia and Rangitata FMU would have the following advantages:

- An appropriate scale;
- Alignment with existing community and political boundaries;
- Similar physiographic characteristics of land within the FMU.

However, we note that this FMU requires recognition that the vision for a Hakatere FMU needs to be intertwined and interdependent upon the FMUs for the adjoining FMUs (i.e. those FMUs covering the alpine rivers). Visions need to recognise that the source of water utilised for sustaining our communities is from an adjoining FMU.



*Figure 3: Potential FMUs – with BCI & AFIC shareholders included*

*Note: Figure 3 shows a combined Rangitata-Orari FMU, however, a Rangitata FMU that included only the catchment of the Rangitata river would equally achieve the outcomes we seek.*

## An alternative consideration for Freshwater Management Units

An alternative approach for the identification of Freshwater Management Units (FMUs) is proposed for Environment Canterbury consideration.

Environment Canterbury could first identify land within a common geomorphology or land form, and create freshwater management units within those.

We believe this approach best enables standard frameworks to apply to the management of natural resources across the region while ensuring FMUs (or sub-FMUs) are sufficiently granular to target catchment-specific water quality and quantity challenges.

Including “Management Zones” within FMUs can create a mechanism to identify particular areas of land which have a higher connectivity to catchment outcomes, enabling rules and policies which enable positive outcomes. We are not proposing “Management Zones” to be identified within the RPS, rather they are endorsed as a way to objectively and consistently assess risk and enhancement opportunities within FMUs when regional policies and rules are developed to give effect to the RPS.

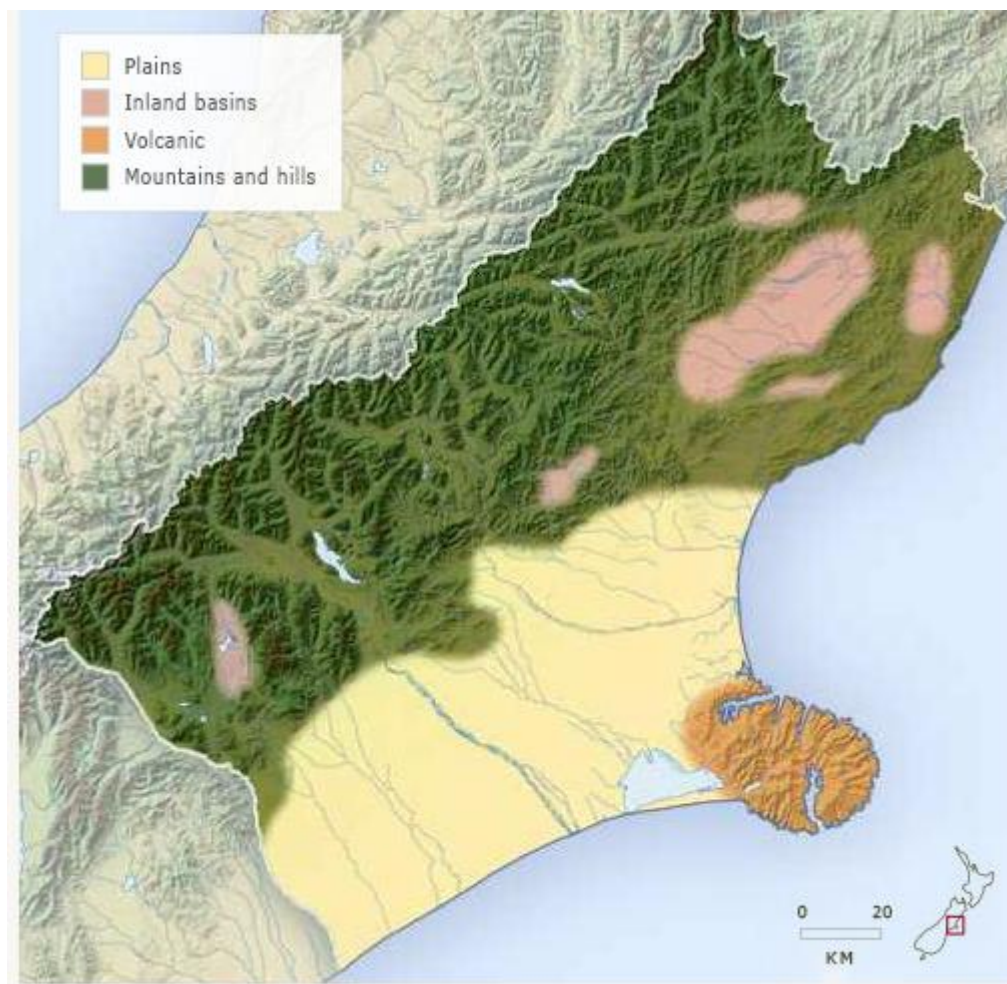


Figure 4: Example of potential grouping of FMUs by common geomorphology (landform)

For example, when completing a *Certified Freshwater Farm Plan* for a property, assessing the farm’s effects on the catchment outcomes will be simplified where the regional plan has identified land with

a higher risk of impact. Some Canterbury catchments already have “risk management zones” identified and these could continue to be utilised going forward.

Alternatively, “Management Zones” could also identify land that most contribute to achievement of an outcome. For instance, if there was land most suitable to develop wetlands to achieve a water quality outcome, rules could be established to streamline the consenting process or funding could be targeted to these areas.

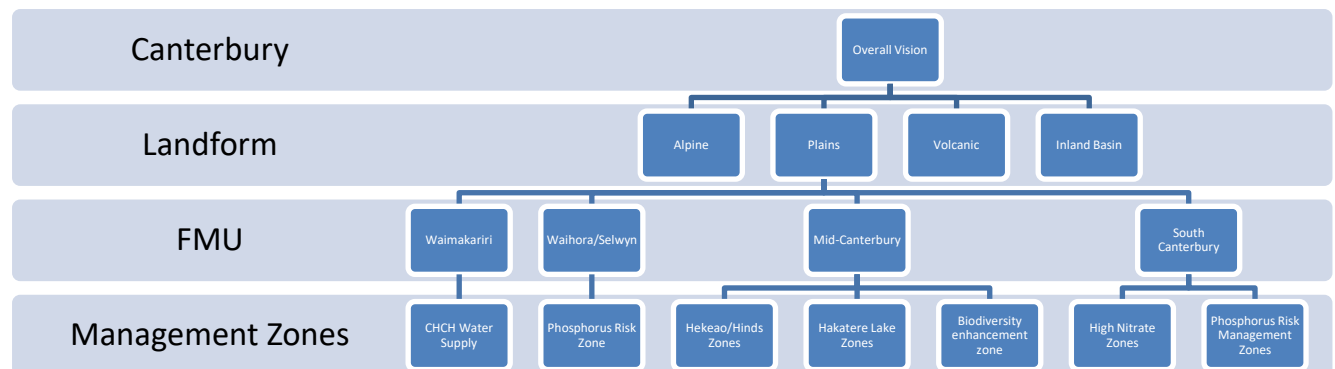


Figure 5: Conceptual Design of Potential FMU structure

This approach to the development of FMUs meets the requirements of the NPS-FW 2020 by:

- Promoting consistency between catchments with similar challenges and interrelated water.
- Allowing a framework to build on existing information to measure success.
- Encourages and enables on-farm investment in areas most likely to influence water quality outcomes.
- Identify information needed to maximise the success of the *Certified Freshwater Farm Plan* framework by enabling the consistent assessment risk and promote actions designed to improve water quality and enhance sensitive features within a catchment.