



GREY FMU

Freshwater Management Unit

THE WEST COAST REGIONAL COUNCIL

To: Resource Management Committee Meeting, 11 August 2020
From: Grey Mawhera Freshwater Management Unit Group
Date: 31 July 2020
Subject: Recommendations from the Grey Mawhera Freshwater Management Unit Group

1. Background

The National Policy Statement for Freshwater Management (NPSFM), versions 2014 and 2017, require regional councils to identify freshwater management units (FMU's), establish community representative groups for each FMU, and make changes to freshwater regional plans.

The NPSFM allows regional councils flexibility in how they go about identifying FMUs. The guidance from Ministry for the Environment (MFE) suggests that the scale of the FMU needs to be appropriate for objective and limit-setting, freshwater accounting, and monitoring. A FMU should not be so large that it prevents the setting of objectives that are specific enough to be effective. Equally, a FMU should not be so small that it results in undue complexity and cost in either the planning process or in the management of the FMU. When determining the FMUs for the West Coast, the Group understands that the West Coast Regional Council (WCRC or the Council) FMUs took into account existing monitoring sites and community boundaries, combined with catchment boundaries which have an overarching influence on the partial distribution of water and people.

Freshwater objectives stipulated in the NPSFM seek to ensure that what is valued about each FMU will be maintained or enhanced. To understand what is valued, and therefore what needed to be achieved in each FMU, the Council needed to engage with local iwi partners, and local communities.

The Council proposed four FMUs for the West Coast. The FMU community groups for Grey Māwhera, Kawatiri and Hokitika have been established. The FMU community group for South Westland will be established later this year. The FMU Group's composition is tailored to suit the circumstances in each FMU. The members of each Group talk with the local community they are connected with and work together as a group to understand the issues in that FMU, identify values and provide a package of recommendations (including recommended objectives and limits where required) to Council for consideration. Those recommendations, if agreed, will influence the Regional Land and Water Plan.

The NPSFM – Regional Implementation Strategy was approved by Council in May 2018. In accordance with the Strategy, public information sessions were held in April 2018 for the Grey FMU community. Following this, community member applications were considered and brought to the Resource Management Committee (RMC) for approval. The Grey FMU Group convened in October 2018 and consisted of eight community members: Sonya Perkin (Chair), Stu Bland, Jim Galloway, Karen Grant, Baylee Kersten, Trevor Johnston, Dave Waghorn, Scott Williams, Francois Tumahai and Philippa Lynch (Te Rūnanga o Ngāti Waewae mandated representatives), Murray Hay (GDC), Andrew Robb / Brett Cummings (WCRC). The Group have been supported by WCRC Science, Planning and Compliance Staff. The Grey FMU Group held its final meeting in June 2020.

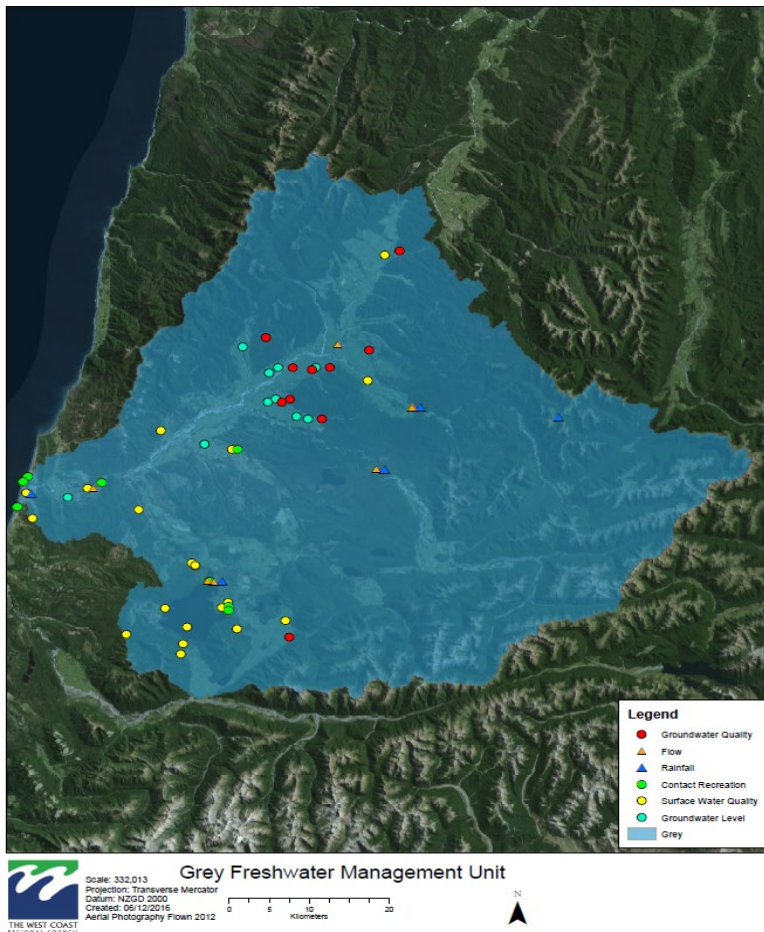


Figure 1: Grey Mawhera Freshwater Management Unit

1.1. Grey FMU meetings

During the 18 months which this Group has met they have covered a variety of topics and have had guest speakers from a diverse range of stakeholders present to them. Through this process, and in accordance with the NPSFM, the Group has identified values that are important to the community, and which are affected by water quantity and quality. The state or condition of these values can be measured using attributes, and objectives can be set for appropriate water quality and/or quantity using limits for the attributes (Figure 2).

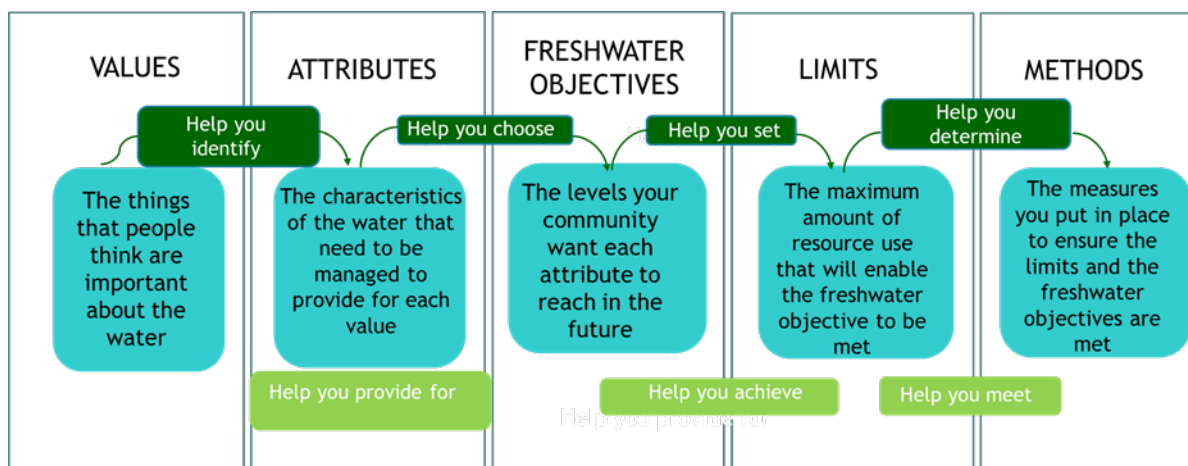


Figure 2: The process for achieving objectives for freshwater as outlined in the NPSFM 2017.

Regular updates have been posted on the WCRC website and on Facebook. Updates have also been provided to the RMC. Recommendations on measures that will assist with Council’s efforts to meet the requirements of the NPSFM follow in Section 3.

There are mandatory actions and limits in the NPSFM 2017 which regional councils must undertake and adopt. This Report recommends some of the measures which are already required by the 2017 NPSFM. Other measures are recommended that are specific to the Grey FMU.

1.1 Long term vision for freshwater

The Grey FMU Group developed a long term vision to sum up the Group’s aspirations:

In the Grey/Mawhera FMU, freshwater is valued and will be managed utilising the ki uta ki tai (mountains to the sea) philosophy. The health and mauri of water is to be sustained for our community’s future wellbeing.

2. Values

An important part of the FMU process is to identify community values pertaining to freshwater environments. The identification of values enables attributes for freshwater to be set, and objectives formed. The Group identified a range of values associated with freshwater that they considered were important to the Grey FMU community. The values are shown in the chart below (Figure3), along with the original categories and grouping used by the Group participants.

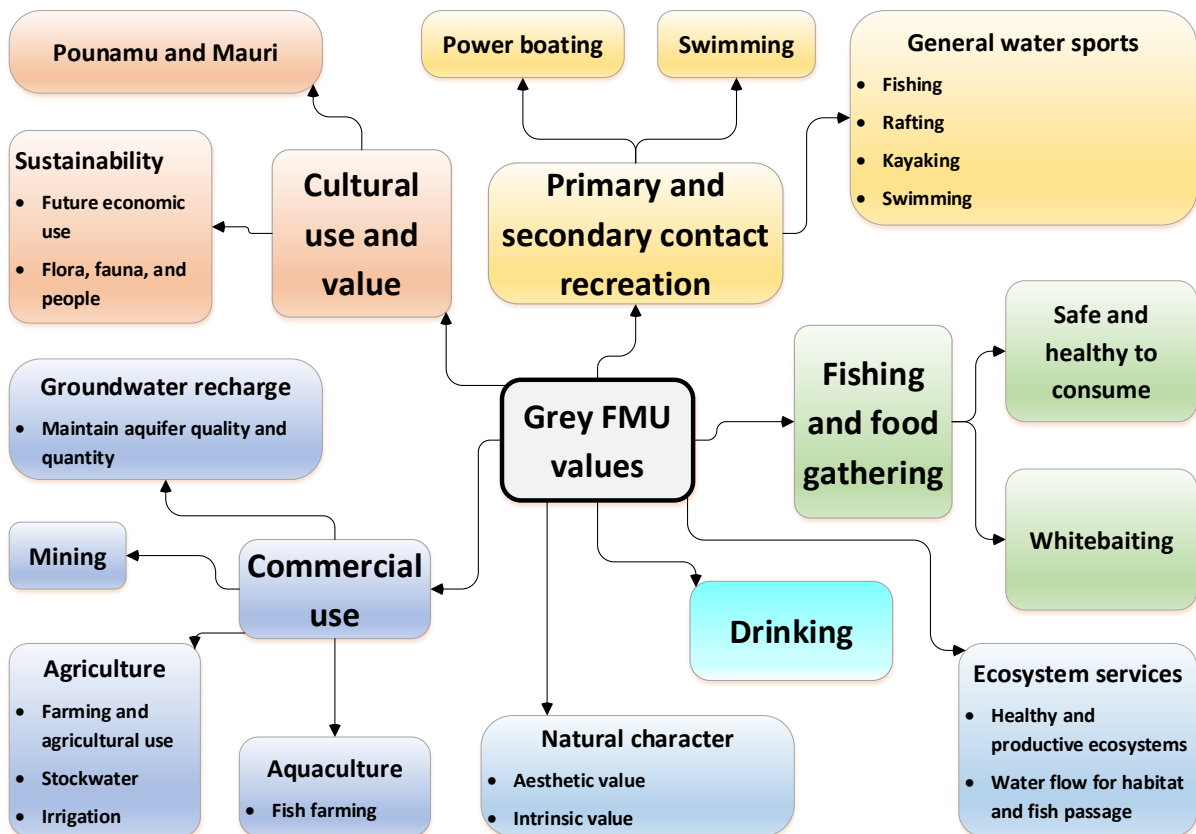


Figure 3: Value categories and groupings created collectively by the Grey FMU Community Group.

3. Attributes and objectives

The Group became familiar with the relationship between community values and the attributes/objectives required to safeguard these values (Figure 4). The Group selected attributes from the 2017 NPSFM which they considered were relevant to the Grey FMU. The Group considered that the attributes would not create an impractical burden for the Grey FMU community. The prescribed attributes for freshwater can be found in:

<https://www.mfe.govt.nz/publications/fresh-water/national-policy-statement-freshwater-management-2014-amended-2017>

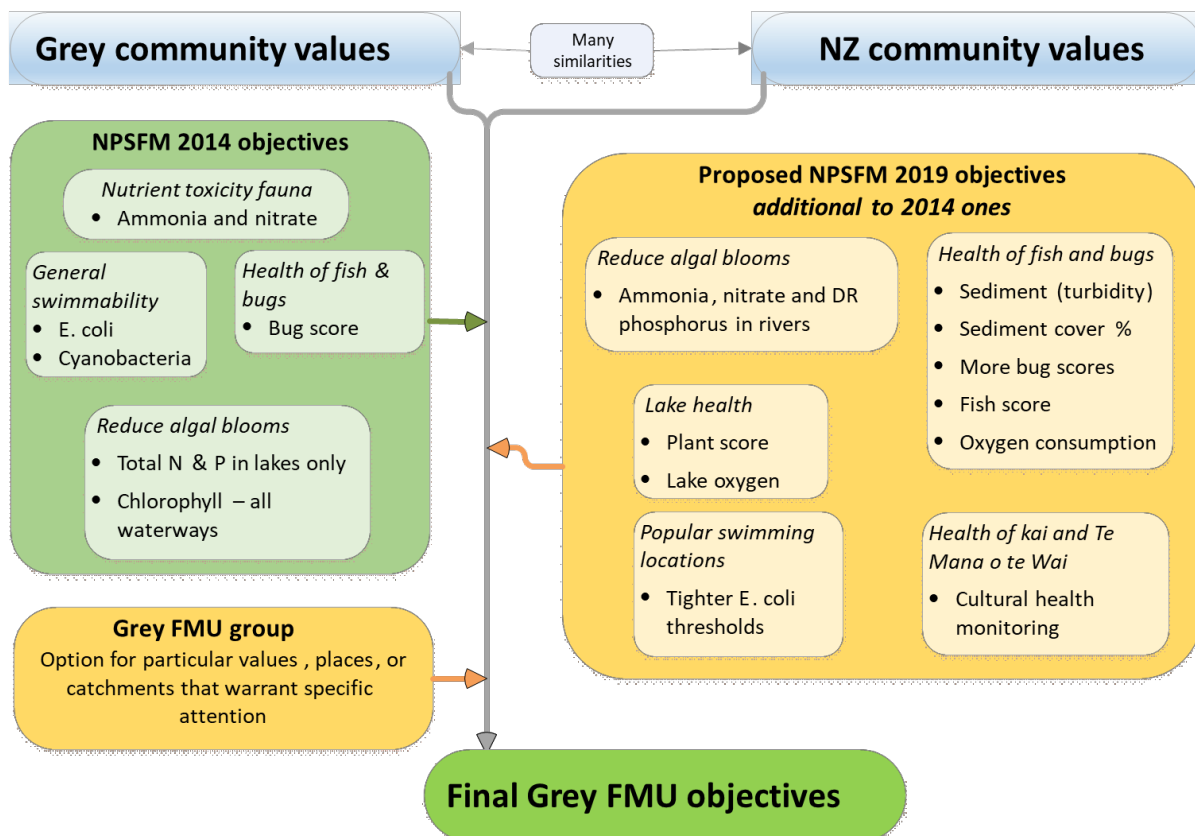


Figure 4: The chart above illustrates the links between values and currently mandatory, proposed mandatory, and community derived objectives. The bullet points are a summary of specific attributes that are measured as part of the overarching objective.

4. Recommendations

4.1. Values, interests and rights of Ngāti Waewae in the management of freshwater

The NPSFM requires the management of fresh water through a framework that considers and recognises Te Mana o te Wai as an integral part of freshwater management. The NPSFM states that Te Mana o te Wai is the integrated and holistic well-being of a freshwater body. Upholding Te Mana o te Wai acknowledges and protects the mauri of the water. This requires that in using water you must also provide for Te Hauora o te Taiao (the health of the environment), Te Hauora o te Wai (the health of the waterbody) and Te Hauora o te Tangata (the health of the people).

For Ngāti Waewae, water is a taonga (treasure). Each waterbody has its own mauri, which is the life-giving essence of a resource. The mauri of waterways needs to be maintained or enhanced where it has been degraded.

For Ngāti Waewae, water is a holistic resource and needs to be managed consistent with the “mountains to the sea” (Ki Uta Ki Tai) philosophy. This philosophy recognises the interactions between land, water, ecosystems and the coastal environment.

Ngāti Waewae values and uses associated with water include role in tribal creation stories and identity; connections through historical accounts; navigational routes; wāhi tapu (sacred places, sites and areas); cultural purposes such as blessings and ceremonies; mahinga kai; cultural materials; access routes and transport courses for pounamu etc.

Recognition of customary use of freshwater resources is very important to Ngāti Waewae.

The Poutini Ngāi Tahu view is that cultural, public health and ecological values need to be recognised and provided for before the consumptive uses. Iwi have the best knowledge of mahinga kai and can guide Council's science team with this. There is opportunity to grow cultural monitoring capacity and capability (discussed later in the report). The Group supports these goals and their development.

Recommendations

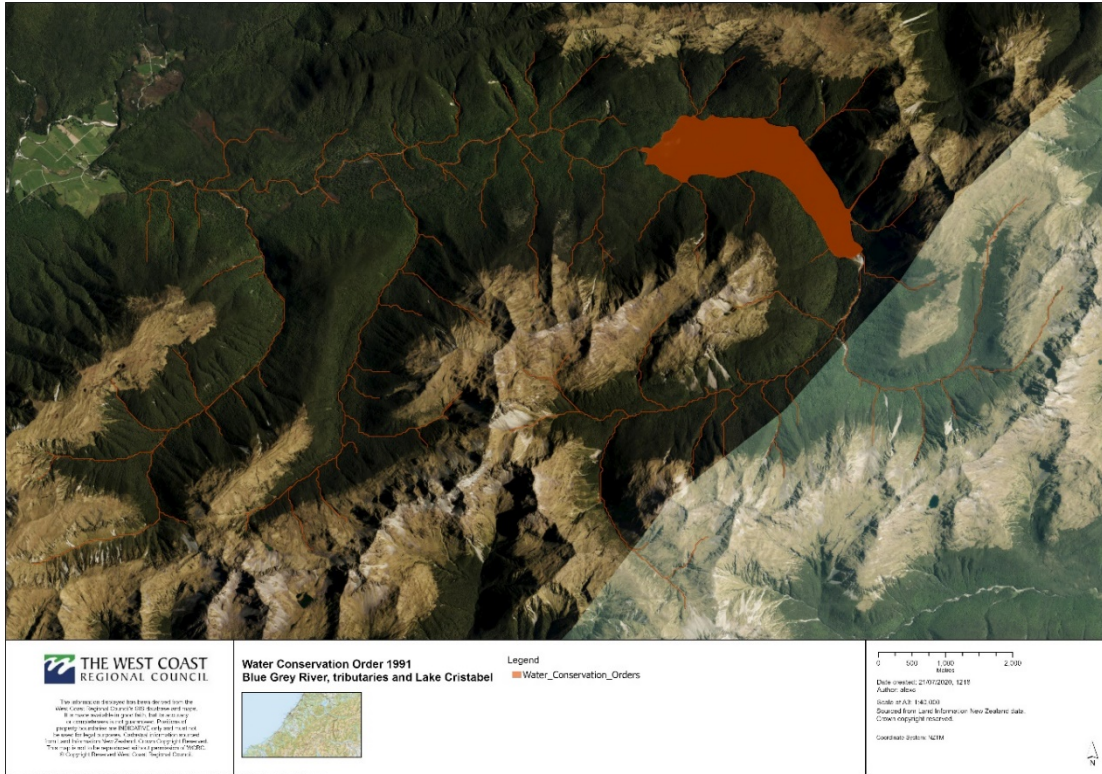
- 1. Include provisions in the Regional Land and Water Plan to ensure freshwater is managed so that:**
 - a) Mahinga kai is safe to harvest and eat.**
 - b) Species are plentiful enough for long term harvest; and**
 - c) The range of species is present across all life stages.**
- 2. Include provisions in the Regional Land and Water Plan to protect the mauri of freshwater, and to ensure that fresh waterbodies are available and able to be used for customary use.**
- 3. Include provisions in the Regional Land and Water Plan that ensure a cultural allocation for the values of Te Rūnanga o Ngāti Waewae is provided for in the allocation of water.**

4.2. Outstanding Freshwater Bodies

The NPSFM requires the identification and protection of outstanding freshwater bodies. These can be outstanding for spiritual, recreational, ecological or landscape reasons. Criteria have not been developed for assessments of what makes a freshwater body outstanding. Developing these criteria in consultation with iwi and key stakeholders is directed through the Regional Policy Statement, but work has not commenced. The Group, after discussing and considering options, recommends that the area covered by the Grey Water Conservation Order including the Lake Cristobel area, and Rough River above Mirfins Creek, be considered in future Outstanding Freshwater Body assessments. The following Maps 1 and 2 show the location of these two areas.

Recommendation

- 4. That the area encompassed within the Grey Water Conservation Order, and the Rough River catchment above Mirfin Creek, be considered in future Outstanding Freshwater Body assessments.**



Map 1. Grey Water Conservation Order – Lake Cristobel and Blue Grey River



Map 2. Grey Water Conservation Order – Ahaura Gorge area

4.3. Water Quantity

There is potential pressure on water resource availability in the upper Grey catchment. Hot, dry summer conditions, with low river levels, can combine with a need for pasture irrigation. Irrigation is the main consumptive use of water in the Grey FMU (Figure 5). There are potential problems with water allocation under the current Regional Land and Water Plan. This was one of the key issues within this FMU that needed to be addressed.

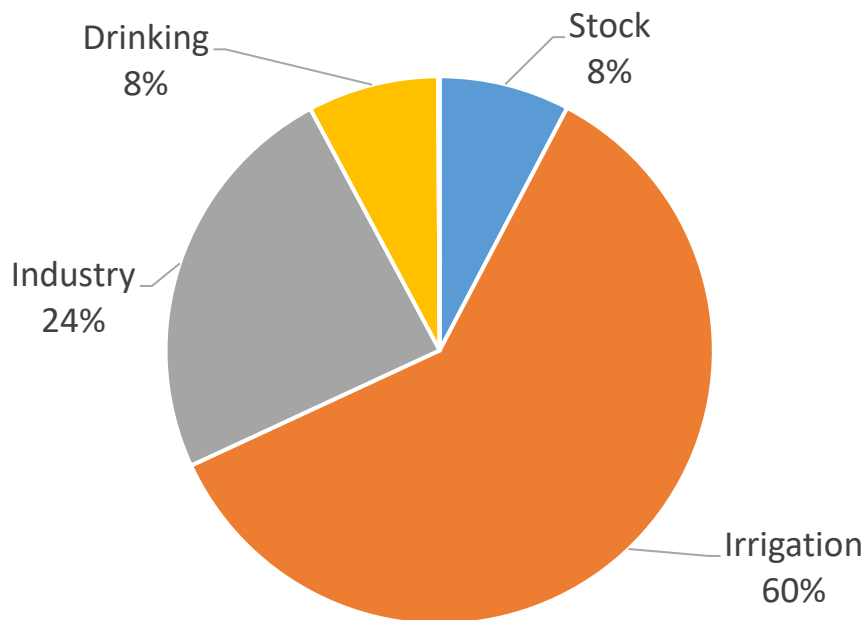


Figure 5: Current allocation framework within the Grey FMU, based on consented water takes (excluding hydroelectric takes).

Surface water takes are currently allocated under policies in Chapter 7, and Rules in section 18.3, of the Regional Land and Water Plan. However, these provisions are now 8-10 years old, and some of them need amending to reflect changes in flow regime and use in the upper Grey catchment.

The FMU Group were made aware by WCRC staff that Rule 55 within the existing Regional Land and Water Plan contains an oversight. The conjunction between (i) and (ii) should be "and", not "or". The rule should read as follows:

18.3.3 Restricted Discretionary Takes, Uses, and Diversions of Water

Rule 55. Take and use of surface water

Unless permitted by Rules 39, 40, or 42, or controlled by Rules 52 or 53, the taking and use of surface water where:

- (i) The total volume of water allocated from the river is less than 20% of the mean annual low flow (MALF) of the river; ~~or~~ **and**
- (ii) The applicant accepts a minimum flow based on 75% of the mean annual low flow (MALF) of the river; is a **restricted discretionary** activity.

In considering any resource consent under this rule the council will restrict the exercise of its discretion to the following:

- (a) The amount of water to be taken;
- (b) The flow available in the source water body;

- (c) The current allocation from the source water body;
- (d) The minimum flow to be applied to the take, if required;
- (e) Any adverse effect on any existing lawful take of water, if consent is granted;
- (f) The instream values supported by the source water body and related waterbodies, and any potential adverse effect of the taking on those values, if consent is granted;
- (g) Any need to prevent fish and eel entering the intake; (
- h) The means and timing of the take, and the rate of take;
- (i) The quantity of water required for the intended use;
- (j) The duration of the resource consent;
- (k) The information and monitoring requirements; and
- (l) The review of conditions of the resource consent.

An application for resource consent under this Rule does not need to be notified.

For smaller streams with high instream values the location and rate of take and the seasonal timing of the take can be controlled by conditions on the consent as set out in the explanation to Policy 7.3.1.

The implication of the oversight being that there is no point at which a water take for (i) can be halted. Aside from the potential negative environmental impacts this presents, it also means that the water supply could stop for many users, should dry conditions persist. For those applicants in the (ii) category, they have a high level of uncertainty about whether there will be enough water available in their water takes. This lack of certainty around continuity of supply poses a significant economic risk to members of the community. It also hinders investment in infrastructure. The Group felt strongly that this change needed to be made.

Additionally, the Group consider that clause (ii)(d) of Rule 55 is unclear, and it should be amended to make it clearer. No wording changes are suggested by the Group, but amendments can be made when the freshwater plan change is drafted.

Recommendations

- 5. Amend Rule 55 of the Regional Land and Water Plan to replace “or” with “and”, and amend clause (ii)(d) to make it clearer.**
- 6. All owners of water take permits that require metering under the Resource Management (Measurement and Reporting of Water Takes) Regulations 2010, should submit their results in a timely manner and in a format that allows the Council to efficiently compile this data.**
- 7. Telemetry should be utilised for large takes so that Council can ensure data collection is occurring, takes are compliant, and there is real time knowledge of resource use.**
- 8. Permitted takes should be notified annually to Council so Council is aware how much water is being utilised and where these takes occur.**

4.3.1. Duration of water permits

Water takes are either consumptive or non-consumptive. A consumptive water take occurs when the water is consumed, or it is removed from the immediate catchment without being returned. Examples of this would be irrigation where water is lost to the atmosphere via evapotranspiration, or a water bottling plant. Non-consumptive takes are those where all, or almost all, of the water is kept within the immediate system. An example of this would be a ‘run of the river’ hydroelectric scheme, where water might be diverted over a short distance before re-entering the natural channel. Hydroelectric schemes can be on a spectrum between consumptive or non-consumptive depending on the scheme.

Most water take permits currently issued by the WCRC are granted for 35 years. A national review of timeframes allocated to water take consents was undertaken. The Group concluded from the review

that, in some catchments, the current lifespan of permits on the West Coast could be too great to respond to changes in resource use and future climate variability. However, when determining a recommendation on future water take permit durations, reducing the timeframes as much as some other regions may not be necessary in certain areas due to the consistent rainfall received, and investment that hinges on water permit continuity. Therefore, amending timeframes of permits to 10 years from 35 years is recommended. Community drinking water supply permit durations are not recommended to be reduced as they are a critical public service and require substantial infrastructure investment.

Recommendations

- 9. Water take permits should be issued for a duration of no longer than 10 year-time periods, unless the water take is for a community drinking water supply, or information is provided by an applicant to demonstrate a longer permit period is appropriate.**
- 10. Community drinking water supply permits may be issued with consent durations of up to 35 years.**

There was no recommendation to call in existing water permits at this time.

4.3.2. Groundwater and surface water takes

Council commissioned a study through Geological and Nuclear Sciences (GNS) to explore the interactions between ground and surface waters in the upper Grey Valley. The aim was to determine whether groundwater takes had advantages over surface water takes. A model developed by Environment Canterbury formed the basis of this analysis. This model is publicly available as a web tool and would be relevant for use on the West Coast to determine how a groundwater take might affect neighbouring stream flows.

The study concluded that over shorter time periods groundwater takes that are further from a stream have less impact on stream flows, but as pumping duration increases, the buffering capacity of the groundwater take on stream flows decreases. Groundwater takes that are distant from streams are preferable to those that are near waterbodies, or directly from them. However, modelling indicated that benefits may be minimal during significant hot, dry periods, when takes run continually for extended periods of time.

Reliability of water supply is paramount when a business depends on supply continuity in order to maximise infrastructure investment. In order to ensure both stream health and commercial continuity of supply, catchment water allocation needs to group surface water and groundwater takes in the same allocation budget. The Group recommended, based on the conclusions from the GNS study, that the Regional Land and Water Plan rules be reviewed to combine these sources when quantifying available water resources, and apply limits to groundwater takes to ensure continuity of surface water flows.

Commencement of monitoring and further work to inform the groundwater model should also be considered. Currently the Mawheraiti/Grey River is nearing total allocation. Many farms in this area that could irrigate currently do, but there will be increased demand for water in future, albeit the exact location and timing of this is still unclear.

Recommendations

- 11. Review the Regional Land and Water Plan rules to combine groundwater and surface water takes, where appropriate.**
- 12. Apply limits to groundwater takes to ensure surface water takes are maintained.**
- 13. Commence monitoring and further work required to inform groundwater models.**

4.4. Water Quality

The Group have been well informed by Council staff on the results of WCRC monitoring within the Grey FMU and what the water quality issues are in the FMU. Some attributes have fared better than others within the FMU (*Figure 6*), and the reasons for this were covered in detail by Council staff over many meetings. It became apparent that certain attributes were likely to be of higher priority based on their current condition, community values, and the nature of emphasis on them under government legislation (*Figure 7*). A key component of the NPSFM is the requirement for water quality to be maintained or improved, for all compulsory and relevant attributes. Declining water quality is not permitted under the NPSFM.

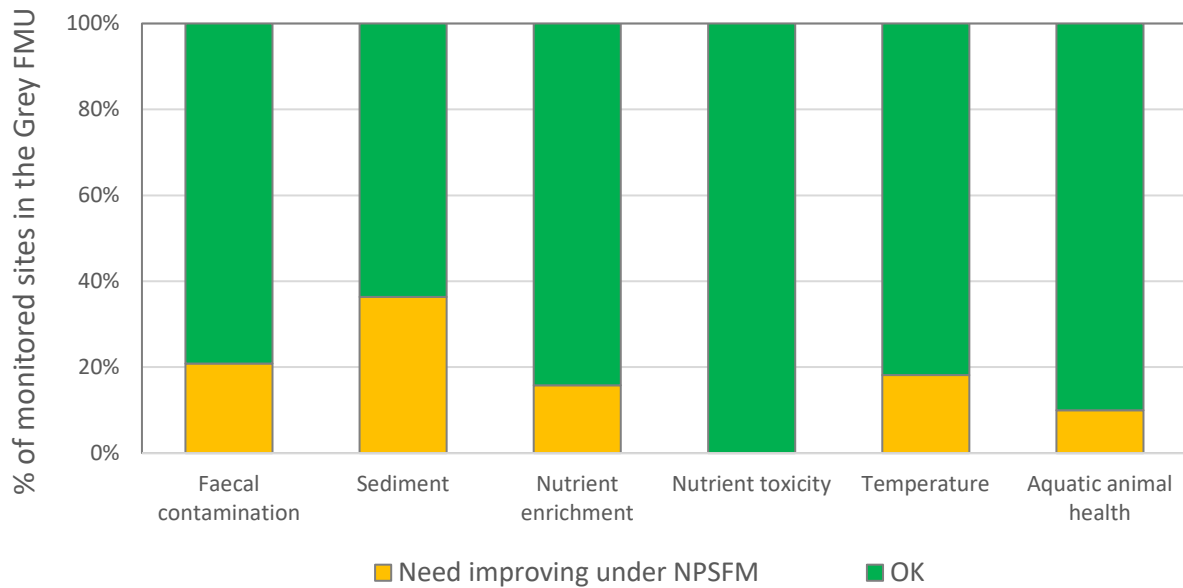


Figure 6: A summary of attribute performance under NPSFM criteria, based on monitoring data from within the Grey FMU.

It was agreed by the Group that faecal contamination and sediment impacts are some of the highest priority issues in the Grey FMU. This is based on their prevalence at monitored sites, and both local and national ranking of importance.

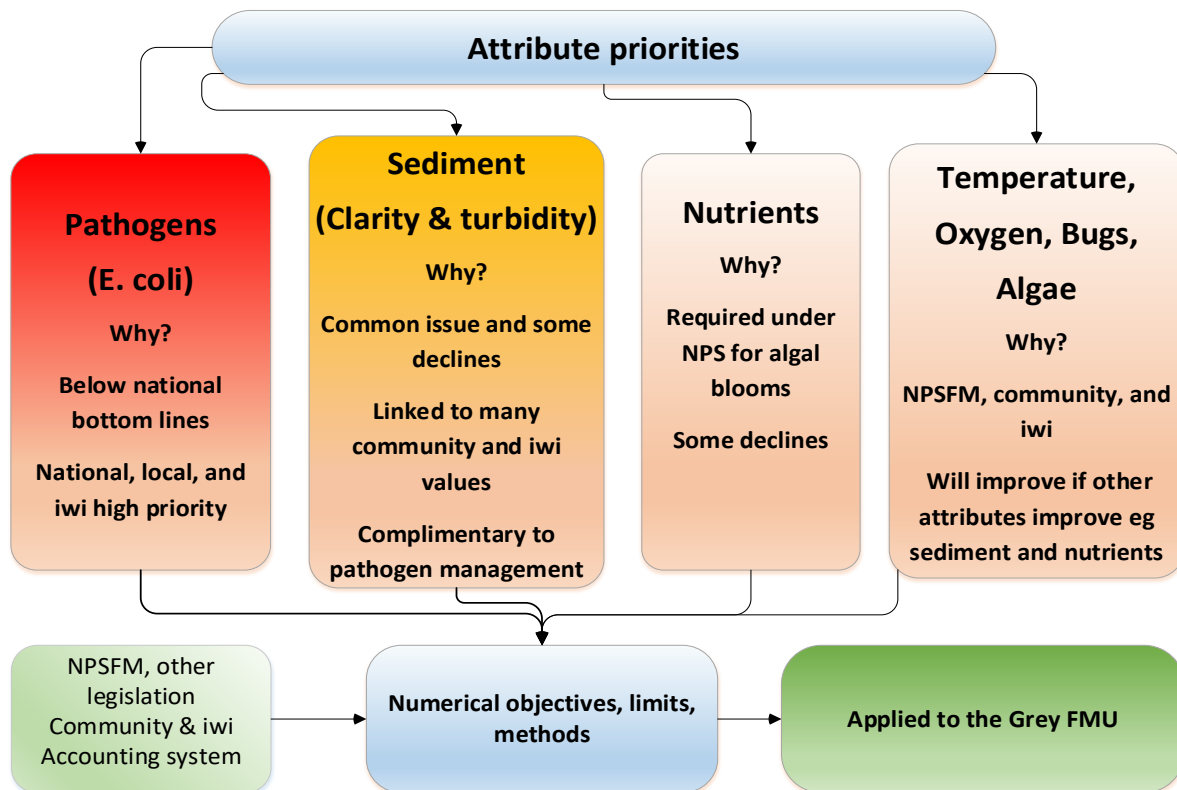


Figure 7: Attributes have been broadly prioritized based on community values, prevalence of issues, and national policy requirements.

4.4.1. Water quality monitoring, and cultural monitoring

The Group made recommendations to extend the existing WCRC water quality monitoring programme. They proposed the addition of the sites listed below in the recommendations.

Policy CB1(aa)(v) of the NPSFM requires regional councils to develop a monitoring plan that establishes methods for monitoring the extent to which Mātauranga Māori is provided for in a FMU. The current WCRC science programme needs to be more in line with the NPSFM to ensure their monitoring plan is informed by Mātauranga Māori. The FMU Group are aware that cultural health monitoring can only be undertaken by mandated Ngāti Waewae whanau in the Grey FMU catchment. The Council needs to support and work with Te Rūnanga o Ngāti Waewae to enable cultural monitoring to occur.

Recommendations

14. That New River and Saltwater Creek are monitored regularly – the tidal sections of these are popular areas for contact recreation. Pressures include faecal contamination from septic tanks and sediment from land disturbance.
15. That Blackball Creek is monitored regularly – values include the Blackball water supply and general amenity. There is likely to be future pressure from high visitor numbers on the Croesus Track following the opening of the Paparoa Trail.
16. More monitoring is undertaken in the Ahaura River catchment – this is a large area with a lack of monitoring. The Hydrology team visit Jims Flat monthly to maintain the rainfall and water level site – water quality sampling could be added onto these trips.
17. Undertake monitoring that utilises attributes, locations, and suitably qualified people for measuring the cultural health of Grey FMU waterbodies.
18. Council to support Te Rūnanga o Ngāti Waewae to increase their capacity to undertake cultural monitoring of waterbodies.

4.4.2. Faecal contamination

E. coli is the primary indicator for assessing faecal contamination and pathogen risk. There are several sources of *E. coli*, livestock, humans and birds. In rural areas, the main source is from cows. The Group considers that the microbial health of waterways is of high importance to the community. Faecal contamination has been identified as a significant issue based on WCRC regional monitoring data. Faecal contamination conflicts substantially with many of the community's highest values, such as the use of water for drinking water.

There was concern expressed around human faecal contamination. Municipal sewerage discharges are well understood by the Grey District Council (GDC). GDC are improving sewage effluent treatment as funding allows, and are applying pressure on Greymouth properties that are yet to connect to dedicated separate sewerage and stormwater networks.

It was acknowledged that many of the initiatives aimed at reducing faecal contamination will also reduce sediment inputs.

Recommendations

- 19. Stock exclusion from waterways has a positive effect on water quality and stream health, but it needs to be applied in a way that considers the cost and logistic implications, such as flood risk.**
- 20. Advocate that properties which are required to connect to separate sewerage and stormwater systems should do so and that this be treated as a high priority.**

4.4.3. Sediment

Sediment has been identified as one of the more prevalent and significant contaminants affecting stream health and amenity values. Activities such as mining, farming, forestry and urban development can generate sediment that enters waterways, increasing levels that occur through natural processes.

The FMU Group raised particular concern over the impact of sediment from forestry on water quality. The Group were informed by Council staff about the National Environmental Standard for Plantation Forestry (NESPF), significantly amended in 2018, which will increase the regulation of sediment discharges from forestry operations. Consents issued prior to the NESPF being gazetted were not subject to its controls.

Below is a link to the NESPF. No recommendations were made regarding the NESPF as it is mandatory for councils to implement it.

<https://www.mpi.govt.nz/growing-and-harvesting/forestry/national-environmental-standards-for-plantation-forestry/>

Recommendation

- 21. Council to encourage industry good practice for sediment management, for different types of activities, for example, mining, farming, forestry, and urban development. Good practice measures to be tailored for specific activities or referred to using recognised industry good practice.**

4.4.4. Drinking Water

In the Grey FMU, the community drinking water supplies under GDC custodianship are the Greymouth, Runanga, and Blackball systems. There are also several private water supplies in the Grey FMU. Risks have been identified by the Grey District Council for these.

Low risk scenarios include: elevated nitrates from farming, flood inundation, earthworks disrupting aquifers, dry weather changing water chemistry, surface microbial contamination permeating surface layers, and silt blockage associated with earthquakes.

Moderate risk scenarios include: a road accident that discharges highly toxic substances upstream or up-gradient of a take, toxins associated with cyanobacterial blooms, and contaminants entering private bores that are up-gradient from municipal takes. Recommendations are aimed at improving drinking water security.

The Group's recommendations are aimed at improving drinking water security.

Recommendations

- 22. Groundwater bores are required to comply with a minimum practical standard of wellhead protection, to ensure that contaminants such as E. coli do not enter groundwater bores used for potable (drinking) water.**
- 23. Develop contingency plans for managing spills to freshwater, or to land that may enter water, that pose a catastrophic risk to drinking water supplies.**
- 24. Manage major land development where it could affect a water supply, particularly a groundwater take. There are examples where major humping and hollowing has led to buried organic material, which in turn has contaminated water supplies e.g. Atarau/Moonlight.**
- 25. There needs to be firmer management of structures that provide a direct pathway for contaminants to enter an aquifer i.e. bypass dry and vadose layers above the groundwater level. Examples are private bores that are up-gradient of a municipal take, where these private bores have inadequate wellhead protection.**

4.4.5. Nutrient enrichment that contributes to algal blooms

Nitrogen and phosphorus objectives are required under the NPSFM to safeguard against algal blooms. The Group supports the use of limits that are relevant to the West Coast environment. NIWA have provided information on algal blooms with a West Coast context.

Recommendation

- 26. Support the use of limits on nitrogen and phosphorus application that are relevant to the West Coast environment.**

4.4.6. Lake Brunner

The Group are aware that there are existing objectives, policies and rules in the Regional Land and Water Plan for the Lake Brunner/Kotuku-Whakaoho catchment. The Group supports these provisions being retained.

Recommendation

- 27. Support the existing Land and Water Plan provisions for the Lake Brunner catchment being retained.**

4.4.7. Resourcing approaches to monitoring

The Group recognises the cost of implementing the additional monitoring required under the NPSFM and proposed Freshwater Package 2019. The Group subsequently endorses collaborative initiatives that improve cost effectiveness and efficiency of effort, including collaborative programmes with other agencies (e.g. Fish and Game, DOC), and members of the community. The latter might incorporate 'citizen science', undertaken by community groups and strategically located individuals.

There may be room to include less traditional measures as part of resource monitoring programmes. Semi-qualitative data such as public usage and personal preferences could be collected via electronic web platforms. For example, this could be particularly useful for assessing contact recreation sites.

The Group understands that there is limited data to assess the health of all waterways in the Grey FMU. Better coverage comes with an increase in monitoring effort (sites, samples, and attributes), and/or more predictive approaches that are underpinned by regionally specific research and modelling. Both come at a considerable cost to ratepayers.

Current understanding of where problems are for water resource management in the FMU are based on a limited number of monitoring sites. It would seem logical to tackle these sites as a priority, given there is direct evidence of a problem. However, the Group considered that it was potentially unfair to 'penalise' stakeholders in areas simply because they are unlucky to be in a monitored catchment. This lends weight to the value of initiatives that are applied to all similar catchments so that it will be fairer and lead to wider water quality improvements.

No recommendations were made on this matter.

4.4.8. Additional ways to improve amenity and stream health

The Group recommends that more water quality education be provided to people in the Grey FMU. Education was considered important for people to develop their capacity for maintaining stream values. Examples include knowledge on how to provide quality stream habitat, how to fence waterways in a practical way, and recognition of key aquatic weeds that threaten biodiversity.

The Group supported the use of non-regulatory tools to utilise good practice measures for farms with low stocking rates. These farms won't necessarily be captured under future stock exclusion rules (proposed Regulations under Section 360 of the RMA).

The Grey FMU community has had positive experiences with the use of farm planning as a means of familiarising themselves with the issues, and to plan out specific interventions aimed at improving water quality. A lack of understanding of the issues and what causes them can be a barrier for improvement. The Group suggested that compliance action is not wholly effective where there is inadequate understanding of science and planning processes, which highlights the value of preliminary education and extension work.

The Grey FMU Group encourage the WCRC to utilise community catchment groups in the future for developing solutions to water quality issues when and where they arise.

The Grey FMU Group expressed concern around impacts associated with high visitor numbers. While it is acknowledged that, in most cases, visitor impacts on water quality are unlikely to be significant, the cultural implications of uncontrolled refuse disposal and toileting are something the community feel strongly about. More empirical data is required to assess the extent of the issue and inform the public.

Recommendations

28. Education be provided by Council to people in the Grey FMU to develop their capacity for maintaining stream values and improve their understanding of water quality issues and what causes them.
29. Use non-regulatory tools to encourage farms with low stocking rates, that aren't necessarily captured under future stock exclusion rules, to engage in mitigating activities affecting water quality, and utilise good practice measures.
30. The Council to utilise community catchment groups, following the completion of the FMU process, to assist with developing solutions for water quality issues when and where they arise.
31. That Council implements monitoring that evaluates potential impacts from tourism in high use areas e.g. the Paparoa Trail.

List of Recommendations

Values, interests and rights of Ngāti Waewae in the management of freshwater

1. Include provisions in the Regional Land and Water Plan to ensure freshwater is managed so that:
 - d) Mahinga kai is safe to harvest and eat;
 - e) Species are plentiful enough for long term harvest; and
 - f) The range of species is present across all life stages.
2. Include provisions in the Regional Land and Water Plan to protect the mauri of freshwater, and to ensure that fresh waterbodies are available and able to be used for customary use.
3. Include provisions in the Regional Land and Water Plan that ensure a cultural allocation for the values of Te Rūnanga o Ngāti Waewae is provided for in the allocation of water.

Outstanding Freshwater Bodies

4. That the area encompassed within the Grey Water Conservation Order, and the Rough River catchment above Mirfin Creek, be considered in future Outstanding Freshwater Body assessments.

Water Quantity

5. Amend Rule 55 of the Land and Water Plan to replace "or" with "and" and amend clause (ii)(d) to make it clearer.
6. All owners of water take permits that require metering under the Resource Management (Measurement and Reporting of Water Takes) Regulations 2010, should submit their results in a timely manner and in a format that allows the Council to efficiently compile this data.
7. Telemetry should be utilised for large takes so that Council can ensure data collection is occurring, takes are compliant, and there is real time knowledge of resource use.
8. Permitted takes should be notified annually to Council so Council is aware how much water is being utilised and where these takes occur.
9. Amend timeframes of water permits for consumptive water takes to 10 years from 35 years. Amend consent status to controlled for renewal of water take permits for the first and second renewals of 10-year water permits.
10. Community drinking water supply permits may be issued with consent durations of up to 35 years.
11. Review the Regional Land and Water Plan rules to combine groundwater and surface water takes, where appropriate.
12. Apply limits to groundwater takes to ensure surface water takes are maintained.
13. Commence monitoring and further work required to inform groundwater models.

Water Quality

14. That New River and Saltwater Creek are monitored regularly – the tidal sections of these are popular areas for contact recreation. Pressures include faecal contamination from septic tanks and sediment from land disturbance.
15. That Blackball Creek is monitored regularly – values include the Blackball water supply and general amenity. There is likely to be future pressure from high visitor numbers on the Croesus Track following the opening of the Paparoa Trail.
16. More monitoring is undertaken in the Ahaura River catchment – this is a large area with a lack of monitoring. The Hydrology team visit Jims Flat monthly to maintain the rainfall and water level site – water quality sampling could be added onto these trips.
17. Undertake monitoring that utilises attributes, locations, and suitably qualified people for measuring the cultural health of Grey FMU waterbodies.
18. Council to support Te Rūnanga o Ngāti Waewae to increase their capacity to undertake cultural monitoring of waterbodies.
19. Stock exclusion from waterways has a positive effect on water quality and stream health, but it needs to be applied in a way that considers the cost and logistic implications, such as flood risk.
20. Advocate that properties which are required to connect to separate sewerage and stormwater systems should do so and that this be treated as a high priority.
21. Council to encourage industry good practice for sediment management, for different types of activities, for example, mining, farming, forestry, and urban development. Good practice measures to be tailored for specific activities or referred to using recognised industry good practice.
22. Groundwater bores are required to comply with a minimum practical standard of wellhead protection, to ensure that contaminants such as E. coli do not enter groundwater bores used for potable (drinking) water.
23. Develop contingency plans for managing spills to freshwater, or to land that may enter water, that pose a catastrophic risk to drinking water supplies.
24. Manage major land development where it could affect a water supply, particularly a groundwater take. There are examples where major humping and hollowing has led to buried organic material, which in turn has contaminated water supplies e.g. Atarau/Moonlight.
25. There needs to be firmer management of structures that provide a direct pathway for contaminants to enter an aquifer i.e. bypass dry and vadose layers above the groundwater level. Examples are private bores that are up-gradient of a municipal take, where these private bores have inadequate wellhead protection.
26. Support the use of limits on nitrogen and phosphorus application that are relevant to the West Coast environment.
27. Support the existing Land and Water Plan provisions for the Lake Brunner catchment being retained.
28. Education be provided by Council to people in the Grey FMU to develop their capacity for maintaining stream values and improve their understanding of water quality issues and what causes them.
29. Use non-regulatory tools to encourage farms with low stocking rates, that aren't necessarily captured under future stock exclusion rules, to engage in mitigating activities affecting water quality, and utilise good practice measures.
30. The Council to utilise community catchment groups, following the completion of the FMU process, to assist with developing solutions for water quality issues when and where they arise.
31. That Council implements monitoring that evaluates potential impacts from tourism in high use areas e.g. the Paparoa Trail.