

Part 2 – Resource management overview

SRMR – Significant resource management issues for the region

LF – Land and freshwater [RPS]

The content of this chapter was drafted to give effect to the National Policy Statement for Freshwater Management 2014 (amended 2017). In August 2020 central government released its “Action for Healthy Waterways” package of new requirements for Councils regarding freshwater management that contain the following:

1. a replacement National Policy Statement for Freshwater Management 2020;
2. new National Environment Standards for Freshwater Management;
3. new Resource Management (Stock exclusion) Regulations; and
4. updated Resource Management (Measurement and Reporting of Water Takes) Amendment Regulations.

The content of this chapter and all other Draft Nelson Plan chapters that contain provisions related to the management of land and freshwater have yet to be revised to reflect the “Action for Healthy Waterways” package. Further engagement with tāngata whenua and the wider community on new and updated provisions is required prior to updating the Draft Nelson Plan.

Issues

SRMR-LF-I1 Land use and soil erosion [RPS]

Land use activities in Whakatū Nelson can result in increased or accelerated soil erosion, which can reduce the productivity of the land and adversely affect water quality by adding sediment and nutrients into waterways and the Coastal marine area.

Many of the eastern hills of Whakatū Nelson have previously been farmed, but this land use proved to be unsustainable due to erosion, soil infertility and weed incursion. Much of this land was acquired by the former NZ Forest Service and planted in exotic forest, partly as an effort to overcome these problems.

Plantation forestry now covers 9,624 hectares (23%) of Whakatū Nelson’s land area and delivers economic benefits to the region. Forestry can stabilise erosion prone land. It also has environmental benefits, including acting as a carbon sink (by absorbing and storing carbon dioxide).

However, accelerated erosion on this challenging terrain still occurs as a result of some historical and on-going clearance of vegetation, including during and following plantation forest harvesting. Together with associated earthworks, such as track formation or land re-contouring, this can exacerbate the rate of natural erosion that occurs as a result of climatic events. Storms are predicted to increase in frequency and intensity, as a result of climate change, which will further exacerbate land erosion and sedimentation rates.

Even on flat or less steep land, poorly managed earthworks associated with land development can cause erosion and sedimentation during rainfall events. Insufficient attention to slope stabilisation

during earthworks, inadequate sediment control, poor stormwater management, increasing areas of impervious surface, debris clearance, and land disturbance can mobilise sediment and adversely affect the productive and life supporting capacity of soils. This can contribute to temporary and enduring degradation of freshwater and coastal water quality, and adversely affect fisheries, recreational activities and aquatic ecosystem health and diversity.

SRMR-LF-I2 Conflicts between freshwater values [RPS]

The use of freshwater resources has created conflicts between freshwater values in many of Whakatū Nelson's rivers and streams.

The people of Whakatū Nelson value the region's freshwater bodies for a range of uses: including freshwater's natural qualities, mahinga kai gathering, swimming and recreational opportunities, and the ability to take and use freshwater for cultural practices and beneficial economic uses. Freshwater is essential to support community well-being, environmental and cultural health, and economic well-being, including uses of land that rely on freshwater.

Secure supplies of freshwater in sufficient quantity and quality are essential to meet foreseeable future community needs. Use and development of freshwater has the potential to adversely affect natural character, ecosystem health, and recreational and cultural values. There can be competing values. The challenge is to sustainably manage freshwater resources to provide for the full range of values held by the community. There is community support to restore and rehabilitate freshwater resources where quality, quantity and habitat have been degraded by development or by natural events.

An aspiration of Whakatū Nelson tāngata whenua is that all freshwater bodies are Wai Māori, so that water is safe to drink at source, and safe to use for ceremonial and spiritual purposes. The standard of water quality in most of the mid to lower catchments in Whakatū Nelson is such that freshwater is not Wai Māori.

SRMR-LF-I3 Degraded water quality [RPS]

Some of Whakatū Nelson's freshwater rivers and streams have degraded water quality.

Some water bodies in Whakatū Nelson have compromised ecosystem health (measured by physio-chemical quality, macroinvertebrate and fish community health).

All water bodies are vulnerable to degradation caused by use and development of land and water. Inappropriate use of land and water can result in cumulative long term degradation. Freshwater quality is, in places, compromised to such an extent that it presents an elevated risk of infection for human health associated with primary contact and immersion in water. Degradation of quality, over-allocation and inefficient use of freshwater resources may limit community well-being.

SRMR-LF-I4 Kaitiakitanga [RPS]

There is insufficient recognition and provision for kaitiakitanga in the management of freshwater resources and a lack of recognition of Te Mana o te Wai.

Whakatū Nelson tāngata whenua have a special relationship with all freshwater resources and have kaitiaki responsibilities for freshwater. The kaitiaki responsibilities of Whakatū Nelson's tāngata

whenua need to be incorporated into decision making about use and development of freshwater resources in a way that is mutually understood. Whakatū Nelson's tāngata whenua have identified that a significant barrier to participation in resource management decision making is the capacity to participate. Whakatū Nelson iwi are also concerned that there is a lack of recognition of Te Mana o te Wai.

SRMR-LF-I5 Indigenous fish habitats [RPS]

Whakatū Nelson's indigenous freshwater fish and their freshwater and riparian margin habitats are at risk from subdivision, use and development.

Activities within and adjacent to water bodies need to be carefully managed as they have the potential to reduce the quality of or destroy the habitat of threatened indigenous fish. These habitats need to be protected.

SRMR-LF-I6 Freshwater catchment natural character [RPS]

Unsuitable subdivision, use and development has compromised the natural character of many of Whakatū Nelson's freshwater rivers, streams, wetlands and their margins.

The natural form and character of parts of Whakatū Nelson's freshwater catchments is intact and needs to be preserved. However, natural character can be compromised by use and development of freshwater bodies, including the beds and margins of rivers and wetlands. Other parts of Whakatū Nelson's freshwater catchments are highly modified and further modification can, cumulatively, severely compromise natural form and character. Opportunities for restoration of natural form and character arise from time to time, associated with proposals to use freshwater resources and riparian margins.

SRMR-LF-I7 Flood hazard [RPS]

Whakatū Nelson catchments are steep and there are known flood hazards. While urban rivers and streams play an important role as part of the stormwater drainage network, flood capacity maintenance and some activities in the beds of rivers and streams can cause adverse effects on the natural character and ecosystem health of rivers and streams.

Whakatū Nelson's rivers and streams convey stormwater and flood flows and are integral to managing flood hazard. Some flood management and infrastructure activities and structures in the beds and riparian margins of rivers and stream are essential to manage hazard risks and provide essential community lifeline infrastructure services. However, these activities and structures can also have adverse impacts on natural, recreational and cultural values and ecosystem health.

SRMR-LF-I8 Freshwater capacity and use [RPS]

The allocation of water for abstractive use exceeds sustainable capacity in some Whakatū Nelson freshwater bodies.

Use of freshwater exceeds sustainable capacity in some freshwater bodies, meaning that these water bodies are over-allocated. The NPSFM obliges the Nelson City Council to avoid further over-allocation and phase out existing over-allocation of abstracted water.

SRMR-LF-I9 Climate change [RPS]

Climate change has the potential to affect natural flows in freshwater bodies and security of supply for use and development.

Although climate change is predicted to be a long-term trend, the environment may experience changes in the frequency or intensity of storm events, rainfall and drought periods during the foreseeable future. These changes could adversely affect natural flows in freshwater bodies and security of supply for use and development.

SRMR-LF-I10 Harvesting mahinga kai [RPS]

Degraded river and stream health restricts the ability of Whakatū Nelson’s tāngata whenua to safely harvest mahinga kai.

Being able to access and safely harvest mahinga kai from Whakatū Nelson’s freshwater bodies is an important value region-wide, but there are places where this is not safe or desirable because of the current state of te wai / the water.

SRMR-LF-I11 Freshwater wetlands [RPS]

There is a risk of further loss of the extent and degradation of the natural character of Whakatū Nelson’s natural freshwater wetlands.

The National Policy Statement for Freshwater Management (NPSFM) requires the protection of the significant values of wetlands. New Zealand has a fraction of the natural wetland habitat that occurred naturally prior to settlement. Retention and rehabilitation of natural wetlands is important to the community.

Objectives

SRMR-LF-O1 Sustainable land management [RPS]

Land is managed sustainably, to safeguard the life supporting capacity and productive potential of soils and reduce the flow of nutrients and sediments into freshwater bodies and the coastal marine area.

SRMR-LF-O2 Maintenance of freshwater values [RPS]

The ecosystem health, water quantity and water quality within Whakatū Nelson’s freshwater management units support the values specified in APP27 – Freshwater values and APP28 – Freshwater values by FMU and are restored where degraded.

SRMR-LF-O3 Use and development of freshwater [RPS]

Freshwater is available in sufficient quantity and adequate quality to meet the reasonably foreseeable needs of the community, taking into account the impact of climate change.

SRMR-LF-O4 Kaitiakitanga [RPS]

Whakatū Nelson tāngata whenua are enabled to exercise kaitiakitanga in freshwater management.

SRMR-LF-O5 Acknowledgement, protection and restoration of freshwater values [RPS]

The cultural, ecological, recreational and natural character values of freshwater bodies to Whakatū Nelson tāngata whenua and the community, that are identified in APP27 – Freshwater values and APP28 – Freshwater values by FMU are acknowledged, protected, and where necessary, restored.

SRMR-LF-O6 Indigenous fish health and abundance [RPS]

The ecosystem health of Whakatū Nelson's rivers, streams and their margins and the flow and quality of water in rivers and streams support a diverse indigenous fish community in a healthy and abundant state.

SRMR-LF-O7 Use and development within rivers and streams [RPS]

The use and development of natural and physical resources within rivers and streams occurs at a rate and in a way that manages flood hazard, preserves natural character and safeguards the life-supporting capacity of freshwater resources.

SRMR-LF-O8 Preservation of the extent and natural character of natural wetlands [RPS]

There is no reduction in extent, and no degradation of the natural character, of Whakatū Nelson's natural wetlands and natural character is restored, where degraded.

Policies

SRMR-LF-P1 Sustainable land management [RPS]

Promote land management that minimises nutrient loss, retains the productive potential of soils and does not accelerate soil erosion.

Explanation

Vegetation clearance, soil disturbance and earthworks are land uses that typically cause accelerated soil erosion. The physical characteristics of the land (such as slope stability, soil type, gradient and proximity to water) provide a basis for predicting the potential effects of land uses and the appropriate erosion control methods to use to mitigate potential adverse effects. Good land management practice is critical to minimising soil erosion and retaining the productive potential of soils. The National Environmental Standards for Plantation Forestry (NESPF) establishes rules and standards to manage the effects of plantation forestry activities in Whakatū Nelson, including activities that have the

potential to cause accelerated soil erosion or debris flows or sedimentation of water bodies. The management of land use activities needs to also limit the flow of contaminants, including nutrients and sediment, to freshwater bodies and the coastal marine area to sustain the life supporting capacity and values of those environments.

SRMR-LF-P2 Maintaining freshwater values [RPS]

Where ecosystem health, water quantity and water quality already support the values in APP27 – Freshwater values and APP28 – Freshwater values by FMU, ensure that ecosystem health, water quality and quantity are maintained.

Explanation

The values identified in APP27 – Freshwater values and APP28 – Freshwater values by FMU were identified by community working groups, including iwi and freshwater stakeholder representatives, following expert assessment of the current ecosystem health and water allocation status of Whakatū Nelson’s freshwater bodies. The values stated in APP27 – Freshwater values and APP28 – Freshwater values by FMU are the values the community working groups and Nelson City Council want for the named freshwater bodies. In some situations, the current state of water quality and water availability already support the stated values. In other situations, the community working groups and the expert assessment identified aspects of water quality that are degraded. In some situations, the compulsory values of ecosystem health and human health for recreation are currently compromised. The water quality and aquatic ecological parameters specified in APP33 – Water quality limits and APP30 – Maitai Reservoir water quality limits represent the limits necessary to continue to support the stated values.

SRMR-LF-P3 Improving degraded freshwater to support freshwater values [RPS]

Where ecosystem health, water quantity and quality do not support the values in APP27 – Freshwater values and APP28 – Freshwater values by FMU, improve ecosystem health and water quality, and manage water use to achieve the freshwater attribute states necessary to support those values.

Explanation

There are some water bodies, or parts of water bodies, that do not currently support the values the community desires. The ecosystem health, water quality and water quantity need to improve to a state able to support the stated values. APP33 – Water Quality Limits specifies the water quality attributes and limits necessary to achieve that desired state.

SRMR-LF-P4 Freshwater abstraction for beneficial uses [RPS]

Provide for the abstraction of surface and ground water to meet the reasonably foreseeable needs of people and communities and for animal drinking water, taking into account the likely impact of climate change.

Explanation

Nelson City Council undertook an evaluation of historical flow data and authorised abstraction from Whakatū Nelson’s freshwater bodies. This included an assessment of the volume likely to be

abstracted for reasonable domestic use and stock drinking water. These assessments identified some situations where available surface water flow is currently over allocated, based on authorised volumes of abstraction.

The technical evaluation provided an assessment of the sustainable rate of abstraction from surface water and groundwater sources. Ensuring that there is water available for reasonable needs will enable the Whakatū Nelson community to provide for its economic well-being including productive economic opportunities.

SRMR-LF-P5 Integrated management of surface water and groundwater resources [RPS]

Manage surface water and groundwater resources in an integrated manner, recognising that the hydrogeological conditions of Whakatū Nelson mean that groundwater resources are typically strongly connected with surface water resources.

Explanation

Technical evaluation of the groundwater and surface water resources of Whakatū Nelson confirms that groundwater resources in quaternary aquifers are strongly connected with surface water such that they do not have their own, separate, sustainable allocation limits. For other groundwater resources, such as the Port Hills and Moutere gravels, the resources are disconnected from surface water. It is important that all freshwater is managed in an integrated manner, recognising the connection between surface water and groundwater in some situations and the potential for use and development of freshwater from either source to have impacts on the wider freshwater resource.

SRMR-LF-P6 Efficient end use of abstracted freshwater [RPS]

Require that all water abstracted from freshwater management units is used efficiently in accordance with best practice for the end use.

Explanation

Most groundwater in Whakatū Nelson is a finite resource. Surface water and groundwater resources are a scarce resource during dry periods. Consistent with the objective of the NPSFM, it is important that the end use of all abstracted water is efficient, recognising current best practices for the relevant use, whether that is for domestic use or production activities.

SRMR-LF-P7 Freshwater management kaupapa and principles [RPS]

Adopt the following kaupapa and principles in managing Whakatū Nelson's freshwater resources, to maintain the values specified in APP27 – Freshwater values and APP28 – Freshwater values by FMU:

1. Kaitiakitanga;
2. Rere-ki-tanga;
3. Kōrerorero;
4. Utu;
5. Tika;

6. Tikanga;
7. Pono;
8. Aroha;
9. Ki uta ki tai; and
10. Rangatiratanga.

Explanation

The Iwi Working Group, representing Whakatū Nelson tāngata whenua, have identified the kaupapa that are necessary to support sustainable management of natural and physical resources in Whakatū Nelson, in accordance with tikanga.

SRMR-LF-P8 Protection of freshwater values from inappropriate subdivision, use and development [RPS]

Protect the values of rivers identified in APP27 – Freshwater values and APP28 – Freshwater values by FMU from subdivision, use and development that could compromise those values.

Explanation

SRMR-LF-P2 sets out the values the Whakatū Nelson community desires for freshwater resources. The ecosystem health, flow and water quality attributes and limits necessary to support those values are specified in APP33 – Water quality limits, APP30 – Maitai Reservoir water quality limits, APP32 Surface water allocation limits and APP29 – Groundwater allocation limits.

These identified values need to be protected from inappropriate use and development, including use and development that would result, either directly or cumulatively in combination with other use and development, in freshwater resources failing to achieve the state necessary to support the values identified in SRMR-LF-P2

SRMR-LF-P9 Mana and mauri of freshwater bodies [RPS]

Promote community-wide understanding of the mana and mauri of freshwater bodies, and support initiatives that restore the mana and mauri of freshwater bodies.

Explanation

With the exception of tāngata whenua, community understanding about the mana and mauri of freshwater bodies is not widespread or comprehensive. As the definitions of the kaupapa listed in SRMR-LF-P7 indicate, the concepts that underlie the mana and mauri of rivers have parallels between Māori and non-Māori perspectives.

The mana of ngā awa (rivers) is described in Te Tau Ihu the Statutory Acknowledgements (discussed in Part 1 – Tāngata whenua). Protecting and improving the mana and mauri of rivers is an essential aspect of acknowledging the mana of Whakatū Nelson tāngata whenua. The Nelson City Council is well placed to facilitate a wider community discussion about, and appreciation of, the mana and mauri of rivers. Nelson City Council can also, through its decision making about use and development of

freshwater resources and its funding support for restoration initiatives, support projects and initiatives that have the potential to restore the mana and mauri of rivers.

SRMR-LF-P10 Preservation and restoration of natural character [RPS]

Preserve and, where degraded, restore the natural character of freshwater bodies.

Explanation

The protection of the natural character of wetlands, lakes and rivers and their margins and the protection of them from inappropriate subdivision, use and development are matters of national importance.

The technical evaluations undertaken to support the preparation of the Nelson Plan and community engagement have identified riparian and river bed activities that have caused, or have the potential to cause, loss or degradation of the natural character of freshwater bodies and their margins. These include earthworks, vegetation clearance, some flood protection works and structures.

Some activities affecting the beds and riparian margins of rivers and streams are necessary to protect communities from flood hazard and some may have temporary effects on natural character that are able to be restored over a short period of time, without loss of long term natural character.

SRMR-LF-P11 Protecting freshwater threatened species habitats [RPS]

Protect threatened species habitats in freshwater bodies, and in the margins of freshwater bodies, from subdivision, use and development that may degrade the life-supporting capacity and ecosystem health of those habitats, and prevent permanent loss of threatened species habitat within the beds of rivers.

Explanation

All of the freshwater sub-catchments in Whakatū Nelson contain at least one threatened native fish species and over half of the indigenous freshwater fish species recorded in Whakatū Nelson have an 'at risk' or 'threatened' status. These include longfin eel, torrentfish, redfin bully, bluegill bully, giant kōkopu, kōaro and īnanga (all classified as 'at risk – declining'). In addition, lamprey and shortjaw kōkopu are classified as 'threatened – nationally vulnerable'.

The habitat required to sustain these species varies. For some, such as kōaro, bluegill bully and torrentfish, it includes fast flowing water. For lamprey, shortjaw kōkopu and kōaro, forested margins are necessary. Almost all indigenous fish species in Whakatū Nelson are migratory and require connectivity between freshwater and the coast, as well as available spawning habitat in the river bed or riparian margins and adequate flows throughout the year.

The habitats of indigenous fish are vulnerable to changes in flow, sedimentation, riparian vegetation clearance and activities in the beds of streams. While some habitat can recover in a time period short enough to not disrupt the critical life cycle of fish species, it is important that habitats are not permanently lost. The protection of significant habitats of indigenous fish species is a matter of national importance.

SRMR-LF-P12 Flood hazard management [RPS]

Manage flooding preferably to within the beds of rivers, taking into account the reasonably foreseeable effects of predicted climate change, and avoid significant cumulative adverse effects of flood central structures on the natural character of the river, including changes to the natural morphological form and flow.

Explanation

Rivers and streams have an important function in carrying flood flows and preventing flood damage of public and private property. However, some adverse effects of flood control activities can, cumulatively, have irreversible adverse effects on the natural character of rivers and streams. Natural character can include natural morphological form, natural flows and the natural character of stream beds and riparian margins. The preservation of the natural character of rivers, streams and their margins is a matter of national importance and needs to be achieved while providing for necessary flood control activities.

SRMR-LF-P13 Activities and structures that impede flood flows [RPS]

Discourage activities and structures within river beds that have the potential to impede flood flows.

Explanation

Whakatū Nelson's catchments are typically steep and frequently flood. Inappropriate activities or structures within rivers and streams have the potential to exacerbate the risk of flooding of upstream land or intensify the impact of flood inundation. The Nelson City Council manages the network of drains and natural rivers and streams within urban catchments to minimise the potential for flood inundation and to protect public and private property from flood damage to the extent practicable. The management of significant risks from natural hazards is a matter of national importance.

SRMR-LF-P14 Maintaining fish passage [RPS]

Discourage activities and structures within the beds and riparian margins of rivers that have the potential to impede fish migration.

Explanation

Most fish species found in Whakatū Nelson are migratory, including the threatened and nationally vulnerable shortjaw kōkopu and lamprey. The protection of significant habitats of indigenous fish species is a matter of national importance. Maintenance of fish passage is an essential component of the habitat necessary to enable the migratory patterns that sustain most threatened fish species. The significance of fish passage to sustaining viable threatened fish communities warrants the avoidance approach.

SRMR-LF-P15 Maintaining the extent, ecosystem health and natural character of natural wetlands [RPS]

Maintain the extent of natural wetlands and prevent use and development that could reduce the wetted extent or compromise the ecosystem health or natural character of natural wetlands.

Explanation

Preservation of the natural character of wetlands and protection of them from inappropriate subdivision, use and development are matters of national importance. Some activities (such as land drainage, stock grazing and building structures) have the potential to reduce the wetted extent of natural wetlands or compromise the ecosystem health and natural character of natural wetlands. Activities will be managed to avoid these outcomes.

Methods

Regulatory methods	Who	Links to policy
The Nelson Plan		
SRMR-LF-M1 [RPS] Include a framework of objectives, policies and rules to: <ol style="list-style-type: none">1. identify the values the community holds for freshwater;2. set water quality and water quantity limits and targets that support the identified values;3. manage water abstraction, discharges to land and to freshwater within specified quality and quantity limits and targets and manage activities in the beds of rivers, wetlands and their margins, in accordance with the kaupapa outlined in SRMR-LF-P7;4. manage the adverse effects of land use, vegetation clearance and land disturbance activities on freshwater and coastal marine water quality, ecosystem health and on the productive potential of soils;5. phase out over-allocation of abstracted water by 31 December 2030;6. implement the mandatory requirements of the Nelson Tasman Land Development Manual 2019; and7. require esplanade reserves or strips along freshwater bodies and the coastal marine area at the time of subdivision.	Council	SRMR-LF-P1 SRMR-LF-P2 SRMR-LF-P3 SRMR-LF-P4 SRMR-LF-P5 SRMR-LF-P6 SRMR-LF-P7 SRMR-LF-P8
Future plan changes to the Nelson Plan		
SRMR-LF-M2 [RPS]	Council	SRMR-LF-P2 SRMR-LF-P3 SRMR-LF-P4

Review the Nelson Plan water quality limits and targets as and when amendments are made to the National Policy Statement for Freshwater Management		SRMR-LF-P9 SRMR-LF-P11
SRMR-LF-M3 [RPS] Review the Nelson Plan stock exclusion rules when national regulations restricting stock access are confirmed.	Council	SRMR-LF-P1
SRMR-LF-M4 [RPS] Review the freshwater abstraction allocation limit in the Nelson Plan by 30 June 2026, informed by information on naturalised stream flows.	Council	SRMR-LF-P3 SRMR-LF-P5 SRMR-LF-P6 SRMR-LF-P7
Resource consent process		
SRMR-LF-M5 [RPS] Reduce cumulative abstraction in over-allocated FMUs, reviewing and, where necessary, reducing the volume and rate of water abstraction authorised by individual water permits by the following dates: 1. by 31 December 2020, review all abstraction permits that have expiry dates on or before 31 December 2020; and 2. by 31 December 2026, review all remaining abstraction permits.	Council	SRMR-LF-P2 SRMR-LF-P3 SRMR-LF-P4 SRMR-LF-P5 SRMR-LF-P6 SRMR-LF-P7
Other legislation, statutory policies, standards and plans		
SRMR-LF-M6 [RPS] Implement the Nelson Tasman Land Development Manual 2019.	Council	SRMR-LF-P1
SRMR-LF-M7 [RPS] Require the metering of water abstractions in accordance with the Resource Management (Measurement and Reporting of Water Takes) Regulations 2010	Council	SRMR-LF-P6
SRMR-LF-M8 [RPS] Use water shortage directions to require rationing of water takes when river flows approach minimum flows and during water short periods, except where water is required to maintain human health and for firefighting.	Council	SRMR-LF-P2 SRMR-LF-P3 SRMR-LF-P4 SRMR-LF-P5 SRMR-LF-P6

<p>SRMR-LF-M9 [RPS]</p> <p>Minimise the potential for peak wet weather overflows from the municipal wastewater network to the stormwater drainage network by minimising trade waste contaminant loads to the wastewater network at source, by use of the Nelson City Council's Trade Waste Bylaw and by charging for trade wastes according to the volume and contaminant load discharged.</p>	Council	<p>SRMR-LF-P2</p> <p>SRMR-LF-P3</p> <p>SRMR-LF-P7</p> <p>SRMR-LF-P8</p>
<p>SRMR-LF-M10 [RPS]</p> <p>Include in Asset Management Plans and the Long Term Plan strategies and funding to identify and minimise inflow and infiltration into stormwater networks, and overflows of untreated wastewater from wastewater networks into the environment, particularly in the Stoke and urban Maitahi/Mahitahi/Maitai FMUs.</p>	Council	<p>SRMR-LF-P2</p> <p>SRMR-LF-P3</p> <p>SRMR-LF-P7</p> <p>SRMR-LF-P8</p>
<p>SRMR-LF-M11 [RPS]</p> <p>Include in the Water Supply Asset Management Plan water demand measures and water conservation restrictions to apply during water short periods.</p>	Council	<p>SRMR-LF-P2</p> <p>SRMR-LF-P6</p>

Non-regulatory methods	Who	Links to policy
Non-statutory plans and strategies		
<p>SRMR-LF-M12 [RPS]</p> <p>Review land management practices in the Council's own plantation forest activities, including the choice of tree species planted and options for land retirement.</p>	Council	SRMR-LF-P1
<p>SRMR-LF-M13 [RPS]</p> <p>Implement the Code of Practice for Flood Management Activities and Management of Public Infrastructure in Rivers, Streams and Riparian Margins.</p>	Council	SRMR-LF-P1
<p>SRMR-LF-M14 [RPS]</p> <p>Negotiate with industrial activities and trade waste sources that generate high volumes of wastewater or high concentrations of contaminants in wastewater discharged to the municipal wastewater network, to maximise opportunities for treatment of contaminants prior to discharge to the wastewater network.</p>	Council	<p>SRMR-LF-P2</p> <p>SRMR-LF-P3</p> <p>SRMR-LF-P8</p>
<p>SRMR-LF-M15 [RPS]</p>	Council	SRMR-LF-P6

Include requirements to use water efficiently and minimise water waste in operational management plans and contracts for services managing Nelson City Council assets.		
SRMR-LF-M16 Identify barriers to fish passage in rivers and streams within Nelson City Council's stormwater drainage network and upgrade these where practicable to remove barriers to fish passage and provide for indigenous fish passage.	Council	SRMR-LF-P14
SRMR-LF-M17 Identify and seek the removal of barriers to fish passage within all Whakatū Nelson rivers and streams.	Council, working with private landowners	SRMR-LF-P14
SRMR-LF-M18 Develop a strategy for minimising the discharge of contaminants and the temperature of surface water runoff from urban land into the stormwater network.	Council	SRMR-LF-P2 SRMR-LF-P3 SRMR-LF-P8
Monitoring and information gathering		
SRMR-LF-M19 Monitor the impact of activities, including forestry management and harvesting, that have the potential to accelerate soil erosion.	Council	SRMR-LF-P1
SRMR-LF-M20 Continue monitoring of stream flow, state of the environment monitoring, groundwater volume and groundwater quality at representative monitoring sites within all FMUs, and establish additional monitoring sites where data is currently inadequate to represent FMU state.	Council	SRMR-LF-P2 SRMR-LF-P3 SRMR-LF-P4 SRMR-LF-P5 SRMR-LF-P8
SRMR-LF-M21 Develop and implement a freshwater accounting methodology to inform freshwater management and future freshwater policy development.	Council	SRMR-LF-P2 SRMR-LF-P3 SRMR-LF-P4 SRMR-LF-P5 SRMR-LF-P8
SRMR-LF-M22 In conjunction with the iwi of Te Tau Ihu, develop and implement cultural health monitoring of rivers and streams and incorporate with routine state of the environment monitoring.	Council	SRMR-LF-P7

<p>SRMR-LF-M23</p> <p>To enable naturalisation of stream flows, maintain a register of all freshwater abstractions for all purposes (including permitted activity reasonable use abstraction) and undertake two-yearly surveys to determine actual use of water, including reasonable domestic use and stock watering use, recording instantaneous rate and time and duration of abstraction.</p>	Council	SRMR-LF-P2 SRMR-LF-P3 SRMR-LF-P8
<p>SRMR-LF-M24</p> <p>Identify FMUs in which inadequate stream flow data is available, and implement a strategy to either introduce flow monitoring sites or develop reliable synthesised flow records for all of the FMUs specified in APP32 – Surface water allocation limits.</p>	Council	SRMR-LF-P4 SRMR-LF-P5
<p>SRMR-LF-M25</p> <p>Undertake two-yearly surveys of the physical extent and state of natural freshwater wetlands in Whakatū Nelson.</p>	Council	SRMR-LF-P15
Advocacy and education		
<p>SRMR-LF-M26</p> <p>Promote the preparation and implementation of farm environment plans (where these are not required by the National Environmental Standards for Freshwater Management) to establish good land management practices and to minimise soil erosion, sediment and nutrient contamination of water bodies.</p>	Council	SRMR-LF-P1
<p>SRMR-LF-M27</p> <p>Promote the adoption of good management practices in plantation forestry activities.</p>	Council	SRMR-LF-P1
<p>SRMR-LF-M28</p> <p>Provide advice and information on sustainable land management practices, riparian land management, vegetation clearance, pest plant management, earthworks and land disturbance to assist people adopt good land management practices and minimise adverse effects on land and water resources.</p>	Council	SRMR-LF-P1 SRMR-LF-P8
<p>SRMR-LF-M29</p> <p>Develop and distribute information pamphlets explaining what is able to be, and unable to be, disposed of into road gutters and</p>	Council	SRMR-LF-P2 SRMR-LF-P3 SRMR-LF-P7

the stormwater network, and other information explaining the values of rivers and streams and how to protect those.		SRMR-LF-P8
SRMR-LF-M30 Develop and distribute guidelines and information to assist consumers of reticulated water to limit water demand and to conserve water during water short periods.	Council	SRMR-LF-P6
Funding and assistance		
SRMR-LF-M31 Support the retention of beneficial riparian vegetation and the revegetation of riparian margins in appropriate locations, to sustain freshwater and coastal water quality and ecosystem health.	Council	SRMR-LF-P1
SRMR-LF-M32 Support the fencing of freshwater bodies that are particularly vulnerable to bank erosion.	Council	SRMR-LF-P1
SRMR-LF-M33 Maintain funding for routine street and stormwater network maintenance, to minimise the volume of leaf litter and debris in stormwater discharged from stormwater networks into surface water bodies and the Coastal marine area.	Council	SRMR-LF-P2 SRMR-LF-P3 SRMR-LF-P8
SRMR-LF-M34 Contribute towards the funding of Nelson Nature and other community stream care initiatives that contribute to maintaining or improving water quality and riparian values or to the monitoring of the state of freshwater bodies.	Council	SRMR-LF-P3 SRMR-LF-P10 SRMR-LF-P11
SRMR-LF-M35 Continue to contract resources to monitor how stormwater is managed on individual commercial and industrial sites and to identify high risk urban stormwater contamination sources.	Council	SRMR-LF-P2 SRMR-LF-P3 SRMR-LF-P8
SRMR-LF-M36 Consider contributing to the funding of fencing of river and stream banks and riparian margins where this will significantly improve indigenous aquatic habitat or water quality.	Council	SRMR-LF-P8 SRMR-LF-P11
SRMR-LF-M37	Council	SRMR-LF-P4

Promote the installation of water meters for all permitted activity water takes.		SRMR-LF-P5 SRMR-LF-P6
SRMR-LF-M38 Enable the provision of information signs pou whenua and other visible educational information describing and acknowledging the mana and mauri of Whakatū Nelson rivers and streams.	Council	SRMR-LF-P9
SRMR-LF-M39 Encourage the formation of water user groups to manage rationing within FMUs during water short periods.	Council	SRMR-LF-P4 SRMR-LF-P5 SRMR-LF-P6
SRMR-LF-M40 Make available funding for, and develop criteria for the allocation of funding, to assist landowners in the Rural zones to plant and manage riparian margins.	Council	SRMR-LF-P2 SRMR-LF-P3 SRMR-LF-P8 SRMR-LF-P9 SRMR-LF-P11 SRMR-LF-P15
Partnerships		
SRMR-LF-M41 Continue to engage with the iwi of Te Tau Ihu to achieve a shared understanding of kaitiakitanga as it relates to freshwater management, including commissioning training for Nelson City Council staff and elected members on how to apply the kaupapa identified in SRMR-LF-P7 in the management of freshwater resources.	Council in partnership with the iwi of Te Tau Ihu	SRMR-LF-P2 SRMR-LF-P3 SRMR-LF-P7 SRMR-LF-P8 SRMR-LF-P9

Principal reasons

SRMR-LF-PR1

The way in which land is managed has the potential to adversely affect the productive potential of soils and the quality of freshwater and coastal marine environments. The Plan's policies and methods therefore address land use activities that have the greatest potential to cause soil erosion or sedimentation or contaminate freshwater and coastal water.

SRMR-LF-PR2

Water availability and quality are essential to support natural ecosystems and the well-being of people and communities. Maintenance of flow conditions, water quality and natural habitat is also essential to ensuring the survival of indigenous fish species, including threatened fish species. The importance of

water quality, quantity and ecosystem health are reflected in the objectives and compulsory values identified in the NPSFM.

The values listed in APP27 – Freshwater values and APP28 – Freshwater values by FMU were identified through a collaborative process of community engagement, including engagement with Whakatū Nelson tāngata whenua. The values include the compulsory NPSFM values. Where water quality or quantity or ecosystem health are not in a state able to support the values identified, the objectives and policies in this chapter seek improvement so that the values can be enjoyed. In some sub-catchments, where ecosystem health or water quality fail to meet the NPSFM national bottom lines, improvement is required to meet national objectives as well as community and iwi aspirations. For some attributes of water quality or ecosystem health, degradation is such that improvement will require substantial action on several fronts over a long period. The Nelson City Council is also required to phase out and prevent future over allocation of freshwater.

The framework of objectives, policies and methods of this chapter also recognises and provides for the important function of rivers and streams in conveying flood flows, while preserving the natural character of the beds of rivers and streams. The framework of objectives and policies also adopts an appropriately firm regulatory approach to enable the ecosystem health, water quality, water quantity, flood hazard and natural character outcomes to be achieved long term. The regulatory approach is supported by a framework of policies and non-regulatory methods to assist the community and freshwater users to make adaptations that will contribute to achieving the freshwater outcomes sought.

Anticipated environmental results

Relevant policies	Anticipated environmental result
Land	
<p>SRMR-LF-P1</p> <p>Promote land management that minimises nutrient loss, retains the productive potential of soils and does not accelerate soil erosion.</p>	<p>SRMR-LF-AER1</p>
	<p>The concentration of dissolved inorganic nitrogen, dissolved reactive phosphorus and suspended sediment in freshwater bodies will progressively reduce over a ten-year period.</p>
	<p>SRMR-LF-AER2</p> <p>The banks of rivers and streams wider than one metre that flow through farmed land will be fenced to exclude stock by 2025.</p>
	<p>SRMR-LF-AER3</p> <p>The extent of beneficial, non-pest species, riparian vegetation adjoining freshwater bodies will progressively increase over time.</p>
	<p>SRMR-LF-AER4</p>

	Forest management practices will confine thinning and harvesting debris within plantation forest sites and prevent debris flows to rivers, streams and the coastal marine area.
Freshwater	
<p>SRMR-LF-P2</p> <p>Where ecosystem health, water quantity and water quality already support the values in APP27 – Freshwater values and APP28 – Freshwater values by FMU, ensure that ecosystem health, water quality and quantity are maintained.</p>	<p>SRMR-LF-AER5</p> <p>The ecosystem health, water quality and flows in freshwater bodies sustain the range of values held for freshwater by the Whakatū Nelson community.</p>
<p>SRMR-LF-P7</p> <p>Adopt the following kaupapa and principles in managing Whakatū Nelson’s freshwater resources, to maintain the values specified in APP27 – Freshwater values and APP28 – Freshwater values by FMU:</p> <ol style="list-style-type: none"> 1. Kaitiakitanga; 2. Rere-ki-tanga; 3. Kōrerorero; 4. Utu; 5. Tika; 6. Tikanga; 7. Pono; 8. Aroha; 9. Ki uta ki tai; and 10. Rangatiratanga. 	
<p>SRMR-LF-P8</p> <p>Protect the values of rivers identified in APP27 – Freshwater values and APP28 – Freshwater values by FMU from subdivision, use and development that could compromise those values.</p>	

<p>SRMR-LF-P3</p> <p>Where ecosystem health, water quantity and quality do not support the values in APP27 – Freshwater values and APP28 – Freshwater values by FMU, improve ecosystem health, water quality and manage water use to achieve the freshwater attribute states necessary to support those values.</p>	<p>SRMR-LF-AER6</p> <p>Water quality that is degraded is improved to meet Nelson Plan standards.</p>
<p>SRMR-LF-P7</p> <p>Adopt the following kaupapa and principles in managing Whakatū Nelson’s freshwater resources, to maintain the values specified in APP27 – Freshwater values and APP28 – Freshwater values by FMU:</p> <ol style="list-style-type: none"> 1. Kaitiakitanga; 2. Rere-ki-tanga; 3. Kōrerorero; 4. Utu; 5. Tika; 6. Tikanga; 7. Pono; 8. Aroha; 9. Ki uta ki tai; and 10. Rangatiratanga. 	
<p>SRMR-LF-P8</p> <p>Protect the values of rivers identified in APP27 – Freshwater values and APP28 – Freshwater values by FMU from subdivision, use and development that could compromise those values.</p>	
<p>SRMR-LF-P3</p> <p>Where ecosystem health, water quantity and quality do not support the values in APP27 – Freshwater values and APP28 – Freshwater values by FMU, improve ecosystem health, water quality and manage water use to achieve the</p>	<p>SRMR-LF-AER7</p> <p>Mahinga kai is safe to harvest and eat and is accessible to tāngata whenua.</p>

<p>freshwater attribute states necessary to support those values.</p>	
<p>SRMR-LF-P7</p> <p>Adopt the following kaupapa and principles in managing Whakatū Nelson’s freshwater resources, to maintain the values specified in APP27 – Freshwater values and APP28 – Freshwater values by FMU:</p> <ol style="list-style-type: none"> 1. Kaitiakitanga; 2. Rere-ki-tanga; 3. Kōrerorero; 4. Utu; 5. Tika; 6. Tikanga; 7. Pono; 8. Aroha; 9. Ki uta ki tai; and 10. Rangatiratanga. 	
<p>SRMR-LF-P8</p> <p>Protect the values of rivers identified in APP27 – Freshwater values and APP28 – Freshwater values by FMU from subdivision, use and development that could compromise those values.</p>	
<p>SRMR-LF-P4</p> <p>Provide for the abstraction of surface and ground water to meet the reasonably foreseeable needs of people and communities and for animal drinking water, taking into account the likely impact of climate change.</p>	<p>SRMR-LF-AER8</p> <p>Freshwater from surface water and groundwater sources is available in sufficient quantity and of quality that meets foreseeable needs for water supply for community health and for economic productive use.</p>
<p>SRMR-LF-P5</p> <p>Manage surface water and groundwater resources in an integrated manner, recognising that the hydrogeological conditions of Whakatū Nelson mean that groundwater resources are</p>	

<p>typically strongly connected with surface water resources.</p>	
<p>SRMR-LF-P6</p> <p>Require that all water abstracted from freshwater management units is used efficiently in accordance with best practice for the end use.</p>	
<p>SRMR-LF-P7</p> <p>Adopt the following kaupapa and principles in managing Whakatū Nelson’s freshwater resources, to maintain the values specified in APP27 – Freshwater values and APP28 – Freshwater values by FMU:</p> <ol style="list-style-type: none"> 1. Kaitiakitanga; 2. Rere-ki-tanga; 3. Kōrerorero; 4. Utu; 5. Tika; 6. Tikanga; 7. Pono; 8. Aroha; 9. Ki uta ki tai; and 10. Rangatiratanga. 	<p>SRMR-LF-AER9</p> <p>The mana and mauri of Whakatū Nelson’s freshwater bodies are enhanced.</p>
<p>SRMR-LF-P9</p> <p>Promote community-wide understanding of the mana and mauri of freshwater bodies, and support initiatives that restore the mana and mauri of freshwater bodies.</p>	
<p>SRMR-LF-P11</p> <p>Protect threatened species habitats in freshwater bodies, and in the margins of freshwater bodies, from subdivision, use and development that may degrade the life-supporting capacity and ecosystem health of those habitats, and prevent permanent loss of threatened species habitat within the beds of rivers.</p>	<p>SRMR-LF-AER10</p> <p>The habitats of threatened indigenous fish species are protected and extended, and communities of threatened fish species are able to undertake their natural life cycles and increase in abundance.</p>

<p>SRMR-LF-P10</p> <p>Preserve and, where degraded, restore the natural character of freshwater bodies.</p>	<p>SRMR-LF-AER11</p> <p>The natural character of Whakatū Nelson’s rivers, streams and natural wetlands is preserved and, where degraded, is restored.</p>
<p>SRMR-LF-P15</p> <p>Maintain the extent of natural wetlands and prevent use and development that could reduce the wetted extent or compromise the ecosystem health or natural character of natural wetlands.</p>	
<p>SRMR-LF-P12</p> <p>Manage flood hazard within the beds of rivers, taking into account the reasonably foreseeable effects of predicted climate change, and avoid cumulative adverse effects on the natural character of the river, including natural morphological form and flow.</p>	<p>SRMR-LF-AER12</p> <p>Whakatū Nelson’s rivers and streams convey flood flows without damaging land or property, and without modification that would compromise natural character or life-supporting capacity.</p>
<p>SRMR-LF-P13</p> <p>Avoid activities and structures within river beds that have the potential to impede flood flows.</p>	
<p>SRMR-LF-P14</p> <p>Avoid activities and structures within the beds and riparian margins of rivers that have the potential to impede fish migration.</p>	<p>SRMR-LF-AER13</p> <p>Fish passage is maintained throughout Whakatū Nelson’s rivers and streams.</p>