



**Proposed Southland  
Water and Land Plan  
Part A**

**29 January 2018  
(Recommendations Report version – clean)**

*Mai ea i te pō i te ti Mātānga.  
Mai ea ki ngā hekenga kia Māku.*

*Otirā, ka kii a ngā puna roimata a Rangī,  
ko tōna aroha kia Papatūānuku, kia kii  
ōna puna hei oranga mōna me ōna  
Taonga e noho ake nei.*

*Ko tātou, ngā kaitiaki o tēnei taonga tuku iho  
kia kaha i roto i te tapu, kia whai māna  
i roto i tōna wehi, kia tōna wairua,  
ka whakanoa i muri ake nei.*

*From the void, through the regions of the night,  
through the steps of the evolution, eventually  
arriving at the dampness, indeed filling the pools  
of Rangī which overflow eventually as tears of love  
on Papatūānuku. In turn her bosom is filled  
with those tears and she disperses them evenly  
to everything that grows on her.*

*We Tangata whenua and Te Taiao Tonga  
have the responsibility as protectors for this treasure  
handed down for use in its natural state  
with prestige, retaining its spiritual wellbeing so that  
we can continue to use it safely and wisely into the future.*

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## **Part B**

**Maps – separate volume**

## Preamble

This Plan forms part of a suite of planning instruments which manage Southland's water and land resources. It provides a regulatory tool for a variety of issues relating to these resources, with particular emphasis on the management of activities that may adversely affect the quality of the region's freshwater, much of which has deteriorated.

In Southland, water shapes the landscape, the economy and the region's way of life. Water is a taonga (a treasure of the people, a sacred place). Southland also has a diverse range of highly productive land uses that contribute to the region's prosperity and will likely form the foundation of further growth and expansion. The ongoing intensification of land use, both urban and rural, brings challenges to the environment (including people), particularly in terms of maintaining water quantity and quality.

The Southland Regional Council (Environment Southland is the brand name of the Southland Regional Council) seeks to manage water and land resources in a way that encompasses the Ngāi Tahu philosophy of "ki uta ki tai". This integrated approach recognises that water is important in a variety of ways, including for customary and recreation uses, mahinga kai, drinking water, agricultural production, irrigation, hydro-electricity generation, fisheries and tourism. This approach also recognises that the Southland Regional Council is committed to managing the connections between land and all water, particularly the effects of water quality and quantity changes on the health and function of estuaries and coastal lagoons.

This Plan gives effect to the National Policy Statement for Renewable Electricity Generation 2011 and the New Zealand Coastal Policy Statement 2010, to the extent that they apply to this Plan. This Plan also gives effect to the objectives and policies of the National Policy Statement for Freshwater Management 2014 (as amended in 2017), aside from the policies subject to the Southland Regional Council's Progressive Implementation Programme<sup>1</sup> which will be given effect to through a time-staged implementation programme to set freshwater objectives and limits for all Freshwater Management Units in Southland.

## Te Mana o te Wai

This Plan recognises the national significance of Te Mana o te Wai, which puts the mauri of the waterbody and its ability to provide for te hauora o te tangata (the health of the people), te hauora o te taiao (health of the environment) and te hauora o te wai (the health of the waterbody) to the forefront of freshwater management.

Te Mana o te Wai has three key functions:

1. it is a korowai (cloak) or overarching statement associating the values relating to a particular waterbody and freshwater management unit;
2. it provides a platform for tangata whenua and the community to collectively express their values for freshwater; and
3. it aligns management tools with values and aspirations to maintain and improve both water quality and quantity.

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<sup>1</sup> Being Policies A1, A2, A3, B1, B2, B5, B6, CA1, CA2, CA3 and CA4 of the NPSFM.

Te Mana o te Wai is influenced by five key factors:

1. the values that are determined for the waterbody and how they are weighed locally;
2. the current state of the waterbody;
3. the timeframes tangata whenua and the community establish to achieve defined objectives, and quality and quantity;
4. the mechanisms and tools used to achieve defined objectives, and quality and quantity states; and
5. the quality and availability of technical information.

The National Policy Statement for Freshwater Management 2014 (as amended in 2017) provides a framework for recognising the national significance of freshwater and Te Mana o te Wai. Te Mana o te Wai is fundamental to the integrated framework for freshwater management in Southland. It provides a way of expressing Southland's aspirations for freshwater, now and into the future.

*Pursuant to Section 86B(1)(a) and (3) of the Resource Management Act 1991 all of the rules in the Proposed Southland Water and Land Plan take immediate legal effect from the date of notification.*

## **Introduction**

### **Purpose of this Plan**

The Southland Water and Land Plan has been developed by the Southland Regional Council under the Resource Management Act 1991 (RMA). This Plan is intended to provide direction and guidance regarding the sustainable use, development and protection of water and land resources in the Southland region. This Plan fits within, and is influenced by an RMA framework of national, regional and local policy documents.

For the avoidance of doubt, no rule in this Plan applies in the coastal marine area.

### **Framework of this Plan and Freshwater Management Units**

The Southland Regional Policy Statement outlines the significant water management issues for the region, and how these issues should be managed. This includes directions to prepare, implement and administer a regional plan for the management of water quality and quantity, and protection of certain values of lakes, rivers and wetlands.

The National Policy Statement for Freshwater Management 2014 (NPSFM, as amended in 2017) also sets out a framework for managing water quality and water quantity. It includes requirements to: protect the life-supporting capacity of water; maintain water quality and improve it where it is degraded; and avoid over-allocating water.

The NPSFM includes a requirement to define the water bodies to be managed, and set outcomes, limits, targets and other measures to achieve those outcomes. In accordance with this framework, the Southland region has been divided into five catchments, which stretch from the mountains to the estuaries and sea at the bottom of these catchments. These are the Freshwater Management Units (FMU) for the purposes of the NPSFM.

This Plan outlines objectives, policies and rules that apply to the whole of the region. Through the FMU limit setting process, freshwater objectives, policies, limits and rules will be developed for each FMU. These will be tailored to respond to the pressures faced within each particular catchment. As the FMU limit setting process proceeds, the region-wide objectives, policies and rules in the Plan may be added to or replaced by the freshwater objectives, policies, limits and rules specific to each FMU. The Southland Regional Council intends to complete its FMU limit setting programme by December 2025.

While Objectives 1 to 18 are objectives relating to the management of freshwater, they are not freshwater objectives established in accordance with Section CA2 of the NPSFM. Freshwater objectives established in accordance with Section CA2 of the NPSFM will be developed under the Southland Regional Council's Freshwater Management Unit process, in time, in accordance with the Southland Regional Council's Progressive Implementation Programme.

The New Zealand Coastal Policy Statement 2010 (NZCPS) also contains a number of policies that, while targeted to the coastal environment, have implications for water quality management throughout the region, due to the connection between freshwater and coastal waterbodies.

## Partnership between the Southland Regional Council and Ngāi Tahu ki Murihiku

As tangata whenua of Murihiku (which includes the Southland region), Ngāi Tahu share a strong connection to the natural environment (including lands, coasts, water, air and biodiversity) of the area.

Kaitiakitanga is central to Ngāi Tahu and is key to their mana whenua. By exercising kaitiakitanga, Ngāi Tahu ki Murihiku actively work to ensure that spiritual, cultural and mahinga kai values are upheld and sustained for future generations. Kaitiakitanga in this context includes ensuring the protection, restoration and enhancement of the productivity and life-supporting capacity of mahinga kai, indigenous biodiversity, air, water, land, natural habitats and ecosystems, and all other natural resources valued by Ngāi Tahu ki Murihiku.

Ngāi Tahu have a tribal council, Te Rūnanga o Ngāi Tahu, which is made up of 18 papatipu rūnanga who hold the rights and responsibilities to defined areas of land and waters within the takiwā (area) of Ngāi Tahu. The following four papatipu rūnanga in Murihiku are the principal mana whenua and kaitiaki (guardian) for the Southland region:

- Waihōpai Rūnaka;
- Te Rūnanga o Ōraka-Aparima;
- Hokonui Rūnaka;
- Te Rūnanga o Awarua.

The Southland Regional Council and these four papatipu rūnanga have an enduring and legitimate relationship, established over many years. The Southland Regional Council is an active participant and signatory to a Charter of Understanding – He Huaraki mā Ngā Uri Whakatupu in place between the southern councils and Ngāi Tahu ki Murihiku. The Charter sets out the basis and conduct of the councils and rūnanga in the context of the RMA and the agreed common goal of *"the sustainable management of the region's environment and for the social, cultural, economic and environmental wellbeing of the community, for now and into the future"*.

The Charter provides for an ongoing relationship to assist in developing the capacity of Māori to contribute to the decision-making processes. Additionally, the RMA has specific obligations for regional councils regarding kaitiakitanga, the principles of the Treaty of Waitangi, Māori in decision making and the relationship between Māori and their culture and their traditions with their ancestral lands, water, sites, wāhi tapu and other taonga (a treasure of the people, a sacred place).

For Ngāi Tahu, the management of the natural resources in the region is dealt with in a holistic way and the approach taken to the issues that are of significance to iwi (tribe) in this Plan reinforces that approach. There is no specific or separate section in this document that deals with tangata whenua matters. Rather, tangata whenua themes and issues have been integrated through this Plan to reinforce the Ngāi Tahu philosophy of *ki uta ki tai* (from mountains to sea).

Water, and land, like all things in the natural world, are seen by Māori as having the spiritual qualities of mauri and wairua (spiritual dimension). The continued wellbeing of these qualities is dependent on the physical health of the water and land, which in turn affects the mana (integrity, respect, prestige, authority) of the kaitiaki (guardian). These spiritual qualities can both be adversely affected by activities such as taking and using water, discharges of contaminants to land and water, the diversion of water from one catchment to another, and the clearance of vegetation, wetlands and drains.

The principal elements identified as being of importance to tangata whenua in relation to water bodies and land include:



- ***Mauri and wairua*** - Protection of the mauri and wairua of rivers, lakes and wetlands;
- ***Mahinga kai*** - Adverse effects on mahinga kai and harvested aquatic species, including tuna (eel), kana kana (lamprey), inanga (whitebait), waikōura (freshwater crayfish), waikākahi (freshwater mussels) and wātakirihi (watercress);
- ***Wāhi tapu and other taonga*** - The protection of wāhi tapu and areas or resources associated with water and the beds of rivers and lakes that are of special significance;
- ***Special significance of particular waterbodies and Ngāi Tahu landscapes*** - Recognition of the special significance of particular rivers and lakes to iwi and the aspirations of iwi to develop, use and protect water.

Particular rivers, wetlands, springs and lakes have special significance to Ngāi Tahu as their identity is inextricably linked to those locations and surrounding lands and mountains. These areas accommodate and sustain specific uses and values that cannot be relocated to other locations.

## **Treaty of Waitangi**

The Ngāi Tahu Claims Settlement Act was passed in 1998 and put into effect the terms and redress package agreed to by Ngāi Tahu and the Crown to mitigate and remedy breaches of the Treaty of Waitangi. The Act includes several mechanisms specifically designed to be used in implementing other legislation such as the RMA and Fisheries Act 1996. These mechanisms legally recognise the importance of natural resources to Ngāi Tahu.

This Act sets out areas required to be recognised for various purposes when dealing with issues under the RMA and consequently this Plan. These areas are known as statutory acknowledgement areas, tōpuni features (landscape features of special importance or value), nohoanga, mahinga kai, and taonga species of plants, and animals. Appendix B sets out the full details of each of these.

## **Mahinga Kai**

Mahinga kai is central to the Ngāi Tahu ki Murihiku way of life and a principal component of environmental management. Mahinga kai is about the customary gathering of food and natural materials, the health of the resource and its associated habitat, and the places where those resources are gathered.

## **Whenua**

Ngāi Tahu cultural landscapes, nohoanga, tribal properties and Māori lands maintain continuity between the past, the present and the future, binding Ngāi Tahu to the whenua. Respect for the places that are important to Ngāi Tahu includes actively managing uses and activities on those lands. Reconnection with lands through access and customary use recognises the mana of Ngāi Tahu on the landscape, and restores the ability of Ngāi Tahu to give practical effect to kaitiaki (guardian) responsibilities.

## **Mātaitai and taiāpure**

Mātaitai reserves and taiāpure are part of the suite of management tools created under Part IX of the Fisheries Act 1996. Mātaitai are designed to give effect to the Treaty of Waitangi Fisheries Claims Settlement Act 1992 by developing policies to help recognise use and management practices of Māori in the exercise of non-commercial fishing rights. The tools provide practical recognition of the rights guaranteed to tangata whenua under the Treaty of Waitangi.

While mātaitai are predominantly in coastal marine areas legislatively there can be freshwater mātaitai. Within Southland, mātaitai comprise of coastal and inland areas with the Maitai River Mātaitai Reserve being the first freshwater mātaitai in New Zealand. The quality and quantity of freshwater, and the use of land, have direct and indirect effects on the regulations of all mātaitai and on the customary rights of Ngāi Tahu.

## Statutory Context of the Plan

This Plan fits within a framework of national, regional and local resource management policies. As such, the following documents have influenced the provisions of this Plan.

### The Resource Management Act

The purpose of the Resource Management Act 1991 (RMA) is to promote the sustainable management of natural and physical resources. The RMA requires that all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall:

- recognise and provide for the specified matters of national importance listed in Section 6;
- have particular regard to the other matters listed in Section 7; and
- take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi).

Under Sections 13, 14 and 15 of the Resource Management Act 1991, many activities involving the beds of lakes and rivers, water or water bodies, and the discharge of contaminants into water can only occur if they are expressly allowed by a rule in a regional plan, or by a resource consent.

Section 30 of the RMA gives regional councils specific functions relating the control of the use of any land (including the beds of lakes and rivers) for the purposes of soil conservation, water quality, water quantity and the maintenance of ecosystems in waterbodies, the avoidance or mitigation of natural hazards. Regional councils also have functions relating to controlling the planting of plants in the beds of lakes and rivers, the maintenance of indigenous biological diversity and the integration of strategic infrastructure and land use.

### National Policy Statements and New Zealand Coastal Policy Statements

Under the Section 67(3) of the RMA, a regional plan must give effect to any operative national policy statement. There are currently four operative National Policy Statements and one operative New Zealand Coastal Policy Statement:

- ***National Policy Statement for Freshwater Management 2014 (as amended in 2017)***

This National Policy Statement sets out objectives and policies that direct local government to manage water in an integrated and sustainable way, while providing for economic growth within set water quantity and quality limits. The NPSFM aims to improve freshwater management at a national level to address the over-allocation of water in catchments for abstraction or discharges. This Plan, and the processes established for Freshwater Management Units, gives effect to the NPSFM.

- ***National Policy Statement for Renewable Electricity Generation 2011***

This National Policy Statement sets out objectives and policies for renewable electricity generation. It ensures a consistent approach to planning for renewable electricity generation in New Zealand. It gives clear government direction on the benefits of renewable electricity generation and requires all councils to make provision for it in their plans.

- **National Policy Statement on Urban Development Capacity 2016**

This National Policy Statement sets out objectives and policies to provide direction on planning for urban environments. It recognises the national significance of well-functioning urban environments, with particular focus on ensuring local authorities enable growth and change in response to the changing needs of communities and provide sufficient space for housing and business.

- **National Policy Statement on Electricity Transmission 2008**

This National Policy Statement sets out the objective and policies that confirm the national significance of, and benefits of, the National Grid. It establishes a consistent approach to operation, maintenance, upgrade and development of the National Grid, and the management of adverse effects of, and on, the National Grid. It also includes a requirement for regional councils to include objectives, policies and methods to facilitate long-term planning for investment in transmission infrastructure and its integration with land uses.

- ***New Zealand Coastal Policy Statement 2010***

This National Policy Statement sets out objectives and policies which promote the sustainable management of the natural and physical resources of the coastal environment, including coastal land, foreshore and seabed, and coastal waters from the high tide mark to the 12 nautical mile limit. Given the physical geography of the Southland region, which includes an extensive range of estuaries, coastal lagoons, and coastal wetlands, the NZCPS is highly relevant to this Plan. The Plan's provisions and the processes established for Freshwater Management Units seek to manage the water quality and quantity of the upstream waterbodies, to give effect to the NZCPS.

## **Regional Policy Statement**

Under the Section 67(3) of the RMA, a regional plan must give effect to the relevant regional policy statement.

- ***Southland Regional Policy Statement 2017***

The Southland Regional Policy Statement guides resource management policy and practice in Southland. It provides a framework on which to base decisions regarding the management of the region's natural and physical resources, gives an overview of the significant resource management issues facing Southland, including issues of significance to tangata whenua, and includes objectives, policies and methods to resolve any identified issues.

## **National Environmental Standards**

National Environmental Standards are regulations issued under Section 43 of the RMA and apply nationally. National environmental standards can prescribe technical standards, methods or other requirements for environmental matters. Each regional, city or district council must enforce the same standard. In some circumstances, councils can impose stricter standards. There are currently six National Environmental Standards relevant to this Plan:

- ***National Environmental Standard for Sources of Human Drinking Water***

The purpose of the National Environmental Standard for Sources of Human Drinking Water is to reduce the risk of human drinking water sources becoming contaminated. It requires regional councils to ensure that effects of activities on drinking water sources are considered in decisions on resource consents and in regional plans.

- ***National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health***

The purpose of the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health is to provide a nationally consistent set of planning controls and soil contaminant values. It ensures that land affected by contaminants in soil is appropriately identified and assessed before it is developed, and if necessary the land is remediated, or the contaminants contained to make the land safe for human use.

- ***National Environmental Standards for Air Quality 2004***

The purpose of the National Environmental Standards for Air Quality is to set a guaranteed minimum level of health protection for all New Zealanders. The regulations include standards for banning specified activities, ambient outdoor air quality standards, a design standard for new wood burners in urban areas and a requirement for large landfills to collect greenhouse gas emissions.

- ***National Environmental Standards for Telecommunication Facilities 2016***

The purpose of the National Environmental Standards for Telecommunication Facilities is to provide consistent planning requirements for the deployment of telecommunications infrastructure across New Zealand while ensuring that the effects on the environment are minimised and managed appropriately.

- ***National Environmental Standards for Electricity Transmission Activities 2009***

The purpose of the National Environmental Standards for Electricity Transmission Activities is to provide a nationally consistent regulatory framework for existing National Grid transmission lines, including regulations that establish consenting requirements for their operation, maintenance and upgrading.

- ***National Environmental Standards for Plantation Forestry 2017***

The purpose of the National Environmental Standards for Plantation Forestry is to maintain or improve the environmental outcomes associated with plantation forestry activities and to increase the certainty and efficiency in the management of those activities. The regulations permit core forestry activities including afforestation, earthworks and harvesting provided there are no significant adverse environmental effects.

**Note:** *This list of applicable National Policy Statements and National Environmental Standards was current at January 2018. Please see the Ministry for the Environment's website for any updates.*

This Plan should be read in conjunction with these documents, as well as the Southland Regional Coastal and Air Plans, and the District Plans of Gore District, Invercargill City, and Southland District Councils.

## **Water Conservation Orders**

Water conservation orders recognise the outstanding amenity or intrinsic values of waterbodies, and are the strongest form of protection of water under the RMA. A water conservation order can prohibit or restrict a regional council issuing new water and discharge permits. Regional policy statements, regional plans and district plans must not be inconsistent with the provisions of a water conservation order.

The approach taken in this Plan is not inconsistent with the Water Conservation Order (Mataura River) 1997 and the Water Conservation Order (Ōreti River) 2008. Plan provisions, where relevant, recognise the requirements of these orders. Plan users should refer directly to these water conservation orders if they propose to carry out any activities which may impact on the rates of flow in the Mataura or Waikaia River; to dam or affect fish passage in the main stem or tributaries of the Mataura, Waikaia or Ōreti Rivers; or discharge to any of these waters.

## Issues

### Water Quality

Water is a fundamental resource. The Southland economy is based on rural production and servicing, fisheries, tourism, energy production and industrial processing, all of which rely on the availability of good quality water. Water quality is a key factor in the ecological health of waterbodies, influencing which species are present. The mauri of a waterbody is affected by water quality. Many people recreate in or near Southland's waterbodies, including swimming, white baiting, duck hunting, fishing, walking or tramping and boating activities.

Southland's main catchments end with estuaries and its smaller catchments can end with estuaries, freshwater lakes, coastal lagoons or coastal lakes, which are all particularly sensitive to nutrient and sediment loads. Degraded estuary, lagoon and lake water quality and habitats are particularly difficult and expensive to reverse. This highlights the importance of maintaining good water quality in upstream rivers.

Adverse effects on water quality result from point source discharges and non-point source discharges. Over the past two decades, adverse effects from point source discharges have been reduced, largely through resource consenting processes for urban activities. However, they still contribute significant levels of contaminants to waterbodies and there is therefore a need for continuous improvement. The most significant point source discharges are the major industrial and municipal discharges to the Lower Mataura and Ōreti Rivers and tributaries, with a number of smaller point source discharges scattered around the more developed parts of the region.

Non-point source discharges, such as stormwater in towns and leaching of contaminants from rural activities, are generally caused by rainwater carrying contaminants over or through the ground to surface waterbodies or groundwater, or by bank and bed erosion. To date, there has been little regulatory management of non-point source discharges from rural activities, which cumulatively contribute significant amounts of contaminants to waterbodies. Despite some improvements being made, non-point source discharges from agricultural land are the most significant contributors of contaminants. Other types of land use, including industrial, urban, forestry, some landfills and horticulture also contribute contaminants.

Land use intensification also tends to increase the amount of contaminants entering water therefore requiring appropriate mitigations to be put in place to ensure water quality can be maintained or improved over time when intensification occurs.

### Water Quantity

Water has a range of values, both instream and for abstraction and use. Historically, Southland has had an abundance of water, with modest limits on use being appropriate. However, more recently there has been increasing demand for the use of water for a variety of activities, and an improved understanding of the linkage between water quantity and quality. The primary allocation thresholds in this Plan are therefore intended to be precautionary, with fixed allocation limits to be developed and implemented within the FMU sections of this Plan over time.

## Surface Water

Rivers, lakes and wetlands support a range of instream values that are largely sustained by a sufficient quantity and quality of water. Out-of-stream uses, such as the abstraction, damming and diversion of surface water, can reduce water quantity and alter flow regimes in waterbodies, which can have a number of adverse effects on instream values, including reducing water quality and aquatic habitat, diminishing natural character, amenity, aesthetic and landscape values and impacting on recreational and cultural values and fisheries and harvesting. These effects can be particularly significant during summer when rainfall is less, river levels are low, and the demand for water is at a peak. This can lead to a conflict between instream values and out-of-stream values, and between users.

In terms of surface water allocation, as at March 2015 more than 50% of the primary surface water allocation thresholds had been allocated in the majority of the region. The Waiau catchment is fully allocated as a result of the Manapōuri hydro-electric generation scheme, which uses water in the Fiordland and Waiau catchments for the generation of renewable energy. The resulting flow regime is highly modified, particularly below the Manapōuri Lake Control Structure (Mararoa weir), whilst supporting a range of biological, recreational, landscape, amenity and other community values.

## Groundwater

Southland has considerable groundwater resources, occurring in aquifers over wide areas and at varying depths, both in shallow river gravel deposits and in deeper sedimentary rock.

Abstracting groundwater may result in a number of adverse effects including depleting aquifer storage volumes and reducing groundwater availability, interfering with existing bore yields, diminishing surface water flows, and collapsing coastal aquifers and sink holes. The significance of these effects depends on the volume and rate of abstraction and on the characteristics of the aquifer. In addition to abstraction, aquifer levels are influenced by changing land use, land drainage development and rainfall patterns.

Due to the hydraulic connection between ground and surface water resources, consideration of the impact of groundwater abstraction on surface water is important, particularly those waterbodies subject to a water conservation order.

As at March 2015, less than 50% of the groundwater primary allocation thresholds had been allocated in the majority of the region. Some aquifers are fully allocated in terms of the primary allocation thresholds or close to this point.

## Soil Resources

Soil resources are fundamental to the region's primary production economy, and can assist in maintaining or enhancing water quality and supporting human health, cultural, social and economic activities.

Discharges onto or into land can carry contaminants, including heavy metals, hydrocarbons and biological contaminants, that can create adverse effects on the quality and/or structure of the soil resource. Conversely, some contaminants, when applied appropriately, can have positive effects on the soil resource and plant growth, such as fertilisers and agricultural effluent.

Inappropriate land use or land management practices may adversely affect soil quality and structure, including through erosion and soil compaction.



## River and Lake Beds

River beds (including beds of streams and modified watercourses) and lake beds have a wide variety of values, including natural, ecological, cultural and spiritual values, with rivers and lakes used for a range of recreational and cultural activities, including walking, fishing, game bird hunting, boating, and food gathering. Southland's braided river beds are a nationally significant habitat for braided river birds, being a national stronghold for the threatened black billed gull and important for the threatened black fronted tern and banded dotterel. The use and development of river beds and lake beds also has value for economic, social and community health and safety reasons, which can be broken down into two main categories:

- activities that involve structures, such as bridges, culverts, dams, weirs, pipes, cables, boat ramps, jetties, moorings and flood and erosion control works; and
- activities that disturb the bed, such as gravel extraction, channel realignment, construction activities, vegetation planting and removal, and vehicle and stock access.

Some of these activities can have positive effects on the natural environment, for example, bridges and culverts allow access across a river without disturbing the bed. Others have important economic and social benefits, for example, erosion control works protect community assets. However, activities in the beds of rivers and lakes can also have adverse effects on the environment, including generating sediment, disturbing habitat and preventing fish passage.

## Indigenous Biodiversity

Indigenous biodiversity covers native flora and fauna in both dryland and wetland environments. Southland contains a variety of ecosystems and habitats, including indigenous vegetation, wetlands, lakes, and rivers. Indigenous plants and animals are an integral part of the natural character values of the region, and in addition to their intrinsic value, plants and animals are significant for cultural, economic, scientific and educational reasons, biological diversity and provision of ecosystem services. The region contains a number of significant and distinctive ecosystems, including the network of culturally and ecologically significant river mouths, estuaries and lagoons, the largely unmodified alpine environments, particularly of Fiordland, extensive high country, and many lakes and wetlands that provide nationally and internationally significant bird habitat.

There continues to be substantial impacts on ecosystems and losses of significant indigenous biodiversity for a variety of reasons. The most significant losses in indigenous habitat and biodiversity have occurred in lowland and coastal environments where most of the original indigenous vegetation has been lost.

Ngāi Tahu, as tāngata whenua, have a significant interest in the protection, management and restoration of indigenous ecosystems and biodiversity. This stems from their close interaction with Southland's indigenous biodiversity over centuries of occupation and the importance of it in Māori culture, including its significance as mahinga kai and taonga species.

Wetlands are a vital link between land and water and include permanently and intermittently wet areas, shallow water, and margins that support a natural ecosystem of plants and animals adapted to wet conditions. They provide important hydrological functions and ecosystem services such as filtering contaminants from water and soils. They are also an important natural and cultural resource, rich in biodiversity and important sources of mahinga kai.

Wetlands were once more prevalent, with Southland having lost approximately 90% of its wetlands in developed areas, including from hill and high country. Many remaining wetlands are on publicly held land and afforded some level of protection. Other wetlands are on private land and little is known about their health, values and use. Land use change leads to conflict between productive use of land, including wet areas, and protecting habitats and biodiversity.

The Awarua Wetlands, comprising of Awarua Bay and Waituna Lagoon, are one of the largest remaining wetland complexes in Southland and are important for their biological diversity and cultural values. The wetlands are officially recognised on the Ramsar Convention on Wetlands List of Wetlands of International Importance. The Awarua site includes four major wetland types: coastal lagoons (notably Waituna Lagoon), freshwater swamps, extensive peatlands, and estuaries.

Each ecosystem is unique and maintained by different ecological processes. Awarua Wetlands is frequented by diverse trans-equatorial migrating and wading bird species, as well as threatened plants and insects including sub-alpine species.

## Physiographic Zones

Southland's physiographic zones have been developed at a regional scale to better understand our region's water, how it moves across the landscape and why water quality is better in some places than others.

Scientists have divided Southland into nine physiographic zones. Each zone represents areas of the landscape with common attributes that influence water quality, such as climate, topography, geology and soil type. Zones differ in the way sediment, microbes (e.g. *E.coli*) and nutrients, such as nitrogen and phosphorus, build up and move through the soil, aquifers (areas of groundwater) and into our rivers and streams.

### Alpine

The Alpine physiographic zone includes all land above 800 metres elevation, and is mainly found in northern and western parts of Southland. This zone is characterised by steep slopes with thin soils or bare bedrock. Its high elevation results in high snowfall and rainfall, which provides large volumes of pristine water to downstream physiographic zones. Overland flow (surface runoff) is the key transport pathway, however contaminant loss is limited due to low intensity of land use.

Key transport pathway for contaminants:

- **Overland flow** – nitrogen, phosphorus, sediment and microbes to rivers.

### Central Plains

The Central Plains physiographic zone extends across flat to gently undulating terraces in the lower reaches of the Aparima and Ōreti catchments in Central Southland. This zone has many small streams and has an extensive underlying aquifer system. Soils are characteristically rich in clay, which means they swell when wet and crack when dry. When soils are wet, contaminants move quickly through artificial drainage networks to surface waterways. When soils are dry, cracks allow water and contaminants to rapidly drain down through the soil to groundwater.

Key transport pathways for contaminants:

- **Artificial drainage** – nitrogen, phosphorus, sediment and microbes to rivers;
- **Deep drainage** – nitrogen to aquifers.

### Gleyed

The Gleyed physiographic zone extends across flat to gently undulating land across the plains of both northern and southern Southland. It is generally found in areas that were once wetlands, has a dense network of streams and has a high water table during winter. Soils are prone to waterlogging and have some denitrification ability, which reduces build-up of soil nitrogen. However, an extensive network of artificial drainage rapidly transports contaminants to surface water, particularly during heavy rain. The zone also has an overland flow or (o) variant, which means that in parts of the zone overland flow is also a key transport pathway for contaminants.

Key transport pathways for contaminants:

- **Artificial drainage** – nitrogen, phosphorus, sediment and microbes to rivers;
- **Overland flow (in some parts of the zone - (o) variant)** – nitrogen, phosphorus, sediment and microbes to rivers and streams.

## Bedrock/Hill Country

The Bedrock/Hill Country physiographic zone is the largest in the Southland Region, covering half the mapped area (approximately 1.6 million hectares). It is characterised by rolling to steep land below 800 metres elevation. This zone has high rainfall due to elevation, which results in a dense network of streams that flow to lowland areas. This zone contains an overland flow or (o) variant, as well as an artificial drainage or (a) variant, which means that in some parts of the zone, overland flow is a key transport pathway, and in some parts variant which are areas within a zone where either overland flow or artificial drainage is the key contaminant transport pathway. This means that streams in developed areas of these variants are at risk of receiving contaminants from surface runoff and artificial drainage.

Key transport pathways for contaminants:

- **Overland flow (in some parts of the zone - (o) variant)** – nitrogen, phosphorus, sediment and microbes to rivers;
- **Artificial drainage (in some parts of the zone – (a) variant)** – nitrogen, phosphorus, sediment and microbes to rivers.

## Lignite-Marine Terraces

The Lignite-Marine Terraces physiographic zone is distributed along Southland's south coast and in areas of Eastern and Western Southland where the underlying geology has elevated organic carbon (such as lignite or coal). There is little nitrogen build-up in soils and aquifers due to high denitrification potential. Phosphorus build-up in soils is also low where lignite and marine sediments are close to the surface. Like Bedrock/Hill Country, this zone contains an overland flow or (o) variant, as well as an artificial drainage or (a) variant.

Key transport pathways for contaminants:

- **Overland flow (in some parts of the zone - (o) variant)** – nitrogen, phosphorus, sediment and microbes to rivers;
- **Artificial drainage (in some parts of the zone – (a) variant)** – nitrogen, phosphorus, sediment and microbes to rivers.

## Old Matura

The Old Matura physiographic zone is located on the older, high terraces in the Matura catchment. Soils and aquifers in this zone have high risk of nitrogen build-up due to low denitrification potential. The combination of flat land and well drained soils results in high rates of nitrogen leaching (deep drainage) to underlying aquifers. Groundwater in this zone discharges into springs, streams and aquifers in lower parts of the Matura catchment, adding to their contaminant levels.

Key transport pathway for contaminants:

- **Deep drainage** – nitrogen to aquifers.

## Oxidising

The Oxidising physiographic zone is located on intermediate terraces along the margins of major river systems. Many surface waterways draining this unit originate from headwaters in neighbouring physiographic zones. Soils and aquifers in this zone have high risk of nitrogen build-up due to low denitrification potential. The combination of flat land and well drained soils results in high rates of nitrogen leaching (deep drainage) to underlying aquifers. Like Bedrock/Hill Country and Lignite-Marine Terraces, this zone contains an overland flow or (o) variant, as well as an artificial drainage or (a) variant.

Key transport pathways for contaminants:

- **Deep drainage** – nitrogen to aquifers;
- **Overland flow (in some parts of the zone – (o) variant)** – nitrogen, phosphorus, sediment and microbes to rivers;
- **Artificial drainage (in some parts of the zone – (a) variant)** – nitrogen, phosphorus, sediment and microbes to rivers.

## Peat Wetlands

The Peat Wetlands physiographic zone was once extensive across Southland. However, today it accounts for less than 2% of the total land area. This zone is characterised by highly acidic peaty soils and a naturally high water table. Developed areas have an extensive artificial drainage network, comprised of open and mole-pipe drains. There is little nitrogen build-up in soils and aquifers due to high denitrification potential. However, acidic conditions result in elevated concentrations of soluble phosphorus in both soils and aquifers.

Key transport pathways for contaminants:

- **Deep drainage** – phosphorus to aquifers;
- **Artificial drainage** – nitrogen, phosphorus, sediment and microbes to rivers;
- **Lateral drainage** – microbes and phosphorus to rivers.

## Riverine

The Riverine physiographic zone occurs along the margins of Southland's major river systems. Rivers and streams within this zone carry large volumes of pristine alpine water to the coast. However, river water in this zone also contains soil water drainage from adjacent land.

Soil water drains quickly through shallow, stony soils to underlying shallow aquifers, which are highly connected to rivers. This, combined with the low denitrifying potential of soils and aquifers, results in aquifers and adjacent rivers being at risk of nitrogen build-up from soil leaching (deep drainage). Therefore, nitrogen loss from aquifers can contribute significant nitrogen loads to downstream environments. Like Gleyed, this zone has an overland flow or (o) variant.

Key transport pathways for contaminants:

- ***Deep drainage*** – nitrogen to aquifers;
- ***Overland flow (in some parts of the zone - (o) variant)*** - nitrogen, phosphorus, sediment and microbes to rivers.

## Region-wide Objectives

*Note: While Objectives 1 to 18 are objectives relating to the management of freshwater, they are not freshwater objectives established in accordance with Section CA2 of the National Policy Statement for Freshwater Management. Freshwater objectives established in accordance with Section CA2 of the National Policy Statement for Freshwater Management will be developed under Southland Regional Council's Freshwater Management Unit process, in time, in accordance with Southland Regional Council's Progressive Implementation Programme.*

### Objective 1

Land and water and associated ecosystems are sustainably managed as integrated natural resources, recognising the connectivity between surface water and groundwater, and between freshwater, land and the coast.

### Objective 2

Water and land is recognised as an enabler of primary production and the economic, social and cultural wellbeing of the region.

### Objective 3

The mauri of waterbodies provide for te hauora o te tangata (health and mauri of the people), te hauora o te taiao (health and mauri of the environment) and te hauora o te wai (health and mauri of the waterbody).

### Objective 4

Tāngata whenua values and interests are identified and reflected in the management of freshwater and associated ecosystems.

### Objective 5

Ngāi Tahu have access to and sustainable customary use of, both commercial and non-commercial, mahinga kai resources, nohoanga, mātaihai and taiāpure.<sup>2</sup>

### Objective 6

There is no reduction in the overall quality of freshwater, and water in estuaries and coastal lagoons, by:

- (a) maintaining the quality of water in waterbodies, estuaries and coastal lagoons, where the water quality is not degraded; and
- (b) improving the quality of water in waterbodies, estuaries and coastal lagoons, that have been degraded by human activities.

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<sup>2</sup> Mātaihai and taiāpure are defined in the Introduction to the Plan on page 10.

## **Objective 7**

Any further over-allocation of freshwater (water quality and quantity) is avoided and any existing over-allocation is phased out in accordance with freshwater objectives, freshwater quality limits and timeframes established under Freshwater Management Unit processes.

## **Objective 8**

- (a) The quality of groundwater that meets both the Drinking Water Standards for New Zealand 2005 (revised 2008) and any freshwater objectives, including for connected surface waterbodies, established under Freshwater Management Unit processes is maintained; and
- (b) The quality of groundwater that does not meet Objective 8(a) because of the effects of land use or discharge activities is progressively improved so that:
  - (1) groundwater (excluding aquifers where the ambient water quality is naturally less than the Drinking Water Standards for New Zealand 2005 (revised 2008)) meets the Drinking Water Standards for New Zealand 2005 (revised 2008); and
  - (2) groundwater meets any freshwater objectives and freshwater quality limits established under Freshwater Management Unit processes.

## **Objective 9**

The quantity of water in surface waterbodies is managed so that aquatic ecosystem health, life-supporting capacity, outstanding natural features and landscapes and natural character are safeguarded.

## **Objective 9A**

Surface water is sustainably managed to support the reasonable needs of people and communities to provide for their social, economic and cultural wellbeing.

## **Objective 9B**

The effective development, operation, maintenance and upgrading of Southland's regionally significant, nationally significant and critical infrastructure is enabled.

## **Objective 10**

The national importance of existing hydro-electric generation schemes, including the Manapōuri hydro-electric generation scheme in the Waiau catchment, is provided for, recognised in any resulting flow and level regime, and their structures are considered as part of the existing environment.

## **Objective 11**

The amount of water abstracted is shown to be reasonable for its intended use and water is allocated and used efficiently.

## **Objective 12**

Groundwater quantity is sustainably managed, including safeguarding the life-supporting capacity, ecosystem processes and indigenous species of surface water bodies where their flow is, at least in part, derived from groundwater.



### **Objective 13**

Enable the use and development of land and soils to support the economic, social, and cultural wellbeing of the region.

### **Objective 13A**

The quantity, quality and structure of soil resources are not irreversibly degraded through land use activities or discharges to land.

### **Objective 13B**

The discharges of contaminants to land or water that have significant or cumulative adverse effects on human health are avoided.

### **Objective 14**

The range and diversity of indigenous ecosystem types and habitats within rivers, estuaries, wetlands and lakes, including their margins, and their life-supporting capacity are maintained or enhanced.

### **Objective 15**

Taonga species, as set out in Appendix M, and related habitats, are recognised and provided for.

### **Objective 16**

Public access to, and along, river (excluding ephemeral rivers) and lake beds is maintained and enhanced, except in circumstances where public health and safety or significant indigenous biodiversity values are at risk.

### **Objective 17**

The natural character values of wetlands, rivers and lakes and their margins, including channel and bed form, rapids, seasonably variable flows and natural habitats, are protected from inappropriate use and development.

### **Objective 18**

All activities operate in accordance with “good management practice” or better to optimise efficient resource use, safeguard the life supporting capacity of the region’s land and soils, and maintain or improve the quality and quantity of the region’s water resources.

## Region-wide Policies

The Policies of this Plan implement the Objectives and must be read in their entirety and considered together.

### Ngāi Tahu Policies

#### **Policy 1 – Enable papatipu rūnanga to participate**

Enable papatipu rūnanga<sup>3</sup> to effectively undertake their kaitiaki (guardian/steward) responsibilities in freshwater and land management through the Southland Regional Council:

1. providing copies of all applications that may affect a Statutory Acknowledgement area, tōpuni (landscape features of special importance or value), nohoanga, mātaimai or taiāpure to Te Rūnanga o Ngāi Tahu and the relevant papatipu rūnanga;
2. identifying Ngāi Tahu interests in freshwater and associated ecosystems in Murihiku (includes the Southland Region); and
3. reflecting Ngāi Tahu values and interests in the management of and decision-making on freshwater and freshwater ecosystems in Murihiku (includes the Southland Region), consistent with the Charter of Understanding.

#### **Policy 2 – Take into account iwi management plans**

Any assessment of an activity covered by this Plan must:

1. take into account any relevant iwi management plan; and
2. assess water quality and quantity, taking into account Ngāi Tahu indicators of health.

#### **Policy 3 – Ngāi Tahu ki Murihiku taonga species**

To manage activities that adversely affect taonga species, identified in Appendix M.

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<sup>3</sup> Papatipu rūnanga are defined in the Introduction to the Plan on page 9.

## **Physiographic Zone Policies**

### **Policy 4 – Alpine**

In the Alpine physiographic zone, avoid, remedy, or mitigate erosion and adverse effects on water quality from contaminants, by:

1. requiring implementation of good management practices to manage erosion and adverse effects on water quality from contaminants transported via overland flow;
2. having particular regard to adverse effects of contaminants transported via overland flow when assessing resource consent applications and preparing or considering Farm Environmental Management Plans; and
3. prohibiting dairy farming and intensive winter grazing, and decision makers generally not granting resource consents for cultivation.

### **Policy 5 – Central Plains**

In the Central Plains physiographic zone, avoid, remedy, or mitigate adverse effects on water quality from contaminants, by:

1. requiring implementation of good management practices to manage adverse effects on water quality from contaminants transported via artificial drainage and deep drainage;
2. having particular regard to adverse effects on water quality from contaminants transported via artificial drainage and deep drainage when assessing resource consent applications and preparing or considering Farm Environmental Management Plans; and
3. decision makers generally not granting resource consents for additional dairy farming of cows or additional intensive winter grazing where contaminant losses will increase as a result of the proposed activity.

### **Policy 6 – Gleyed, Bedrock/Hill Country and Lignite-Marine Terraces**

In the Gleyed, Bedrock/Hill Country and Lignite-Marine Terraces physiographic zone, avoid, remedy, or mitigate adverse effects on water quality from contaminants, by:

1. requiring implementation of good management practices to manage adverse effects on water quality from contaminants transported via artificial drainage, and overland flow where relevant; and
2. having particular regard to adverse effects on water quality from contaminants transported via artificial drainage, and overland flow where relevant when assessing resource consent applications and preparing or considering Farm Environmental Management Plans.

### **Policy 9 – Old Maita**

In the Old Maita physiographic zone, avoid, remedy, or mitigate adverse effects on water quality from contaminants, by:

1. requiring implementation of good management practices to manage adverse effects on water quality from contaminants transported via deep drainage;

2. having particular regard to adverse effects on water quality from contaminants transported via deep drainage when assessing resource consent applications and preparing or considering Farm Environmental Management Plans; and
3. decision makers generally not granting resource consents for additional dairy farming of cows or additional intensive winter grazing where contaminant losses will increase as a result of the proposed activity.

### **Policy 10 – Oxidising**

In the Oxidising physiographic zone, avoid, remedy, or mitigate adverse effects on water quality from contaminants, by:

1. requiring implementation of good management practices to manage adverse effects on water quality from contaminants transported via deep drainage, and overland flow and artificial drainage where relevant;
2. having particular regard to adverse effects on water quality from contaminants transported via deep drainage, and overland flow and artificial drainage where relevant when assessing resource consent applications and preparing or considering Farm Environmental Management Plans; and
3. decision makers generally not granting resource consents for additional dairy farming of cows or additional intensive winter grazing where contaminant losses will increase as a result of the proposed activity.

### **Policy 11 – Peat Wetlands**

In the Peat Wetlands physiographic zone, avoid, remedy, or mitigate adverse effects on water quality from contaminants, by:

1. requiring implementation of good management practices to manage adverse effects on water quality from contaminants transported via artificial drainage, deep drainage, and lateral drainage;
2. having particular regard to adverse effects on water quality from contaminants transported via artificial drainage, deep drainage, and lateral drainage when assessing resource consent applications and preparing or considering Farm Environmental Management Plans; and
3. decision makers generally not granting resource consents for additional dairy farming of cows or additional intensive winter grazing where contaminant losses will increase as a result of the proposed activity.

### **Policy 12 – Riverine**

In the Riverine physiographic zone, avoid, remedy, or mitigate adverse effects on water quality from contaminants, by:

1. requiring implementation of good management practices to manage adverse effects on water quality from contaminants transported via deep drainage, and overland flow where relevant;

2. having particular regard to adverse effects on water quality from contaminants transported via deep drainage, and overland flow where relevant when assessing resource consent applications and preparing or considering Farm Environmental Management Plans; and
3. decision makers generally not granting resource consents for additional dairy farming of cows or additional intensive winter grazing where contaminant losses will increase as a result of the proposed activity.

### **Policy 12A – Improved physiographic zone information**

Where site specific information is available that better identifies or delineates the relevant physiographic zones or contaminant loss pathways for a landholding or site, that information must be taken into account when undertaking activities, preparing Farm Environmental Management Plans or when determining resource consent applications for that landholding or site.

## Water Quality

### **Policy A4 of the National Policy Statement for Freshwater Management 2014 (as amended in 2017)**

1. When considering any application for a discharge the consent authority must have regard to the following matters:
  - (a) the extent to which the discharge would avoid contamination that will have an adverse effect on the life-supporting capacity of freshwater including on any ecosystem associated with freshwater; and
  - (b) the extent to which it is feasible and dependable that any more than minor adverse effect on freshwater, and on any ecosystem associated with freshwater, resulting from the discharge would be avoided.
2. When considering any application for a discharge the consent authority must have regard to the following matters:
  - (a) the extent to which the discharge would avoid contamination that will have an adverse effect on the health of people and communities as affected by their contact with freshwater; and
  - (b) the extent to which it is feasible and dependable that any more than minor adverse effect on the health of people and communities as affected by their contact with freshwater resulting from the discharge would be avoided.
3. This policy applies to the following discharges (including a diffuse discharge by any person or animal):
  - (a) a new discharge; or
  - (b) a change or increase in any discharge of any contaminant into freshwater, or onto or into land in circumstances that may result in that contaminant (or, as a result of any natural process from the discharge of that contaminant, any other contaminant) entering freshwater.
4. Paragraph 1 of this policy does not apply to any application for consent first lodged before the National Policy Statement for Freshwater Management 2011 took effect on 1 July 2011.
5. Paragraph 2 of this policy does not apply to any application for consent first lodged before the National Policy Statement for Freshwater Management 2014 takes effect.

### **Policy 13 – Management of land use activities and discharges**

1. Recognise that the use and development of Southland’s land and water resources, including for primary production, enables people and communities to provide for their social, economic and cultural wellbeing.
2. Manage land use activities and discharges (point source and non-point source) to enable the achievement of Policies 15A, 15B and 15C.

### **Policy 14 – Preference for discharges to land**

Prefer discharges of contaminants to land over discharges of contaminants to water, unless adverse effects associated with a discharge to land are greater than a discharge to water. Particular regard shall be given to any adverse effects on cultural values associated with a discharge to water.

### **Policy 15A – Maintain water quality where standards are met**

Where existing water quality meets the Appendix E Water Quality Standards or bed sediments meet the Appendix C ANZECC sediment guidelines, maintain water quality including by:

1. avoiding, remedying or mitigating the adverse effects of new discharges, so that beyond the zone of reasonable mixing, those standards or sediment guidelines will continue to be met; and
2. requiring any application for replacement of an expiring discharge permit to demonstrate how the adverse effects of the discharge are avoided, remedied or mitigated, so that beyond the zone of reasonable mixing those standards or sediment guidelines will continue to be met.

### **Policy 15B – Improve water quality where standards are not met**

Where existing water quality does not meet the Appendix E Water Quality Standards or bed sediments do not meet the Appendix C ANZECC sediment guidelines, improve water quality including by:

1. avoiding where practicable and otherwise remedying or mitigating any adverse effects of new discharges on water quality or sediment quality that would exacerbate the exceedance of those standards or sediment guidelines beyond the zone of reasonable mixing; and
2. requiring any application for replacement of an expiring discharge permit to demonstrate how and by when adverse effects will be avoided where practicable and otherwise remedied or mitigated, so that beyond the zone of reasonable mixing water quality will be improved to assist with meeting those standards or sediment guidelines.

### **Policy 15C – Maintaining and improving water quality after FMU processes**

Following the establishment of freshwater objectives and limits under Freshwater Management Unit processes, and including through implementation of non-regulatory methods, improve water quality where it is degraded to the point where freshwater objectives are not being met and otherwise maintain water quality where freshwater objectives are being met.

### **Policy 16 – Farming activities that affect water quality**

1. Minimising the adverse environmental effects (including on the quality of water in lakes, rivers, artificial watercourses, modified watercourses, wetlands, tidal estuaries and salt marshes, and groundwater) from farming activities by:
  - (a) discouraging the establishment of new dairy farming of cows or new intensive winter grazing activities in close proximity to Regionally Significant Wetlands and Sensitive Waterbodies identified in Appendix A; and
  - (b) ensuring that, in the interim period prior to the development of freshwater objectives under Freshwater Management Unit processes, applications to establish new, or further intensify existing, dairy farming of cows or intensive winter grazing activities will generally not be granted where:
    - (i) the adverse effects, including cumulatively, on the quality of groundwater, or water in lakes, rivers, artificial watercourses, modified watercourses, wetlands, tidal estuaries and salt marshes cannot be avoided or mitigated; or
    - (ii) existing water quality is already degraded to the point of being overallocated; or
    - (iii) water quality does not meet the Appendix E Water Quality Standards or bed sediments do not meet the Appendix C ANZECC sediment guidelines; and

- (c) ensuring that, after the development of freshwater objectives under Freshwater Management Unit processes, applications to establish new, or further intensify existing, dairy farming of cows or intensive winter grazing activities:
    - (i) will generally not be granted where freshwater objectives are not being met; and
    - (ii) where freshwater objectives are being met, will generally not be granted unless the proposed activity (allowing for any offsetting effects) will maintain the overall quality of groundwater and water in lakes, rivers, artificial watercourses, modified watercourses, wetlands, tidal estuaries and salt marshes.
2. Requiring all farming activities, including existing activities, to:
    - (a) implement a Farm Environmental Management Plan, as set out in Appendix N; and
    - (b) actively manage sediment run-off risk from farming and hill country development by identifying critical source areas and implementing practices including setbacks from waterbodies, sediment traps, riparian planting, limits on areas or duration of exposed soils and the prevention of stock entering the beds of surface waterbodies; and
    - (c) manage collected and diffuse run-off and leaching of nutrients, microbial contaminants and sediment through the identification and management of critical source areas within individual properties.
  3. When considering a resource consent application for farming activities, consideration should be given to the following matters:
    - (a) whether multiple farming activities (such as cultivation, riparian setbacks, and winter grazing) can be addressed in a single resource consent; and
    - (b) granting a consent duration of at least 5 years.

### **Policy 16A – Industrial and trade processes that may affect water quality**

Minimise the adverse environmental effects (including on the quality of water in lakes, rivers, artificial watercourses, modified watercourses, wetlands, tidal estuaries, salt marshes and groundwater) by requiring the adoption of the best practicable option to manage the treatment and discharge of contaminants derived from industrial and trade processes.

### **Policy 17 – Agricultural effluent management**

1. Avoid significant adverse effects on water quality, and avoid, remedy, or mitigate other adverse effects of the operation of, and discharges from, agricultural effluent management systems.
2. Manage agricultural effluent systems and discharges from them by:
  - (a) designing, constructing and locating systems appropriately and in accordance with best practice; and
  - (b) maintaining and operating effluent systems in accordance with best practice guidelines; and
  - (c) avoiding any surface run-off or overland flow, ponding or contamination of water, including via sub-surface drainage, resulting from the application of agricultural effluent to pasture; and
  - (d) avoiding the discharge of untreated agricultural effluent to water.

**Note:** *Examples of best practice referred to in Policy 17(2)(a) for agricultural effluent include IPENZ Practice Note 21: Farm Dairy Effluent Pond Design and Construction and IPENZ Practice Note 27: Dairy Farm Infrastructure.*

**Note:** *Examples of best practice guidelines referred to in Policy 17(2)(b) for agricultural effluent include DairyNZ's guidelines A Farmer's Guide to Managing Farm Dairy Effluent*



### **Policy 17A – Community sewerage schemes and on-site wastewater systems**

1. Minimise adverse effects on water quality, and avoid, remedy, or mitigate other adverse effects of the operation of, and discharges from, community sewerage schemes by:
  - (a) designing, operating and maintaining community sewerage schemes in accordance with recognised industry standards; and
  - (b) implementing measures to progressively reduce the frequency and volume of wet weather overflows from community sewerage schemes; and
  - (c) ensuring community sewerage schemes are operated and maintained to minimise the likelihood of dry weather overflows occurring.
2. Avoid the discharge of untreated domestic wastewater to water or onto or into land; and avoid, remedy, or mitigate the adverse effects of discharges from on-site wastewater systems; by:
  - (a) avoiding any surface run-off or overland flow, ponding, or contamination of water from the application of domestic wastewater to land; and
  - (b) designing, locating and maintaining on-site wastewater systems in accordance with Sections 5 and 6 of the New Zealand Standard AS/NZS 1547:2012 On-site Domestic Wastewater Management.

### **Policy 18 – Stock exclusion from waterbodies**

Reduce sedimentation and microbial contamination of water bodies and improve river (excluding ephemeral rivers) and riparian ecosystems and habitats by:

1. requiring progressive exclusion of all stock, except sheep, from lakes, rivers (excluding ephemeral rivers), natural wetlands, artificial watercourses, and modified watercourses on land with a slope of less than 15 degrees by 2030; and
- 2a. requiring the management of sheep in critical source areas and in those catchments where *E.coli* levels could preclude contact recreation; and
3. encouraging the establishment and enhancement of healthy vegetative cover in riparian areas, particularly through use of indigenous vegetation; and
4. ensuring that stock access to lakes, rivers (excluding ephemeral rivers), natural wetlands, artificial watercourses and modified watercourses is managed in a manner that avoids significant adverse effects on water quality, bed and bank integrity and stability, mahinga kai, and river and riparian ecosystems and habitats.

## Water Quantity

### Policy B7 of the National Policy Statement for Freshwater Management 2014 (as amended in 2017)

1. When considering any application the consent authority must have regard to the following matters:
  - (a) the extent to which the change would adversely affect safeguarding the life-supporting capacity of freshwater and of any associated ecosystem; and
  - (b) the extent to which it is feasible and dependable that any adverse effect on the life-supporting capacity of freshwater and of any associated ecosystem resulting from the change would be avoided.
2. This policy applies to:
  - (a) any new activity; and
  - (b) any change in the character, intensity or scale of any established activity; that involves any taking, using, damming or diverting of freshwater or draining of any wetland, which is likely to result in any more than minor adverse change in the natural variability of flows or level of any freshwater, compared to that which immediately preceded the commencement of the new activity or the change in the established activity (or in the case of a change in an intermittent or seasonal activity, compared to that on the last occasion on which the activity was carried out).
3. This policy does not apply to any application for consent first lodged before the National Policy Statement for Freshwater Management 2011 took effect on 1 July 2011.

### Policy 20 – Management of water resources

Manage the taking, abstraction, use, damming or diversion of surface water and groundwater so as to:

- 1A. recognise that the use and development of Southland’s land and water resources, including for primary production, can have positive effects including enabling people and communities to provide for their social, economic and cultural wellbeing;
1. avoid, remedy or mitigate adverse effects from the use and development of surface water resources on:
  - (a) the quality and quantity of aquatic habitat, including the life supporting capacity and ecosystem health and processes of waterbodies;
  - (b) natural character values, natural features, and amenity, aesthetic and landscape values;
  - (c) areas of significant indigenous vegetation and significant habitats of indigenous fauna;
  - (d) recreational values;
  - (e) the spiritual and cultural values and beliefs of tangata whenua;
  - (f) water quality, including temperature and oxygen content;
  - (g) the reliability of supply for lawful existing surface water users, including those with existing, but not yet implemented, resource consents;
  - (h) groundwater quality and quantity;
  - (j) mātaītai, taiāpure and nohoanga;
2. avoid, remedy or mitigate significant adverse effects from the use and development of groundwater resources on:
  - (a) long-term aquifer storage volumes;

- (b) the reliability of supply for lawful existing groundwater users, including those with existing, but not yet implemented, resource consents;
  - (c) surface water flows and levels, particularly in spring-fed streams, natural wetlands, lakes, aquatic ecosystems and habitats (including life supporting capacity and ecosystem health and processes of waterbodies) and their natural character; and
  - (d) water quality;
3. ensure water is used efficiently and reasonably by requiring that the rate and volume of abstraction specified on water permits to take and use water are no more than reasonable for the intended end use following the criteria established in Appendix O and Appendix L.4.

### **Policy 21 – Allocation of water**

Manage the allocation of surface water and groundwater by:

1. determining the primary allocation for confined aquifers not identified in Appendix L.5, following the methodology established in Appendix L.6;
2. determining that a waterbody is fully allocated when the total volume of water allocated through current resource consents and permitted activities is equal to either:
  - (a) the maximum amount that may be allocated under the rules of this Plan, or
  - (b) the provisions of any water conservation order;
3. enabling secondary allocation of surface water and groundwater subject to appropriate surface water environmental flow regimes, minimum lake and wetland water levels, minimum groundwater level cutoffs or seasonal recovery triggers, to ensure:
  - (a) long-term aquifer storage volumes are maintained; and
  - (b) the reliability of supply for existing groundwater users (including those with existing resource consents for groundwater takes that have not yet been implemented) is not adversely affected;
4. when considering levels of abstraction, recognise the need to exclude takes for non-consumptive uses that return the same amount (or more) water to the same aquifer or a hydraulically connected lake, river, modified watercourse or natural wetland.

### **Policy 22 – Management of the effects of groundwater and surface water use**

Manage the effects of surface and groundwater abstractions by:

1. avoiding allocating water to the extent that the effects on surface water flow would not safeguard the mauri of that waterway and mahinga kai, taonga species or the habitat of trout and salmon;
2. ensuring interference effects are acceptable, in accordance with Appendix L.3;
3. utilising the methodology established in Appendix L.2 to:
  - (a) manage the effects of consented groundwater abstractions on surface waterbodies; and
  - (b) assess and manage the effects of consented groundwater abstractions in groundwater management zones other than those specified in Appendix L.5.

### **Policy 23 – Stream depletion effects**

Manage stream depletion effects resulting from groundwater takes which are classified as having a Riparian, Direct, High or Moderate hydraulic connection, as set out in Appendix L.2 Table L.2, to ensure the cumulative effect of those takes does not:

1. exceed any relevant surface water allocation regime (including those established under any water conservation order) for groundwater takes classified as Riparian, Direct, High or Moderate hydraulic connection; or
2. result in abstraction occurring when surface water flows or levels are less than prescribed minimum flows or groundwater levels for takes classified as Riparian, Direct or High hydraulic connection.

### **Policy 24 – Water abstraction for community water supply**

Recognise the need for, and assign priority to, the provision of water for community water supply when allocating water:

1. provided that significant adverse effects on the following are avoided as a first preference, and if unable to be avoided, are mitigated or remedied:
  - (a) the quality and quantity of aquatic habitat, including the life supporting capacity and ecosystem health and processes of waterbodies;
  - (b) natural character values, natural features, and amenity, aesthetic and landscape values;
  - (c) areas of significant indigenous vegetation and significant habitats of indigenous fauna;
  - (d) recreational values;
  - (e) the spiritual and cultural values and beliefs of the tangata whenua;
  - (f) water quantity and quality;
  - (g) long-term aquifer storage volumes; and
2. provided that a water demand management strategy commensurate to both the scale of the activity and its potential effects is part of any application for:
  - (a) a new or replacement water permit for a community water supply; or
  - (b) an amendment to an existing water permit for a community water supply.

### **Policy 25 – Priority takes**

When issuing a water shortage direction, the Southland Regional Council will give priority to reasonable water abstractions for the following uses (in no particular order):

1. domestic needs, including community water supplies;
2. reasonable animal drinking needs;
- 2a. industries that process perishable foods;
3. fire-fighting purposes;
4. public health needs; and
5. animal welfare needs.

## **Activities that affect water quality and quantity**

### **Policy 26 – Renewable energy**

Recognise and provide for the national and regional significance of renewable electricity generation activities (including the existing Manapōuri hydro-electric generation scheme in the Waiau catchment), the national, regional and local benefits of renewable electricity generation activities, the need to locate the generation activity where the renewable energy resource is available, and the practical constraints associated with its development, operation, maintenance and upgrading, when:

1. allocating surface water for abstraction, damming, diversion and use; and
2. considering all resource consent applications for surface water abstractions, damming, diversion and use.

### **Policy 26A – Infrastructure**

Recognise and provide for the effective development, operation, maintenance and upgrading of regionally significant, nationally significant and critical infrastructure in a way that avoids where practicable, or otherwise remedies or mitigates, adverse effects on the environment.

### **Policy 27 – Bore construction and management**

Require minimum standards for the construction, operation and maintenance of bores and wells.

### **Policy 28 – Structures and bed disturbance activities of rivers (including modified watercourses) and lakes**

Manage structures, bed disturbance activities and associated discharges in the beds and margins of lakes, rivers and modified watercourses, to avoid, remedy or mitigate adverse effects on:

1. water quality and quantity;
2. habitats, ecosystems and fish passage;
3. indigenous biological diversity;
5. the spiritual and cultural values and beliefs of the tangata whenua;
6. mātaihai and taiāpure;
7. public access (except in circumstances where public health and safety are at risk) and amenity values;
8. natural character values and outstanding natural features;
9. river morphology and dynamics, including erosion and sedimentation;
10. flood risk;
11. infrastructural assets;
12. navigational safety; and
13. landscape values.

### **Policy 29 – Provide for the extraction of gravel**

Recognise the value of gravel and provide for its extraction to meet the social, economic and cultural needs of the community in a way that avoids, remedies or mitigates adverse effects on land, groundwater quality, rivers and their margins; and:

1. for river based extractions, requires the restoration of aquatic and riparian habitat once the gravel extraction activity has ceased; and
2. results in no long-term net loss of habitat in the river channel, bed or floodplain; and

- 2a. ensures that the rate and volume of gravel extraction is sustainable; and
3. ensures no degradation of flood protection and erosion control infrastructure and the integrity of physical resources; and
4. does not adversely affect the Ngāi Tahu cultural values and interests associated with the land or river, including taonga species habitat, mahinga kai, mātaītai and taiāpure;<sup>4</sup> and
5. results in no long-term adverse effects on recreational values; and
6. maintains public access (except in circumstances where public health and safety are at risk).

### **Policy 30 – Drainage maintenance**

In recognition of the community benefits of maintaining flood conveyance capacity and land drainage, ensure that drainage maintenance activities within artificial watercourses and the beds of modified watercourses are managed in a way that either:

1. avoids, remedies or mitigates significant adverse effects on the aquatic environment; or
2. maintains or enhances habitat value.

### **Policy 31 – Whitebait stands**

Restrict the allocation of space for whitebait stands in the beds of lakes, rivers and modified watercourses to:

1. stands lawfully existing as of 1 June 2003; or
2. new stands used in lieu of previously lawfully existing stands, but as close as practical to the former site where that site can no longer be used because of either natural alterations to the course of the river, bank erosion or high-water mark alterations.

### **Policy 32 – Protect significant indigenous vegetation and habitat**

Protect significant indigenous vegetation and significant habitats of indigenous fauna associated with natural wetlands, lakes and rivers and their margins.

### **Policy 33 – Adverse effects on natural wetlands**

Prevent the reduction in area, function and quality of natural wetlands, including through drainage, discharges and vegetation removal.

### **Policy 34 – Restoration of existing wetlands, the creation of wetlands and riparian planting**

Recognise the importance of wetlands and indigenous biodiversity, particularly their potential to improve water quality, offset peak river flows and assist with flood control, through encouraging:

1. the maintenance and restoration of existing natural wetlands and the creation of new wetlands; and
2. the establishment of wetland areas and associated indigenous riparian plantings, including on-farm, in subdivisions, on industrial sites and for community sewerage schemes.

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<sup>4</sup> *Mātaītai and taiāpure are defined in the Introduction to the Plan on page 10.*

**Policy 35 – Discharge waste and cleanfill appropriately**

Ensure that sites used for the discharge of contaminants as waste or cleanfill are appropriate.

**Policy 36 – Manage contaminated land**

Require the best practicable option be adopted to prevent or minimise adverse effects from contaminated land or a discharge of a hazardous substance.

**Policy 37 – Climate change**

Avoid or mitigate increased risks on the environment arising from climate change, taking into account the potential effects of rising sea levels and the potential for more variable and extreme weather patterns in coming decades.

**Policy 38 – Natural hazards**

Reduce the susceptibility of the Southland community and environment to natural hazards by improving planning, responsibility and community awareness for the avoidance and mitigation of natural hazards.

## **Consideration of Resource Consent Applications**

### **Policy 39 – Application of the permitted baseline**

When considering any application for resource consent for the use of land for a farming activity, the Southland Regional Council should consider all adverse effects of the proposed activity on water quality, whether or not this Plan permits an activity with that effect.

### **Policy 39A – Integrated Management**

When considering the cumulative effects of land use and discharge activities within whole catchments, consider:

1. the integrated management of freshwater and the use and development of land including the interactions between freshwater, land and associated ecosystems (including estuaries); and
2. through the Freshwater Management Unit process, facilitating the collective management of nutrient losses, including through initiatives such as nutrient user groups and catchment management groups.

### **Policy 40 – Determining the term of resource consents**

When determining the term of a resource consent consideration will be given, but not limited, to:

1. granting a shorter duration than that sought by the applicant when there is uncertainty regarding the nature, scale, duration and frequency of adverse effects from the activity or the capacity of the resource;
2. relevant tangata whenua values and Ngāi Tahu indicators of health;
3. the duration sought by the applicant and reasons for the duration sought;
4. the permanence and economic life of any capital investment;
5. the desirability of applying a common expiry date for water permits that allocate water from the same resource or land use and discharges that may affect the quality of the same resource;
6. the applicant's compliance with the conditions of any previous resource consent, and the applicant's adoption, particularly voluntarily, of good management practices; and
7. the timing of development of FMU sections of this Plan, and whether granting a shorter or longer duration will better enable implementation of the revised frameworks established in those sections.

### **Policy 41 – Matching monitoring to risk**

Consider the risk of adverse environmental effects occurring and their likely magnitude when determining requirements for auditing and supply of monitoring information on resource consents.

### **Policy 42 – Consideration of water permit applications**

When considering resource consent applications for water permits to take and use water:

1. except for non-consumptive uses, consent will not be granted if a water body is over allocated or fully allocated; or to grant consent would result in a water body becoming over allocated or would not allow an allocation target for a water body to be achieved within a time period defined in this Plan; and



2. except for non-consumptive uses, consents replacing an expiring resource consent for an abstraction from an over-allocated water body will generally only be granted at a reduced rate, the reduction being proportional to the amount of over-allocation and previous use, using the method set out in Appendix O; and
3. installation of water measuring devices will be required on all new permits to take and use water and on existing permits in accordance with the Resource Management (Measurement and Reporting of Water Takes) Regulations 2010; and
4. where appropriate, minimum level or flow cut-offs and seasonal recovery triggers on resource consents for groundwater abstraction will be imposed; and
5. conditions will be specified relating to a minimum flow or level, or environmental flow or level regime (which may include flow sharing), in accordance with Appendix K, for all new or replacement resource consents (except for water permits for non-consumptive uses, community water supplies and water bodies subject to minimum flow and level regimes established under any water conservation order) for:
  - (a) surface water abstraction, damming, diversion and use; and
  - (b) groundwater abstraction in accordance with Policy 23.

### **Policy 43 – Transfer of water permits**

1. Enable the transfer of water permits to take and use water provided the transfer occurs in the same surface water or groundwater management zone or aquifer, any other abstractor is not adversely affected, and the transfer is consistent with the provisions of this Plan, including the minimum flow and allocation regime.
2. Provide for the transfer of water permits for groundwater abstraction between groundwater zones or aquifers in the same surface water catchment, provided the transfer does not increase cumulative stream depletion effects in the reach where the take is proposed or result in the minimum flow being breached and effects of the new abstraction are consistent with the provisions of this Plan.

## Freshwater Management Unit Process Policies

### Policy 44 – Implementing Te Mana o te Wai

Te Mana o te Wai is recognised at a regional level by tangata whenua and the local community identifying values held for, and associations with, a particular waterbody and freshwater management unit.

Particular regard will be given to the following values, alongside any additional regional and local values determined in the Freshwater Management Unit limit setting process:

- Te Hauora o te Wai (the health and mauri of water);
- Te Hauora o te Tangata (the health and mauri of the people);
- Te Hauora o te Taiao (the health and mauri of the environment);
- Mahinga kai;
- Mahi māra (cultivation);
- Wai Tapu (Sacred Waters);
- Wai Māori (municipal and domestic water supply);
- Āu Putea (economic or commercial value);
- He ara haere (navigation).

### Policy 45 – Priority of FMU values, objectives, policies and rules

In response to Ngāi Tahu and community aspirations and local water quality and quantity issues, FMU sections may include additional catchment-specific values, objectives, policies, attributes, rules and limits which will be read and considered together with the Region-wide Objectives and Region-wide Policies. Any provision on the same subject matter in the relevant FMU section of this Plan prevails over the relevant provision within the Region-wide Objectives and Region-wide Policy sections, unless it is explicitly stated to the contrary.

As the FMU sections of this Plan are developed in a specific geographical area, FMU sections will not make any changes to the Region-wide Objectives or Region-wide Policies.

**Note:** *It would be unfair if changes are made to Region-wide objectives and policies, which apply in other parts of Southland, without the involvement of those wider communities.*

### Policy 46 – Identified FMUs

The FMU Sections of this Plan are based on the following identified Freshwater Management Units for Southland, as shown on Map Series 6: Freshwater Management Units:

- Fiordland and the islands;
- Aparima;
- Mataura;
- Ōreti; and
- Waiau.

## **Policy 47 – FMU processes**

The FMU sections will:

1. identify values and establish freshwater objectives for each Freshwater Management Unit, including where appropriate at a catchment or sub-catchment level, having particular regard to the national significance of Te Mana o te Wai, and any other values developed in accordance with Policies CA1-CA4 and Policy D1 of the National Policy Statement for Freshwater Management 2014 (as amended in 2017); and
2. set water quality and water quantity limits and targets to achieve the freshwater objectives; and
3. set methods to phase out any over-allocation, within a specified timeframe; and
4. assess water quality and quantity taking into account Ngāi Tahu indicators of health.

## Region-wide Rules

*Pursuant to Section 86B(1)(a) and (3) of the Resource Management Act 1991 all of the rules in the Proposed Southland Water and Land Plan take immediate legal effect from the date of notification.*

*After 1 May 2018 the rules of this Regional Plan do not apply to any activity specifically regulated by the Resource Management (National Environmental Standards for Plantation Forestry) Regulations 2017, unless regulation 6 of those regulations applies.*

*The rules of this Regional Plan do not apply to any activity specifically regulated by the Resource Management (National Environmental Standards for Electricity Transmission Activities) Regulations 2009.*

### Rule 1

- (a) Any activity must comply with all applicable rules within the Region-wide Rules section of this Plan, unless it is explicitly stated to the contrary in any other applicable rule in this Plan.

### Rule 2

- (a) Any rule on the same subject matter in the relevant FMU section of this Plan prevails over the relevant rule within the Region-wide Rules section, unless it is explicitly stated to the contrary in any applicable rule in this Plan.

### Rule 3

- (a) When considering applications for controlled activities or restricted discretionary activities, in addition to the matters over which:
- (i) control is reserved; or
  - (ii) exercise of discretion is restricted;

the decision-maker may also consider the lapse period sought, the duration of the resource consent sought, the review of the conditions of a resource consent, the need for a bond and the collection, recording, monitoring and provision of information concerning the exercise of a resource consent.

### Rule 4

- (a) Any activity that:
- (i) would otherwise contravene Sections 13(1), 14(2), 14(3) or 15(1) of the RMA; and
  - (ii) is not classified by this Plan as any other class of activity listed in Section 87A of the RMA;

is a discretionary activity.

**Note:** *Nothing in this Plan exempts any person from meeting the requirements of a relevant district plan or other legislation.*

## Discharge Rules

### Rule 5 – Discharges to surface waterbodies

- (a) Except as provided for elsewhere in this Plan the discharge of any:
- (i) contaminant, or water, into lakes, rivers, artificial watercourses, modified watercourses or natural wetlands; or
  - (ii) contaminant onto or into land in circumstances where it may enter lakes, rivers, artificial watercourses, modified watercourses or natural wetlands;

is a discretionary activity provided the following conditions are met:

- (1) where the water quality upstream of the discharge meets the standards set for the relevant water body in Appendix E “Water Quality Standards”, the discharge does not reduce the water quality below those standards at the downstream edge of the reasonable mixing zone; or
- (2) where the water quality upstream of the discharge does not meet the standards set for the relevant water body in Appendix E “Water Quality Standards”, the discharge must not further reduce the water quality below those standards at the downstream edge of the reasonable mixing zone; and
- (3) except for discharges from a territorial authority reticulated stormwater or wastewater system, the discharge does not contain any raw sewage.

### Rule 6 – Discharges to surface waterbodies that do not meet water quality standards

- (a) Except as provided for elsewhere in this Plan the discharge of any:
- (i) contaminant, or water, into any lakes, rivers, artificial watercourses, modified watercourses or natural wetlands; or
  - (ii) contaminant onto or into land in circumstances where it may enter any lakes, rivers, artificial watercourses, modified watercourses or natural wetlands that does not meet the conditions in Rule 5;

is a non-complying activity.

### Rule 8 – Discharges of surface water

- (a) Except as provided for elsewhere in this Plan, the discharge of surface water into lakes, rivers, artificial watercourses, modified watercourses or natural wetlands is a controlled activity provided the following conditions are met:
- (i) the discharge was lawfully established prior to 1 January 2010; and
  - (ii) the lawfully established discharge point has not changed; and
  - (iii) at the downstream edge of the reasonable mixing zone, the discharge does not reduce the water quality of the receiving waters or give rise to any of the following effects in the receiving water:
    - (1) the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials; or
    - (2) any conspicuous change in visual clarity; or
    - (3) the rendering of freshwater unsuitable for consumption by farm animals; or
    - (4) any significant adverse effects on aquatic life.

***The Southland Regional Council will reserve the exercise of its control to the following matters:***

1. the potential for flooding of any person’s property as a result of the discharge;

2. erosion of the bed or banks of the receiving lake, river, artificial watercourse, modified watercourse, or natural wetland as a result of the discharge;
3. actual or potential effects on existing water users and aquatic ecosystems.

## **Rule 9 – Discharge of agrichemicals onto or into surface water**

- (a) The discharge of agrichemicals and any associated wetting, antifoaming and anti-drifting agent and marker dyes into or onto surface water is a permitted activity provided the following conditions are met:
- (i) the discharge is for the purpose of eradicating, modifying or controlling excessive growth of aquatic plants, and does not exceed the quantity, concentration or rate necessary, as recommended by the manufacturer; and
  - (ii) the agrichemical is approved for aquatic use within New Zealand under the Hazardous Substances and New Organisms Act 1996, and the use and discharge of the substance is in accordance with all the conditions of the approval; and
  - (iii) the discharge is undertaken in a manner consistent with NZS8409:2004 Management of Agrichemicals and for specific activities in compliance with the following sections of NZS8409: 2004 Management of Agrichemicals:
    1. Use – Part 5.3 and related Appendices; and
    2. Storage – Section 4 and Appendix L4; and
    3. Disposal – Section 6 and Appendix S; and
    4. Records – Appendix C9; and
  - (iv) all practicable measures are taken to minimise spray drift beyond the target area; and
  - (v) at the downstream edge of the reasonable mixing zone, the discharge does not give rise to any of the following effects in the receiving water:
    - (1) the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials; or
    - (2) any conspicuous change in visual clarity; or
    - (3) the rendering of freshwater unsuitable for consumption by farm animals; or
    - (4) any significant adverse effects on aquatic life, other than the target species; and
  - (vi) there is no adverse effect on any water take permitted by the RMA, this Plan or under a resource consent; and
  - (vii) the discharge is not into water within natural state waters, a mātaītai reserve or taiāpure,<sup>5</sup> or within the microbial health protection zone of a surface water drinking water supply site identified in Appendix J, or where no such zone is identified, within 250 metres upstream of the abstraction point of a surface water drinking water supply site identified in Appendix J; and
  - (viii) the discharge is not into waters subject to the Mataura River Water Conservation Order or identified in item 1 of Schedule 1 of the Ōreti River Water Conservation Order, unless the discharge is undertaken pursuant to the Soil Conservation and Rivers Control Act 1941 or by a provider of regional, national or critical infrastructure as part of infrastructure maintenance or protection activities.

**Note:** Provisions in the Regional Air Plan also apply to the discharge of agrichemicals.

**Note:** Any discharge of the vertebrate toxic agents brodifacoum, rotenone or sodium fluoroacetate that complies with the Resource Management (Exemption) Regulations (2017) is exempt from any discharge controls under the Resource Management Act and this Plan.

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<sup>5</sup> Mātaītai and taiāpure defined in the introduction at page 10.

**Note:** *In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.*

### **Rule 10 – Discharge of agrichemicals to land where they may enter water**

- (a) The discharge of agrichemicals and any associated wetting, antifoaming and anti-drifting agents and marker dyes onto or into land including where they may enter water is a permitted activity provided the following conditions are met:
- (i) the agrichemical is approved for use within New Zealand under the Hazardous Substances and New Organisms Act 1996, and the use and discharge of the substance is in accordance with all the conditions of the approval; and
  - (ii) all practicable measures are taken to minimise spray drift beyond the target area; and
  - (iii) the discharge is not to a mātaimai reserve or taiāpure and there is no reduction in the quality of water beyond the zone of reasonable mixing for natural state waters and waters subject to the Maitai River Water Conservation Order or identified in Item 1 of Schedule 1 of the Ōreti River Water Conservation Order.

### **Rule 11 – Discharge of vertebrate pest control poisons**

- (a) The discharge of a vertebrate toxic agent, other than those complying with the Resource Management (Exemption) Regulations 2017, into or onto land where it may enter water is a permitted activity provided the following conditions are met:
- (i) the vertebrate toxic agent is approved for use within New Zealand under the Hazardous Substances and New Organisms Act 1996, and the use and discharge of the substance is in accordance with all the conditions of the approval; and
  - (ii) the discharge does not occur within the microbial health protection zone of a drinking water supply site identified in Appendix J, or where no such zone is identified, then within 250 metres of the abstraction point of a drinking water supply site identified in Appendix J.

**Note:** *Any discharge of the vertebrate toxic agents brodifacoum, rotenone or sodium fluoroacetate that complies with the Resource Management (Exemption) Regulations 2017 is exempt from any discharge controls under the Resource Management Act and this regional plan.*

### **Rule 12 – Discharge of non-toxic dyes**

- (a) The discharge of non-toxic dyes for investigative purposes onto or into water other than within natural state waters is a controlled activity.

**The Southland Regional Council will reserve the exercise of its control to the following matters:**

1. the type of dye used;
2. the amount of dye used and the rate of application;
3. any requirements for public notice of the investigation occurring;
4. duration of the investigation.

*An application for resource consent under Rule 12 will be processed and considered without public or limited notification unless the applicant requests notification or the Southland Regional Council considers special circumstances exist that warrant notification of the application.*

### **Rule 13 – Discharge from subsurface drainage systems**

- (a) The discharge of land drainage water to water from an on-farm subsurface drainage system is a permitted activity, provided the following conditions are met:
- (i) the discharge does not cause:
    - (1) a conspicuous change to the colour or clarity of the receiving waters beyond 20 metres from the point of discharge; or
    - (2) conspicuous oil or grease films, scums or foams, or floatable or suspended materials beyond 20 metres from the point of discharge; and
  - (ii) the discharge does not render freshwater unsuitable for consumption by farm animals; and
  - (iii) the discharge does not cause the flooding of any other landholding; and
  - (iv) the discharge does not cause any scouring or erosion of any land or bed of a water body beyond the point of discharge; and
  - (vi) the discharge does not cause any significant adverse effects on aquatic life; and
  - (vii) the subsurface drainage system does not drain a natural wetland; and
  - (viii) for any known existing drains and for any new drains, the locations of the drain outlets are mapped and provided to the Southland Regional Council on request.
- (b) The discharge of land drainage water to water from an on-farm subsurface drainage system that does not comply with Rule 13(a) is a discretionary activity.

### **Rule 14 – Discharge of fertiliser**

- (a) The discharge of fertiliser onto or into land in circumstances where contaminants may enter water is a permitted activity provided the following conditions are met:
- (i) other than for incidental discharges of windblown fertiliser dust, there is no direct discharge of fertiliser into a lake, river (excluding ephemeral rivers), artificial watercourse, modified watercourse, or natural wetland or into groundwater; and
  - (ii) there is no fertiliser discharged when the soil moisture exceeds field capacity; and
  - (iii) there is no fertiliser discharged directly into or within 3 metres of the boundary of any significant indigenous biodiversity site identified in a district plan that includes surface water; and
  - (iv) where any lake, river (excluding ephemeral rivers), artificial watercourse, modified watercourse, or wetland:
    - (1) has riparian planting from which stock is excluded, fertiliser may be discharged up to the paddock-side edge of the riparian planting but not onto the riparian planting, except for fertiliser required to establish the planting; or
    - (2) does not have riparian planting from which stock is excluded, fertiliser is not discharged directly into or within 3 metres of the bed or within 3 metres of a wetland.
- (b) The discharge of fertiliser onto or into land in circumstances where the fertiliser may enter water that does not meet the conditions of Rule 14(a) is a non-complying activity.

### **Rule 15 – Discharge of stormwater**

- (a) The discharge of stormwater onto or into land in circumstances where contaminants may enter water, or into lakes, rivers, artificial watercourses, modified watercourses or wetlands, is a permitted activity provided the following conditions are met:
- (i) the discharge is not from a reticulated system; and
  - (ii) the discharge does not originate from industrial or trade premises where hazardous substances are stored or used unless:



- (1) hazardous substances cannot enter the stormwater system; or
  - (2) there is an interceptor system in place to collect stormwater that may contain hazardous substances and discharge or divert it to a trade waste system; or
  - (3) the stormwater contains no hazardous substances except oil and grease and the stormwater is passed through an oil interceptor system prior to discharge; and
  - (iii) the discharge does not contain any sewage, contaminants from on-site wastewater systems and mobile toilets, or agricultural effluent; and
  - (iv) for discharges to lakes, rivers, artificial watercourses, modified watercourses or wetlands, the discharge does not result in:
    - (1) the production of any conspicuous oil or grease films, scums, foams or floatable or suspended materials; or
    - (2) the rendering of freshwater unsuitable for the consumption by farm animals; or
    - (3) significant adverse effects to aquatic life; or
    - (4) any conspicuous change in the colour or visual clarity of the receiving waters at the downstream edge of the reasonable mixing zone; and
  - (v) except for the discharge of stormwater from a roof, road or vehicle parking area, the discharge is not into water within natural state waters; and
  - (vi) for discharges to land, the discharge does not cause flooding, erosion, or land instability to any other person's property.
- (ab) The discharge of stormwater onto or into land where contaminants may enter water, or into lakes, rivers, artificial watercourses, modified watercourses or wetlands, that does not meet Rule 15(a)(i) is a discretionary activity provided the following conditions are met:
- (i) the reticulated system is owned by a territorial authority and is operated by them or their agent; and
  - (ii) a management plan is provided with the application that sets out, in a manner that reflects the scale and significance of water quality improvements required in the catchment:
    - (1) targets for the reduction in the volume and frequency of wastewater overflows into the stormwater network, and methods to monitor the volume and frequency of those overflow discharges; and
    - (2) a monitoring and investigation programme to identify and remedy wastewater cross-connections on private and public land; and
    - (3) methods to improve the quality of the discharge, which may include capital works, bylaws, investigations, education and preventative activities; and
  - (iii) demonstration of funding for implementing the management plan is provided with the application.
- (b) The discharge of stormwater onto or into land in circumstances where contaminants may enter water, or into lakes, rivers, artificial watercourses, modified watercourses or wetlands, that does not meet one or more of the conditions in Rule 15(a), excluding condition (a)(iii), and which is not otherwise specified in Rule 15(ab) is a discretionary activity.
- (c) The discharge of stormwater onto or into land in circumstances where contaminants may enter water, or into lakes, rivers, artificial watercourses, modified watercourses or wetlands, that does not meet Rule 15(a)(iii) and is not otherwise specified in Rule 15(ab) is a non-complying activity.

## **Rule 16 – Discharge of water from bores and wells for aquifer testing**

- (a) The discharge of water from any bore or well into lakes, rivers, artificial watercourses, modified watercourses or wetlands or onto or into land where it may enter lakes, rivers,

artificial watercourses, modified watercourses or wetlands, as a result of aquifer testing, is a permitted activity provided the following conditions are met:

- (i) the discharge does not cause flooding of any other person's property, erosion of the bed or banks of the receiving waterbody or land instability; and
- (ii) where the discharge is to water, there is no conspicuous change to colour and clarity of the receiving waters at a distance of 20 metres from the point of discharge.

### **Rule 17 – Dust Suppressants**

- (a) The discharge of a dust suppressant onto or into land in circumstances where a contaminant may enter water is a permitted activity, provided one of the following conditions are met:
  - (i) the dust suppressant is not a hazardous substance; or
  - (ii) the dust suppressant is approved under the Hazardous Substances and New Organisms Act 1996 and the use and discharge of the dust suppressant is undertaken in accordance with all conditions of the approval.
- (b) The discharge of a dust suppressant onto or into land in circumstances where a contaminant may enter water that does not meet the conditions in Rule 17(a) is a discretionary activity.

### **Rule 18 – Discharge of water from purging of instruments at a water treatment plant and portable potable water treatment units**

- (a) The discharge of water containing contaminants from the purging of instruments at a water treatment plant and from the use of portable potable water treatment units onto or into land in circumstances where contaminants may enter water is a permitted activity, provided the following conditions are met:
  - (i) the volume of water discharged does not exceed 3 cubic metres per day; and
  - (ii) the concentration of chlorine does not exceed 2 milligrams per litre; and
  - (iii) the pH of the discharge is between 6 and 8; and
  - (iv) the discharge does not result in overland flow to surface water or beyond the landholding boundary, or ponding.

### **Rule 18A – Discharges from emergency fire-fighting**

- (a) The discharge of water or contaminants associated with emergency fire-fighting activities into lakes, rivers, artificial watercourses, modified watercourses or wetlands, or onto or into land in circumstances where the water or contaminants may enter water is a permitted activity.

### **Rule 18B – Discharges from emergency response training activities**

- (a) The discharge of water or contaminants associated with emergency response training activities undertaken by Fire and Emergency New Zealand, the Department of Conservation, New Zealand Defence Force or a local authority into lakes, rivers, artificial watercourses, modified watercourses or wetlands, or onto or into land in circumstances where the water or contaminant may enter water, is a permitted activity provided the following conditions are met:
  - (i) the discharge does not give rise to any of the following effects in lakes, rivers, artificial watercourses, modified watercourses or wetlands:
    - (1) the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials; or
    - (2) any conspicuous change in visual clarity; or

- (3) the rendering of freshwater unsuitable for consumption by farm animals; or
- (4) any significant adverse effects on aquatic life; and
- (ii) the discharge does not occur to lakes, rivers, artificial watercourses, modified watercourses or wetlands for more than two continuous hours within a 24-hour period; and
- (iii) the discharge of fire-fighting foam or powder (whether mixed with water or not) does not occur directly to any lakes, rivers, artificial watercourses, modified watercourses or natural wetlands.

### **Rule 19 – Discharge of water associated with water treatment processes**

- (a) The discharge of water containing contaminants associated with water treatment processes from a water treatment plant onto or into land in circumstances where water containing contaminants may enter water is a controlled activity, provided the following conditions are met:
  - (i) the associated water take does not exceed 7,500 cubic metres per day; and
  - (ii) the discharged volume of water containing contaminants does not exceed 8% of the daily water take; and
  - (iii) at the boundary of the reasonable mixing zone the discharge does not give rise to any or all of the following effects in the receiving water:
    - (1) the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials; or
    - (2) any conspicuous change in visual clarity; or
    - (3) the rendering of freshwater unsuitable for consumption by farm animals; or
    - (4) any significant adverse effects on aquatic life; and
  - (iv) at the boundary of the reasonable mixing zone the discharge does not reduce the water quality below any standards set for the relevant receiving water body in Appendix E “Water Quality Standards”.

***The Southland Regional Council will reserve the exercise of its control to the following matters:***

1. the assimilative capacity and drainage characteristics of the soil;
- 1a. adverse effects on the soil;
2. compliance with the ANZECC Guidelines for Fresh and Marine Water Quality (2000);
3. the separation distance of the discharge from surface water bodies, artificial watercourses, subsurface drains, the coastal marine area, residential dwellings, landholding boundaries and drinking water sources;
4. management of the discharge, including discharge methods.

## Land Use Rules

### Rule 20 – Farming

- (aa) Unless stated otherwise by Rules 20, 25, 70 or any other rule in this Plan:
- (i) intensive winter grazing; or
  - (ii) cultivation; or
  - (iii) the disturbance by livestock including cattle, deer, pigs or sheep; in, on or over the bed of an ephemeral river is a permitted activity.
- (a) The use of land for a farming activity is a permitted activity provided the following conditions are met:
- (i) the landholding is less than 20 hectares in area; or
  - (ii) where the farming activity includes a dairy platform on the landholding, the following conditions are met:
    - (1) the dairy platform has a maximum of 20 cows; or
    - (2) the dairy platform had a dairy effluent discharge permit on 3 June 2016 that specified a maximum number of cows; and
    - (3) cow numbers have not increased beyond the maximum number specified in the dairy effluent discharge permit that existed on 3 June 2016; and
    - (4) from 1 May 2019, a Farm Environmental Management Plan for the landholding is prepared and implemented in accordance with Appendix N; and
    - (5) the landowner provides to the Southland Regional Council on request:
      - (A) a written record of the good management practices, including any newly instigated good management practices in the preceding 12 months, occurring on the landholding; and
      - (B) the Farm Environmental Management Plan prepared in accordance with Appendix N; and
    - (6) the land area of the dairy platform is no greater than at 3 June 2016; and
    - (7) no part of the dairy platform is at an altitude greater than 800 metres above mean sea level; and
  - (iii) where the farming activity includes intensive winter grazing on the landholding, the following conditions are met:
    - (1) from 1 May 2019, intensive winter grazing does not occur on more than 15% of the area of the landholding or 100 hectares, whichever is the lesser; and
    - (2) from 1 May 2019, a Farm Environmental Management Plan for the landholding is prepared and implemented in accordance with Appendix N; and
    - (3) from 1 May 2019, all of the following practices are implemented:
      - (A) if the area to be grazed is located on sloping ground, stock are progressively grazed (break-fed or block-fed) from the top of the slope to the bottom, or a 20 metre 'last-bite' strip is left at the base of the slope; and
      - (B) when the area is being break-fed or block-fed, the stock (excluding sheep and deer) are back fenced to prevent stock entering previously grazed areas; and
      - (C) transportable water trough(s) are provided in or near the area being grazed to prevent stock accessing a lake, river (excluding ephemeral rivers), artificial watercourse, modified watercourse or natural wetland for drinking water; and
      - (D) if supplementary feed (including baleage, straw or hay) is used in the area being grazed it is placed in portable feeders; and

- (E) if cattle or deer are being grazed the mob size being grazed is no more than 120 cattle or 250 deer; and
  - (F) critical source areas (including swales) within the area being grazed that accumulate runoff from adjacent flats and slopes are grazed last; and
  - (4) from 1 May 2019, a vegetated strip is maintained in, and stock excluded from, the area between the outer edge of the bed of any lake, river (excluding ephemeral rivers where intensive winter grazing is permitted under Rule 20(aa)), artificial watercourse, modified watercourse or natural wetland for a distance of at least 5 metres; and
  - (5) from 1 May 2019, intensive winter grazing does not occur within 20 metres of the outer edge of the bed of any Regionally Significant Wetland or Sensitive Waterbodies listed in Appendix A, estuary or the coastal marine area; and
  - (6) no intensive winter grazing occurs at an altitude greater than 800 metres above mean sea level; and
  - (iv) for all other farming activities, from 1 May 2020 a Farm Environmental Management Plan is prepared and implemented in accordance with Appendix N.
- (b) The use of land for a farming activity that includes intensive winter grazing on the landholding and which meets conditions (iii)(1), (iii) (2), (iii) (5) and (iii) (6) of Rule 20(a) but which does not meet condition (iii)(3) of Rule 20(a) is a permitted activity, provided that:
- (i) from 1 May 2019, a vegetated strip is maintained in, and stock excluded from, the area between the outer edge of the bed of any lake, river (excluding ephemeral rivers where intensive winter grazing is permitted under Rule 20(aa)), artificial watercourse, modified watercourse or natural wetland for a distance of at least 20 metres.
- (c) Despite any other rule in this Plan, the use of land for a dairy platform or intensive winter grazing at an altitude greater than 800 metres above mean sea level is a prohibited activity.
- (d) The use of land for a farming activity that does not meet one or more of conditions (ii) or (iii) of Rule 20(a), or does not meet condition (i) of Rule 20(b), is a restricted discretionary activity, provided the following conditions are met:
- (i) a Farm Environmental Management Plan is prepared and implemented in accordance with Appendix N; and
  - (ii) the application includes the following material, prepared by a suitably qualified person:
    - (1) an assessment that shows that the annual amount of nitrogen, phosphorus, sediment and microbiological contaminants discharged from the landholding will be no greater than that which was lawfully discharged annually on average for the five years prior to the application being made; and
    - (2) for any mitigation proposed, a detailed mitigation plan (taking into account contaminant loss pathways) that identifies the mitigation or actions to be undertaken including any physical works to be completed, their timing, operation and their potential effectiveness.

***The Southland Regional Council will restrict the exercise of its discretion to the following matters:***

1. the quality of and compliance with the Farm Environmental Management Plan for the landholding;
2. whether the assessment undertaken under Rule20(c)(ii) above takes into account reasonable and appropriate good management practices to minimise the losses of contaminants from the existing farming activity;
3. good management practices to be undertaken, including those to minimise the discharge of nitrogen, phosphorus, sediment and microbiological contaminants to water from the use of land, taking into account contaminant loss pathways;

4. the potential benefits of the activity to the applicant, the community and the environment;
  5. the potential effects of the farming activity on surface and groundwater quality and sources of drinking water;
  6. monitoring and reporting undertaken to assess the effectiveness of any mitigation implemented.
- (d) The use of land for a farming activity that does not meet one or more of the conditions of Rule 20(c) or condition (iv) of Rule 20(a) is a discretionary activity.

### **Rule 24 – Incidental discharges from farming**

- (a) The discharge of nitrogen, phosphorus, sediment or microbial contaminants onto or into land in circumstances that may result in a contaminant entering water that would otherwise contravene section 15(1) of the RMA is a permitted activity, provided the following conditions are met:
- (i) the land use activity associated with the discharge is authorised under Rules 20, 25 or 70 of this Plan; and
  - (ii) any discharge of a contaminant resulting from any activity permitted by Rules 20, 25 or 70 is managed to ensure that after reasonable mixing it does not give rise to any of the following effects on receiving waters:
    - (1) any conspicuous oil or grease films, scums or foams, or floatable or suspended materials; or
    - (2) any conspicuous change in the colour or visual clarity; or
    - (3) the rendering of fresh water unsuitable for consumption by farm animals; or
    - (4) any significant adverse effects on aquatic life.
- (b) the discharge of nitrogen, phosphorus, sediment and microbial contaminants onto or into land in circumstances that may result in a contaminant entering water that would otherwise contravene section 15(1) of the RMA and that does not meet one or more of the conditions of Rule 24(a) is a non-complying activity.

### **Rule 25 – Cultivation on sloping ground**

- (a) The use of land for cultivation is a permitted activity provided the following conditions are met:
- (i) cultivation does not take place within the bed of a lake, river (excluding ephemeral rivers where cultivation is permitted under Rule 20(aa)), artificial watercourse, modified watercourse or natural wetland; and
  - (ii) cultivation does not take place within a distance of 5 metres from the outer edge of the bed of a lake, river (excluding ephemeral rivers where cultivation is permitted under Rule 20(aa)) artificial watercourse, modified watercourse or wetland and
  - (iii) cultivation does not occur at an altitude greater than 800 metres above mean sea level; and
  - (iv) cultivation does not occur on land with a slope greater than 20 degrees.<sup>6</sup>
- (b) The use of land for cultivation that does not meet the setback distance of Rule 25(a)(ii) is a permitted activity provided the following conditions are met:
- (i) cultivation does not take place within the bed of a lake, river (excluding ephemeral rivers where cultivation is permitted under Rule 20(aa)), artificial watercourse, modified

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<sup>6</sup> *Slope in Rule 25(a)(iv) is the average slope over any 20 metre distance.*

- watercourse or natural wetland and a distance of 3 metres from the outer edge of the bed; and
- (ii) cultivation does not take place more than once in any 5-year period; and
  - (iii) cultivation is for the purpose of renewing or establishing pasture and is not undertaken to establish a crop used for intensive winter grazing, even as part of a pasture renewal cycle; and
  - (iv) cultivation does not occur at an altitude greater than 800 metres above mean sea level.
- (c) The use of land for cultivation, which does not meet one or more of the conditions of Rule 25(a) or Rule 25(b) is a restricted discretionary activity.

***The Southland Regional Council will restrict the exercise of its discretion to the following matters:***

- 1. potential adverse effects of discharges of sediment and other contaminants from critical source areas in the area being cultivated on water quality and biodiversity;
  - 1a. mitigation measures for addressing adverse effects;
  - 3. monitoring and reporting undertaken to assess the effectiveness of any mitigation implemented.
- (d) Despite any other rule in this Plan, the use of land for cultivation at an altitude greater than 800 metres above mean sea level is a non-complying activity.

# Wastewater, Effluent and Sludge

## Rule 26 – Discharges from on-site wastewater systems

- (a) The discharge of treated domestic wastewater from an existing on-site wastewater system onto or into land in circumstances where a contaminant may enter water is a permitted activity provided the following conditions are met:
- (i) the on-site wastewater system had been installed and was operational prior to 3 June 2016; and
  - (ii) the discharge does not exceed 1,250 litres per day, averaged over a period of 31 days; and
  - (iii) the discharge consists only of contaminants normally associated with domestic wastewater; and
  - (iv) the on-site wastewater system is not used for the disposal of wastewater from chemical toilets; and
  - (v) there is no faecal contamination of any take of water for human consumption as a result of the discharge; and
  - (vi) there is no discharge above the soil surface; and
  - (vii) there is no direct discharge to groundwater, lakes, rivers, artificial watercourses, modified watercourses or natural wetlands including discharge via subsurface drainage systems, stormwater drains, artificial free draining areas such as soak holes and overland flow; and
  - (viii) the inflow or infiltration of stormwater, other surface water and groundwater to the system is minimised; and
  - (ix) the discharge does not occur within the microbial health protection zone of a drinking water supply site identified in Appendix J, or where no such zone is identified, then within 250 metres of the abstraction point of a drinking water supply site identified in Appendix J.
- (b) The discharge of treated domestic wastewater from a new on-site wastewater system or a replacement of an existing system onto or into land in circumstances where a contaminant may enter water is a permitted activity provided the following conditions are met:
- (ia) the discharge does not exceed 2,000 litres per day, averaged over any consecutive 7-day period; and
  - (i) the treatment and disposal system is designed and installed in accordance with Sections 5 and 6 of New Zealand Standard AS/NZS 1547:2012 – On-site Domestic Wastewater Management; and
  - (ii) the treatment and disposal system is operated and maintained in accordance with the system's design specification for maintenance or, if there is no design specification for maintenance, Section 6.3 of New Zealand Standard AS/NZS 1547:2012 – On-site Domestic Wastewater Management; and
  - (iii) there is no discharge above the soil surface; and
  - (iv) the discharge consists only of contaminants normally associated with domestic wastewater; and
  - (v) the on-site wastewater system is not used for the disposal of wastewater from chemical toilets; and
  - (vi) the discharge is not within:
    - (1) 20 metres of any lakes, rivers, artificial watercourses, modified watercourses or natural wetlands excluding interception drains constructed to enable the effective operation of the on-site wastewater system; or
    - (2) 50 metres of the coastal marine area or any natural state waters; or
    - (3) 50 metres of any bore or well; or



- (4) the microbial health protection zone of a drinking water supply site identified in Appendix J, or where no such zone is identified, then within 250 metres of the abstraction point of a drinking water supply site identified in Appendix J; or
  - (5) 20 metres of any subsurface drainage system, excluding subsurface drainage systems constructed to enable the effective operation of the on-site wastewater system.
- (vii) for any land application system, the bottom of the soil infiltration surface is no less than 900 millimetres above the mean seasonal high groundwater table and any perched water.
- (c) The discharge of treated domestic wastewater from an on-site wastewater system onto or into land in circumstances where a contaminant may enter water that does not meet the conditions of Rule 26(a) or (b) is a discretionary activity.
- (d) The discharge of septage onto or into land, in circumstances where a contaminant may enter water is a permitted activity provided the following conditions are met:
- (i) the discharge occurs on the same landholding as the on-site wastewater system is located; and
  - (ii) the discharge consists only of contaminants normally associated with domestic wastewater; and
  - (iii) the on-site wastewater system is not used for the disposal of wastewater from chemical toilets; and
  - (iv) there is no faecal contamination of any take of water for human consumption as a result of the discharge; and
  - (v) the maximum depth of septage application is 7 mm; and
  - (vi) no other effluent is discharged to the septage application area for 28 days before and 28 days after the septage application; and
  - (vii) the discharge onto or into land does not occur at a location where overland flow will result in contaminants reaching lakes, rivers, artificial watercourses, modified watercourses, natural wetlands or the coastal marine area; and
  - (viii) the discharge is not within:
    - (1) 20 metres of any lakes, rivers, artificial watercourses, modified watercourses or natural wetlands; or
    - (2) 50 metres of the coastal marine area or any natural state waters; or
    - (3) 100 metres of any bore or well; or
    - (4) 100 metres of any landholding boundary; or
    - (5) 200 metres of any school, marae, or residential dwelling other than residential dwellings on the landholding; or
    - (6) the microbial health protection zone of a drinking water supply site identified in Appendix J, or where no such zone is identified, then within 250 metres of the abstraction point of a drinking water supply site identified in Appendix J; and
  - (ix) there is no direct discharge to groundwater, lakes, rivers, artificial watercourses, modified watercourses or natural wetlands including discharge via subsurface drainage systems, stormwater drains, artificial free draining areas such as soak holes, or overland flow; and
  - (xi) the discharge does not occur on a site less than 100 hectares in area.
- (e) The discharge of septage into or onto land that does not meet the conditions of Rule 26(d) is a discretionary activity.
- (f) Despite Rule 26(a) to (e), the discharge of untreated domestic wastewater or effluent from mobile toilets, into lakes, rivers, artificial watercourses, modified watercourses or natural wetlands or groundwater is a prohibited activity.

## **Rule 27 – Discharges from pit toilets**

- (a) Notwithstanding Rule 26, the discharge of contaminants from a pit toilet onto or into land in circumstances where a contaminant may enter water is a permitted activity provided the following conditions are met:
- (i) the discharge does not exceed 320 litres per week; and
  - (ii) the discharge comprises only contaminants normally associated with human excreta; and
  - (iii) the pit toilet is not used for the disposal of wastewater from chemical toilets; and
  - (iv) there is no faecal contamination of any take of water for human consumption as a result of the discharge; and
  - (v) the discharge is not within:
    - (1) 20 metres of any lakes, rivers, artificial watercourses, modified watercourses or natural wetlands, excluding interception drains which benefit the pit toilet; or
    - (2) 50 metres of the coastal marine area or any natural state waters; or
    - (3) 50 metres of any bore or well; or
    - (4) the microbial health protection zone of a drinking water supply site identified in Appendix J, or where no such zone is identified, then within 250 metres of the abstraction point of a drinking water supply site identified in Appendix J; or
    - (5) a site that is zoned for residential, commercial or industrial purposes in any district plan; and
  - (vi) there is no direct discharge above the soil surface, or to groundwater, lakes, rivers, artificial watercourses, modified watercourses or natural wetlands, including discharge via subsurface drainage systems, stormwater drains, artificial free draining areas such as soak holes or overland flow; and
  - (vii) the soil type does not comprise gravels, coarse or medium sands, fissured rock, or other such materials likely to permit the free travel of contaminants away from the pit; and
  - (viii) stormwater or other surface water is prevented from entering the pit toilet; and
  - (ix) the discharge does not accumulate within 500 millimetres of the land surface; and
  - (x) for any new pit toilet that has been installed and was operational on 3 June 2016 or later, the bottom of the pit is not less than 900 millimetres above the mean seasonal high groundwater table.
- (b) The discharge of contaminants from a pit toilet onto or into land, in circumstances where a contaminant may enter water does not meet the conditions of Rule 27(a) is a discretionary activity.

## **Rule 28 – Discharges of liquid from waterless composting toilet systems**

- (a) Notwithstanding Rule 26, the discharge of liquid from a waterless composting toilet system onto or into land in circumstances where a contaminant may enter water is a permitted activity provided the following conditions are met:
- (i) the discharge occurs on the same landholding as the waterless composting toilet is located; and
  - (ii) the volume of the discharge does not exceed 105 litres per week; and
  - (iii) the discharge comprises only contaminants normally associated with human excreta; and
  - (iv) there is no faecal contamination of any take of water for human consumption as a result of the discharge; and
  - (v) the discharge is not within:
    - (1) 20 metres of any lakes, rivers, artificial watercourses, modified watercourses, or natural wetlands; or
    - (2) 50 metres of the coastal marine area or any natural state waters; or

- (3) 50 metres of any bore or well; or
  - (4) the microbial health protection zone of a drinking water supply site identified in Appendix J, or where no such zone is identified, then within 250 metres of the abstraction point of a drinking water supply site identified in Appendix J; and
  - (vi) there is no discharge above the soil surface or direct discharge to groundwater, lakes, rivers, artificial watercourses, modified watercourses, or natural wetlands including discharge via subsurface drainage systems, stormwater drains, artificial free draining areas such as soak holes, or overland flow; and
  - (vii) no stormwater, other surface water or groundwater infiltrates the wastewater treatment unit; and
  - (viii) stormwater, other surface water or groundwater is directed away from the land application system area; and
  - (ix) for any land application system that has been installed and was operational on 3 June 2016 or later the bottom of the soil infiltration surface is no less than 900 millimetres above the mean seasonal high groundwater table and any perched water.
- (b) The discharge of liquid from a waterless composting toilet system onto or into land in circumstances where a contaminant may enter water that does meet one or more of the conditions of Rule 28(a) is a discretionary activity.

### **Rule 29 – Discharges of aerobically composted human excreta**

- (a) The discharge of aerobically composted human excreta from a waterless composting toilet system onto or into land in circumstances where a contaminant may enter water is a permitted activity provided the following conditions are met:
- (i) the discharge occurs on the same landholding that the waterless composting toilet system is located on; and
  - (ii) the discharge comprises only contaminants normally associated with human excreta; and
  - (iii) the waterless composting toilet system is not used for the disposal of wastewater from chemical toilets; and
  - (iv) there is no contamination of any take of water for human consumption as a result of the discharge; and
  - (v) the material has been subject to aerobic composting decomposition for at least 12 months from the last addition of raw human excreta and is worked into the soil immediately following the discharge; and
  - (vi) the material is not applied to any food crop for animal or human consumption unless the material has been subject to aerobic composting decomposition and storage for at least 24 months from the last addition of raw human excreta and is worked into the soil immediately following the discharge; and
  - (vii) the discharge onto or into land does not occur at a location where overland flow will result in contaminants reaching lakes, rivers, artificial watercourses, modified watercourses, natural wetlands or the coastal marine area; and
  - (viii) the working of the compost into the soil does not encounter any groundwater or perched water; and
  - (ix) the discharge is not within:
    - (1) 20 metres of any lakes, rivers, artificial watercourses, modified watercourses or natural wetlands; or
    - (2) 50 metres of the coastal marine area or any natural state waters; or
    - (3) 50 metres of any bore or well; or
    - (4) 10 metres of a landholding boundary; or

- (5) the microbial health protection zone of a drinking water supply site identified in Appendix J, or where no such zone is identified, then within 250 metres of the abstraction point of a drinking water supply site identified in Appendix J.
- (b) The discharge of aerobically composted human excreta onto or into land, in circumstances where a contaminant may enter water that does not meet the one or more of the conditions of Rule 29(a) is a discretionary activity.

### **Rule 30 – Discharges from mobile toilets**

- (a) The discharge of effluent from a mobile toilet into or onto land, or into or onto the beds of lakes or rivers, or into water is a prohibited activity.

### **Rule 31 – Dump stations**

- (a) The discharge of effluent into or onto land from an on-site wastewater system that receives effluent from a dump station is a non-complying activity.

### **Rule 32A – Reconstruction of effluent storage facilities**

- (a) The reconstruction of an agricultural effluent storage facility is to be assessed as if it were the construction of a new agricultural effluent storage facility under Rule 32B, and the reconstruction of a non-agricultural effluent storage facility is to be assessed as if it were the construction of a new non-agricultural effluent storage facility under Rule 32C.

### **Rule 32B – Construction, maintenance and use of new agricultural effluent storage facilities**

- (a) The use of land for the construction, maintenance and use of a new agricultural effluent storage facility, and any incidental discharge of agricultural effluent directly onto or into land from that facility which is within the normal operating parameters of a leak detection system or the pond drop test criteria set out in Appendix P, is a permitted activity provided the following conditions are met:
  - (i) the total capacity of all agricultural effluent storage on a landholding, excluding storage authorised by a resource consent, does not exceed 35 cubic metres; and
  - (ii) the agricultural effluent storage facility is constructed using an impermeable concrete or synthetic liner; and
  - (iii) the agricultural effluent storage facility is not within 50 metres of any lakes, rivers, artificial watercourses, modified watercourses, natural wetlands or the coastal marine area; and
  - (iv) the agricultural effluent storage facility is not within 200 metres of any dwelling not on the same landholding, or within 50 metres of the boundary of any other landholding or road; and
  - (v) the agricultural effluent storage facility is not within 100 metres of any authorised drinking water abstraction point; and
  - (vi) the agricultural effluent storage facility is not located above any known sub-surface drainage systems.
- (b) The use of land for the construction, maintenance and use of a new agricultural effluent storage facility, and any incidental discharge of agricultural effluent directly onto or into land from that facility which is within the normal operating parameters of a leak detection system, or the pond drop test criteria set out in Appendix P, which does not meet condition

(i) or condition (ii) of Rule 32B(a) is a controlled activity provided the following conditions are met:

- (i) the design is certified by a Chartered Professional Engineer as being in accordance with IPENZ Practice Note 2: Farm Dairy Effluent Pond Design and Construction (2013) or IPENZ Practice Note 27: Dairy Farm Infrastructure (2013); and
- (ii) the application includes an operational management plan that addresses operational procedures, emergency response, monitoring and reporting requirements, the undertaking of pond drop tests, and installation of monitoring devices; and
- (iii) conditions (iii) to (vi) of Rule 32B(a).

**The Southland Regional Council will reserve its control over the following matters:**

1. the design and construction of the new agricultural effluent storage facility including its storage capacity, the nature of effluent it will store, and the anticipated life of the storage facility;
  2. methods to be used to protect the agricultural effluent storage facility's embankments from damage by animals and machinery;
  3. the potential adverse effects of the construction, maintenance and use of the agricultural effluent storage facility on: lakes, rivers, artificial watercourses, installed subsurface drains, groundwater, bores, registered drinking water supplies, the coastal marine area, stop banks, residential dwellings, places of assembly and urban areas;
  4. distance of the agricultural effluent storage facility from landholding or road boundaries;
  5. the height of the agricultural effluent storage facility's embankments and placement and orientation of the agricultural effluent storage facility relative to flood flows and stormwater run-off;
  6. the quality of, and compliance with, the operational management plan;
  7. adoption and implementation of an Accidental Discovery Protocol.
- (c) The use of land for the construction, maintenance and use of a new agricultural effluent storage facility, and any incidental discharge of agricultural effluent directly onto or into land from that facility which is within the normal operating parameters of a leak detection system, or the pond drop test criteria set out in Appendix P, which meets conditions (i) and (ii) of Rule 32B(a), but which does not meet one or more of conditions (iii) to (vi) of Rule 32B(a), is a discretionary activity.
- (d) The use of land for the construction, maintenance and use of a new agricultural effluent storage facility, and any incidental discharge of agricultural effluent directly onto or into land from that facility which is within the normal operating parameters of a leak detection system or the pond drop test criteria set out in Appendix P, which meets condition (i) of Rule 32B(b), but which does not meet one or more of conditions (ii) and (iii) of Rule 32B(b), is a discretionary activity.
- (e) The use of land for the construction, maintenance and use of a new agricultural effluent storage facility, and any incidental discharge of agricultural effluent directly onto or into land from that facility which is within the normal operating parameters of a leak detection system or the pond drop test criteria set out in Appendix P, which does not meet condition (i) of Rule 32B(b) is a non-complying activity.

## **Rule 32C – Construction, maintenance and use of new non-agricultural effluent storage facilities**

- (a) The use of land for the construction, maintenance and use of a new non-agricultural effluent storage facility and ancillary structures (other than an onsite wastewater system, composting toilet system, mobile toilet or agricultural effluent storage facility but including for wastewater, sludge or effluent from industrial or trade processes), and any incidental discharge of effluent directly onto or into land from that facility which is within the normal operating parameters of a leak detection system or the pond drop test criteria set out in Appendix P, is a restricted discretionary activity provided the following conditions are met:
- (i) the structural design of the effluent storage facility and ancillary structures is certified by a Chartered Professional Engineer; and
  - (ii) the effluent storage facility is not within 50 metres of any lakes, rivers, artificial watercourses, modified watercourses, natural wetlands or the coastal marine area; and
  - (iii) the effluent storage facility is not within 200 metres of any dwelling not on the same landholding, or within 50 metres of the boundary of any other landholding or road; and
  - (iv) the effluent storage facility is not within 100 metres of any authorised water abstraction point; and
  - (v) the application includes an operational management plan that addresses operational procedures, emergency response, monitoring and reporting requirements, the undertaking of pond drop tests, and installation of monitoring devices.

### **The Southland Regional Council will restrict its discretion to the following matters:**

1. the design and construction of the new non-agricultural effluent storage facility and ancillary structures including its storage capacity, the nature of effluent it will store, and the anticipated life of the storage facility;
  2. methods to be used to protect the effluent storage facility embankments from damage by animals and machinery;
  3. the potential adverse effects of the construction, maintenance and use of the effluent storage facility on: lakes, rivers, artificial watercourses, modified watercourses, natural wetlands, installed subsurface drains, groundwater, bores, registered drinking-water supplies, the coastal marine area, stop banks, residential dwellings, places of assembly and urban areas;
  4. distance of the effluent storage facility from landholding or road boundaries;
  5. the height of the effluent storage facility's embankments and placement and orientation of the effluent storage facility relative to flood flows and stormwater run-off;
  6. the quality of, and compliance with, the operational management plan;
  7. adoption and implementation of an Accidental Discovery Protocol.
- (b) The use of land for the construction, maintenance and use of any new effluent storage facility and ancillary structures (other than an onsite wastewater system, composting toilet system, mobile toilet, or agricultural effluent storage facility but including for wastewater, sludge or effluent from industrial or trade processes), and any incidental discharge of effluent directly onto or into land from that facility which is within the normal operating parameters of a leak detection system or the pond drop test criteria set out in Appendix P, that does not meet one or more of conditions (ii) to (iv) of Rule 32C(a) is a discretionary activity.
- (c) The use of land for the construction, maintenance and use of any new effluent storage facility and ancillary structures (other than an onsite wastewater system, composting toilet

system, mobile toilet or agricultural effluent storage facility but including wastewater, sludge or effluent from an industrial or trade processes), , and any incidental discharge of agricultural effluent directly onto or into land from that facility which is within the normal operating parameters of a leak detection system or the pond drop test criteria set out in Appendix P, that does not meet condition (i) of Rule 32C(a) is a non-complying activity.

**Note:** *In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.*

## **Rule 32D – Existing agricultural effluent storage facilities**

- (a) The use of land for the maintenance and use of an existing agricultural effluent storage facility that was constructed prior to Rule 32D taking legal effect, and any incidental discharge directly onto or into land from that storage facility which is within the normal operating parameters of a leak detection system or the pond drop test criteria set out in Appendix P, is a permitted activity provided the following conditions are met:
- (i) the construction of the existing agricultural effluent storage facility:
    - (1) was lawfully carried out without a resource consent; or
    - (2) was authorised by a resource consent; and
  - (ii) where the construction of the existing agricultural effluent storage facility was lawfully carried out without resource consent, the landholding owner or their agent must provide information to the Southland Regional Council upon request, demonstrating that the existing agricultural effluent storage facility is either:
    - (1) fully lined with an impermeable synthetic liner, or is of concrete construction, or is above ground level, and:
      - (a) has a leak detection system that underlies the entire agricultural effluent storage facility which is inspected not less than monthly and there is no evidence of any leakage; and
      - (b) is certified by a Suitably Qualified Person in accordance with Appendix P within the last 10 years as meeting the relevant pond drop test criteria in Appendix P; or
    - (2) certified by a Suitably Qualified Person in accordance with Appendix P within the last three years as:
      - (a) having no visible cracks, holes or defects that would allow effluent to leak from the effluent storage facility; and
      - (b) meeting the relevant pond drop test criteria in Appendix P.
- (b) The use of land for the maintenance and use of an existing agricultural effluent storage facility that was constructed prior to Rule 32D taking legal effect, and any incidental discharge directly onto or into land from that storage facility which is within the normal operating parameters of a leak detection system or the pond drop test criteria set out in Appendix P, that does not meet one or more conditions of Rule 32D(a) is a discretionary activity.<sup>7</sup>

**Note:** *In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014.*

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<sup>7</sup> 832.95 Van Gool, R; 687.2 Roseneath Dairies

### **Rule 33 – Community sewerage schemes (discharge to land)**

- (a) The discharge of effluent or bio-solids onto or into land, in circumstances where contaminants may enter water, from a community sewerage scheme is a discretionary activity, provided the following conditions are met:
  - (ii) the discharge is not within 20 metres of any rivers, lakes, artificial watercourses, modified watercourses, natural wetlands or the coastal marine area; and
  - (iii) the discharge is not within 200 metres of any place of assembly or dwelling not on the same landholding, or 20 metres of the boundary of any other landholding; and
  - (iv) the discharge is not within 100 metres of any authorised water abstraction point.
- (b) The discharge of effluent or bio-solids onto or into land, in circumstances where contaminants may enter water, from a community sewerage scheme that does not meet the conditions of Rule 33(a) is a non-complying activity.

### **Rule 33A – Community sewerage schemes (discharge to water)**

- (a) The discharge of effluent or bio-solids from a community sewerage scheme into water in rivers, lakes, artificial watercourses, modified watercourses, or natural wetlands is a non-complying activity.

### **Rule 34 – Industrial and trade processes**

- (a) Other than as provided for by Rule 32C, the discharge of wastewater, sludge or effluent from industrial and trade processes, other than agricultural effluent, onto or into land in circumstances where contaminants may enter water is a discretionary activity provided the following condition is met:
  - (i) any pond, tank or structure used to store the wastewater, sludge or effluent prior to discharge is certified by a Chartered Professional Engineer as having no visible cracks or defects that would allow wastewater, sludge or effluent to leak from the storage.
- (b) The discharge of wastewater, sludge or effluent from industrial and trade processes, other than agricultural effluent, onto or into land in circumstances where contaminants may enter water that does not meet the condition of Rule 34(a) is a non-complying activity.

### **Rule 35 – Discharge of agricultural effluent to land**

- (a) Other than as provided for by Rules 32A, 32B and 32D, the discharge of agricultural effluent or water containing agricultural effluent onto or into land in circumstances where contaminants may enter water is a permitted activity provided the following conditions are met:
  - (i) the discharge is:
    - (1) from a dairy shed servicing a maximum of 20 cows or 100 of any other animal; or
    - (2) from piggeries with a maximum of 70 x 50 kg pig equivalents; or
    - (3) directly from feed pads/lots authorised under Rule 35A; or
    - (4) from stock underpasses; or
    - (5) from holding tanks on stock trucks; and

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<sup>8</sup> Heritage NZ (evidence para 4.5.1).



- (ii) there is no discharge of agricultural effluent or water containing agricultural effluent to any lakes, rivers, artificial watercourses, modified watercourses or natural wetlands either directly or by overland flow, run-off, or via a pipe; and
  - (iii) there is no overland flow or ponding of effluent, or application to land when the soil moisture exceeds field capacity; and
  - (iv) the discharge is not within 20 metres of any lakes, rivers, artificial watercourses, modified watercourses, natural wetlands or the coastal marine area; and
  - (v) the discharge is not within 200 metres of any place of assembly or dwelling not on the same landholding, or 20 metres of the boundary of any other landholding or public road; and
  - (vi) the discharge is not within 100 metres of any authorised water abstraction point; and
  - (vii) the maximum discharge depth of agricultural effluent or water containing agricultural effluent is 10 millimetres for each individual application; and
  - (viii) the maximum loading rate of nitrogen onto any land area does not exceed 150 kilograms of nitrogen per hectare per year from agricultural effluent or water containing agricultural effluent; and
  - (x) the minimum return period for discharging collected agricultural effluent or water containing agricultural effluent onto or into the site is 28 days; and
  - (xi) the discharge does not occur within the microbial health protection zone of a drinking water supply site identified in Appendix J, or where no such zone is identified, then within 250 metres of the abstraction point of a drinking water supply site identified in Appendix J; and
  - (xii) the location of any known sub-surface drains within the discharge area, and their outlet position and relative depth, is mapped and provided to the Southland Regional Council upon request.
- (b) Other than as provided for by Rules 32A, 32B and 32D, the discharge of agricultural effluent or water containing agricultural effluent onto or into land in circumstances where contaminants may enter water that does not meet one or more conditions of Rule 35(a) is a restricted discretionary activity, provided the following conditions are met:
- (i) the discharge is the replacement of an existing discharge consent pursuant to sections 124-124C of the RMA, and
  - (ii) the existing discharge consent for agricultural effluent specifies a maximum number of animals from which the effluent is collected, and that number is not increasing.

***The Southland Regional Council will restrict the exercise of its discretion to the following matters:***

1. application depth or rate, storage requirements, nutrient loading rates (in particular nitrogen), size of the disposal area, timing of the discharge, and contingency plans;
  2. the separation distance of the discharge from rivers, lakes, artificial watercourses, modified watercourses, natural wetlands, subsurface drains, the coastal marine area, infrastructure, residential dwellings, places of assembly, urban areas, landholding boundaries, water abstraction points and registered drinking water supplies;
  3. measures to avoid, remedy or mitigate adverse effects (including cumulative effects directly related to the discharge of farm dairy effluent) on water quality, taking into account the nature and sensitivity of the receiving environment;
  4. the duration of consent, including in order to implement the outcomes of any Freshwater Management Unit Process to be undertaken in accordance with Policy 47.
- (c) Other than as provided for by Rules 32A, 32B and 32D, the discharge of agricultural effluent or water containing agricultural effluent onto or into land in circumstances where contaminants may enter water that does not meet one or more conditions of Rule 35(a) or conditions (i) or (ii) of Rule 35(b) is a discretionary activity, provided the following conditions are met:

- (i) the discharge is not within 20 metres of any lakes, rivers, artificial watercourses, modified watercourses, natural wetlands or the coastal marine area; and
  - (ii) the discharge is not within 200 metres of any place of assembly or dwelling not on the same landholding, or 20 metres of the boundary of any other landholding; and
  - (iii) the discharge is not within 100 metres of any authorised water abstraction point.
- (d) Other than as provided for by Rules 32A, 32B and 32D, the discharge of agricultural effluent or water containing agricultural effluent to land in circumstances where contaminants may enter water that does not comply with Rule 35(c) is a non-complying activity.
- (e) Other than as provided for by Rules 32A, 32B and 32D, the discharge of untreated agricultural effluent directly into surface water or groundwater is a prohibited activity.

### **Rule 35A – Feed pads/lots**

- (a) The use of land for a feed pad/lot is a permitted activity provided the following conditions are met:
- (i) if accommodating cattle or deer, each feed pad/lot services no more than 120 adult cattle, or 250 adult deer, or equivalent numbers of young stock at any one time; and
  - (ii) animals do not remain on the feed pad/lot for longer than three continuous months; and
  - (iii) the feed pad/lot is not located:
    - (1) within 50 metres from the nearest sub-surface drain, lake, river (excluding ephemeral rivers), artificial watercourse, modified watercourse, natural wetland, or another feed pad/lot on the same landholding; or
    - (2) within a microbial health protection zone of a drinking water supply site identified in Appendix J, or where no such zone is identified, then within 250 metres of the abstraction point of a drinking water supply site identified in Appendix J; or
    - (3) within 200 metres of a place of general assembly or dwelling not located on the same landholding, or
    - (4) within 20 metres of the boundary of any other landholding; or
    - (5) within a critical source area; and
  - (iv) the feed pad/lot is constructed with:
    - (1) a sealed and impermeable base and any liquid animal effluent or stormwater containing animal effluent discharging from the feed pad/lot is collected in a sealed animal effluent storage system authorised under Rule 32B or Rule 32D; or
    - (2) a minimum depth of 500 millimetres of wood-based material (bark, sawdust or chip) across the base of the feed pad/lot; and
  - (v) any material scraped from the feed pad/lot, including solid animal effluent, is collected and if applied to land is applied in accordance with Rule 38; and
  - (vi) the overland flow of stormwater or surface runoff from surrounding land is prevented from entering the feed pad/lot.
- (b) The use of land for a feed pad/lot that does not meet one or more of the conditions of Rule 35A(a) is a discretionary activity.

### **Rule 36 – Horticulture wash-water**

- (a) The discharge of water containing contaminants from vegetable or bulb washing to land where contaminants may enter water is a permitted activity, provided that the following conditions are met:

- (i) either the discharge complies with Section 2 “Good Practices” of the Horticulture NZ Washwater Discharge Code of Practice 2017; or
- (ii) the discharge does not exceed 20 cubic metres per day; and
- (iii) there is no overland flow; or ponding for more than 24 hours of horticultural washwater, or application of the washwater to land when soil moisture exceeds field capacity; and
- (iv) the discharge only contains water, soil, or HSNO approved sanitisers that are used in accordance with their label instructions and comply with NZS 8409:2004 Management of Agrichemicals; and
- (v) the discharge is not within:
  - (1) 20 metres of any lakes, rivers, artificial watercourses, modified watercourses, natural wetlands or the coastal marine area; or
  - (2) 20 metres of any landholding boundary; or
  - (3) 100 metres of any residential dwelling; or
  - (4) the microbial health protection zone of a drinking water supply site identified in Appendix J, or where no such zone is identified, then within 250 metres of the abstraction point of a drinking water supply site identified in Appendix J.

### **Rule 37 – Agricultural dips**

- (a) The discharge of sludge from stationary agricultural dips, mobile sheep dips and spray dips onto or into land in circumstances where contaminants may enter water is a permitted activity, provided that the following conditions are met:
  - (i) there is no discharge of agricultural dip effluent directly to water, including groundwater; and
  - (ii) there is no overland flow or ponding of agricultural dip effluent, or application onto land when soil moisture exceeds field capacity; and
  - (iii) the discharge is not within:
    - (1) 20 metres of any lakes, rivers, artificial watercourses, modified watercourses, natural wetlands or the coastal marine area; or
    - (2) 100 metres from any existing potable water abstraction point; or
    - (3) 20 metres of any landholding boundary; or
    - (4) 100 metres from any residential dwelling other than residential dwellings on the landholding; and
    - (5) the microbial health protection zone of a drinking water supply site identified in Appendix J, or where no such zone is identified, then within 250 metres of the abstraction point of a drinking water supply site identified in Appendix J; and
  - (iv) the discharge of agricultural effluent from stationary agricultural dips, mobile sheep dips and spray dips occurs on the landholding where the dipping has taken place; and
  - (v) the discharge is undertaken in accordance with any Hazardous Substances and New Organisms Act 1996 approval for the substances being discharged; and
  - (vi) a written record of the chemicals used and the volume and location of the discharge is kept and provided to the Southland Regional Council on request.

### **Rule 38 – Animal and vegetative waste**

- (a) The discharge of solid animal waste (excluding any discharge directly from an animal to land), sludge or vegetative material containing animal excrement or vegetative material, including from a high intensity farming process, feed pad/lot or wintering barn or industrial or trade process, into or onto land, or into or onto land in circumstances where a contaminant may enter water is a permitted activity provided the following conditions are met:
  - (i) the material does not contain any hazardous substance or hazardous waste; and
  - (ii) the material does not include any waste from a human effluent treatment process; and

- (iii) the maximum loading rate of nitrogen onto any land area does not exceed 150 kilograms of nitrogen per hectare per year; and
- (iv) the material is not discharged:
  - (1) onto the same area of land more frequently than once every two months; or
  - (2) onto land where solid animal waste, or vegetative material containing animal excrement or vegetative material from a previous application is still visible on the land surface; or
  - (3) onto land when the soil moisture exceeds field capacity or when soil temperatures are below 5 degrees in winter and autumn or 7 degrees in spring; or
  - (4) within 20 metres of the landholding boundary, a bore used for water abstraction, the bed of a lake, river, artificial watercourse, modified watercourse, natural wetland or the coastal marine area; or
  - (5) with an average depth of material of greater than 10 millimetres on the land surface.

### **Rule 39 – Other agricultural effluent disposal**

- (a) The discharge of agricultural effluent, water containing contaminants from vegetable or bulb washing sludge, stationary agricultural dips, mobile sheep dips and spray dips onto or into land in circumstances where contaminants may enter water, other than as provided for in Rules 32A to 38, is discretionary activity.

### **Rule 40 – Silage storage**

- (a) The use of land for a silage storage facility is a permitted activity provided the following conditions are met:
  - (ii) there is no overland flow of stormwater into the silage storage facility; and
  - (v) no part of the silage storage facility is within:
    - (1) 50 metres of any lake, river (excluding ephemeral rivers), artificial watercourse, modified watercourse, natural wetland or any potable water abstraction point; or
    - (2) 100 metres of any dwelling or place of assembly, on another landholding constructed or in use prior to the silage storage facility being lawfully established; or
    - (3) the microbial health protection zone of a drinking water supply site identified in Appendix J, or where no such zone is identified, then within 250 metres of the abstraction point of a drinking water supply site identified in Appendix J; or
    - (4) a critical source area; and
  - (vi) no part of the silage storage facility is located within 50 metres of a classified HAIL site under the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health 2011; and
  - (vii) no part of the silage storage facility is located on land that is made permanently or intermittently wet by the presence of springs, seepage, high groundwater, ephemeral rivers or flows of stormwater other than from any cover of the silage; and
  - (viii) cattle are not able to graze directly from the silage storage facility, unless the area where the cattle access the silage complies with Rule 35A.
- (b) The use of land for a silage storage facility that does not meet the conditions in Rule 40(a) is a restricted discretionary activity provided to the following conditions are met:
  - (i) no part of the silage storage facility is within:
    - (1) 20 metres of any lake, river (excluding ephemeral rivers), artificial watercourse, modified watercourse or natural wetland; or
    - (2) 50 metres of a dwelling, potable water abstraction point, or place of assembly on another landholding; or

- (3) 50 metres of the main stems of the Waiau, Aparima, Ōreti or Mataura rivers, or inside flood banks of the main stems of these rivers (if present); or
- (4) the microbial health protection zone of a drinking water supply site identified in Appendix J, or where no such zone is identified, then within 250 metres of the abstraction point of a drinking water supply site identified in Appendix J.

***The Southland Regional Council will restrict the exercise of its discretion to the following matters:***

2. measures necessary to prevent noxious, dangerous, offensive, or objectionable effects beyond the boundary of the landholding on which silage is stored;
3. measures necessary to prevent inflows of stormwater, or infiltration from underlying seeps, springs, or groundwater;
4. the physical dimensions and location of the silage storage facility;
6. methods of containing any silage leachate that may be emitted prior to application to land, including the volume of any silage leachate storage.

*An application for resource consent under Rule 40(b) will be processed and considered without public or limited notification unless the applicant requests notification or the Southland Regional Council considers that special circumstances exist that warrant notification of the application.*

- (c) The use of land for a silage storage facility that does not meet one or more of the conditions in Rule 40(b) is a non-complying activity.

**Note:** *In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.*

## **Rule 41 – Silage leachate**

- (a) The discharge of silage leachate onto or into land in circumstances where contaminants may enter water is a permitted activity provided the following conditions are met:
  - (i) the discharge is via an agricultural effluent discharge system authorised under Rule 35; or
  - (ii) there is no discharge of leachate directly to groundwater via a pipe, soak pit or other soil bypass mechanism and there is no overland flow or ponding of silage leachate outside of the silage storage facility; and
  - (iii) any discharge is not within:
    - (1) 20 metres of any lakes, rivers, artificial watercourses, modified watercourses, natural wetlands or the coastal marine area; or
    - (2) 100 metres of a place of assembly or dwelling not on the same landholding, or 20 metres of the boundary of any other landholding; or
    - (3) 100 metres of any authorised water abstraction point; or
    - (4) the microbial health protection zone of a drinking water supply site identified in Appendix J, or where no such zone is identified, then within 250 metres of the abstraction point of a drinking water supply site identified in Appendix J; and
  - (iv) any discharge does not result in:
    - (2) an application depth in excess of 10 millimetres for each individual application; and
    - (3) a loading rate of nitrogen from the discharge of silage leachate in excess of 150 kilograms of nitrogen per hectare per year.

- (b) The discharge of silage leachate onto or into land in circumstances where contaminants may enter water that does not meet one or more of the conditions in Rule 41(a) is a discretionary activity.

# Landfills

## Rule 42 – Cleanfill sites

- (a) The discharge of cleanfill into or onto land at a cleanfill site in circumstances where contaminants may enter water is a permitted activity provided the following conditions are met:
- (i) the total amount of cleanfill discharged at all cleanfill sites on a landholding does not exceed 500 cubic metres per calendar year, except for a formed road reserve or a rail corridor in which case no limit applies; and
  - (ii) the discharge does not occur within:
    - (1) the bed of a lake or river; or
    - (2) 50 metres of any lakes, rivers, artificial watercourses, modified watercourses, natural wetlands, the coastal marine area or landholding boundary; or
    - (3) 50 metres of the main stems of the Waiau, Aparima, Ōreti or Mataura rivers, or inside flood banks of the main stems of these rivers (if flood banks are present); or
    - (4) 100 metres of any authorised water abstraction point; and
  - (iv) stormwater is directed away from the discharge site.
- (b) The discharge of cleanfill into or onto land at a cleanfill site in circumstances where contaminants may enter water that does not meet one or more of the conditions of Rule 42(a) is a restricted discretionary activity.

***The Southland Regional Council will restrict its discretion to the following matters:***

1. prevention of inundation of any other person's landholding, sedimentation in any waterbody, erosion and land instability, and the restriction or diversion of flood flows;
2. effects on sensitive receiving environments;
4. design, construction and management of the cleanfill site;
5. post-closure management practices and procedures;
6. information and monitoring requirements;
7. the quantity of cleanfill to be discharged.

*An application for resource consent under Rule 42(b) will be processed and considered without public or limited notification unless the applicant requests notification or the Southland Regional Council considers special circumstances exist that warrant notification of the application.*

**Note:** *In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.*

## Rule 43 – Farm landfills

- (a) The discharge of a contaminant into or onto land from a farm landfill in circumstances where that contaminant may enter water is a permitted activity provided the following conditions are met:
- (i) carcasses, offal, compost bulking agents or waste is derived from the same landholding on which the farm landfill is situated, or the activity is carried out by a local authority or government agency in the exercise of their statutory powers; and

- (ii) the discharge does not include septic tank sludge, dairy farm sludge or a hazardous substance; and
  - (iii) the discharge does not occur within:
    - (1) the bed of a lake, river, or natural wetland; or
    - (2) a critical source area; or
    - (3) 50 metres of any lakes, rivers, artificial watercourses, modified watercourses, natural wetlands, or the coastal marine area; or
    - (4) 50 metres of the main stems of the Waiau, Aparima, Ōreti or Mataura rivers, or inside flood banks of the main stems of these rivers (if flood banks are present); or
    - (5) 100 metres of any authorised water abstraction point, or dwelling, place of assembly, or landholding boundary; or
    - (6) the microbial health protection zone of a drinking water supply site identified in Appendix J, or where no such zone is identified, then within 250 metres of the abstraction point of a drinking water supply site identified in Appendix J; or
    - (7) 100 metres of a dwelling, place of assembly, or landholding boundary; and
  - (iv) stormwater is directed away from the discharge site; and
  - (v) the farm landfill does not intercept an on-farm sub-surface drain, or a spring, and is not excavated below the seasonal mean groundwater level in that location; and
  - (vi) as each section of the farm landfill becomes full or unused, the deposited carcasses, offal, compost bulking agents and waste material is covered with soil and the resulting soil surface is restored to a similar state as the surrounding land; and
  - (vii) any carcass or offal must not come into contact with naturally formed limestone rock.
- (b) The discharge of a contaminant into or onto land in circumstances where that contaminant may enter water at a farm landfill that does not meet one or more of the conditions of Rule 43(a) is a discretionary activity.
- (c) Notwithstanding the provisions of Rules 43(a) and (b), the discharge of the carcass of, or offal from, a single animal into or onto land in circumstances where a contaminant may enter water is a permitted activity provided the following conditions are met:
- (i) the carcass or offal cannot be reasonably disposed of in accordance with the conditions of Rule 43(a); and
  - (ii) the carcass or offal is derived from the same landholding on which the discharge is to occur; and
  - (iii) the carcass or offal buried does not occur within:
    - (1) 20 metres of surface water or an authorised water abstraction point; or
    - (2) 20 metres of a dwelling, place of assembly, or landholding boundary.
- (d) The discharge of the carcass of, or offal from, a single animal into or onto land in circumstances where that contaminant may enter water that does not meet one or more of the conditions of Rule 43(c) is a discretionary activity.

**Note:** *In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.*

## **Rule 45 – Landfills**

- (a) Except as provided for elsewhere in this Plan, the discharge of contaminants from a landfill into or onto land in circumstances where that contaminant may enter water is a discretionary activity.



## Land Contamination

### Rule 46 – Land contaminated by a hazardous substance

- (a) The discharge of contaminants from land contaminated by a hazardous substance onto or into land in circumstances which may result in contaminants entering water is a permitted activity provided:
- (i) the hazardous substance in the discharge results from an activity authorised by a rule in this Plan or a resource consent granted by the Southland Regional Council; or
  - (ii) the discharge does not result in a breach of the trigger values for toxicants presented in Table 3.4.1 in the Australia and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC) 2000 at the level of protection set in those guidelines for 80% of species, except for benzene where the level of protection is 90% of species (i.e. 1 milligram per litre), at the nearest of:
    - (1) 50 metres from the discharge; or
    - (2) the landholding boundary; or
    - (3) any point immediately adjacent to any lakes, rivers, artificial watercourses, modified watercourses, natural wetlands, the coastal marine area, or water abstraction bores (excluding monitoring bores); and
  - (iii) the discharge does not result in a breach of the Drinking Water Standards for New Zealand 2005 (Revised 2008) in any bore utilised for potable supply, except where the ambient water quality naturally breaches those Standards and the discharge does not result in any further degradation of the water quality.
- (b) The discharge of soil from land contaminated by a hazardous substance onto or into land in circumstances which may result in those contaminants entering water is a permitted activity provided:
- (i) the hazardous substance in the soil results from the application of a fertiliser or agrichemical to the land authorised by a rule in this Plan or a resource consent granted by the Southland Regional Council; or
  - (ii) the soil is being returned to the excavation or site from which it was taken.
- (c) The discharge of contaminants or soil from land contaminated by a hazardous substance onto or into land in circumstances which may result in those contaminants entering water that does not meet one or more of the conditions of Rule 46(a) or (b) is a discretionary activity.

### Rule 46A – Site investigations

- (a) The use of land for a site investigation to assess concentrations of hazardous substances that may be present in the soil, and any incidental discharges as a result of that investigation, is a permitted activity provided the following conditions are met:
- (i) the site investigation is to be undertaken in accordance with Contaminated Land Management Guidelines No. 5: Site Investigation and Analysis of Soils (Ministry for the Environment, 2011) and reported on in accordance with the Contaminated Land Management Guidelines No. 1: Reporting on Contaminated Sites in New Zealand, (Ministry for the Environment, 2011); and
  - (ii) the person or organisation initiating the site investigation provides a copy of the report of the site investigation to the Southland Regional Council within two months of the completion of the investigation.

- (b) The use of land for a site investigation to assess concentrations of hazardous substances that may be present in the soil, and any incidental discharges as a result of that investigation, that does not meet one or more of the conditions in Rule 46A(a) is a discretionary activity.

### **Rule 47 – Closed landfills**

- (a) Despite Rule 46, the discharge of contaminants from a closed landfill onto or into land in circumstances which may result in those contaminants entering water is a permitted activity provided the following conditions are met:
  - (i) a risk assessment of the closed landfill is carried out in accordance with the risk screening system developed by Ministry for the Environment<sup>9</sup> which demonstrates that the environmental risk is low; and
  - (ii) a copy of the risk assessment is lodged with the Southland Regional Council.
- (b) Despite Rule 46, the discharge of contaminants from a closed landfill onto or into land in circumstances which may result in those contaminants entering water that does not meet one or more of the conditions of Rule 47(a) is a discretionary activity.

### **Rule 48 – Cemeteries**

- (a) The use of land for an existing cemetery and any ancillary discharge of contaminants into or onto land in circumstances where a contaminant may enter water is a permitted activity.
- (b) The use of land for a new cemetery or an extension to an existing cemetery and any ancillary discharge of contaminants into or onto land in circumstances where a contaminant or water may enter water is a permitted activity provided the following conditions are met:
  - (i) any new cemetery or an extension to an existing cemetery is not located:
    - (1) within 20 metres of any lakes, rivers, artificial watercourses, modified watercourses, natural wetlands or the coastal marine area; or
    - (2) within 50 metres of any authorised water abstraction point; or
    - (3) within the microbial health protection zone of a drinking water supply site identified in Appendix J, or where no such zone is identified, then within 250 metres of the abstraction point of a drinking water supply site identified in Appendix J; or
    - (4) where the depth to groundwater is less than 2.5 metres.
- (c) The use of land for a cemetery, and any ancillary discharge of contaminants into or onto land in circumstances where a contaminant or water may enter water, that does not meet one or more of the conditions in Rule 48(b) is a discretionary activity.

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<sup>9</sup> *The current risk screening system for closed refuse disposal facilities <15,000 cubic metres MSW is contained in the document Small Landfill Closure Criteria – Risk Assessment for Small Closed Landfills (MfE, 2002) and for closed refuse disposal facilities >15,000 cubic metres MSW in the procedures set out in the document in A Guide to the Management of Closing and Closed Landfills in New Zealand (MfE, 2001)*

## Taking and Using Water

*Note: Takes for drinking water supplies will also need to comply with other requirements including The National Environmental Standard for Sources of Human Drinking Water Regulations 2007 and the Health (Drinking Water) Amendment Act 2007.*

### Rule 49 – Abstraction, diversion and use of surface water

- (a) The take and use of surface water is a permitted activity provided the following conditions are met:
- (i) the volume of take does not exceed 2000 litres per day, plus 250 litres per hectare per day, up to a maximum of 40 cubic metres per landholding per day or per facility per day on public conservation land managed as such under the National Parks Act 1980, Conservation Act 1987 or the Reserves Act 1977; and
  - (ii) the maximum volume of take allowed under this rule and Rule 54(a) are not added together. A maximum of 86 cubic metres of groundwater and surface water combined per landholding per day inclusive of any water taken pursuant to s14(3)(b) of the RMA may be taken; and
  - (iii) the rate of take from a river or modified watercourse does not exceed 30 percent of the instantaneous flow at the time of take; and
  - (iv) the rate of take does not exceed 2 litres per second; and
  - (v) fish are prevented from entering the reticulation system in accordance with Appendix R; and
  - (vi) the following details are supplied to the Southland Regional Council upon request (if applicable):
    - (1) farming type; and
    - (2) stocking rate; and
    - (3) point of abstraction; and
    - (4) what the water was used for; and
    - (5) maximum rate of take; and
  - (vii) where the volume of the take exceeds 20,000 litres per day, a water meter capable of recording the rate of take and the daily volume of take is used. Water take data must be recorded daily and provided to the Southland Regional Council on request. The accuracy of the water meter must be verified every 12 months.
- (ab) Despite Rule 49(a), the take and use of surface water for infrastructure construction, maintenance and repair is a permitted activity provided the following conditions are met:
- (i) the rate of take does not exceed 15 litres per second; and
  - (ii) the volume of take does not exceed 100,000 litres per day; and
  - (iii) the bed of the watercourse from where the take occurs is at least 1 metre wide and the depth of flow in the watercourse at that location exceeds 0.5 metres at the time of the take; and
  - (iv) the take does not occur for more than 45 consecutive minutes and multiple takes from the same site on a single day are at least 30 minutes apart; and
  - (v) the point of abstraction is not located within 50 metres of any existing lawfully established surface water take; and
  - (vi) the Southland Regional Council is notified at least three working days prior to the take commencing; and
  - (vii) the take occurs between 1 September and 31 March inclusive; and
  - (viii) fish are prevented from entering the water intake in accordance with Appendix R.
- (b) Except as provided for in Rules 49(a), 49(ab), 50(a), 50(b), 51(a) and 51(b), the taking, diversion and use of surface water is a restricted discretionary activity provided the following conditions are met:

- (i) for any lakes, rivers, artificial watercourses, modified watercourses or natural wetlands the total surface water allocation is within the secondary allocation specified in Policy 21(3); or
- (ii) for non-consumptive takes, the total volume of water taken or diverted is returned within 100 metres of the take or diversion point; or
- (iii) for any lakes, rivers, artificial watercourses, modified watercourses or natural wetlands the total volume of water taken is greater than 40 cubic metres per landholding per day but is less than 70 cubic metres per landholding per day.

***The Southland Regional Council will restrict its discretion to the following matters:***

1. the volume, rate, frequency and timing of water to be taken (including any water to be returned to the lake, river, artificial watercourse, modified watercourse or natural wetland and the delay between the taking and returning of this water);
  2. any effects on river flows (including effects on minimum flows, flow variability and duration of flows), wetland or lake water levels, aquatic ecosystems, aquifer storage volumes, the availability and reliability of supply for existing users, and water quality;
  3. the location of the take or diversion;
  4. the efficiency of water use, in accordance with Appendix O;
  5. the installation and use of a water meter;
  6. information and monitoring requirements;
  7. methods to prevent fish from entering the intake in accordance with Appendix R;
  8. take cessation in response to minimum flow and level requirements;
  9. consistency with any water conservation order;
  10. the degree of hydraulic connection to groundwater;
  11. any effect on a natural wetland;
  12. the proposed method of take and delivery of the water;
  13. any water storage available for the water taken and its volume.
- (c) Except as provided for in Rules 49(a), 49(ab), 49(b), 50(a), 50(b), 51(a), 51(b) and 51(c), the taking, diversion and use of surface water where the total rate of authorised surface water abstraction does not exceed the primary allocation specified in Appendix K is a discretionary activity.
- (d) Except as provided for in Rules 49(a), 49(ab), 49(b), 49(c), 50(a), 50(b), 51(a), 51(b) and 51(c), the taking, diversion and use of water is a non-complying activity.
- (e) Despite Rules 49(b), 49(c), and 49(d) the taking, diversion and use of water from the Cromel Stream is a prohibited activity, unless the application is for the replacement of an expiring water permit pursuant to Section 124 of the Act, the rate of take and volume is not increasing and use of the water is not changing.

## **Rule 50 – Community water supply**

**(a) Existing community water supply**

The taking and use of water for a community water supply is a controlled activity provided:

- (i) the application is for the replacement of an expiring water permit pursuant to section 124 of the Act and the rate of take and the volume and use of the water is not changing; and
- (ii) a water demand management strategy is lodged as a part of the application.

***The Southland Regional Council will reserve its control over the following matters:***

1. the quality of and implementation of the water demand management strategy;

2. the rate and volume of water to be taken (including any water to be returned to the lake, river, artificial watercourse, modified watercourse or natural wetland);
3. any effects on river flows (including effects on minimum flows, flow variability and duration), wetland or lake water levels, aquatic ecosystems, and aquifer storage volumes;
4. the availability and reliability of supply for existing users;
- 4a. water quality;
- 4b. methods to prevent fish from entering the intake in accordance with Appendix R;
5. information and monitoring requirements;
6. take cessation in response to minimum flow and level requirements;
7. consistency with any water conservation order;
8. the degree of hydraulic connection to groundwater or other surface water bodies;
9. management of the take during water shortages.

(b) **New community water supply**

Except as provided for in Rule 50(a), the taking of water for a community water supply is a discretionary activity.

## **Rule 51 – Minor diversions of water**

- (a) Despite any other rule in this Plan, the diversion of water within a river or lake bed is a permitted activity provided the following conditions are met:
- (i) the diversion is for the purposes of undertaking a permitted activity under Rules 55 to 79, or for the purposes of habitat creation, restoration or enhancement, or hydrologic research; and is carried out in accordance with the following conditions:
    - (a1) the general conditions set out in Rule 55A other than conditions (i), (j) and (k) of that Rule; and
  - (ii) the diversion is carried out completely within a river or lake bed (i.e. no water is diverted outside of the river or lake bed); and
  - (iii) the water is returned to its original course after completion of the activity, no later than one month after the diversion occurs; and
  - (iva) the diversion does not occur within 12 metres of a network utility structure, unless the activity is for the purpose of maintaining, upgrading or developing that network utility; and
  - (iv) the diversion does not compromise the ability of any other person to exercise a resource consent or undertake an activity permitted by this Plan; and
  - (v) the diversion does not result in a net loss of water from the catchment.
- (b) Despite any other rule in this Plan, the diversion of water for the purpose of land drainage is a permitted activity provided the following conditions are met:
- (i) the diversion and associated discharge does not cause erosion or deposition; and
  - (ii) the diversion does not cause flooding of downstream or adjacent properties; and
  - (iii) the diversion of water is not from a Regionally Significant Wetland or Sensitive Water Body identified in Appendix A or any natural wetland.
- (c) Notwithstanding any other rule in this Plan, the diversion of water at the mouth of:
- (i) a drain known as the North Drain on the Tiwai Peninsula, at about Map Reference NZTopo50 CG10 463 308;<sup>10</sup> or
  - (ii) a drain known as the West Drain on the Tiwai Peninsula, at about Map Reference NZTopo50 CG10 457 302;<sup>11</sup> or

<sup>10</sup> The equivalent NZTM2000 coordinates are 1246300 mE 4830800 mN

<sup>11</sup> The equivalent NZTM2000 coordinates are 1245700 mE 4830200 mN

(iii) a drain known as the South Drain on the Tiwai Peninsula, at about Map Reference NZTopo50 CH10 456 298<sup>12</sup>

is a permitted activity provided the following conditions are met:

- (1) the work is carried out under the direct control of the body or person responsible for the maintenance of the drain; and
- (2) machinery only crosses through a drain to obtain reasonable access to the side of the drain from which the work is to be undertaken; and
- (3) the diversion is constructed at right angles to the line of the beach; and
- (4) any excavated spoil is removed from the site and legally disposed of or spread over non-vegetated areas adjacent to the diversion; and
- (5) the body or person responsible advises the Southland Regional Council of the details of the time and extent of the work to be undertaken, prior to the work commencing; and
- (6) in the event of a discovery, or suspected discovery, of a site of cultural, heritage or archaeological value, the operation ceases immediately in that location and the Southland Regional Council is informed. Operations may recommence with the permission of the Southland Regional Council.

(d) Unless controlled by any other rule in this Plan, the diversion of water for the purpose of land drainage that does not meet Rules 51(a) to (c) is a discretionary activity.

**Note:** *In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S. Due to the high concentration of recorded archaeological sites in the vicinity of the above sites, it is possible that works will require an archaeological authority under the Heritage New Zealand Pouhere Taonga Act 2014. No work (even if permitted under the rule or authorised by resource consent) should commence without first contacting Heritage New Zealand.*

## **Rule 52 – Water abstraction, damming, diversion and use from the Waiau catchment**

(a) Except as provided in Rules 49(a), 49(b), 49(c), 50(a), 50(b), 51(a), 51(b), 52A and 52B (including takes authorised by section 14(3) of the Act), any take, damming, diversion or use of water from the Waiau catchment is a discretionary activity provided the following conditions are met:

- (i) the application is for the replacement of an expiring water permit pursuant to section 124 of the Act, and the rate of take and volume is not increasing, and use of the water is not changing; or
- (ii) the application is for a groundwater take assessed as having a Low degree of hydraulic connection following the methodology specified in Appendix L.2.

(b) Except as provided in Rules 49(a), 49(b), 49(c), 50(a), 50(b), 51(a), 51(b), 52A and 52B (including takes authorised by section 14(3) of the Act), any take, damming, diversion or use of water from the Waiau catchment that does not meet the conditions of Rule 52(a) is a non-complying activity.

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<sup>12</sup> The equivalent NZTM2000 coordinates are 1245600 mE 4829800 mN

## **Rule 52A – Manapōuri Hydro-electric Generation Scheme**

- (a) Despite any other rules in this Plan, any activity that is part of the Manapōuri hydro-electric generation scheme, for which consent is held and which is the subject of an application for a new consent for the same activity and is:
- (i) the taking or use of water; or
  - (ii) the discharge of water into water or onto or into land; or
  - (iii) the discharge of contaminants into water or onto or into land; or
  - (iv) the damming or diversion of water;

is a controlled activity provided the following conditions are met:

- (1) the application is for the replacement of an expiring resource consent pursuant to section 124 of the Act; and
- (2) where the replacement consent is for the taking or use of water, the rate of take and volume is not increasing, and the use of water is not changing; and
- (3) where the replacement consent is for the taking or use of water, the rate of take and volume complies with any relevant flow and level regimes set out in this Plan.

***The Southland Regional Council will reserve the exercise of its control to the following matters:***

1. the volume and rate of water taken, used, diverted or discharged and the timing of any take, diversion or discharge, including how this relates to generation output;
2. any effects on river flows, wetland and lake water levels, aquatic ecosystems and water quality;
3. mitigation or remediation measures to address adverse effects on the environment;
4. the benefits of renewable electricity generation.

*An application for resource consent under Rule 52A(a) will be publicly notified.*

- (b) Despite any other rules in this Plan, any activity that is part of the Manapōuri hydro-electric generation scheme for which consent is held and which is the subject of an application for a new consent for the same activity and is:
- (i) the taking or use of water; or
  - (ii) the discharge of water into water or onto or into land; or
  - (iii) the discharge of contaminants into water or onto or into land; or
  - (iv) the damming or diversion of water;

that does not meet one or more of the conditions of Rule 52A(a) is a non-complying activity.

## **Rule 53 – Bores and wells**

- (a) The use of land for the drilling or construction of any bore or well is a controlled activity provided the following conditions are met:
- (i) the bore or well design and headworks prevent:
    - (1) the infiltration of contaminants; and
    - (2) the uncontrolled discharge or leakage of water to the ground surface or between aquifers; and
  - (ii) the bore is constructed in accordance with NZS 4411:2001 Environmental Standard for Drilling of Rock and Soil (including the recording and supply of bore logs and other records); and
  - (iii) for bores to be used for the supply of water from unconfined aquifers, the bore screen fully penetrates the aquifer.

***The Southland Regional Council will reserve the exercise of its control to the following matters:***

1. the proximity of the bore or well to surface water bodies (including spring-fed streams), potential sources of groundwater contamination and existing bores and wells;
2. the design and depth of the bore or well;
3. the method of drilling or excavation;
4. the design and management of the bore head;
5. the use, maintenance and decommissioning of the bore or well;
6. information and monitoring requirements;
7. adoption and implementation of an Accidental Discovery Protocol.

*An application for resource consent under Rule 53(a) will be processed and considered without public or limited notification unless the applicant requests notification or the Southland Regional Council considers special circumstances exist that warrant notification of the application.*

- (b) The use of land for the drilling or construction of any bore or well that does not meet the conditions in Rule 53(a) is a discretionary activity.
- (c) The use, maintenance or decommissioning of any bore or well is a permitted activity provided the following conditions are met:
  - (i) the bore or well design and headworks prevent:
    - (1) the infiltration of contaminants; and
    - (2) the uncontrolled discharge or leakage of water to the ground surface or between aquifers.
- (d) The use, maintenance or decommissioning of any bore or well that does not meet the conditions in Rule 53(c) is a discretionary activity.

## **Rule 54 – Abstraction and use of groundwater**

**Note:** *To determine the aquifer type and allocation volume for a proposed groundwater abstraction, Plan users should firstly refer to Map Series 3: Groundwater Management Zones to establish the relevant groundwater zone. Once the relevant groundwater zone has been established, Appendix L can be used to determine the aquifer type.*

- (a) The take and use of groundwater is a permitted activity provided the following conditions are met:
  - (i) the volume and rate of abstraction does not exceed:
    - (1) a maximum of 86 cubic metres per day per landholding; and
    - (2) a maximum rate of 5 litres per second; and
    - (3) the point of abstraction is not within 50 metres of an existing lawfully established groundwater take; and
  - (ii) the maximum volume of take allowed under this rule and Rule 50(a) are not added together. A maximum of 86 cubic metres of groundwater and surface water combined per landholding per day, inclusive of any water taken pursuant to section 14(3)(b) of the RMA, is allowed; and
  - (iii) the following details are supplied to the Southland Regional Council upon request (if applicable):
    - (1) farming type; and
    - (2) stocking rate; and
    - (3) point of abstraction; and
    - (4) what the water is used for; and



- (5) the maximum rate of take.
  - (iv) where the volume of the take exceeds 20,000 litres per day, a water meter capable of recording the rate of take and the daily volume of take must be used. Water take data must be recorded daily and provided to the Southland Regional Council on request. The accuracy of the water meter must be verified every 12 months.
- (b) The non-consumptive take and use of groundwater is a permitted activity provided the following conditions are met:
- (i) the rate and volume of take does not exceed:
    - (1) a maximum rate of 10 litres per second; and
    - (2) a maximum daily volume of 750 cubic metres; and
  - (iia) any interference effects are “acceptable” in accordance with Appendix L.3; and
  - (ii) the same amount of water is returned to the same aquifer within 250 metres of the point at which it was taken; and
  - (iii) there is no significant delay between the taking and returning of the water.
- (c) The take and use of groundwater for hydraulic testing and bore development purposes and any associated discharge of groundwater into water or onto or into land is a permitted activity provided the following conditions are met:
- (i) the Southland Regional Council is notified at least three days prior to test commencement; and
  - (ii) the rate of take does not exceed 75 litres per second; and
  - (iii) the duration of pumping does not exceed five consecutive days; and
  - (iv) any discharge of water to water is consistent with the water quality requirements of section 70 of the RMA; and
  - (v) water discharged onto land must not contribute to flooding on any other landholding; and
  - (vi) records of all pumping and recovery tests including the rate and duration of pumping, water levels in the pumped well and any water level observation wells and the time measurements are taken and are provided to the Southland Regional Council within one month of the completion of the test.
- (ca) The take and use of groundwater for the purpose of dewatering for carrying out excavation, construction or maintenance and the associated use and discharge of that water is a permitted activity provided the following conditions are met:
- (i) the Southland Regional Council is notified at least three days prior to dewatering commencing; and
  - (ii) the take continues only for the time required to carry out the work, and in any event, the take does not exceed a duration of 60 days in any 12-month period; and
  - (iii) the rate of take does not exceed 40 litres per second; and
  - (iv) the taking of water does not cause subsidence of any site not owned by the person undertaking the dewatering; and
  - (v) the water is not taken from the Lumsden, Wendonside or North Range aquifers; and
  - (vi) the take or discharge is not from, into, or onto contaminated or potentially contaminated land; and
  - (vii) The take does not have a Riparian, Direct, Moderate or High stream depletion effect on a surface waterbody, determined in accordance with Appendix L.2, unless the abstracted groundwater is being discharged to the surface water body to which it is hydraulically connected; and
  - (viii) an assessment of interference effects, undertaken in accordance with Appendix L.3, does not show that any community or private drinkingwater supply bore will be prevented from taking water; and
  - (ix) at the point and time of any discharge to a river or artificial watercourse, the rate of flow in the water body is at least five times the rate of the discharge; and

- (x) the concentration of total suspended solids in any discharge to lakes, rivers, artificial watercourses, modified watercourses or natural wetlands does not exceed:
    - (1) 100 g/m<sup>3</sup> where the discharge is to any Lowland softbed, Lowland hard bed or Hill river or to an artificial watercourse; or
    - (2) 50 g/m<sup>3</sup> where the discharge is to any other lake, river or natural wetland; and
  - (xi) the point of discharge is not within a Drinking Water Protection Zone as set out in Appendix J; and
  - (xii) records of the rate and duration of pumping are taken and are provided to the Southland Regional Council within three months.
- (d) Other than as provided by Rules 54(a), 54(b), 54(c) and 54(ca) the take and use of groundwater from groundwater management zones listed in Appendix L.5 is a discretionary activity provided the following conditions are met:
- (i) the total volume of authorised groundwater abstraction is within the primary allocation limits established in Appendix L.5; and
  - (ii) if the degree of hydraulic connection, calculated in accordance with Appendix L.2 Table L.2. is Riparian, Direct, High or Moderate the relevant surface water minimum flows and allocation limits specified in Table L.2 are complied with; and
  - (iii) any interference effects are 'acceptable' in accordance with Appendix L.3; and
  - (iv) minimum groundwater level cut-offs and seasonal recovery triggers are established in accordance with criteria outlined in Appendix L.6.
- (e) Other than as provided by Rules 54(a), 54(b), 54(c) and 54(ca) the take and use of groundwater from a confined aquifer is a discretionary activity provided the following conditions are met:
- (i) the total volume of authorised groundwater abstraction is within the primary allocation limits (including minimum water level cut-offs and seasonal recovery triggers) established in Appendix L.5 or following the methodology outlined in Appendix L.6; and
  - (ii) any interference effects are 'acceptable' in accordance with Appendix L.3.
- (f) Other than as provided by Rules 54(a), 54(b) and 54(c) and 54(ca) the take and use of groundwater outside the groundwater management zones listed in Appendix L.5 is a discretionary activity provided the following conditions are met:
- (i) the total volume of authorised groundwater abstraction is within the primary allocation limit established following the methodology outlined in Appendix L.7; and
  - (ii) any interference effects are 'acceptable' in accordance with Appendix L.3.
- (g) The take and use of groundwater that does not comply with Rules 54(b) to 54(f) is a non-complying activity.

## Structures in river and lake beds and wetlands

### Rule 55A – General conditions for activities in river and lake beds

- (a) Fish passage is not impeded as a result of the activity; and
- (b) There is no disturbance of roosting and nesting areas of the black fronted tern, black billed gull, banded dotterel or black fronted dotterel; and
- (c) Any activity in the water is kept to a minimum to avoid, as much as possible, discoloration of the water in the water bodies listed in the chapeau<sup>13</sup> of the rule, including from any temporary sediment release; and
- (d) Any bed disturbance is kept to the minimum necessary to undertake the activity and the bed is returned as near as practicable to its original channel shape, area, depth, and gradient on completion of the activity (with the exception of revegetation); and
- (e) No fuel storage or machinery refuelling occurs on any area of the bed; and
- (f) No contaminants, other than sediment released from the bed, are discharged to water as a result of use of the structure unless allowed by a relevant permitted activity rule in this Plan or a resource consent; and
- (g) Before any equipment, machinery, or operating plant is moved to a new activity site it is effectively cleaned to prevent the spread of “pests” or “unwanted organisms” as defined by the Biosecurity Act 1993; and
- (h) All equipment, machinery, operating plant and debris associated with the structure or bed disturbance activity is removed from the site on completion of the activity; and
- (i) The structure or bed disturbance activity does not cause significant erosion of, or deposition on, the surrounding bed or banks; and
- (j) Any build-up of debris against the structure which may adversely affect flood risk, drainage capacity or bed or bank stability is removed as soon as practicable; and
- (k) The structure is maintained in a state of good repair; and
- (l) From the beginning of November until the end of May, there is no disturbance of whitebait spawning habitat.

### Rule 55 – Monitoring and sampling structures

- (a) The use, placement, erection or reconstruction (and any associated bed disturbance and discharge) of any equipment, measuring apparatus or similar devices in, on, under or over the bed of any lake, river, modified watercourse or wetland for the purpose of carrying out inspections, surveys, investigations, tests, measurements, or taking samples is a permitted activity provided the following conditions are met:
  - (ai) the general conditions set out in Rule 55A other than conditions (k) and (l) of that Rule.
- (b) The use, placement, erection or reconstruction (and any associated bed disturbance and discharge) of any equipment, measuring apparatus or similar devices in, on or over the bed of any lake, river, modified watercourse or wetland that does not meet one or more of the conditions of Rule 55(a) is a discretionary activity.

### Rule 56 – Boat ramps, jetties, wharves and slipways

- (a) The placement, erection or reconstruction of any boat ramp, jetty, wharf or slipway in, on or over the bed of any lake, river, modified watercourse or wetland and any associated bed disturbance and discharge resulting from carrying out the activity is a discretionary activity.

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<sup>13</sup> “Chapeau” means the words at the start of the rule that appear directly under the rule number and heading.

- (b) The use of any boat ramp, jetty, wharf or slipway in, on or over the bed of any lake, river, modified watercourse or wetland is a permitted activity provided the following conditions are met:
  - (ai) general conditions (a), (f), (i), (j) and (k) set out in Rule 55A; and
  - (i) the structure is lawfully established.
- (c) The use of any boat ramp, jetty, wharf or slipway in, on or over the bed of any lake, river, modified watercourse or wetland that does not meet one or more of the conditions of Rule 56(b) is a discretionary activity.

## Rule 57 – Bridges

- (a) The placement, erection or reconstruction of any bridge in, on or over the bed of any lake, river, modified watercourse or wetland and any associated bed disturbance and discharge resulting from the carrying out of the activity is a permitted activity provided the following conditions are met:
  - (ia) the general conditions set out in Rule 55A; and
  - (i) there are no support structures (for example, piles) in the bed; and
  - (ii) the bridge and its abutments do not increase the risk of flooding to surrounding land; and
  - (iii) the bridge and its bank abutments do not impede the flow of water within the river channel; and
  - (iv) the structure is not within any mātaimai, nohoanga, or taiāpure.

**Note:** *In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.*

- (b) The placement, erection or reconstruction of any bridge in, on or over the bed of any lake, river, modified watercourse or wetland and any associated bed disturbance and discharge resulting from the carrying out of the activity that does not meet one or more of the conditions of Rule 57(a) is a restricted discretionary activity.

**The Southland Regional Council will restrict its discretion to the following matters:**

1. the design and location of the bridge;
  2. effects on flood risk, river morphology and dynamics (including erosion and deposition), aquatic and riverine ecosystems and habitats, the spiritual and cultural values and beliefs of the tangata whenua, taonga species, natural character and amenity values, outstanding natural features, public access and navigational safety;
  3. any conditions in Rule 57(a) that cannot be met.
- (c) The use of any bridge in, on or over the bed of any lake, river, modified watercourse or wetland is a permitted activity provided the following conditions are met:
    - (ai) general conditions (a), (f), (i), (j) and (k) set out in Rule 55A; and
    - (i) the structure is lawfully established.
  - (d) The use of any bridge in, on or over the bed of any lake, river, modified watercourse or wetland and any associated bed disturbance and discharge resulting from the carrying out of the activity that does not meet one or more of the conditions of Rule 57(c) is a discretionary activity.

## Rule 58 – Cables, wires and pipes

- (a) The placement, erection or reconstruction of any cable, wire, pipe or pipeline (including any intake or discharge pipe or temporary gauging system) and associated safety signs or markers in, on, under or over the bed of any lake, river, modified watercourse or wetland and any associated bed disturbance and discharge resulting from the carrying out of the activity is a permitted activity provided the following conditions are met:
- (ia) the general conditions set out in Rule 55A; and
  - (i) the structure does not have any support structures (for example, stays or piles) in the bed (other than if it is attached to a pre-existing structure, such as a bridge); and
  - (ii) the structure does not cause a hazard to boating/navigation, or aircraft/aviation; and
  - (iii) where the structure crosses over the bed, and is not a temporary structure, it does not impede the flow of water within the river channel; and
  - (iv) where the structure crosses over the bed, and is designed to carry contaminants, it complies with the relevant construction standards imposed by a territorial authority under the Building Act; and
  - (v) where the structure crosses under the bed it is completely buried and remains buried, with the depth of burial being indicated on markers on either bank; and
  - (vi) where the structure is an intake pipe, it has a screening device to prevent fish from entering the pipe in accordance with Appendix R; and
  - (vii) where the structure is a discharge pipe, any discharge from the pipe does not cause significant erosion of, or deposition on, the surrounding bed or banks; and
  - (viii) the structure is not within any mātaimai, nohoanga, or taiāpure.

**Note:** *In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.*

- (b) The placement, erection or reconstruction of any cable, wire, pipe or pipeline (including any intake or discharge pipe or temporary gauging system) and associated safety signs or markers in, on, under or over the bed of any lake, river, modified watercourse or wetland and any associated bed disturbance and discharge resulting from the carrying out of the activity that does not meet one or more of the above conditions of Rule 58(a) is a restricted discretionary activity.

**The Southland Regional Council will restrict its discretion to the following matters:**

1. the design and location of the structure;
  2. effects on river morphology and dynamics (including erosion and deposition), aquatic and riverine ecosystems and habitats, the spiritual and cultural values and beliefs of the tangata whenua, taonga species, landscape, natural character and amenity values, navigation and aviation hazards, public access and recreation values;
  3. any conditions in Rule 58(a) that cannot be met.
- (c) The use of any cable, wire, pipe or pipeline (including any intake or discharge pipe or temporary gauging system) and associated safety signs or markers in, on or over the bed of any lake, river, modified watercourse or wetland is a permitted activity provided the following conditions are met:
- (ai) general conditions (f), (i), (j) and (k) set out in Rule 55A; and
  - (i) the structure is not used to store hazardous substances.
- (d) The use of any cable, wire, pipe or pipeline (including any intake or discharge pipe or temporary gauging system) and associated safety signs or markers in, on or over the bed of

any lake, river, modified watercourse or wetland that does not meet one or more of the conditions of Rule 58(c) is a discretionary activity.

## **Rule 59 – Culverts**

- (a) The placement, erection or reconstruction of any culvert including any associated inlet or outlet protection structure in, on, under or over the bed of any river, modified watercourse or artificial wetland, and any associated bed disturbance and discharge resulting from carrying out the activity, is a permitted activity provided the following conditions are met:
- (ia) the general conditions set out in Rule 55A; and
  - (i) the maximum diameter of any single culvert is 1,200 millimetres; and
  - (iii) any culvert is positioned so that its alignment is the same as the river; and
  - (iv) any culvert is designed to pass flood flows (either through, around or over the culvert) and does not increase the risk of flooding to neighbouring properties; and
  - (v) the invert (or bottom) of any culvert is installed to a depth of either 300 millimetres below the natural bed level or one-third of the diameter of the culvert, whichever is the lesser; and
  - (vi) any culvert is purpose built for the passage of water (i.e. not a drum, container or other item not designed as a culvert); and
  - (viii) fill over any culvert is not be greater than 4 metres (the vertical distance measured from the crest of the fill to the natural bed at the downstream invert of the structure); and
  - (ix) any structure is not within any mātaimai, nohoanga, or taiāpure.

**Note:** *In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.*

- (b) The placement, erection or reconstruction of any culvert including any associated inlet or outlet protection structure in, on, under or over the bed of any river, modified watercourse or artificial wetland, and any associated bed disturbance and discharge resulting from carrying out the activity, that does not meet one or more of the conditions of Rule 59(a) is a controlled activity.

***The Southland Regional Council will exercise control over the following matters:***

1. the design and location of the culvert;
  2. any effects on flood risk, river morphology and dynamics (including erosion and deposition), aquatic and riverine ecosystems and habitat (including fish passage), taonga species, the spiritual and cultural values and beliefs of the tangata whenua, landscape, natural character and amenity values, navigational safety and public access.
  3. any conditions in Rule 59(a) that cannot be met.
- (c) The use, repair and maintenance of any culvert including any associated inlet or outlet protection structure in, on, under or over the bed of any lake, river, modified watercourse or wetland is a permitted activity provided the following conditions are met:
- (ai) general conditions (f), (i), (j) and (k) set out in Rule 55A.
- (d) The use, repair and maintenance of any culvert including any associated inlet or outlet protection structure in, on, under or over the bed of any lake, river, modified watercourse or wetland that does not meet one or more of the conditions of Rule 59(c) is a discretionary activity.

## Rule 59A – On-farm sediment traps

- (a) The construction, excavation, modification or maintenance of an on-farm sediment trap in, on, under or over the bed of any intermittent or ephemeral river and any associated bed disturbance, removal of aquatic weeds and plants and associated discharge resulting from carrying out the activity is a permitted activity provided the following conditions are met:
- (i) general conditions (e), (f), (g), (h) and (i) set out in Rule 55A; and
  - (ii) the construction, excavation, modification or maintenance of the sediment trap is undertaken solely for sediment control purposes or maintaining the capacity and effective functioning of the sediment trap; and
  - (iii) the sediment trap is not within any mātaimai, nohoanga, or taiāpure; and
  - (iv) the sediment trap has:
    - (1) fencing to prevent stock access; and
    - (2) battered banks with a slope of not less than 1 vertical:3 horizontal; and
  - (v) the construction, excavation, modification or maintenance of the sediment trap does not result in the destabilisation of any lawfully established structure; and
  - (vi) any build-up of sediment within the sediment trap which may adversely affect flood risk, drainage capacity, or bed or bank stability is removed as soon as practicable.
- (b) The construction, excavation, modification or maintenance of an on-farm sediment trap in, on, under or over the bed of any intermittent or ephemeral river and any associated bed disturbance, removal of aquatic weeds and plants, and associated discharge resulting from carrying out the activity that is not permitted by Rule 59A(a) is a discretionary activity.

## Rule 60 – Dams and weirs

**Note 1:** *The Building Act 2004 specifies obligations on the owner of a dam as defined in that Act regarding classification, certification and other matters of safety. Plan users should contact the Southland Regional Council to inquire about these requirements in each case.*

**Note 2:** *This rule manages dam and weir structures. Any associated take, diversion, use or discharge of water is covered by other rules.*

**Note 3:** *This rule does not apply to weirs constructed for erosion control purposes under Rule 61.*

- (a) The placement, erection or reconstruction of any dam or weir in, on or over the bed of any lake, river, modified watercourse and the associated damming of water (either inside or outside the bed), and any associated bed disturbance and discharge resulting from the carrying out of the activity, is a permitted activity provided the following conditions are met:
- (ia) the general conditions set out in Rule 55A; and
  - (i) if the maximum height of the dam or weir exceeds 4 metres or the impoundment volume exceeds 20,000 cubic metres of water or other fluid, a building consent is obtained for the dam or weir prior to its construction commencing; and
  - (iii) the dam or weir is located below a catchment area of less than 500 hectares; and
  - (iv) the dam or weir is not located upstream of any railway, formed public road, or residence where these are likely to be affected by any failure of the structure; and
  - (v) the dam or weir has a spillway, or an auxiliary spillway, that is capable of safely conveying flood flows; and
  - (vi) the dam or weir does not impound water or adversely affect drainage beyond the landholding on which it is constructed, unless agreed to in writing by the affected landowner; and
  - (vii) the discharge from the dam or weir is to the original channel, and does not cause significant erosion of, or deposition on, the downstream bed or banks; and
  - (viii) the dam or weir is not in the Mataura, Ōreti or Waikaia River; and

- (ix) For the purposes of Rule 60(a) the height of a dam or weir is the vertical distance from the crest of the dam or weir and must be measured:
    - (1) in the case of a dam or weir across a river, from the natural bed of the stream at the lowest downstream outside limit of the dam or weir; or
    - (2) in the case of a dam or weir not across a river, from the lowest elevation at the outside limit of the dam or weir; or
    - (3) in the case of a canal, from the invert of the canal; and
  - (x) the structure is not within any mātaimai, nohoanga, or taiāpure.<sup>14</sup>
- (ab) The use of any dam or weir is a permitted activity provided the following conditions are met:
- (i) general conditions (f), (i), (j) and (k) set out in Rule 55A; and
  - (ii) the structure is lawfully established.

**Note:** *In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.*

- (b) The use, placement, erection or reconstruction of any dam or weir in, on or over the bed of any lake, river, modified watercourse and the associated damming of water (either inside or outside the bed), and any associated bed disturbance and discharge resulting from the carrying out of the activity, that does not meet one or more of the conditions of Rule 60(ab) or Rule 60(a) respectively and is not a non-complying activity under Rule 60(c) or a prohibited activity under Rule 60(d) is a discretionary activity.
- (c) The use, placement or erection of any dam or weir on the main stems of the Aparima River, downstream of the Aparima Forks at NZ Topo 50 CE09 051 299<sup>15</sup>, and the Ōreti River, downstream of Rocky Point at NZ Topo 50 CE09 274 327<sup>16</sup> is a non-complying activity.
- (d) The placement or erection of dams or weirs in the Mataura or Waikaia River and in the Ōreti River main stem from Rocky Point at NZ Topo 50 CE09 274 327<sup>17</sup> upstream to the forks at NZ Topo 50 CC09 245 832<sup>18</sup> is a prohibited activity.

## Rule 61 – Erosion control structures

- (a) Notwithstanding any other rule in this Plan, the placement or reconstruction of rock rip rap, gabion baskets or anchored or layered trees in, on, under or over the bed of any lake, river or modified watercourse and any associated bed disturbance and discharge resulting from the carrying out of the activity, is a permitted activity provided the following conditions are met:
  - (ai) the general conditions set out in Rule 55A; and
  - (i) the work is not in a lake bed, national park, reserve or land in respect of which there is a covenant under the Conservation Act 1987, Queen Elizabeth the Second Trust Act 1977 or Reserves Act 1977; and
  - (ii) any anchored or layered trees are anchored to the bed or banks so that they will not wash away in a 2% Annual Exceedance Probability flood event; and
  - (iii) there is no planting of pest plant species as identified in the Regional Pest Management Strategy for Southland 2013 or any replacement plan prepared under the Biosecurity

<sup>14</sup> Mātaimai and taiāpure defined in the introduction at page 10.

<sup>15</sup> The equivalent NZ260 map reference is D44 151 919 and the equivalent NZTM2000 coordinates are 1205134 mE 4929948 mN

<sup>16</sup> The equivalent NZ260 map reference is E44 373 946 and the equivalent NZTM2000 coordinates are 1227364 mE 4932686 mN

<sup>17</sup> The equivalent NZ260 map reference is E44 373 946 and the equivalent NZTM2000 coordinates are 1227364 mE 4932686 mN

<sup>18</sup> The equivalent NZ260 map reference is E42 345 450 and the equivalent NZTM coordinates are 1224494 mE 4983155 mN



- Act, or Biosecurity NZ Register of Unwanted Organisms, in circumstances where the planting of those pest plant species is restricted under the Biosecurity Act; and
- (iv) the structure is not within any mātaimai, nohoanga, or taiāpure.

**Note:** *In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.*

- (b) The placement or reconstruction of preformed concrete in, on, under or over the bed of any lake, river or modified watercourse and any associated bed disturbance and discharge resulting from the carrying out of the activity, is a permitted activity provided the following conditions are met:
- (ai) the general conditions set out in Rule 55A; and
  - (i) the river is less than 3 metres wide on average over the area of construction; and
  - (ii) the placement of the concrete is for the sole purpose of remedying or mitigating erosion; and
  - (iii) the work is not in a lake bed, national park, reserve or land in respect of which there is a covenant under the Conservation Act 1987, Queen Elizabeth the Second Trust Act 1977 or Reserves Act 1977; and
  - (iv) any individual concrete piece has a minimum length of 300 millimetres; and
  - (v) there is no concrete that has not set or loose cement present; and
  - (vi) the concrete has not have been used in direct contact with chemicals that are toxic to aquatic life; and
  - (vii) the concrete does not contain asbestos pipe or asbestos cement mixtures; and
  - (viii) reinforcing steel does not protrude from the completed works.

**Note:** *In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.*

- (c) The placement, erection or reconstruction of rock rip rap, gabion baskets or anchored or layered trees or pre-formed concrete in, on, under or over the bed of any lake, river or modified watercourse and any associated bed disturbance and discharge resulting from the carrying out of the activity, that does not that meet one or more of the conditions listed in Rule 61(a) or Rule 61(b) is a discretionary activity.

## **Rule 62 – Fords**

- (a) The excavation of the bed of any lake, river or modified watercourse and any associated bed disturbance and discharge resulting from the carrying out of the activity for the purpose of constructing a ford is a permitted activity provided the following conditions are met:
- (ai) the general conditions set out in Rule 55A.

**Note:** *In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.*

- (b) The excavation of the bed of any lake, river or modified watercourse and any associated bed disturbance and discharge resulting from the carrying out of the activity for the purpose of constructing a ford that does not meet one or more of the conditions in Rule 62(a), or the

placement and erection of any ford involving a structure such as a concrete pad in, on or over the bed of any river or lake, is a discretionary activity.

- (c) The use of any ford in, on or over the bed of any lake, river or modified watercourse and any associated bed disturbance and discharge resulting from the carrying out of the activity is a permitted activity provided the following conditions are met:
  - (ai) general conditions (f), (i), (j) and (k) set out in Rule 55A; and
  - (i) the ford is lawfully established; and
  - (ii) where the ford is used as a vehicle crossing, the activity meets the conditions set out in Rule 62(a).
- (d) The use of any ford in, on or over the bed of any lake, river or modified watercourse and any associated bed disturbance and discharge resulting from the carrying out of the activity that does not meet one or more of the conditions in Rule 62(c) is a discretionary activity.

### **Rule 63 – Moorings and signs**

**Note:** *The installation of moorings within the National Parks will require a Department of Conservation Concession.*

- (a) The placement, erection or reconstruction of any mooring or stand-alone sign in, on, under or over the bed of any lake, river or modified watercourse and any associated bed disturbance and discharge resulting from carrying out the activity is a permitted activity provided the following conditions are met:
  - (ai) general condition (k) set out in Rule 55A; and
  - (i) the mooring or stand-alone sign is located in Fiordland National Park (including lakes Te Anau, Manapōuri, Monowai and Hauroko); and
  - (ii) in the case of a mooring, the mooring block is free of contaminants including oil and grease; and
  - (iii) in the case of a mooring, the use of the mooring does not interfere with the use of existing lawful moorings; and
  - (iv) where the mooring or stand-alone sign has been moved to the site from any other area, it is effectively cleaned to prevent the spread of pest species; and
  - (vi) the mooring or stand-alone sign is not within any mātaītai, nohoanga, or taiāpure.
- (b) The placement, erection or reconstruction of any mooring or stand-alone sign in, on, under or over the bed of any lake, river or modified watercourse and any associated bed disturbance and discharge resulting from carrying out the activity that does not meet one or more of the conditions of Rule 63(a) is a restricted discretionary activity provided the following conditions are met:
  - (ai) the general conditions set out in Rule 55A.

**The Southland Regional Council will restrict its discretion to the following matters:**

1. the location of the mooring or stand-alone sign;
2. any effects on natural character and amenity values, the spiritual and cultural values and beliefs of the tangata whenua, taonga species, existing users and navigational safety, suitability of the mooring for its purpose, and maintenance requirements.

**Note:** *In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.*

- (c) The use of any mooring or stand-alone sign in, on, under or over the bed of any lake, river or modified watercourse is a permitted activity provided the following conditions are met:
  - (ai) general conditions (f), (i), (j) and (k) set out in Rule 55A; and
  - (i) the mooring or stand-alone sign is located in Fiordland National Park (including lakes Te Anau, Manapōuri, Monowai and Hauroko); and
  - (ii) in the case of a mooring, the use of the mooring does not interfere with the use of existing lawful moorings.
- (d) The use of any mooring or stand alone sign in, on or over the bed of any lake, river or modified watercourse that does not meet one or more of the conditions of Rule 63(c) is a discretionary activity.

### **Rule 63A – Navigational aids and health and safety signs**

- (a) The placement, erection or reconstruction of a navigational aid or health and safety sign in, on, under or over the bed of any lake, river or modified watercourse, and any associated bed disturbance and discharge resulting from carrying out the activity, is a permitted activity provided the following conditions are met:
  - (i) where the navigational aid or health and safety sign has been moved to the site from any other area, it is effectively cleaned to prevent the spread of pest species; and
  - (ii) the navigational aid or health and safety sign is maintained in a state of good repair.
- (b) The placement, erection or reconstruction of a navigational aid or health and safety sign in, on, under or over the bed of any lake, river or modified watercourse and any associated bed disturbance that does not meet one or more of the conditions of Rule 63A(a) is a discretionary activity
- (c) The use of a navigational aid or health and safety sign in, on, under or over the bed of any lake, river or modified watercourse is a permitted activity provided the following conditions are met:
  - (i) general conditions (f), (i), (j) and (k) as set out in Rule 55A.
- (d) The use of a navigational aid or health and safety sign in, on or over the bed of any lake, river or modified watercourse that does not meet one or more of the conditions of Rule 63A(c) is a discretionary activity.

### **Rule 64 – Temporary canoe gate or ski lane markers**

- (a) The use, placement, erection or reconstruction of any temporary canoe gate or ski lane marker in, on or over the bed of any lake, river or modified watercourse and any associated bed disturbance and discharge resulting from carrying out the activity is a permitted activity provided the following conditions are met:
  - (ai) the general conditions set out in Rule 55A other than conditions (a), (b), (c), (d) and (e) of that Rule; and
  - (i) the structure remains in place no longer than two weeks;<sup>19</sup> and
  - (ii) the structure does not cause a hazard to boating/navigation.

**Note:** *In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the*

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<sup>19</sup> The “two weeks” can include three consecutive weekends

*archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.*

- (b) The use, placement, erection or reconstruction of any canoe gate or ski lane marker in, on or over the bed of any lake, river or modified watercourse and any associated bed disturbance and discharge resulting from the carrying out of the activity that cannot meet one or more of the above conditions, is a restricted discretionary activity.

***The Southland Regional Council will restrict its discretion to the following matters:***

1. the location of the structure;
2. any effects on natural character and amenity values, the spiritual and cultural values and beliefs of the tangata whenua and navigational safety;
3. any conditions in Rule 64(a) that cannot be met.

### **Rule 65 – Whitebait stands**

- (a) The use of any lawfully established whitebait stand in, on, under or over the bed of any river or modified watercourse is a controlled activity provided the following conditions are met:
- (i) the stand is secure against fluvial and coastal processes; and
  - (ii) the stand is located so that it does not deflect flow into the bank or increase water velocities near the bank, if the stand is either on piles or is a floating pontoon construction; and
  - (iii) no stand exceeds more than one third of the width of the river or modified watercourse at that place at that time.

***The Southland Regional Council will exercise its control over the following matters:***

1. any effects on amenity values, river morphology and dynamics (including erosion and deposition), public safety and public access.
- (b) The maintenance and repair of any lawfully established whitebait stand in, on, under or over the bed of any river or modified watercourse (including the placement, erection and use of a replacement for a lawfully established whitebait stand) is a permitted activity provided the following conditions are met:
- (i) the nature, scale and dimensions of the stand are unchanged; and
  - (ii) the bed is not disturbed or any disturbance is corrected within 24 hours; and
  - (iii) no debris from maintenance of the stand enters the river or modified watercourse or bed;
  - (iv) for a replacement stand, the original stand has been destroyed or it is necessary to move the stand due to natural alterations to the course of the river or modified watercourse, or bank erosion, or high water mark alterations; and
  - (v) the replacement stand is located as close as practicable to the site of the original stand and at least 20 metres distant from any other existing stand; and
  - (vii) the replacement stand does not impede public access to or along the bed of the river or modified watercourse; and
  - (viii) any debris from the original stand is removed in accordance with Rule 65(d).
- (c) The alteration or reconstruction of any lawfully established whitebait stand on the existing site in, on, under or over the bed of any river or modified watercourse is a permitted activity provided the following conditions are met:
- (i) the nature, scale and dimensions of the stand are unchanged; and
  - (ii) the bed beneath, above or beyond the structure is not disturbed or any disturbance is corrected within 24 hours.

- (d) The removal of any whitebait stand in, on, under or over the bed of any river or modified watercourse is a permitted activity provided all debris from the stand are removed from the bed.
- (f) The placement or erection of any replacement whitebait stand in, on or over the bed of any lake, river or modified watercourse that does not comply with the conditions of Rule 65(b) is a prohibited activity.

### **Rule 65A – Maimai**

- (a) The erection, placement, use, maintenance or alteration of any maimai in, on, or over the bed of any lake, river, modified watercourse or wetland is a permitted activity provided the following conditions are met:
  - (i) the general conditions in Rule 55A other than conditions (c), (d), (e), (g) and (h) of that Rule; and
  - (ii) the maimai does not exceed 10 square metres in area; and
  - (iii) the erection or placement does not impede any legal access to the lakes, rivers, modified watercourse or wetland; and
  - (iv) the maimai is on piles; and
  - (v) the maimai is secure against fluvial processes.
- (b) The erection, placement, use, maintenance or alteration of any maimai in, on, or over the bed of any lake, river, modified watercourse or wetland that does not meet one or more of the conditions of Rule 65A(a) is a restricted discretionary activity.

***The Southland Regional Council will restrict the exercise of its discretion to the following matters:***

1. any effects on flood risk, river morphology and dynamics (including erosion and deposition), aquatic and riverine ecosystems and habitats (including fish passage), the spiritual and cultural values and beliefs of the tangata whenua, taonga species, landscape, natural character and amenity values, navigation hazard, public access and recreation values;
2. the actual and potential environmental effects of not meeting the condition or conditions of Rule 65A(a).

***Note:*** *In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.*

### **Rule 66 – Maintenance of structures**

- (a) Unless otherwise stated in this Plan, the maintenance of any structure in, on, under or over the bed of any lake, river, modified watercourse or wetland and any associated bed disturbance, gravel extraction and discharge resulting from the carrying out of the activity, is a permitted activity provided the following conditions are met:
  - (ai) the general conditions in Rule 55A other than conditions (d), (j) and (k) of that Rule; and
  - (i) the structure is lawfully established; and
  - (v) any bed disturbance is the minimum necessary to undertake the activity and returned as near as practicable to its original channel shape, area, depth, or gradient on completion of the activity (with the exception of revegetation or where gravel is required to be moved).

**Note:** In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.

- (b) Unless otherwise stated in this Plan, the maintenance of any structure in, on, under or over the bed of any lake, river, modified watercourse or wetland and any associated bed disturbance, gravel extraction and discharge from carrying out the activity that does not meet one or more of the conditions of Rule 66(a) is a restricted discretionary activity.

**The Southland Regional Council will restrict its discretion to the following matters:**

1. any conditions in Rule 66(a) that cannot be met; and
2. any effects on taonga species amenity values, natural character and outstanding natural features.

### **Rule 67 – Alteration or extension of structures**

- (a) Unless otherwise stated in the Plan, the alteration or extension of any structure in, on, under or over the bed of any lake, river or modified watercourse, and any associated bed disturbance and discharge resulting from carrying out the activity, is a permitted activity provided the following conditions are met:
- (ai) the general conditions set out in Rule 55A; and
  - (i) the structure is lawfully established; and
  - (iii) the alteration or extension does not involve an increase in the number or area of any support structures in the bed of the lake, river or modified watercourse.

**Note:** In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.

- (b) Unless otherwise stated in this Plan, the alteration or extension of any structure in, on, under or over the bed of any lake, river or modified watercourse and any associated bed disturbance and discharge resulting from the carrying out of the activity that does not meet one or more of the conditions of Rule 67(a) is a restricted discretionary activity.

**The Southland Regional Council will restrict its discretion to the following matters:**

1. any effects on the morphology and dynamics (including erosion and deposition) of the lakes, rivers or modified watercourses, natural character and amenity values, the spiritual and cultural values and beliefs of the tangata whenua, taonga species;
2. any conditions in Rule 67(a) that cannot be met.

### **Rule 68 – Demolition or removal of structures**

- (a) Unless otherwise stated in this Plan, the demolition or removal of any structure in, on, under or over the bed of any lake, river or modified watercourse and any associated bed disturbance and discharge resulting from carrying out the activity is a permitted activity provided the following conditions are met:
- (ai) the general conditions set out in Rule 55A other than conditions (i), (j) and (k) of that Rule; and
  - (xii) demolition or removal of the structure does not cause significant erosion of, or deposition on, the surrounding bed or banks.

**Note:** *In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.*

- (b) Unless otherwise stated in this Plan, the demolition or removal of any structure in, on, under or over the bed of any lake, river or modified watercourse and any associated bed disturbance and discharge resulting from the carrying out of the activity that does not meet one or more of the conditions of Rule 68(a) is a restricted discretionary activity.

***The Southland Regional Council will restrict its discretion to the following matters:***

1. any effects on the spiritual and cultural values and beliefs of the tangata whenua, taonga species, natural character values and outstanding natural features and amenity values;
2. any conditions in Rule 68(a) that cannot be met.

### **Rule 69 – Structures not covered by, or not complying with, rules**

Any use, erection, maintenance, reconstruction, placement, replacement, alteration, extension, removal or demolition of any structure in, on, under or over the bed of any lake, river, modified watercourse or wetland, and any associated bed disturbance and discharge resulting from carrying out the activity, that is not provided for by a rule in this Plan, or that does not meet one or more of the conditions set out by a rule, is a discretionary activity (unless the Plan specifically provides that an activity that fails to meet the conditions set out by a rule is a controlled activity or a restricted discretionary activity).

## Bed disturbance activities in river and lake beds

### Rule 70 – Stock exclusion from waterbodies

- (a) From 1 July 2020 the disturbance of roosting and nesting areas of the black fronted tern, black billed gull, banded dotterel or black fronted dotterel located in the bed of a lake, river (including an ephemeral river), modified watercourse, or natural wetland by livestock including cattle, deer, pigs or sheep is a prohibited activity.
- (b) From 1 July 2020, the disturbance of the bed of a Regionally Significant Wetland or Sensitive Water Body listed in Appendix A by livestock including cattle, deer, pigs or sheep is a prohibited activity.
- (c) The disturbance of the bed of a river (excluding ephemeral rivers where stock access is permitted under Rule 20(aa)) or modified watercourse for the purposes of moving livestock including cattle, deer, pigs or sheep (but excluding dairy cattle on a dairy platform or on land used for dairy support) is a permitted activity provided the livestock are being supervised and are actively driven across the water body in one continuous movement.
- (d) Bed disturbance activities that do not comply with Rule 70(c) are a non-complying activity.
- (e) Other than as provided for by Rules 70(c) and 70(d), the disturbance of the bed of a lake, river (excluding ephemeral rivers where stock access is permitted under Rule 20(aa)), modified watercourse or natural wetland by cattle, deer or pigs is a permitted activity prior to the dates set out in Table 1 for the land having listed land slopes after which time it is respectively a discretionary activity on that land.

**Table 1: Timetable for stock exclusion from water bodies**

Farm/stock type	Land slope (as classified by the LRI slope dataset)		
	Plains (0-3°)	Undulating/rolling land (>3-15°)	Steeper land (>15° and over)
Dairy cattle (on milking platforms) and pigs	All water bodies that are: <ul style="list-style-type: none"> <li>over 1 metre wide from 1 July 2017 on all slopes</li> <li>less than 1 metre wide from 1 July 2020 on the Plains and Undulating/rolling land</li> </ul>		
Dairy support (on either land owned/leased by the dairy farmer or third party land)	All water bodies from 1 July 2022	All water bodies over 1 metre wide from 1 July 2022	All water bodies where break feeding occurs from 1 July 2022
Beef cattle and deer	All water bodies from 1 July 2025	All water bodies over 1 metre wide from 1 July 2030, unless the average stocking rate on the land directly adjacent to the water body is less than 6 stock units per hectare	
	All water bodies where break feeding occurs from 1 July 2022		

### Rule 71 – Channel realignment, widening or deepening

- (a) Except as provided for elsewhere in this Plan, the excavation or disturbance of the bed of any lake, river or modified watercourse for the purpose of realigning, widening or deepening any channel within the bed is a discretionary activity.



## Rule 72 – Dry cuts

- (a) The excavation or disturbance of the bed of any lake, river or modified watercourse for the purpose of making a dry cut is a restricted discretionary activity provided the following conditions are met:
- (ai) the general conditions set out in Rule 55A other than conditions (c), (i), (j) and (k) of that Rule.

***The Southland Regional Council will restrict its discretion to the following matters:***

1. the design and location of the work;
2. any effects on lakes, rivers or modified watercourses, morphology and dynamics (including erosion and deposition), aquatic and riverine ecosystems and habitat, public access, the spiritual and cultural values and beliefs of the tangata whenua, landscape, natural character and amenity values, outstanding natural features, and navigation hazards.

***Note:*** *In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.*

- (b) The excavation or disturbance of the bed of any lake, river or modified watercourse for the purpose of making a dry cut that does not comply with the conditions of Rule 72(a) is a discretionary activity.

## Rule 73 – Gravel extraction

- (a) The excavation or disturbance of the bed of any lake, river or modified watercourse for the purpose of extracting gravel or aggregate (except where the extraction of gravel or aggregate is associated with the maintenance of structures which is otherwise authorised under Rule 66) is a restricted discretionary activity provided the following conditions are met:
- (ai) the general conditions set out in Rule 55A other than conditions (i), (j) and (k) of that Rule; and
- (i) the quantity of gravel removed is less than 120 cubic metres per year; and
- (ii) there is no extraction from flowing water; and
- (iii) the area is left level and tidy on completion of the activity.

***The Southland Regional Council will restrict its discretion to the following matters:***

1. the quantity and location of the extraction;
2. any effects on infrastructure, river morphology and dynamics (including erosion or deposition), aquatic and riverine ecosystems and habitat, taonga species, natural character and amenity values, navigation hazard, public access, recreation values and the spiritual and cultural values and beliefs of the tangata whenua.

***Note:*** *In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.*

- (b) The excavation or disturbance of the bed of any lake, river or modified watercourse for the purpose of extracting gravel or aggregate (except where the extraction of gravel is associated with the maintenance of structures which is otherwise authorised under Rule 66) for flood or erosion control or the protection of infrastructure is a restricted discretionary activity provided the following conditions are met:

- (ai) the general conditions set out in Rule 55A other than conditions (i), (j) and (k) of that Rule.

***The Southland Regional Council will restrict its discretion to the following matters:***

1. the location of the extraction;
2. the design of the works and the quantity of material extracted;
3. any effects on infrastructure, flood risk, river morphology and dynamics (including erosion or deposition), aquatic and riverine ecosystems and habitat, taonga species and the spiritual and cultural values and beliefs of the tangata whenua.

**Note:** *In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.*

- (c) The excavation or disturbance of the bed of any lake, river or modified watercourse for the purpose of extracting gravel or aggregate (except where the extraction of gravel is associated with the maintenance of structures which is otherwise authorised under Rule 66) that cannot meet the conditions in Rules 73(a) or 73(b) and is a discretionary activity.

## **Rule 74 – Wetlands**

- (a) The use of land within a wetland for the purposes of:
  - (i) maintaining or enhancing the wetland, or
  - (ii) maintaining existing authorised structures within the wetland;

is a permitted activity provided the following conditions are met:

- (1) there is no destruction or removal of any indigenous vegetation from any natural wetland; and
  - (2) there is no reduction in the size of the wetland; and
  - (3) there is no flooding or ponding caused on any land owned or occupied by another person; and
  - (4) there is no establishment of pest plant species that:
    - (A) are listed in the Regional Pest Management Strategy for Southland 2013 or any replacement plan prepared under the Biosecurity Act, or Biosecurity NZ Register of Unwanted Organisms, in circumstances where the planting of those pest plant species is restricted under the Biosecurity Act; or
    - (B) may damage existing biodiversity values of the wetland; or
    - (C) will form the dominant vegetation type in the wetland.
- (ab) The use of land within a wetland for commercial peat harvesting is a discretionary activity provided the following conditions are met:
    - (i) the applicant can show, by way of aerial photographs or other documentary evidence, that a commercial peat harvesting operation occurred within the wetland at some time during the period between 30 June 2006 and 30 June 2016; and
    - (ii) there is no establishment of pest plant species that:
      - (1) are listed in the Regional Pest Management Strategy for Southland 2013 or any replacement plan prepared under the Biosecurity Act, or Biosecurity NZ Register of Unwanted Organisms, in circumstances where the planting of those pest plant species is restricted under the Biosecurity Act; or
      - (2) may damage existing biodiversity values of the wetland; or
      - (3) will form the dominant vegetation type in the wetland.

- (b) The use of land within a wetland that is for one or more of the purposes listed in Rule 74(a), but which does not comply with the conditions of Rule 74(a) is a discretionary activity.
- (c) The use of land within a natural wetland that is not for one or more of the purposes listed in Rule 74(a) or 74(ab) is a non-complying activity.

## **Rule 75 – Vegetation flood debris<sup>20</sup> removal**

- (a) The removal of vegetation flood debris obstructing water flow, including plants dislodged and transplanted during flood flows, from the bed of any lake, river or modified watercourse, and any associated bed disturbance and discharge resulting from carrying out the activity, is a permitted activity provided the following conditions are met:
  - (ai) the general conditions set out in Rule 55A other than conditions (d), (i), (j) and (k) of that Rule; and
  - (i) the removal of the material is for the purpose of flood or erosion control or maintaining the integrity of infrastructure; and
  - (ii) following the removal of material, the bed of the lake, river or modified watercourse which has been disturbed is returned as near as practicable to its original channel shape, area, depth and gradient.

**Note:** *In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.*

- (b) The removal of vegetation flood debris obstructing water flow, including plants dislodged and transplanted during flood flows, from the bed of any lake, river or modified watercourse, and any associated bed disturbance and discharge resulting from the carrying out of the activity, that does not meet one or more of the conditions of Rule 75(a) is a restricted discretionary activity.

**The Southland Regional Council will restrict its discretion to the following matters:**

1. any effects on flood risk, rivers, modified watercourses, or lake morphology and dynamics (including erosion or deposition), and aquatic and riverine ecosystems and habitat;
2. any conditions in Rule 75(a) that cannot be met.

## **Rule 76 – Vegetation planting**

- (a) The introduction or planting of any plant, or part of any plant, in the bed or margins of any lake, river, modified watercourse or wetland is a permitted activity, provided the following conditions are met:
  - (i) the planting is undertaken pursuant to a Farm Environmental Management Plan prepared in accordance with Appendix N, or is for the purposes of soil conservation or river control, or for enhancing biodiversity, or for enhancing mahinga kai or taonga species identified in Appendix M; and
  - (ia) the planting does not restrict access to the lake, river, modified watercourse or wetland that is necessary for giving effect to Rule 78(a) or (b); and
  - (ii) the planting is not production forestry (excluding forestry species planted pursuant to the Soil Conservation and Rivers Control Act 1941); and

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<sup>20</sup> Refer to the Glossary for the definition of "Vegetation flood debris"

- (iii) no plants listed in the Regional Pest Management Strategy for Southland 2013 or any replacement plan prepared under the Biosecurity Act, or Biosecurity NZ Register of Unwanted Organisms, are introduced or planted in circumstances where the planting of those pest plant species is restricted under the Biosecurity Act.
- (c) The introduction or planting of any plant, or part of any plant, in the bed or margins of any lake, river, modified watercourse or wetland not provided for under Rule 76(a) is a discretionary activity.

**Note:** *In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.*

### **Rule 77 – Vehicles and machinery**

- (a) The entry into or passage across the bed of any lake, river or modified watercourse by any wheeled or tracked vehicle or machine and any associated bed disturbance and discharge resulting from carrying out the activity is a permitted activity provided the following conditions are met:
  - (ai) the general conditions set out in Rule 55A other than conditions (a), (i), (j) and (k) of that Rule; and
  - (i) there is no alteration to the original profile of the bed; and
  - (ii) the activity is necessary for the purposes of crossing over the bed, or carrying out another permitted or consented activity within the bed.

**Note:** *In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.*

- (b) The entry into or passage across the bed of any lake, river or modified watercourse by any wheeled or tracked vehicle or machine, and any associated bed disturbance and discharge resulting from the carrying out of the activity, that does not meet one or more of the conditions of Rule 77(a) is a restricted discretionary activity.

**The Southland Regional Council will restrict its discretion to the following matters:**

1. the location, type of vehicle or machine, and frequency and duration of the activity;
2. any effects on water quality, river morphology and dynamics (including erosion or deposition), taonga species, and aquatic and riverine ecosystems and habitat;
3. the conditions in Rule 77(a) that cannot be met.

### **Rule 78 – Weed and sediment removal for drainage maintenance**

- (a) The removal of aquatic weeds and plants and sediment from any modified watercourse for the purpose of maintaining or restoring drainage outfall, and any associated bed disturbance and discharge resulting from carrying out the activity, is a permitted activity provided the following conditions are met:
  - (ai) general conditions (e), (f), (g), (h) and (l) set out in Rule 55A; and
  - (i) the activity is undertaken solely to maintain or restore the drainage capacity of a modified watercourse that has previously been modified or maintained for drainage maintenance or restoration purposes at that location; and

- (ii) the activity is restricted to the removal of aquatic weeds and plants or sediment deposits; and
- (ia) the removal of river bed material other than aquatic weeds, plants, mud or silt is avoided as far as practicable; and
- (iii) any incidental bed disturbance is only to the extent necessary to undertake the activity and must not result in lowering of the bed below previously modified levels; and
- (iv) upon completion of the activity, fish passage is not impeded as a result of the activity; and
- (v) the operator takes all reasonable steps to return any fish captured or stranded by the activity to water immediately; and
- (vi) between the beginning of June and the end of October, there is no disturbance of the spawning habitat of trout; and
- (xiii) where the modified watercourse is spring-fed, removal of aquatic weeds and plants is only to the extent that is necessary to undertake the activity and is kept to the absolute minimum.

**Note:** *In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.*

- (b) The removal of aquatic weeds and plants and sediment from any modified watercourse for the purpose of maintaining or restoring drainage outfall and any associated bed disturbance and discharge resulting from the carrying out of the activity that cannot meet one or more of the conditions of Rule 78(a) is a discretionary activity.

## **Rule 79 – High country burning**

- (b) The use of land for the burning of vegetation in Zone B of the Fire Hazard Zones (Map Series 5) between 1 May and 30 September in any one year is a permitted activity.
- (c) The use of land for the burning of vegetation in Zone A, or in Zone B between 1 October and 30 April in any one year, of the Fire Hazard Zones (Map Series 5) is a restricted discretionary activity provided the following conditions are met:
  - (i) one of the following has been obtained, which covers the proposed burning of vegetation on land:
    - (2) a permit for burning in the hill and high country from the Fire and Emergency New Zealand; or
    - (3) a consent from the Commissioner of Crown Lands for burning on Crown pastoral leasehold land; or
    - (4) a resource consent or permit for burning from the relevant territorial local authority as determined by their district plans and/or bylaws.
  - (ii) the burning does not occur above 800 metres above mean sea level.

***The Southland Regional Council will restrict the exercise of its discretion to the following matters:***

- (1) Soil conservation and sediment control practices to be undertaken;
  - (2) Adverse effects on areas of significant indigenous vegetation and habitat that is in proximity to wetlands, and lakes and rivers and their margins.
- (d) The use of land for the burning of vegetation within Zones A or B of the Fire Hazard Zones that does not comply with Rule 79(c) is a discretionary activity.

# Financial Contributions

## Introduction

Where the Southland Regional Council grants a resource consent under the rules in this Plan, it may impose a condition requiring that a financial contribution be made for the purposes specified in the Plan.

The term "financial contribution" is defined in section 108(9) of the RMA to mean a contribution of:

- (a) money; or
- (b) land, including an esplanade reserve or esplanade strip (other than in relation to a subdivision consent), but excluding Māori land within the Meaning of the Te Ture Whenua Maori Act 1993 unless that Act provides otherwise; or
- (c) a combination of money and land.

Under section 109(10) of the RMA a consent authority must not include a condition in a resource consent requiring a financial contribution unless:

- (a) the condition is imposed in accordance with the purposes specified in the plan or proposed plan (including the purpose of ensuring positive effects on the environment to offset any adverse effects); and
- (b) the level of contribution is determined in the manner described in the plan or proposed plan.

The following provisions reflect the requirements of the RMA and set out:

- (a) the purposes of financial contributions;
- (b) the manner in which the level of contribution will be determined; and
- (c) matters to be considered by Southland Regional Council when deciding whether to impose a financial contribution.

### **Purposes of financial contributions**

A financial contribution may be imposed as a condition of consent for the following:

#### **Public access to and along rivers (excluding ephemeral rivers) and lakes**

A financial contribution may be imposed as a condition of consent for any type of activity that will restrict or prevent public access to or along a river (excluding ephemeral rivers) or lake. The purpose of the financial contribution would be to provide for alternative public access in the vicinity of the activity or at another similar location or to otherwise compensate for the loss or reduction in access.

#### **Beds of lakes, rivers and modified watercourses**

A financial contribution may be imposed as a condition of consent for any type of activity that is likely to have adverse effects on the bed of a lake, river or modified watercourse in circumstances where such adverse effects will not be adequately avoided, remedied or mitigated.

The purpose of the financial contribution would be to offset the adverse effects by providing for the protection, restoration or enhancement of the beds of lakes, rivers or modified watercourses in the general area affected by the activity or, where this is not practical or desirable, in another location. This could include, but is not limited to, maintenance and planting of vegetation, sediment replenishment, erosion protection works and fencing.

### **Aquatic ecosystems and habitats**

A financial contribution may be imposed as a condition of consent for any type of activity that is likely to have adverse effects on aquatic ecosystems and habitats, in circumstances where such adverse effects will not be adequately avoided, remedied or mitigated.

The purpose of the financial contribution would be to offset the adverse effects by providing for the protection, restoration or enhancement of aquatic ecosystems and habitats in the general area affected by the activity or, where this not practical or desirable, in another location.

### **Cultural and amenity values**

A financial contribution may be imposed as a condition of consent for any type of activity that is likely to have adverse effects on amenity values or cultural values.

The purpose of the financial contribution would be to offset the adverse effects by providing for the protection, restoration or enhancement of cultural and amenity values in the general area affected by the activity or, where this is not practical or desirable, in another location. This could include, but is not limited to:

- Protection, restoration or enhancement of a place, area, building or feature; and
- Landscaping or replanting to offset or compensate for the adverse effects of land clearance, land disturbance or the erection of structures.

### **General environmental compensation**

A financial contribution may be imposed as a condition of consent for any type of activity that is likely to have adverse effects that will not be adequately avoided, remedied or mitigated, and where those effects can be offset or compensated for by positive effects elsewhere.

The purpose of the financial contribution would be to fund the works required to offset or compensate for the adverse effects.

### **Determination of Amount**

The amount of contribution will be determined by reference to the matters set out below and will be an amount that is determined by the Southland Regional Council to be fair and reasonable in order to:

- Provide for alternative public access in the vicinity of the activity or at another similar location or to otherwise compensate for the loss or reduction in access. This may include the vesting of land or an interest in land, or the costs associated with the acquisition and vesting of land or an interest in land;
- Fund the works required to protect, restore or enhance the beds fo lakes, rivers or modified watercourses, aquatic ecosystems and habitats, cultural and amenity values; or
- Otherwise fund the works required to offset or compensate for the adverse effects.

The amount will not exceed the actual and reasonable costs of measures required to offset the residual adverse effects likely to be caused by the activity that are not otherwise avoided, remedied or mitigated.

### **Matters to be Considered**

Southland Regional Council will take into account the following matters when making decisions about the imposition of financial contributions:

- (a) The purpose of the financial contributions is to offset or compensate for adverse effects likely to be caused by the activity and not otherwise avoided, remedied or mitigated by the consent holder.

- (b) The extent to which adverse effects will be otherwise avoided, remedied or mitigated.
- (c) The extent to which there will be positive effects of the activity which offset adverse effects.
- (d) Whether the adverse effects of the activity are such that to allow the activity would be contrary to the objectives and policies in the Plan, and the purpose of the RMA.
- (e) The circumstances and extent of any financial contributions previously imposed in relation to the activity.
- (f) Whether granting a resource consent and requiring a financial contribution would be more effective in achieving the objectives and policies of the Plan and the purpose of the RMA (including recognition of the economic, social and cultural benefits of the activity), than declining consent or granting a consent without requiring a financial contribution.
- (g) Financial contributions shall relate to the effects of the activity for which consent is granted.
- (h) Financial contributions may not be appropriate in every case, even where there are adverse effects.
- (i) The Southland Regional Council does not intend that adverse effects must be fully offset or compensated in every case by way of a financial contribution.



# Glossary

This glossary is included to assist in the understanding of terms used in this Plan. Other sources, where used, are indicated accordingly.

The words in this Plan have the same meaning as in the Resource Management Act 1991, unless otherwise defined in this Plan or unless the context clearly requires otherwise.

## **Abstraction**

Removing groundwater or removing water from a lake, river, artificial watercourse, modified watercourse or natural wetland.

## **Agrichemical**

Any substance, whether inorganic or organic, man-made or naturally occurring, modified or in its original state, that is used to eradicate, modify or control flora and fauna. For the purposes of this Plan, it includes agricultural compounds, but excludes fertilisers, vertebrate pest control products and oral nutrition compounds.

## **Agricultural effluent**

Effluent that is derived from livestock farming, but excludes excreta from individual animals, fertiliser application and non-point source discharges from normal farming practices.

## **Agricultural effluent storage**

A pond, tank or structure used for the containment, storage or treatment of agricultural effluent.

## **Allocation**

The provisions of this Plan or any Water Conservation Order relating to the quantities of water available for abstraction or diversion.

## **Aquifer**

Saturated rock or soil material capable of transmitting and yielding water in sufficient quantities for abstraction.

## **Artificial watercourse**

Means a watercourse that is created by human action. It includes an irrigation canal, water supply race, canal for the supply of water for electricity power generation, a constructed duck pond (that is not part of an existing natural or modified watercourse or natural wetland), and a farm drainage channel. It does not include natural or modified natural watercourses, or artificial swales, kerb and channelling or other watercourses designed to convey stormwater, or subsurface drainage systems or ephemeral rivers.

## **Bed of an artificial watercourse**

The space of land which the waters of the watercourse cover at its fullest flow without overtopping its banks.

## **Biodiversity**

Means biological diversity.

## **Bore or well**

Any structure or hole, regardless of the method of formation, that has been constructed to provide access to groundwater, excluding test pits and stormwater soakholes.

**Catchment**

The land area that contributes to the river's flow.

**Cleanfill**

Any material that when discharged into or onto land will have no or minimal adverse environmental effects, and includes virgin natural matter (e.g. clay, soil, sand, gravel or rock) and other inert products from construction or demolition activities (e.g. concrete or brick) that are free of:

- (a) combustible, putrescible, degradable, compostable or leachable components (e.g. animal carcasses, green/garden waste, timber, bark, cork, tree roots, new asphalt);
- (b) hazardous substances (e.g. coal tar, or asbestos);
- (c) products or materials derived from the treatment, stabilisation or disposal of hazardous waste; and
- (d) materials of risk to human or animal health (e.g. medical or clinical waste); and
- (e) liquid waste (including sludges).

**Cleanfill site**

Land used for the permanent disposal of cleanfill and no other type of material but excludes earthworks on the same landholding, earthworks associated with any road, driveway or track, and any area within a road reserve containing a formed road that is used for the deposition of roading material.

**Closed landfill**

A landfill containing 15,000 cubic metres or more of industrial or community waste that ceased to operate between 1970 and 2012 and remains closed but excludes farm landfills.

**Community sewerage scheme**

A scheme that collects and treats sewage from more than one landholding which is predominantly from residential housing, but may include a component of industrial and trade process effluent.

**Community water supply**

A permanent reticulated supply of potable water for use by 25 or more people for at least 60 days per annum.

**Composting Toilet**

A toilet system that uses a predominantly aerobic processing system that treats human excreta, typically with no water, via composting or managed aerobic decomposition which is often assisted by the addition of sawdust and straw or other carbon rich materials. The operation of some composting toilet systems may involve the transfer of the waste to a hot compost heap while other systems include a specially built tank in which waste is decomposed by aerobic bacteria.

**Confined aquifer**

An aquifer which is overlain by a low permeability or impermeable layer where water in the aquifer is under pressure.

**Conspicuous change in clarity**

Means more than a 20% reduction in clarity in all lakes, rivers, modified watercourses and wetlands, except for Lowland soft bed rivers where it means more than a 33% reduction in clarity.

**Crest**

In relation to a dam, means the uppermost surface of a dam, not taking into account any camber allowed for settlement, or any curbs, parapets, guard rails, or other structures that are not part of the water-retaining structure.

**Critical infrastructure**

Means infrastructure that provides services which, if interrupted, would have a significant effect on the wellbeing and health and safety of people and communities and would require reinstatement, and includes all strategic facilities.

**Critical source area**

- (a) a landscape feature like a gully, swale or a depression that accumulates runoff (sediment and nutrients) from adjacent flats and slopes, and delivers it to surface water bodies (including lakes, rivers, artificial watercourses and modified watercourses) or subsurface drainage systems; and
- (b) areas which arise through land use activities and management approaches (including cultivation and winter grazing) which result in contaminants being discharged from the activity and being delivered to surface water bodies.

**Cultivation**

Preparing land for growing pasture or a crop by mechanical tillage, direct drilling, herbicide spraying, or herbicide spraying followed by over-sowing for pasture or forage crops (colloquially referred to as 'spray and pray'), but excluding any spraying undertaken solely for the control of pest plant species.

**Damming**

The impounding of all or part of the natural flow of any water that may involve an associated temporary or permanent structure.

**Dairy farming of cows**

The farming, including grazing, of milking cows on land during the milking season.

**Dairy platform**

An area of a landholding where dairy cows being milked on a daily basis are kept during the milking season.

**Deposition**

The laying down of solid material which has been carried by some natural agency (for example, rivers, wind, etc).

**Diadromous**

Fish that make migrations between the sea and freshwater. These migrations may be in either direction and not necessarily related to spawning.

**Diversion**

The redirecting of water flow from its existing direction of flow.

**Domestic wastewater**

For the purposes of this rule, domestic wastewater is limited to effluent derived from dwellings, business buildings, institutions and the like, and consisting of toilet wastes and wash waters from kitchens, bathrooms and laundries.

**Drawdown**

The reduction in hydraulic head adjacent to a pumping bore or well that occurs in response to groundwater abstraction.

**Dry cut**

An artificial channel constructed on the dry bed of a river for the purposes of temporarily or permanently diverting water during a flood event.

**Dump station**

A dump station is a facility designed to receive effluent wastewater from mobile toilets.

**Ecosystem**

A dynamic complex of plant, animal and micro-organism communities and their non-living environment, interacting as a functional unit.<sup>21</sup>

**Effluent**

A liquid that may include solid components discharged as a waste that originates from:

- (a) on-site wastewater systems, composting toilet systems and mobile toilets;
- (b) community sewerage schemes;
- (c) agricultural activities;
- (d) an industrial or trade process;
- (e) but excludes solid waste.

**Ephemeral rivers**

Rivers which only contain flowing or standing water following rainfall events or extended periods of above average rainfall.

**Erosion control structures**

Structures that control erosion for the purpose of preventing damage to people and their property and any significant adverse effects to the environment.

**Feed pad/lot**

A fenced in or enclosed area located on production land used for feeding or loafing of cattle or deer to avoid damage to pasture when soils are saturated, and which can be located either indoors or outdoors. It includes 'sacrifice paddocks', wintering pads, stand-off pads, calving pads, loafing pads, and self-feed silage storage facilities.

**Fertiliser**

Means a substance or biological compound or mix of substances or biological compounds that is described as or held out to be for, or suitable for sustaining or increasing the growth, productivity or quality of plants or animals through the application of the following essential nutrients to plants or soils: nitrogen, phosphorus, potassium, sulphur, magnesium, calcium, chloride, sodium as major nutrients; or manganese, iron, zinc, copper, boron, cobalt, molybdenum, iodine, selenium as minor nutrients or fertiliser additives, and includes non-nutrient attributes of the materials used in fertiliser; but does not include substances that are plant growth regulators that modify the physiological functions of plants.

**Field capacity**

Means the moisture content of soil when the addition of further water would result in saturation or drainage from the soil.

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<sup>21</sup> *United Nations Convention on Biological Diversity, 1992*

**Ford**

Any modification of the bed to establish a crossing by which any vehicle, livestock or persons may traverse through any waterbody.

**Fractured rock aquifer**

Saturated rock strata containing crevices, joints and fractures in which water is stored in sufficient quantities for abstraction.

**Galaxiid**

Small freshwater fish including kōkopu and inanga. Many galaxiids spend their whole lives in freshwater but several species (diadromous species) spend part of their lives in the sea.

**Good management practices**

Include, but are not limited to, the practices set out in the various Good Management Practices factsheets available on the Southland Regional Council's webpage.

**Gravel**

Fluvial inorganic aggregate or river bed material of any size.

**Groundwater**

Subsurface water that occurs beneath the water table in soils and geologic formations that are fully saturated.

**Habitat**

The area or environment where an organism or ecological community lives or occurs naturally for some or all of its life cycle or as part of its seasonal feeding or breeding pattern.

**Headworks**

All materials used at the ground surface to complete the bore. Includes pipework, valves, gauges and access points, concrete pads and/or cellars.

**Intensive winter grazing**

Grazing of stock between May and September (inclusive) on forage crops (including brassica, beet and root vegetable crops), excluding pasture and cereal crops.

**Interference effects**

The effect of pumping a bore or well on the drawdown and yield of neighbouring pumping bores and wells.

**Intermittent river**

A river which does not contain permanently flowing or standing water and where the bed is predominantly devoid of terrestrial vegetation and comprises sand, gravel, boulders, or similar material or aquatic vegetation.

**Land application system**

The system used to apply effluent from an on-site wastewater system into or onto the soil for further treatment and absorption or evaporation. [From AS/NZS 1547:2012 On-site domestic wastewater management.] Also known as a "disposal field".

**Landfill**

A site that is used for the permanent disposal of waste but excludes a cleanfill site, earthworks associated with any road, driveway or track, and any area within a road reserve containing a formed road that is used for the deposition of roading material.

**Landholding**

- (a) Any area of land, including land separated by a road or river or modified watercourse, held in one or more than one ownership, that is utilised as a single operating unit, and may include one or more certificates of title; except
- (b) For land with a residential, commercial, industrial, infrastructural or recreational zoning or designation in the relevant district plan means any area of land comprised wholly of one Certificate of Title or any Allotment as defined by Section 218 of the RMA.

*Note: for the purposes of this definition, a “single operating unit” may include, but is not limited by, the following features:*

- (a) *It has effective control by any structure of ownership of the same group of people (for example, land that is controlled by a family trust, or beneficiaries of that family trust or a related group of companies, or an estate, or partner, or individual/s or a combination of); and*
- (b) *It is operated as a single business entity.*

**Lawfully established**

Established in accordance and compliance with any relevant legislation at the time of establishment.

**Leaching**

Movement through soil of dissolved or suspended substances in water.

**Loading**

Amount of a substance entering the environment (soil, water, or air).

**Low flow**

Periods of reduced river flow when potential ecological effects need to be assessed and managed. Generally they occur less than 5% of the time.

**Mahinga kai**

The customary gathering of food and natural materials, the health of the resource and its associated habitat, and the places where those resources are gathered.

**Main stem**

The principal course of a river (i.e. does not include tributaries).

**Maintenance**

Work on a structure necessary to maintain that structure in good order and repair, including repainting, that does not materially alter its dimensions.

**Mauri**

Essential life force or principle; a metaphorical quality inherent in all things, both animate and inanimate.

**Mean sea level**

The mean sea level as determined in accordance with the New Zealand Vertical Datum 2016 (NZVD2016) and LINZS25009 (Standard for New Zealand Vertical Datum 2016).

**Mean seasonal high groundwater**

The 95th percentile of the measured high groundwater table over the period of the available record.

**Median flow**

The flow that is exceeded fifty percent of the time (Q50).

**Method**

The practical action by which a policy is implemented. It is what can be done to put a policy into effect. Includes rules and non-regulatory methods.

**Minimum flow**

The flow at which the holder of any resource consent to abstract water must cease abstraction.

**Mitigate**

To reduce or moderate the severity of an effect.

**Mobile toilet**

Includes portable toilets and those used on various forms of transport such as motor homes, campervans or boats.

**Modified watercourse**

A water carrying channel that was existing in some form prior to land development but has been modified or straightened for drainage or other purposes and excludes ephemeral rivers.

**Mooring**

Any weight, post or other structure placed in, or on, the bed of a river or lake for the prime purpose of securing a vessel, raft, aircraft or floating structure. It does not include the anchors of a vessel.

**National Park**

As defined by the National Parks Acts 1980.

**Nationally significant infrastructure**

Means infrastructure which contributes to the development and wellbeing and health and safety of people and communities extending beyond the region.

**Natural character values**

The qualities of the environment that give it recognisable character. Embraces ecological, physical, spiritual, cultural, intrinsic and aesthetic values, and includes modified and managed environments.

**Natural mean flow**

The total flow<sup>22</sup> divided by the duration of the record.

**Natural state (for water quantity purposes)**

Water within conservation areas, reserves and national parks administered by, or on behalf of, the Department of Conservation for conservation purposes under the Conservation Act 1987, Reserves Act 1977 and National Parks Act 1980 with the exception of water within the Upper Waiau and Monowai Rivers and Lakes Te Anau, Manapōuri and Monowai (these waterbodies are excluded due to their modified flow and level regimes resulting from the Manapōuri and Monowai Power Schemes) and groundwater within the Tiwai groundwater zone (this

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<sup>22</sup> Naturalised though the incorporation of the total volume of water allocated through current resource consents. It includes the stream depletion effect of each consented groundwater abstraction greater than 2 litres per second with a direct, high or moderate degree of hydraulic connection in accordance with Policy 23 "Stream Depletion Effects".

groundwater zone is excluded due to its long term use for the supply of water for industrial purposes).

### **Natural state waters (for water quality purposes)**

Waters within:

- (a) areas defined as National Park managed under the National Parks Act 1980 (including land for the time being administered as if it was a national park pursuant to any statute or written agreement with the owners); and
- (b) public conservation land managed under the Conservation Act 1987 and the Reserves Act 1977 as detailed in Table 1 “Natural State Waters outside National Parks” in Appendix I “Natural State Waters outside National Parks” of this Plan.

### **Natural wetland**

Includes permanently or intermittently wet areas, shallow water, and land water margins that support a natural ecosystem of plants and animals that are adapted to wet conditions, but excludes:

- (a) wet pasture, damp gully heads, or where water temporarily ponds after rain or pasture containing patches of rushes;
- (b) effluent ponds;
- (c) artificial storage facilities and detention dams;
- (d) artificial watercourses such as conveyance and drainage canals;
- (e) reservoirs for firefighting, domestic or community water supply; and
- (f) engineered soil conservation structures.

### **Ngāi Tahu indicators of health**

A tool for Papatipu Rūnanga to facilitate monitoring and provide long term data that can be used to assess land, water and taonga species health over time.

#### **Note (not part of the definition):**

*Based on mātauranga Māori (Māori based knowledge systems) the indicators link long term aspirations for Papatipu Rūnanga to mahinga kai and the realisation of the Ngāi Tahu Treaty Settlement. Page 150 of Te Tangi a Tauira – The Cry of the People: Ngāi Tahu ki Murihiku Natural Resource and Environmental Iwi Management Plan 2008 provides indicators used by Papatipu Rūnanga to assess stream health. The overall measurement of cultural health, mahinga kai and site status would use a Cultural Health Index (Tipa G and Teirney L, 2006).<sup>23</sup>*

### **Non-consumptive take**

Any take of fresh water where the associated use or discharge of that water returns water to the same general location; and does not adversely affect the spatial or temporal availability; or the physical, chemical or biological quality of; the water resource into which the water is discharged.

### **Non-point source discharges**

Water contamination derived from diffuse sources where there is no single identifiable discharge point.

### **Nohoanga**

Nohoanga entitlements are created and granted by the Crown for the purpose of permitting members of Ngāi Tahu Whānui to occupy temporarily land close to waterways on a non-commercial basis, so as to have access to waterways for lawful fishing and gathering of other

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<sup>23</sup> Tipa G and Teirney L. 2006. A Cultural Health Index for streams and waterways: A tool for nationwide use. April 2006. A report prepared for the Ministry for the Environment. Publication number ME710. <http://www.mfe.govt.nz/publications/cultural-health-index-streams-and-waterways-tech-report-apr06>



natural resources. The Crown may create and grant to Te Rūnanga o Ngāi Tahu renewable entitlements over Crown-owned land in the Ngāi Tahu claim area which meets the criteria set out in Section 258 of the Ngai Tahu Claims Settlement Act 1998, other than land in:

- (a) a national park;
- (b) a marginal strip;
- (c) a nature reserve;
- (d) an esplanade reserve;
- (e) a scientific reserve;
- (f) or that part of an unformed legal road (including a road reserve) within 20 metres of a waterway.

### **Nutrient**

An element or compound essential for the growth and development of life forms. The major plant nutrients are nitrogen, phosphorus, potassium, sulphur, magnesium and calcium but there are also a number of minor nutrients which are required in small quantities.

### **Nutrient budget**

A calculation of the total nutrient balance for a farming activity, taking into account as far as is practicable all nutrient inputs to and outputs from the activity.

### **On-site wastewater system**

The collection, treatment and disposal/reuse of wastewater from dwellings or commercial facilities on the same landholding as it is generated.

### **Organism**

Any living animal or plant including any bacterium or virus.

### **Perched water**

Perched water is a subsurface layer of water that is located above true groundwater. It occurs because of confining layers in the soil such as hard gravel pans. Perched water is nearly always periodic or seasonal.

### **Periphyton**

Non-vascular plants forming crusts, films or filamentous mats on plants or beds of watercourses.

### **Pest species**

Pest species as defined in a Regional Pest Management Plan.

### **pH**

Value taken to represent the acidity or alkalinity of water.

### **Pit toilet**

A toilet which discharges to a hole in the ground. Also known as a pit latrine, long-drop or privy.

### **Physiographic zone**

A physiographic zone represents areas of the landscape with common attributes that influence water quality, such as climate, topography, geology and soil type. Zones differ in the way sediment, microbes and nutrients such as nitrogen and phosphorus accumulate and are transferred through the soil, aquifers and into waterbodies.

The zones are individually described in Part A of this Plan.

**Place of assembly**

Any building or land used for public or private assembly or meeting of people and includes libraries, churches, halls, marae, clubrooms, community centres, conference centres, recreational facilities, chartered clubs, premises with a club license, and other similar establishments.

**Point source discharges**

Discharges from specific and identifiable sources (such as pipes or drains) concentrated at a given point.

**Potable water**

Water suitable, on the basis of both health and aesthetic considerations, for drinking and food preparation.

**Potentiometric head**

The level to which water will rise in a bore or well penetrating a confined aquifer.

**Properly constructed and operated bore**

A bore that is drilled and developed to an adequate depth and with a pumping system to efficiently utilise groundwater from an aquifer, including as determined by assessing information from other bores in the area.

**Q95**

The naturalised flow that is exceeded 95% of the time during the year.

**Radius of influence**

The calculated distance from a pumping well at which there is no lowering of the water table or potentiometric head.

**Raw sewage**

Sewage that has not undergone any chemical or biological changes prior to disposal. Raw sewage may have undergone some solids separation in a storage facility such as a pond or sump.

**Reasonable mixing zone**

A zone within which relevant water quality standards may be exceeded but which shall not be larger than:

- (a) for river, artificial watercourse and modified watercourse locations with flowing water present at all times:
  - (i) no longer than 10 times the width of the wetted channel or 200 metres along the longest axis of the zone (whichever is the lesser), and
  - (ii) occupies no greater than two-thirds of the wetted channel width at the estimated Q95 for that location;
- (b) for river, artificial watercourse and modified watercourse locations with intermittent flows, no longer than 20 metres at times of flow and 0 metres at no flow;
- (c) when within a drinking water supply zone, or within 250 metres upstream of a drinking water supply site sourced from surface water, identified in Appendix J, 0 metres; or
- (d) a distance determined through a resource consent process, having regard to (a) to (c) of this definition.

**Receiving waters**

Bodies of water that receive run-off or wastewater discharges, such as lakes, rivers, modified watercourses, wetlands and groundwater.

**Reconstruction**

The complete rebuilding or complete replacement of a structure to its original dimensions, on the same site.

**Regionally significant infrastructure**

Means infrastructure in the region which contributes to the wellbeing and health and safety of the people and communities of the region, and includes all critical infrastructure.

**Reticulated system**

The means by which water is collected and delivered prior to discharge. In relation to stormwater discharge, a piped or channelled network for collecting stormwater from a number of landholdings with a single common discharge point.

**Rip rap**

Rock protection work along the bank of a lake, river or modified watercourse.

**Riparian area/margins**

Land situated along the bank of a lake, river, wetland or other waterbody.

**RMA**

The Resource Management Act 1991 (including any amendments thereto), unless expressly stated.

**Sediment trap**

A facility designed and constructed for the primary purpose of slowing water flow to allow sediments to drop from the water column.

**Septage**

The pumpout contents of a septic tank (or primary compartment of an aerated wastewater treatment system) during desludging operations, which includes scum, sludge and septic tank liquid.

**Sewage**

The contents of sewers carrying the waterborne wastes of a community. This is sometimes called "wastewater" or "foul sewage" to distinguish it from stormwater.

**Silage**

Silage is any plant material harvested while green for fodder and kept succulent by partial fermentation, but does not include baleage or hay.

**Silage leachate**

Silage leachate refers to the liquids generated from the biological processes that occur when wilted grass is preserved as silage, or when soluble components are dissolved out of silage by percolating or infiltrating rainwater, surface water or groundwater. Leachate that results from the making of baleage or hay is not considered silage leachate for the purpose of this plan.

**Silage storage facility**

Silage storage facility refers to land or structures on which silage is stored, processed or directly utilised. Bales of plant material completely encapsulated in plastic are not considered a "silage storage facility".

**Sludge**

The solid residues from effluent.

**Soil infiltration surface**

The surface where effluent from the land application system passes into soil. In the case of land application systems comprising of trenches or beds which include distribution aggregate or filter cloth the soil infiltration surface is the bottom of that material. In the case of land application systems comprising of distribution pipes such as shallow subsurface drip emitters which are laid directly on soil the soil infiltration surface is the pipe invert.

**Spring-fed**

In addition to lakes, rivers, modified watercourses or natural wetlands that are classed as spring-fed on Map Series 1: Water Quality, a lake, river, modified watercourse or natural wetland is spring-fed if it:

- (a) has a mean annual flow less than 2,000 litres per second; and
- (b) always has an instantaneous flow greater than or equal to 5 litres per second, at a point immediately before the first downstream confluence; and
- (c) meets one or more of the following conditions as measured by the Southland Regional Council:
  - (i) the ratio of the December to March median flow to the mean annual low flow is less than or equal to 1.5; or
  - (ii) in July, the mean monthly water temperature is at least 1.5°C higher than the mean monthly water temperature in a nearby run-off dominated stream; or
  - (iii) in July, the mean monthly water temperature is at least 2°C higher than the mean monthly ambient air temperature in the vicinity.

**Stock**

Farm animals kept for use or profit such as horses, dairy cows, cattle, deer, pigs, goats and sheep.

**Stock crossing**

A place, which forms part of the stock access system of tracks and races on a farm, at which stock cross the bed of a lake, river, or modified watercourse. Stock crossings involve the crossing of stock through water. Culverts and bridges are not stock crossings.

**Stormwater**

Surface water run-off subsequent to precipitation.

**Subsurface drainage systems**

An artificial permeable subsurface conduit constructed for the purposes of draining agricultural soil water/moisture. An installed subsurface drainage system includes tile, mole, concrete and clay drains, wooden box drains and plastic subsurface drainage pipes. Stormwater systems, drainage by use of sumps, and on-site wastewater systems are not included in this definition.

**Suitably qualified person (SQP)**

A person that has been assessed and approved by the Southland Regional Council as being appropriately qualified, experienced and competent in the relevant field of expertise.

**Tangata whenua**

In relation to a particular area, means the iwi or hapu, that holds mana whenua over that area, and for the Southland region this is Ngāi Tahu.

**Total groundwater allocation**

The total volume of water allocated at the date a resource consent application for a new take is lodged. This includes the water that is allocated through current resource consents, the

water that is proposed to be taken under consent applications that have been lodged and the additional water proposed to be taken by the consent applicant. It excludes non-consumptive takes; the stream depletion effect of each groundwater take with a Riparian or Direct degree of hydraulic connection; and the stream depletion component of groundwater takes with a High or Moderate degree of hydraulic connection where the stream depletion component exceeds 2 litres per second in accordance with Table L.2 in Appendix L.2.

### **Total surface water allocation**

The total volume of water allocated at the date a resource consent application for a new take is lodged. This includes the water that is allocated through current resource consents, the water that is proposed to be taken under consent applications that have been lodged and the additional water proposed to be taken by the consent applicant. It also includes the stream depletion components of groundwater takes that are excluded from the definition of “total groundwater allocation”, but excludes non-consumptive takes.

### **Toxicity**

The inherent potential or capacity of a material to cause adverse effects in a living organism.

### **Unconfined aquifer**

An aquifer with no upper confining layer so the system is not under pressure, and its water table levels fluctuate both seasonally and from year to year.

### **Untreated animal effluent**

Animal effluent that has not undergone any chemical or biological changes prior to disposal. Untreated effluent may have undergone some solids separation in a storage facility such as a pond or sump.

### **Unwanted organisms**

As defined by the Biosecurity Act 1993.

### **Values**

The worth, desirability, or utility of a thing, or the qualities on which these depend.

### **Vegetation flood debris**

Vegetation, including entire trees that have been dislodged during flood, or storm events.

### **Wāhi taonga**

Treasured resources.

### **Wāhi tapu**

Sacred place. Typically includes burial grounds and sites of historical importance to the tribe.

### **Water demand management strategy**

A water demand management strategy is a document required to accompany a water permit application for a community water supply. It must contain the following information in sufficient detail to enable Council to be reasonably informed on the nature and extent of the activity and any effects of that activity on the environment:

- (a) a description of the water supply system including:
  - (i) system operation;
  - (ii) distribution extent;
  - (iii) level of service;
  - (iv) water use measurement methods;
  - (v) maintenance and asset management procedures;
- (b) an assessment of existing and future demand for water to meet:

- (i) reasonable domestic needs;
  - (ii) public health needs;
  - (iii) the responsibilities of municipal water supply authorities under the Local Government Act 2002 with respect to the supply of water;
  - (iv) the needs of other users, including rural, commercial and industrial needs; and
  - (v) any increase in allocation that may be sought during the term of the water permit to meet these demands;
- (c) water conservation and efficiency measures including:
- (i) regulatory or non-regulatory methods;
  - (ii) a plan to implement methods identified;
  - (iii) performance targets to measure the effectiveness of the methods implemented; and
  - (iv) a timeframe for review of the actions and implementation plan;
- (d) any existing or proposed water pricing procedures and any linkages with wastewater pricing or management;
- (e) plans and management measures to minimise water losses from the water reticulation network as far as practicable;
- (f) plans to mitigate the potential impacts of climate change on the community water supply;
- (g) an assessment of alternative water sources available or alternative means of sourcing water, including both general water harvesting and roof water harvesting, seasonal storage or water reclamation;
- (h) a drought management plan that includes:
- (i) methods to reduce consumption during water shortage conditions particularly consumption by non-essential<sup>24</sup> agricultural, residential, industrial or trade processes;
  - (ii) public education programmes;
  - (iii) enforcement procedures;
- (i) any external auditing or benchmarking procedures that have been adopted;
- (j) any consultation undertaken and the outcomes of such consultation;
- (k) details of a strategy review process, including consultation.

### **Wetland**

Includes permanently or intermittently wet areas, shallow water, and land water margins that support a natural ecosystem of plants and animals that are adapted to wet conditions. [See also definition of “Natural Wetland”].

### **Whitebait stand**

Any structure used in association with whitebaiting.

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<sup>24</sup> For all uses of water that are considered to be essential refer to Policy 24. In this context, “non-essential” is considered to be water uses for all other purposes.

## **Appendix A – Regionally Significant Wetlands and Sensitive Water Bodies in Southland**

Locations of the wetlands and water bodies listed in this Appendix can be found in Map Series 7: Regionally Significant Wetlands and Sensitive Water Bodies.

Awarua Plain - Southland Estuaries including:

- Waituna Scientific Reserve
- Seaward Moss
- Wetlands adjoining Awarua Bay
- Wetlands adjoining Bluff Harbour
- Wetlands adjoining New River Estuary
- Fortrose Harbour (including lower Mataura River)

Balloon Loop Oxbow Lake

Bayswater Bog

Big Bay – Waiuna

Big Lagoon

Blue Bottle Peatland

Bog Lake (and adjacent wetlands)

Borland Mire

Borland Saddle-Mt Burns

Braxton Burn Bog

Brydone West Tussockland

Campbells's Creek Wetlands

Castle Downs (Hamilton Burn)

Chocolate Swamp – Dean Forest

College Stream Swamp

Cross Road Swamp

Dale Bog Pine Wetland

Dawson City/Mt Prospect Wetlands

Deer Flat Wetland

Downs Road North Tussockland

Downs Road Tussockland

Drummond Peat Swamp (Isla Bank)

Dunearn Wetland

Ewe Burn Wetlands

Feldwick Wetlands

Ferry Road/Oreti Beach Lagoon

Fiordland National Park (World Heritage site) including:

Back Valley

Grebe Valley

Lower Hollyford

Sutherland Sound

Five Mile Swamp (wetland in ancient Lake Wakatipu lake outlet)

Freshwater Valley including:

Freshwater Flats

Ruggedy Flat

The following wetlands in the Garvie Mountains:

Blue Lake wetland

Gow Lake wetland

Scott Lake wetland

Glenary Station Alpine Wetlands

Grove Bush Peatlands

Haldane Estuary and reservoir

Henry Creek Wetland

Hindley Burn Wetland

Hokonui South-East Peatland

Jacobs River Estuary

Lake George

Lake Hauroko Wetland

Lake Mistletoe

Lake Murihiku

Lake Thomas & Wetland



Lake Vincent, near Fortrose

Lake Brunton, Otara

Lookout Hill Wetland

Lower Hodgkinson Road Peatland

Makarewa Peatland

Martins Bay Wetlands

Mavora Lakes (and associated wetlands)

Morley Stream Wetland

Mount Tennyson string bog

Old Man Swamp

Oreti Beach coastal turf/wetland

Oreti Beach Gravel Pits

Pebbly Hills Swamp

Pleasant Bay Wetland

Pukerau red tussock Scientific Reserve

Pyke Valley (including Lake Alabaster and Lake Wilmot)

Rainbow Reach Oxbow Lake

Rakehua Valley Wetlands

Ramparts Scenic Reserve

Redcliff Reserve

Retford Stream Wetland

Sharp Ridge Wetland

So Big Swamp

Silver Lagoon

Sinclair Road Wetlands

Southdowns Swamp

Spurhead Swamp

Table Hill

Taramoa Peatland

Taylor Road Wetland

Te Anau Basin wetland complex including:

Kepler Mire

Dome Mire - Dismal Swamp

Dunton Swamp

Tekaro Wetland

Amoeboid Swamp

Kākāpō Swamp

Snowdon Forest

Dale Lake

Lake Luxmore

Lagoon Creek

Te Anau Downs Wetland

Thornbury Peatland

Toetoes Flats

Toitoti Flat

Transit Valley Wetlands

Waiau River - Te Waewae Lagoon

Waiau Terrace Wetland

Waiau Valley/Borland Burn Wetlands

Waihopai River Rushland

Waikawa Estuary

Waimatuku Estuary

Waimatuku wetland

Waipapa Beach dune slack Wetlands

Wairaki Lagoon (Waiau River)

Wash Creek Wetland

Waterloo (Aparima)

Weydon Burn

Wrights Bush Peatland

## Waiiau River Lake Manapōuri to Mararoa Weir

**Note:** For wetlands, this appendix only identifies those which are of regional significance. There are also rules in this plan that manage activities in relation to all wetlands, not only those identified in this appendix.

# Appendix B – Ngāi Tahu Statutory Acknowledgement Areas

## Information for Plan users, and resource consent applicants

### **Introduction**

Ngāi Tahu Claims Settlement Act 1998 (the Settlement Act) gives effect to the Deed of Settlement signed by the Crown and Te Rūnanga o Ngāi Tahu on 21 November 1997 to achieve a final settlement of Ngāi Tahu's historical claims against the Crown.

The Settlement Act includes a new instrument called a Statutory Acknowledgement. Statutory Acknowledgements recognise Ngāi Tahu's mana in relation to a range of sites and areas in the South Island, and provide for this to be reflected in the management of those areas. Statutory Acknowledgements impact upon Resource Management Act 1991 (RMA) processes concerning these areas.

### **What are Statutory Acknowledgements?**

A Statutory Acknowledgement is an acknowledgement by the Crown of Ngāi Tahu's special relationship with identifiable areas, namely Ngāi Tahu's particular cultural, spiritual, historical, and traditional association with those areas (known as statutory areas). The statutory areas are named on the map (printed on the reverse).

### **What are the Purposes of Statutory Acknowledgements?**

The purposes of Statutory Acknowledgements are:

- to ensure that Ngāi Tahu's particular association with certain significant areas in the South Island are identified, and that Te Rūnanga o Ngāi Tahu is informed when a proposal may affect one of these areas; and
- to improve the implementation of RMA processes, in particular by requiring consent authorities to have regard to Statutory Acknowledgements when making decisions on the identification of affected parties.

### **Who may be Affected by Statutory Acknowledgements?**

You may be affected by a Statutory Acknowledgement if you are applying for a resource consent for an activity that is within, adjacent to, or impacting directly upon a statutory area.

### **What happens when you apply?**

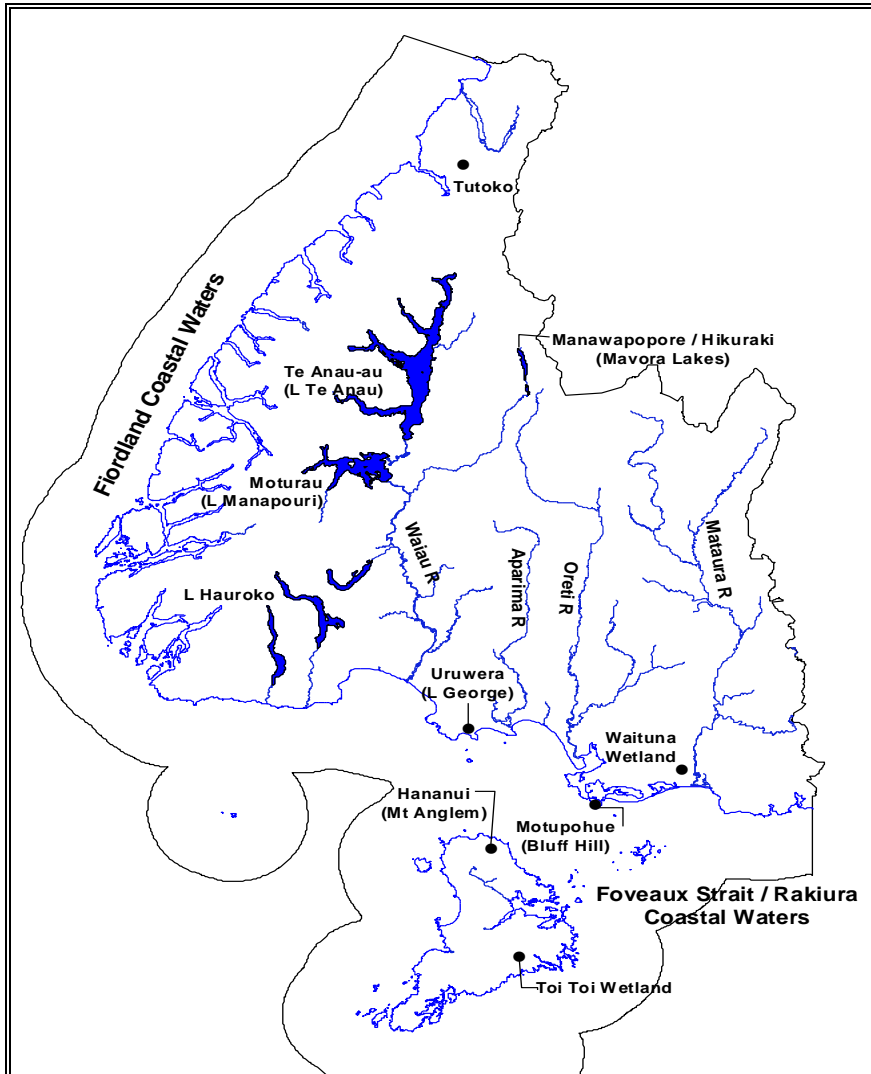
If you are applying for a resource consent for an activity within, adjacent to, or impacting directly upon a statutory area:

- the Council must send a summary of your resource consent application to Te Rūnanga o Ngāi Tahu; and
- the Council must have regard to the Statutory Acknowledgement in going through the process of making a decision on whether Te Rūnanga o Ngāi Tahu is an affected party in relation to the resource consent application.

### **More Information**

The following pages set out the Statutory Acknowledgements as they relate to the Southland region. You can obtain further information on Statutory Acknowledgements from:

- Policy and Planning Division, Environment Southland, Cnr Price Street and North Road, Private Bag 90116, Invercargill 9840
- Kaitiaki Taiao (Natural Resources) Unit, Office of Te Rūnanga o Ngāi Tahu, PO Box 13-046, Christchurch 8141
- Te Ao Mārama Inc, PO Box 7078, South Invercargill 9844
- Ministry for the Environment, PO Box 1345, Christchurch 8140.



## **Statutory Acknowledgement for Aparima River**

*(From Schedule 15 – refer to Sections 205 and 206 Ngāi Tahu Claims Settlement Act 1998)*

### **Statutory Area**

The statutory area to which this statutory acknowledgement applies is the river known as Aparima, the location of which is shown on Allocation Plan MD 126 (SO 12265).

### **Preamble**

Under Section 206, the Crown acknowledges Te Rūnanga o Ngāi Tahu's statement of Ngāi Tahu's cultural, spiritual, historic, and traditional association to the Aparima River, as set out below.

### **Ngāi Tahu Association with the Aparima River**

The mouth of the Aparima was the site of a permanent settlement, with associated urupā nearby. Urupā are the resting places of Ngāi Tahu tūpuna and, as such, are the focus for whānau traditions. These are places holding the memories, traditions, victories and defeats of Ngāi Tahu tūpuna, and are frequently protected by secret locations.

The river was an important source of mahinga kai, with shellfish, mussels, paua, tuna (eels) and inaka (whitebait) all being taken from the river and its estuary. An eel weir was constructed at the narrows where the Pourakino River enters the Aparima, and was an important source of tuna.

The tūpuna had considerable knowledge of whakapapa, traditional trails and tauranga waka (landing places), places for gathering kai and other taonga, ways in which to use the resources of the Aparima, the relationship of people with the river and their dependence on it, and tikanga for the proper and sustainable utilisation of resources. All of these values remain important to Ngāi Tahu today.

The mouth of the Aparima was a tauranga waka, from which sea voyages were launched to and from a variety of locations in and around Te Ara a Kiwa (Foveaux Strait), Rakiura and the tītī islands. A carved tauihu (canoe prow) found in the estuary of the river attests to this.

The tūpuna had an intimate knowledge of navigation, river routes, safe harbours and landing places, and the locations of food and other resources on the Aparima. The river was an integral part of a network of trails which were used in order to ensure the safest journey and incorporated locations along the way that were identified for activities including camping overnight and gathering kai. Knowledge of these trails continues to be held by whānau and hapū and is regarded as a taonga. The traditional mobile lifestyle of the people led to their dependence on the resources of the river.

The mauri of the Aparima represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngāi Tahu Whānui with the river.

## **Statutory Acknowledgement for Hananui (Mount Anglem)**

*(From Schedule 18 – refer to Sections 205 and 206 Ngāi Tahu Claims Settlement Act 1998)*

### **Statutory Area**

The statutory area to which this statutory acknowledgement applies is the area known as Hananui (Mt Anglem), as shown on Allocation Plan MS 264 (SO 12249).

### **Preamble**

Under Section 206, the Crown acknowledges Te Rūnanga o Ngāi Tahu's statement of Ngāi Tahu's cultural, spiritual, historic, and traditional association to Hananui, as set out below.

### **Ngāi Tahu Association with Hananui**

As with all principal maunga (mountains), Hananui is imbued with the spiritual elements of Raki and Papa, in tradition and practice regarded as an important link to the primeval parents.

The name Hananui is derived from an event involving the tūpuna (ancestor) Rakitamau, a chief of Te Taumutu, and son of Tū Te Kawa. Rakitamau became a widower through the unfortunate death of his wife. Rakitamau journeyed to Motunui (as Rakiura was called then) seeking the hand of a tribally renowned wahine (woman) to take her place, as in his view she would increase his standing due to her mana, reflected in her connections to the land and important people of Rakiura.

On his arrival at her village, Rakitamau asked for the woman by name, only to be told by a laughing group of women she was tāpui (betrothed or set apart). At this, Rakitamau blushed deeply. When he then asked for her sister the people laughed loudly, as they told him she was tāpui also. This news made him blush further so that his cheeks flamed. He left the island never to return and the women were so amused that they named the highest point on the island Hananui, referring to the great glow of Rakitamau, in memory of the event. Rakiura itself takes its name from the glowing skies of this region, the aurora lights.

For Ngāi Tahu, traditions such as this represent the links between the cosmological world of the gods and present generations, these histories reinforce tribal identity and solidarity, and continuity between generations, and document the events which shaped the environment of Te Wai Pounamu and Ngāi Tahu as an iwi.

Pūtātāra was an old settlement under the lee of Hananui, a place to which an Otago rangātira (chief, Tukiauau, retired to seek refuge.

The mauri of Hananui represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngāi Tahu Whānui with Hananui.

## **Statutory Acknowledgement for Lake Hauroko**

*(From Schedule 29 – refer to Sections 205 and 206 Ngāi Tahu Claims Settlement Act 1998)*

### **Statutory Area**

The statutory area to which this statutory acknowledgement applies is the Lake known as Hauroko, the location of which is shown on Allocation Plan MD 41 (SO 12258).

### **Preamble**

Under Section 206, the Crown acknowledges Te Rūnanga o Ngāi Tahu's statement of Ngāi Tahu's cultural, spiritual, historic, and traditional association to Lake Hauroko, as set out below.

### **Ngāi Tahu Association with Lake Hauroko**

Hauroko is strongly associated with urupā in the immediate vicinity, including one on an island in the lake, known to Pākehā as Mary Island. In particular, Ngāti Rākiamoa and Ngāti Ruahikihiki have several traditions about their dead laying in this region.

Urupā are the resting places of Ngāi Tahu tūpuna and, as such, are the focus for whānau traditions. These are places holding the memories, traditions, victories and defeats of Ngāi Tahu tūpuna, and are frequently protected by secret locations. It is because of its proximity to these urupā that Hauroko is considered tapu by Ngāi Tahu.

The mauri of Hauroko represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngāi Tahu Whānui with the lake.

## **Statutory Acknowledgement for Manawapōpōre/Hikuraki (Mavora Lakes)**

*(From Schedule 39 – refer to Sections 205 and 206)*

### **Statutory Area**

The statutory area to which this statutory acknowledgement applies is the Wetland known as Manawapōpōre/Hikuraki (Mavora Lakes), the location of which is shown on Allocation Plan MD44 (SO 12235).

### **Preamble**

Under Section 206, the Crown acknowledges Te Rūnanga o Ngāi Tahu's statement of Ngāi Tahu's cultural, spiritual, historic, and traditional association to Manawapōpōre/Hikuraki, as set out below. Ngāi Tahu Association with Manawapōpōre/Hikuraki Manawapōpōre and Hikuraki are part of one of the most significant catchments in Murihiku. The wetland also lies in the path of the important trail from the mouth of the Ōreti River onward, via the Greenstone Valley, to the head of Whakatipu-wai-Māori (Lake Wakatipu), or alternatively continuing along the Greenstone Valley and out via the Hollyford to the West Coast. These were important trading routes, to gather pounamu for exchange with northern iwi for materials and foods unavailable in the south.

The wetland area was, therefore, an integral part of a network of trails which were used in order to ensure the safest journey and incorporated locations along the way that were identified for activities including camping overnight and gathering kai. Knowledge of these trails continues to be held by whānau and hapū and is regarded as taonga. The traditional mobile lifestyle of the people led to their dependence on the resources of the area.

In addition, the trails were part of summer time pursuits such as kai-hau-kai, whānaungatanga (the renewal and strengthening of family links) and arranging marriages with hapū from the neighbouring region of Otago and further afield.



Such strategic marriages between hapū strengthened the kupenga (net) of whakapapa and thus rights to use the resources of the area. Manawapōpōre (Lower Mavora) is noted for eel weirs, which were constructed on the lake edges for catching eels, utilising flat stones, built in a loop out from the lake edge, with gaps at either end and one in the middle. Construction of the eel weir recreates the type of environment that eels like to congregate in, hence reliable catches are made.

The tūpuna had considerable knowledge of such techniques, places for catching and gathering kai and other taonga, ways in which to use the resources of the area, the relationship of people with the area and their dependence on it, and tikanga for the proper and sustainable utilisation of resources. All of these values remain important to Ngāi Tahu today.

The mauri of Manawapōpōre/Hikuraki represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngāi Tahu Whānui with the area.

### **Statutory Acknowledgement for Mataura River**

*(From Schedule 42 – refer to Sections 205 and 206 Ngāi Tahu Claims Settlement Act 1998)*

#### **Statutory Area**

The statutory area to which this statutory acknowledgement applies is the River known as Mataura, the location of which is shown on Allocation Plan MD 125 (SO 12264).

#### **Preamble**

Under Section 206, the Crown acknowledges Te Rūnanga o Ngāi Tahu's statement of Ngāi Tahu's cultural, spiritual, historic, and traditional association to the Mataura River, as set out below.

#### **Ngāi Tahu Association with the Mataura River**

The area of the Mataura River above the Mataura Falls was traditionally used by the descendants of the Ngāti Mamoe chief, Parapara Te Whenua. The descendants of Parapara Te Whenua incorporate the lines of Ngāti Kuri from which the Mamaru family of Moeraki descend. Another famous tūpuna associated with the river was Kiritekateka, the daughter of Parapara Te Whenua. Kiritekateka was captured by Ngāi Tahu at Te Anau and her descendants make up the lines of many of the Ngāi Tahu families at Ōtākou

For Ngāi Tahu, histories such as these reinforce tribal identity and solidarity, and continuity between generations, and document the events which shaped the environment of Te Wai Pounamu and Ngāi Tahu as an iwi.

The Mataura was an important mahinga kai, noted for its indigenous fishery. The Mataura Falls were particularly associated with the taking of kanakana (lamprey). The tūpuna had considerable knowledge of whakapapa, traditional trails and tauranga waka, places for gathering kai and other taonga, ways in which to use the resources of Mataura, the relationship of people with the river and their dependence on it, and tikanga for the proper and sustainable utilisation of resources. All of these values remain important to Ngāi Tahu today.

The mauri of the Mataura represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngāi Tahu Whānui with the river.

## **Statutory Acknowledgement (Bluff Hill) For Motupōhue**

*(From Schedule 44 – refer to Sections 205 and 206 Ngāi Tahu Claims Settlement Act 1998)*

### **Statutory Area**

The statutory area to which this statutory acknowledgement applies is the area known as Motupōhue (Bluff Hill), as shown on Allocation Plan MS 8 (SO 12233).

### **Preamble**

Under Section 206, the Crown acknowledges Te Rūnanga o Ngāi Tahu's statement of Ngāi Tahu's cultural, spiritual, historic, and traditional association to Motupōhue as set out below.

### **Ngāi Tahu Association with Motupōhue**

The name Motupōhue is an ancient one, brought south by Ngāti Mamoe and Ngāi Tahu from the Hawkes Bay region where both tribes originated. The name recalls a history unique to the Ngāi Tahu and Ngāti Kuri hapū that is captured in the line, 'Kei korā kei Motupōhue, he pāreka e kai ana, nā tō tūtae' ('It was there at Motupōhue that a shag stood, eating your excrement').

Oral traditions say that the Ngāti Mamoe leader, Te Rakitauneke, is buried upon this hill. Te Rakitauneke's saying was: 'Kia pai ai tāku tītiro ki Te Ara a Kiwa' ('Let me gaze upon Foveaux Strait'). Some traditions also place another Ngāti Mamoe leader, Tū Te Mokohu, on this hill.

For Ngāi Tahu, histories such as this represent the links and continuity between past and present generations, reinforce tribal identity and solidarity, and document the events which shaped Ngāi Tahu as an iwi. The mauri of Motupōhue represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngāi Tahu Whānui with Motupōhue.

## **Statutory Acknowledgement for Moturau (Lake Manapōuri)**

*(From Schedule 45 – refer to Sections 205 and 206 Ngāi Tahu Claims Settlement Act 1998)*

### **Statutory Area**

The statutory area to which this statutory acknowledgement applies is the Lake known as Moturau (Lake Manapōuri), the location of which is shown on Allocation Plan MD 40 (SO 12257).

### **Preamble**

Under Section 206, the Crown acknowledges Te Rūnanga o Ngāi Tahu's statement of Ngāi Tahu's cultural, spiritual, historic, and traditional association to Moturau, as set out below.

### **Ngāi Tahu Association with Moturau**

Moturau (or Motu-ua) is one of the lakes referred to in the tradition of 'Ngā puna Wai Karikari o Rakaihautu' which tells how the principal lakes of Te Wai Pounamu were dug by the rangātira (chief) Rakaihautu. Rakaihautu was the captain of the canoe, Uruao, which brought the tribe, Waitaha, to New Zealand. Rakaihautu beached his canoe at Whakatū (Nelson). From Whakatū, Rakaihautu divided the new arrivals in two, with his son taking one party to explore the coastline southwards and Rakaihautu taking another southwards by an inland route. On his inland journey southward, Rakaihautu used his famous kō (a tool similar to a spade) to dig the principal lakes of Te Wai Pounamu, including Moturau. Rakaihautu named the lake Motu-ua, a reference to the persistent rain which troubled his party here.

Tamatea and his party passed this way in their journey back to their homeland after their waka, Takitimu, broke its back at the mouth of the Waiau River. It was Tamatea who named the lake Moturau (possibly a woman's name but more likely to relate to the many islands found in the lake).

Tamatea's party established a camp on the edge of the lake, which is probably under water now, and called it Whitiaka-te-rā (the shining of the sun), indicating that they enjoyed a very different experience of the lake from Rakaihautu. Other traditional names associated with the lake include Te Māui (North Arm), Te Tukeroa (Beehive), Manapōuri (north-eastern reach), Wairoa River (upper Waiau River), Te Rakatū (Garnock Burn), Te Konuotu-te-Makohu (Monument), and Huatea (South Arm).

For Ngāi Tahu, traditions such as this represent the links between the cosmological world of the gods and present generations, these histories reinforce tribal identity and solidarity, and continuity between generations and document the events which shaped the environment of Te Wai Pounamu and Ngāi Tahu as an iwi.

A number of wāhi <sup>25</sup>taonga and nohoanga associated with the lake are now under its waters. Eel weirs have been found at the Monument and Hope Arm of the lake, and there was a canoe manufacturing site at Pigeon Island. Such wāhi <sup>26</sup>taonga are places holding the memories, traditions, victories and defeats of Ngāi Tahu tūpuna.

As a mahinga kai, the lake was important for the fowling it offered Murihiku coastal settlements in summer. The tūpuna had considerable knowledge of whakapapa, traditional trails and tauranga waka (landing places), places for gathering kai and other taonga, ways in which to use the resources of Moturau, the relationship of people with the lake and their dependence on it, and tikanga for the proper and sustainable utilisation of resources. All of these values remain important to Ngāi Tahu today.

The mauri of Moturau represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngāi Tahu Whānui with the lake.

### **Statutory Acknowledgement for Ōreti River**

*(From Schedule 50 – refer to Sections 205 and 206 Ngāi Tahu Claims Settlement Act 1998)*

#### **Statutory Area**

The statutory area to which this statutory acknowledgement applies is the River known as Ōreti, the location of which is shown on Allocation Plan MD 123 (SO 12262).

#### **Preamble**

Under Section 206, the Crown acknowledges Te Rūnanga o Ngāi Tahu's statement of Ngāi Tahu's cultural, spiritual, historic, and traditional association to the Ōreti River, as set out below.

#### **Ngāi Tahu Association with the Ōreti River**

The Ōreti River traverses a significant area of Murihiku, stretching from its mouth at Invercargill almost to the edge of Whakatipu-wai-Māori (Lake Wakatipu). As such, it formed one of the main trails inland from the coast, with an important pounamu trade route continuing northward from the headwaters of the Ōreti and travelling, via the Mavora or Von River Valley, to the edge of Wakatipu and onto the Dart and Routeburn pounamu sources. Indeed, pounamu can be found in the upper reaches of the Ōreti itself.

The tūpuna had considerable knowledge of whakapapa, traditional trails and tauranga waka, places

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<sup>25</sup> Clause 16(2) amendment

<sup>26</sup> Clauses 16(2) amendment

for gathering kai and other taonga, ways in which to use the resources of Ōreti, the relationship of people with the river and their dependence on it, and tikanga for the proper and sustainable utilisation of resources. All of these values remain important to Ngāi Tahu today.

The kai resources of the Ōreti would have supported numerous parties venturing into the interior, and returning by mōkihi (vessels made of Raupō), laden with pounamu and mahinga kai. Nohoanga (temporary campsites)<sup>27</sup> supported such travel by providing bases from which the travellers could go water fowling, eeling and catching inaka (whitebait), and were located along the course of Ōreti River.

There were a number of important settlement sites at the mouth of the Ōreti, in the New River estuary, including Ōmāui, which was located at the mouth of the Ōreti, where it passes the New River Heads. Ōue, at the mouth of the Ōreti River (New River estuary), opposite Ōmāui, was one of the principal settlements in Murihiku. Honekai who was a principal chief of Murihiku in his time was resident at this settlement in the early 1820s, at the time of the sealers. In 1850 there were said to still be 40 people living at the kaik at Ōmāui under the chief Mauhe. As a result of this pattern of occupation, there are a number of urupā located at the lower end of the Ōreti, in the estuarine area. Urupā are the resting places of Ngāi Tahu tūpuna and, as such, are the focus for whānau traditions. These are places holding the memories, traditions, victories and defeats of Ngāi Tahu tūpuna, and are frequently protected by secret locations.

The mauri of the Ōreti represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngāi Tahu Whānui with the river.

### **Statutory Acknowledgement for Te Ana-Au (Lake Te Anau)**

*(From Schedule 58 – refer to Sections 205 and 206 Ngāi Tahu Claims Settlement Act 1998)*

#### **Statutory Area**

The statutory area to which this statutory acknowledgement applies is the Lake known as Te Ana-au (Lake Te Anau), the location of which is shown on Allocation Plan MD 42 (SO 12259).

#### **Preamble**

Under Section 206, the Crown acknowledges Te Rūnanga o Ngāi Tahu's statement of Ngāi Tahu's cultural, spiritual, historic, and traditional association to Te Ana-au, as set out below.

#### **Ngāi Tahu Association with Te Ana-au**

Te Ana-au is one of the lakes referred to in the tradition of 'Ngā puna Wai Karikari o Rakaihautu,' which tells how the principal lakes of Te Wai Pounamu were dug by the rangātira (chief) Rakaihautu. Rakaihautu was the captain of the canoe, Uruao, which brought the tribe, Waitaha, to New Zealand. Rakaihautu beached his canoe at Whakatū (Nelson). From Whakatū, Rakaihautu divided the new arrivals in two, with his son taking one party to explore the coastline southwards and Rakaihautu taking another southwards by an inland route. On his inland journey southward, Rakaihautu used his famous kō (a tool similar to a spade) to dig the principal lakes of Te Wai Pounamu, including Te Ana-au.

For Ngāi Tahu, traditions such as this represent the links between the cosmological world of the gods and present generations, these histories reinforce tribal identity and solidarity, and continuity between generations, and document the events which shaped the environment of Te Wai Pounamu

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<sup>27</sup> Te Rūnanga o Ngāi Tahu supplementary evidence

and Ngāi Tahu as an iwi.

Te Ana-au figures in Ngāi Tahu histories as one of the last places where Ngāi Tahu and Ngāti Mamoe came into conflict after the peace established between Rakiihia and Te Hautapunui o Tū. After Rakiihia had died, his bones were stripped of flesh and were buried in a cave on a cliff facing the seaside near Dunedin. However, a landslip led to the bones being uncovered. The bones were found by Ngāi Tahu fishermen and made into fish hooks, an act designed to insult. Among Māori it was a practice to take the bones of enemy leaders who had recently died, fashion them into fish hooks and present fish caught with them to the enemy as a gift. Once the fish had been eaten, the enemy would be told they had feasted on fish that had in turn feasted on their dead.

While Ngāi Tahu were fishing with their Ngāti Mamoe relations, one of the Ngāi Tahu fisherman referred to the fish biting the bones of Rakiihia. The Ngāti Mamoe fisherman recognised the insult and checked the cave in which their leader had been interred. Finding that the cave had been desecrated, the Ngāti Mamoe found and killed the son of a senior Ngāi Tahu rangātira (chief). Before Ngāi Tahu could retaliate, the Ngāti Mamoe were warned that they should leave the coast for the inland lakes where they would not be found. Ngāti Mamoe headed to Te Ana-au. Among this Ngāti Mamoe party was Rakiihia's brother, Pukutahi. Pukutahi fell sick along Te Ana-au's shoreline and rested while his followers explored the lake to find a safer place.

Approaching the lakes, Te Hau, the leader of the Ngāi Tahu party, observed that the fugitives had divided in two, and unfortunately for Pukutahi decided to follow the trail up to Te Ana-au. The Ngāti Mamoe camp was found and in the morning the chiefs of Ngāti Mamoe, including Pukutahi, were killed. This was to be one of the last battles between the tribes.

The lake was an important mahinga kai in the interior. The tūpuna had considerable knowledge of whakapapa, traditional trails and tauranga waka, places for gathering kai and other taonga, ways in which to use the resources of Te Ana-au, the relationship of people with the lake and their dependence on it, and tikanga for the proper and sustainable utilisation of resources. All of these values remain important to Ngāi Tahu today.

The mauri of Te Ana-au represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngāi Tahu Whānui with the lake.

### **Statutory Acknowledgement for Toi Toi Wetland, Rakiura**

*(From Schedule 63 – refer to Sections 205 and 206 Ngāi Tahu Claims Settlement Act 1998)*

#### **Statutory Area**

The statutory area to which this statutory acknowledgement applies is the Wetland known as Toi Toi, the location of which is shown on Allocation Plan MD 135 (SO 12266).

#### **Preamble**

Under Section 206, the Crown acknowledges Te Rūnanga o Ngāi Tahu's statement of Ngāi Tahu's cultural, spiritual, historic, and traditional association to Toi Toi, as set out below.

#### **Ngāi Tahu Association with Toi Toi**

Toi Toi wetland is particularly significant to Ngāi Tahu as a kākāpō habitat. The kākāpō, once a prized mahinga kai for Ngāi Tahu, used the wetland as a feeding ground. The tūpuna had considerable knowledge of whakapapa, traditional trails and tauranga waka, places for gathering kai and other taonga, ways in which to use the resources of Toi Toi, the relationship of people with the wetland and their dependence on it, and tikanga for the proper and sustainable utilisation of resources. All

of these values remain important to Ngāi Tahu today.

Much of Toi Toi's value lies in its pristine and unmodified character. The mauri of Toi Toi represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngāi Tahu Whānui with the wetland.

### **Statutory Acknowledgement for Tutoko**

*(From Schedule 66 – refer to Sections 205 and 206 Ngāi Tahu Claims Settlement Act 1998)*

#### **Statutory Area**

The statutory area to which this statutory acknowledgement applies is the mountain known as Tutoko, as shown on Allocation Plan MS 3 (SO 24747 (Otago Land District) and SO 12231 (Southland Land District)).

#### **Preamble**

Under Sections 206, the Crown acknowledges Te Rūnanga o Ngāi Tahu's statement of Ngāi Tahu's cultural, spiritual, historic, and traditional association to Tutoko as set out below.

#### **Ngāi Tahu Association with Tutoko**

The Fiordland area, within which Tutoko stands, represents, in tradition, the raised up sides of Te Waka o Aoraki, after it foundered on a submerged reef and its occupants, Aoraki and his brothers, were turned to stone. These people are now manifested in the highest peaks in Ka Tiritiri o Te Moana (the Southern Alps). The fiords at the southern end of the Alps were carved out of the raised side of the wrecked Waka o Aoraki by Tū Te Rakiwhānoa, so as to make the waka (canoe) habitable by humans. The deep gorges and long waterways that are the fiords were provided as safe havens on this rugged coast, and stocked with fish, forest and birds to sustain humans.

For Ngāi Tahu, traditions such as this represent the links between the cosmological world of the gods and present generations, these histories reinforce tribal identity and solidarity, and continuity between generations, and document the events that have shaped the environment of Te Wai Pounamu and Ngāi Tahu as an iwi.

Tutoko is not, in fact, the original name of the maunga (mountain), but was applied by Dr J Hector in 1863 after he met the old rangātira (chief) Tutoko and his two daughters, Sara and May. The hills to the north of the Kōtuku River are named the Sara Hills, and those to the south May Hills, after these daughters. The use of this name is seen as appropriate to Ngāi Tahu, as Tutoko was an important rangātira of this region at that time, and is represented by the mountain.

Tutoko is the kaitiaki of Whakatipuwaitai, the westernmost creation of Rakaihautu and the southernmost kāinga (settlement) of Te Tai Poutini (West Coast) pounamu trails, which provides access to koko-takiwai (a type of pounamu) at Piopiotahi (Milford Sound) and Poison Bay further to the south. The kāinga was also an important staging post for travel into the Lake Wakatipu area via the Hollyford Valley. All of these trails, whether by land or by sea, lie under the shadow of Tutoko.

The tūpuna had considerable knowledge of whakapapa, traditional trails and tauranga waka, places for gathering kai and other taonga, ways in which to use the resources of the land, the relationship of people with the land and their dependence on it, and tikanga for the proper and sustainable utilisation of resources. All of these values remain important to Ngāi Tahu today.

Mountains such as Tutoko are linked in whakapapa to the gods, and being the closest earthly elements to Raki the sky father, they are likened to the children of Raki and Papa, reaching skyward.

The mauri of Tutoko represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngāi Tahu Whānui with the land.

### **Statutory Acknowledgement for Uruwera (Lake George)**

*(From Schedule 68 – refer to Sections 205 and 206 Ngāi Tahu Claims Settlement Act 1998)*

#### **Statutory Area**

The statutory area to which this statutory acknowledgement applies is the Wetland known as Uruwera (Lake George), the location of which is shown on Allocation Plan MD 59 (SO 12261).

#### **Preamble**

Under Section 206, the Crown acknowledges Te Rūnanga o Ngāi Tahu's statement of Ngāi Tahu's cultural, spiritual, historic, and traditional association to Uruwera, as set out below.

#### **Ngāi Tahu Association with Uruwera**

Lake George is known to Ngāi Tahu as Uruwera, named after a descendant of the Waitaha rangātira (chief), Rakaihautu. Uruwera's descent lines lead to Te Ropuake, the wife of Mako, a leading chief of Ngāti Irakehu of Banks Peninsula. Te Ropuake's mother was Hine Te Awheka, wife of Te Rakiwhakaputa, another leading Ngāi Tahu chief who eventually occupied Rapaki on Banks Peninsula. Both Mako and Te Rakiwhakaputa migrated to Canterbury with the Ngāi Tahu hapū, Ngai Tuhaitara. Examples such as this demonstrate the interconnected nature of Ngāi Tahu whakapapa.

For Ngāi Tahu, histories such as this reinforce tribal identity and solidarity and continuity between generations, and document the events which shaped the environment of Te Wai Pounamu and Ngāi Tahu as an iwi.

Foods taken from this mahinga kai included tuna (eels), inaka (whitebait) and water fowl. Uruwera has been in continual use by Ngāi Tahu as a mahinga kai for many generations. The lake is a particularly important resource for Ngāi Tahu from Ōraka, Awarua and Ruapuke.

The tūpuna had considerable knowledge of whakapapa, traditional trails and tauranga waka, places for gathering kai and other taonga, ways in which to use the resources of Uruwera, the relationship of people with the lake and their dependence on it, and tikanga for the proper and sustainable utilisation of resources. All of these values remain important to Ngāi Tahu today.

As a result of this history of use, there are a number of urupā associated with Uruwera. Urupā are the resting places of Ngāi Tahu tūpuna and, as such, are the focus for whānau traditions. These are places holding the memories, traditions, victories and defeats of Ngāi Tahu tūpuna, and are frequently protected by secret locations.

The mauri of Uruwera represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngāi Tahu Whānui with the lake.

## **Statutory Acknowledgement for Waiau River**

*(From Schedule 69 – refer to Sections 205 and 206 Ngāi Tahu Claims Settlement Act 1998)*

### **Statutory Area**

The statutory area to which this statutory acknowledgement applies is the River known as Waiau, the location of which is shown on Allocation Plan MD 124 (SO 12263).

### **Preamble**

Under Section 206, the Crown acknowledges Te Rūnanga o Ngāi Tahu's statement of Ngāi Tahu's cultural, spiritual, historic, and traditional association to the Waiau, as set out below.

### **Ngāi Tahu Association with the Waiau**

The Waiau River features in the earliest of traditional accounts, and was a place and resource well known to the earliest tūpuna (ancestors) to visit the area. Rakaihautu and his followers traced the Waiau from its source in Te Ana-au (Lake Te Anau) and Motu-ua or Moturau (Lake Manapōuri), to its meeting with the sea at Te Wae Wae Bay.

The waka Takitimu, under the command of the rangātira (chief) Tamatea, was wrecked near the mouth of the Waiau River and the survivors who landed at the mouth named the river “Waiau” due to the swirling nature of its waters. Tamatea and his party made their way up the river to Lake Manapōuri where they established a camp site. The journey of Tamatea was bedevilled by the disappearance of Kaheraki who was betrothed to Kāhungunu, a son of Tamatea, Kaheraki strayed away from the party, and was captured by the Maeroero (spirits of the mountain).

For Ngāi Tahu, traditions such as this represent the links between the cosmological world of the gods and present generations, these histories reinforce tribal identity and solidarity, and continuity between generations, and document the events which shaped the environment of Te Wai Pounamu and Ngāi Tahu as an iwi.

The Waiau has strong links with Waitaha who, following their arrival in the waka Uruao, populated and spread their influence over vast tracts of the South Island. They were the moa hunters, the original artisans of the land. There are remnants of Waitaha rock art associated with the river. Surviving rock art remnants are a particular taonga of the area, providing a unique record of the lives and beliefs of the people who travelled the river.

There is also a strong Ngāti Mamoe influence in this area of the country. Ngāti Mamoe absorbed and intermarried with the Waitaha and settled along the eastern coast of Te Wai Pounamu. The arrival of Ngāi Tahu in Te Wai Pounamu caused Ngāti Mamoe to become concentrated in the southern part of the island, with intermarriage between the two iwi occurring later than was the case further north. The result is that there is a greater degree of Ngāti Mamoe influence retained in this area than in other parts of the island. These are the three iwi who, through conflict and alliance, have merged in the whakapapa (genealogy) of Ngāi Tahu Whānui.

Numerous archaeological sites and wāhi<sup>28</sup> taonga attest to the history of occupation and use of the river. These are places holding the memories traditions, victories and defeats of Ngāi Tahu tūpuna. The main nohoanga (occupation site)<sup>29</sup> on the Waiau was at the mouth and was called Te Tua a Hatu. The rangātira (chief) Te Wae Wae had his kāinga nohoanga on the left bank of the Waiau River mouth.

The Waiau, which once had the second largest flow of any river in New Zealand, had a huge

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<sup>28</sup> Clause 16(2) amendment

<sup>29</sup> Te Rūnanga o Ngāi Tahu supplementary evidence



influence on the lives and seasonal patterns of the people of Murihiku, over many generations. The river was a major mahinga kai: aruhe (fernroot), tī root, fish, tuna (eels), shellfish and tutu were gathered in the summer, a range of fish were caught in the autumn, kanakana (lamprey) were caught in the spring, while the people were largely reliant during winter on foods gathered and preserved earlier in the year. Rauri (reserves) were applied to the mahinga kai resources, so that people from one hapū or whānau never gathered kai from areas of another hapū or whānau. Some 200 species of plants and animals were utilised by Ngāi Tahu as a food resource in and near the Waiau.

The tūpuna had considerable knowledge of whakapapa, traditional trails and tauranga waka, places for gathering kai and other taonga, ways in which to use the resources of the Waiau, the relationship of people with the river and their dependence on it, and tikanga for the proper and sustainable utilisation of resources. All of these values remain important to Ngāi Tahu today.

Place names provide many indicators of the values associated with different areas, including Waiharakeke (flax), Papatōtara (tōtara logs or bark), Kirirua (a type of eel found in the lagoon), Te Rua o te Kaiamio (a rock shelter that was a 'designated meeting place' for the local Māori, similar to a marae) and Ka Kerehu o Tamatea — ("charcoal from the fire of Tamatea" — black rocks near old Tuatapere ferry site).

The Waiau River was a major travelling route connecting Murihiku and Te Ara a Kiwa (Foveaux Strait) to Te Tai Poutini (the West Coast), and as such was an important link between hapū and iwi. Pounamu on the West Coast, and summer expeditions to Manapōuri (Motu-ua or Moturau) for mahinga kai were the main motivations for movement up and down the Waiau. Mōkihi (vessels made from Raupō) were utilised for travel down the river and were a very effective and common mode of travel, making transportation of substantial loads of resources possible.

The tūpuna had an intimate knowledge of navigation, river routes, safe harbours and landing places, and the locations of food and other resources on the Waiau. The river was an integral part of a network of trails which were used in order to ensure the safest journey and incorporated locations along the way that were identified for activities including camping overnight and gathering kai. Knowledge of these trails continues to be held by whānau and hapū and is regarded as a taonga. The traditional mobile lifestyle of the people led to their dependence on the resources of the river.

The Waiau was once a large and powerful river, up to 500m across at the mouth, narrowing to 200 m further upstream. The water flow from the Waiau River was an important factor in the ecological health and bio-diversity of the coastal resources.

The mauri of the Waiau represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngāi Tahu Whānui with the river.

### **Statutory Acknowledgement for Waituna Wetland**

*(From Schedule 73 – refer to Sections 205 and 206 Ngāi Tahu Claims Settlement Act 1998)*

#### **Statutory Area**

The statutory area to which this statutory acknowledgement applies is the wetland known as Waituna, the location of which is shown on Allocation Plan MD 58 (SO 12260).

#### **Preamble**

Under Section 206, the Crown acknowledges Te Rūnanga o Ngāi Tahu's statement of Ngāi Tahu's cultural, spiritual, historic, and traditional association to Waituna, as set out below.

### **Ngāi Tahu Association with Waituna**

Intermittently open to the sea, Waituna wetland (with the western end, where the lagoon breaks out to sea known as Kā-puna-wai) was a major food basket utilised by nohoanga and permanent settlements located in the immediate vicinity of the wetlands, and further away, for its wide variety of reliable mahinga kai. The great diversity of wildlife associated with the complex includes several breeds of ducks, white heron, gulls, spoonbill, kōtuku, oyster-catcher, dotterels, terns and fernbirds. The wetlands are important kōhanga (spawning) grounds for a number of indigenous fish species. Kaimoana available includes giant and banded kōkopu, varieties of flatfish, tuna (eels), kanakana (lamprey), inaka (whitebait), waikākahi (freshwater mussel) and waikōura (freshwater crayfish). Harakeke, Raupō, manuka, tōtara and tōtara bark, and Pīngao were also regularly harvested cultural materials. Paru or black mud was available, particularly sought after as a product for making dyes.

The tūpuna had considerable knowledge of whakapapa, traditional trails and tauranga waka, places for gathering kai and other taonga, ways in which to use the resources of Waituna, the relationship of people with the lake and their dependence on it, and tikanga for the proper and sustainable utilisation of resources. All of these values remain important to Ngāi Tahu today.

As a result of this history of use and occupation of the area, there are wāhi<sup>30</sup> tapu and wāhi<sup>31</sup> taonga all along its shores. It is also possible that particular sections of the wetland were used for waiwhakaheketūpāpāku (water burial).

Urupā and wāhi<sup>32</sup> tapu are the resting places of Ngāi Tahu tūpuna and, as such, are the focus for whānau traditions. These are places holding the memories, traditions, victories and defeats of Ngāi Tahu tūpuna, and are frequently protected by secret locations.

The mauri of Waituna represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngāi Tahu Whānui with the area.

### **Purposes of Statutory Acknowledgements**

Pursuant to Section 215, and without limiting the rest of this schedule, the only purposes of these statutory acknowledgements are—

- (a) to require that consent authorities forward summaries of resource consent applications to Te Rūnanga o Ngāi Tahu as required by regulations made pursuant to Section 207 (clause 12.2.3 of the deed of settlement); and
- (b) to require that consent authorities, the Historic Places Trust, or the Environment Court, as the case may be, have regard to these statutory acknowledgements, as provided in Sections 208 to 210 (clause 12.2.4 of the deed of settlement); and
- (c) to empower the Minister responsible for management of these statutory acknowledgement areas or the Commissioner of Crown Lands, as the case may be, to enter into a Deed of Recognition as provided in Section 212 (clause 12.2.6 of the deed of settlement); and
- (d) to enable Te Rūnanga o Ngāi Tahu and any member of Ngāi Tahu Whānui to cite these statutory acknowledgements as evidence of the association of Ngāi Tahu to these statutory acknowledgement areas as provided in Section 211 (clause 12.2.5 of the deed of settlement).

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<sup>30</sup> Clause 16(2) amendment

<sup>31</sup> Clause 16(2) amendment

<sup>32</sup> Clause 16(2) amendment

## Limitations on Effect of Statutory Acknowledgements

Except as expressly provided in Sections 208 to 211, 213, and 215,—

- (a) these statutory acknowledgements do not affect, and are not to be taken into account in, the exercise of any power, duty, or function by any person or entity under any statute, regulation, or bylaw; and
- (b) without limiting paragraph (a), no person or entity, in considering any matter or making any decision or recommendation under statute, regulation, or bylaw, may give any greater or lesser weight to Ngāi Tahu's association to these statutory acknowledgement areas (as described in these statutory acknowledgements) than that person or entity would give under the relevant statute, regulation, or bylaw, if these statutory acknowledgements did not exist.

Except as expressly provided in this Act, these statutory acknowledgements do not affect the lawful rights or interests of any person who is not a party to the deed of settlement.

Except as expressly provided in this Act, these statutory acknowledgements do not, of themselves, have the effect of granting, creating, or providing evidence of any estate or interest in, or any rights of any kind whatsoever relating to, these statutory acknowledgement areas.

## Other mechanisms relevant to this Plan

The Ngāi Tahu Claims Settlement Act also sets up a range of other sites and information that may be relevant to any applicant or consent holder, or to the public generally. These are Nohoanga which are camp sites at specified places on rivers within the region; Tōpuni which are landscape features of special importance or value to Ngāi Tahu; and *Ātaonga*<sup>33</sup> species which are a range of flora and fauna that culturally valued by Ngāi Tahu.

The following set out the basic detail on the location and types of places and species referred to in the Schedules to the Act.

### Nohoanga (Camp Sites)<sup>34</sup>

#### Sites over which Nohoanga Entitlements to be Granted in Southland

*(From Schedule 95 – refer to Section 246 Ngāi Tahu Claims Settlement Act 1998)*

45	Lake Manapōuri	Lake Manapōuri Lake Manapōuri - 1 hectare approximately, being Part Manapōuri Lakebed. Subject survey, as shown on Allocation Plan MN 73 (SO 12234).
46	Lake Te Anau	Lake Mistletoe - 1 hectare approximately, being Part Section 6, Block III, Eglinton Survey District (SO 6989). Subject to survey, as shown on Allocation Plan MN 446 (SO 12254).
47	Lake Te Anau	Lake Te Anau – (91 hectares approximately Mile Creek) being Part Run 301B (SO 4685). Subject to survey, as shown on Allocation Plan MN 486 (SO 12256).

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<sup>33</sup> Clause 16(2) amendment

<sup>34</sup> *Te Rūnanga o Ngāi Tahu supplementary evidence*

48	Mataura River	Ardlussa - 1 hectare, approximately, being Parts Crown Land, Mataura Riverbed and unformed legal, road, BlockIII, Wendonside Survey District. Subject to survey, as shown on Allocation Plan MN 475 (SO 12255).
49	Mavora Lakes	Mavora Lakes - 1 hectare, approximately, being Part Run 568 (SO 6800). Subject to survey, as shown on Allocation Plan MN 77 (SO 12235).
50	Ōreti River	Junction of 1 hectare, approximately, Ōreti River and being Part Section 136, Irthing Stream Eyre Survey District (SO 1). Subject to survey, as shown on Allocation Plan MN 263 (SO 12248).
51	Waiua River and Lagoon	Waiua River - 1 hectare, approximately, (No 1) being Part Section 10 and Part Waiua Riverbed, Block I, Alton Survey District (SO 2840) Subject to survey, as shown on Allocation Plan MN 90(SO 12236).
52	Waiua River and Lagoon	Waiua River -1 hectare, a proximately, (No 2) being Part Sections 7 and 7A, Block XV, Longwood Survey District (SOs 2021 and 3726) Subject to survey, as shown on Allocation Plan MN 444 (SO 12253).
53	Waiua River and Lagoon	Queen's Reach - 1 hectare, approximately, being Part Section 25, Block II, Manapōuri Survey District (SO 10887). Subject to survey as shown on Allocation Plan MN 258 (SO 12245).
54	Waikaia River	Piano Flat - 5800 m2, approximately, being Sections 8, 9, 10, 11 and Part Section 7, Block VI, Gap Survey District (SO 6837) Subject to survey, as shown on Allocation Plan MN 259 (SO 12246).
55	Waikawa River and Harbour	Waikawa River - 3085 m2 approximately (Public access to the river along track to continue) being Part Section 42, Town of Niagara Comprised in existing Document 084684.1. Subject to survey, as shown on Allocation Plan MN 260 (SO 12247).

## **Tōpuni**

### **Tōpuni for Motupōhue (Bluff Hill)**

*(From Schedule 85 – refer to Sections 238 and 239 Ngāi Tahu Claims Settlement Act 1998)*

#### **Description of Area**

The area over which the Tōpuni is created is the area known as Motupōhue, as shown on Allocation Plan MS 8 (SO 12233).

#### **Preamble**

Under Section 239 (clause 12.5.3 of the deed of settlement), the Crown acknowledges Te Rūnanga o Ngāi Tahu's statement of Ngāi Tahu's cultural, spiritual, historic, and traditional values relating to Motupōhue as set out below.

### **Ngāi Tahu Values Relating to Motupōhue**

The name Motupōhue is an ancient one, brought south by Ngāti Mamoe and Ngāi Tahu from the Hawkes Bay region where both tribes originated. The name recalls a history unique to the Ngai Tuhaitara and Ngāti Kuri hapū that is captured in the line, 'Kei korā kei Motupōhue, he pāreka e kai ana, nā tō tūtae' ('It was there at Motupōhue that a shag stood, eating your excrement').

Oral traditions say that the Ngāti Mamoe leader, Te Rakitauneke, is buried upon this hill. Te Rakitauneke's saying was: 'Kia pai ai tāku tītiro ki Te Ara a Kiwa' ('Let me gaze upon Foveaux Strait'). Some traditions also place another Ngāti Mamoe leader, Tū Te Mokohu, on this hill.

For Ngāi Tahu, histories such as this represent the links and continuity between past and present generations, reinforce tribal identity and solidarity, and document the events which shaped Ngāi Tahu as an iwi.

The mauri of Motupōhue represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngāi Tahu Whānui with Motupōhue.

### **Tōpuni for Takitimu Range, Southland**

*(From Schedule 89 – refer to Sections 238 and 239 Ngāi Tahu Claims Settlement Act 1998)*

#### **Description of Area**

The area over which the Tōpuni is created is the area known as Takitimu Range located in Murihiku (Southland), as shown on Allocation Plan MS 5 (SO 12232).

#### **Preamble**

Under Section 239 (clause 12.5.3 of the deed of settlement), the Crown acknowledges Te Rūnanga o Ngāi Tahu's statement of Ngāi Tahu's cultural, spiritual, historic, and traditional values relating to Takitimu as set out below.

### **Ngāi Tahu Values Relating to Takitimu**

The Takitimu maunga (mountains) were named by Tamatea, the captain of the Takitimu waka (canoe) in memory of the waka after it struck trouble in Te Waewae Bay, and was eventually wrecked near the mouth of the Waimeha Stream.

Tradition states that the Takitimu waka was overtaken by three large waves known as O-te-wao, Ō-roko and Ō-kākā, followed by a cross wave, which resulted in the Takitimu being hurled well inland, with its cargo being strewn about. In some accounts the ranges inland from Te Waewae Bay are likened to the huge waves that caused the demise of the waka Takitimu. In other accounts the Takitimu maunga are considered to be the upturned hull of the waka.

For Ngāi Tahu, traditions such as this represent the links between the cosmological world of the gods and present generations, these histories reinforce tribal identity and solidarity, and continuity between generations, and document the events that have shaped the environment of Te Wai Pounamu and Ngāi Tahu as an iwi.

Tamatea and his crew made their way overland from the site of the wreck. Tamatea likened the majestic and upright Takitimu maunga when he viewed them from the south coast, to the crew of the Takitimu struggling to control the waka in adverse conditions. During the overland journey past the Takitimu maunga Tamatea lost one of his party, a woman named Kaheraki who strayed away from the party and was captured by the maeroero (spirits of the mountain) and never seen again. Kaheraki had been betrothed to Kāhungunu, who was a son of Tamatea.

The Takitimu maunga are, therefore, a symbolic reminder of the famous exploits of Tamatea in the south, and a reminder forever locked into the landscape, of the tūpuna (ancestral) waka Takitimu, adding lustre to the noted spiritual values of the western Southland landscape. The Takitimu maunga are visible from all points of the Murihiku landscape, and are also a noted weather indicator.

The mauri of Takitimu represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngāi Tahu Whānui with the land.

## **Tōpuni for Tutoko**

*(From Schedule 93 – refer to Sections 238 and 239 Ngāi Tahu Claims Settlement Act 1998)*

### **Description of Area**

The area over which the Tōpuni is created is the area known as Tutoko located in Fiordland National Park, as shown on Allocation Plan MS 3 (SO 24747 (Otago Land District) and SO 12231 (Southland Land District)).

### **Preamble**

Under Section 239 (clause 12.5.3 of the deed of settlement), the Crown acknowledges Te Rūnanga o Ngāi Tahu's statement of Ngāi Tahu's cultural, spiritual, historic, and traditional values relating to Tutoko, as set out below.

### **Ngāi Tahu Values Relating to Tutoko**

The Fiordland area, within which Tutoko stands, represents, in tradition, the raised up sides of Te Waka o Aoraki, after it foundered on a submerged reef and its occupants, Aoraki and his brothers, were turned to stone. These people are now manifested in the highest peaks in Ka Tiritiri o Te Moana (the Southern Alps). The fiords at the southern end of the Alps were carved out of the raised side of the wrecked Waka o Aoraki by Tū Te Rakiwhānoa, so as to make the waka (canoe) habitable by humans. The deep gorges and long waterways that are the fiords were provided as safe havens on this rugged coast, and stocked with fish, forest and birds to sustain humans.

For Ngāi Tahu, traditions such as this represent the links between the cosmological world of the gods and present generations, these histories reinforce tribal identity and solidarity, and continuity between generations, and document the events that have shaped the environment of Te Wai Pounamu and Ngāi Tahu as an iwi.

Tutoko is not, in fact, the original name of the maunga (mountain), but was applied by Dr J Hector in 1863 after he met the old rangātira (chief) Tutoko and his two daughters, Sara and May. The hills to the north of the Kōtuku River are named the Sara Hills, and those to the south, May Hills, after these daughters. The use of this name is seen as appropriate to Ngāi Tahu, as Tutoko was an important rangātira of this region at that time, and is represented by the mountain.

Tutoko is the kaitiaki of Whakatipuwaitai, the westernmost creation of Rakaihautu and the southernmost kāinga (settlement) of Te Tai Poutini (West Coast) pounamu trails, which provides access to koko-takiwai (a type of pounamu) at Piopiotahi (Milford Sound) and Poison Bay further to the south. The kāinga was also an important staging post for travel into the Lake Wakatipu area via the Hollyford Valley. All of these trails, whether by land or by sea, lie under the shadow of Mt Tutoko.

The tūpuna had considerable knowledge of whakapapa, traditional trails and tauranga waka, places for gathering kai and other taonga, ways in which to use the resources of the land, the relationship

of people with the land and their dependence on it, and tikanga for the proper and sustainable utilisation of resources. All of these values remain important to Ngāi Tahu today.

Mountains such as Tutoko are linked in whakapapa to the gods, and being the closest earthly elements to Raki the sky father, they are likened to the children of Raki and Papa, reaching skyward. The mauri of Tutoko represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngāi Tahu Whānui with the land.

## Appendix C – ANZECC Sediment Guidelines

### Assessment of Contaminants in Sediments

The table is an extract from the national guidelines for sediment quality (Australia New Zealand Environment and Conservation Council - ANZECC 2000).

The levels referred to in the table represent guidelines, based on overseas biological effects data due to the lack of local data. Values are expressed as concentrations on a dry weight basis. For organics, values are normalised to 1% organic carbon, rather than expressing as mg/kg organic carbon as is sometimes done. This requires that if the sediment organic carbon content is markedly higher than 1%, the guideline value should be adjusted accordingly.

If the lower sediment quality guideline (ISQG-Low) for a particular contaminant is not exceeded, the chemical is unlikely to cause any biological impact on organisms inhabiting that sediment.

If chemical concentrations exceed the ISQG-Low levels, they may be toxic and further investigation is recommended to determine whether they pose a threat.

Recommended sediment quality guidelines<sub>a</sub>

These guidelines apply to the sediment after reasonable mixing.

Contaminant	ISQG-Low
<b>Metals (mg/kg dry wt.)</b>	
Antimony	2
Cadmium	1.5
Chromium	80
Copper	65
Lead	50
Mercury	0.15
Nickel	21
Silver	1
Zinc	200
<b>Metalloids (mg/kg dry wt.)</b>	
Arsenic	20
<b>Organometallics (µSn/kg dry wt.)</b>	
Tributyltin	5
<b>Organics (µg/kg dry wt.)<sub>b</sub></b>	
Acenaphthene	16
Acenaphthalene	44
Anthracene	85
Fluorene	19
Naphthalene	160
Phenanthrene	240
Low Molecular Weight PAHs	552
Benzo(a)pyrene	430
Dibenzo(a,h)anthracene	63



Contaminant	ISQG-Low
Chrysene	384
Fluoranthene	600
Pyrene	665
High Molecular Weight PAHs <sub>c</sub>	1700
Total PAHs	4000
Total DDT	1.6
p,p'-DDE	2.2
o,p'- + p,p'-DDD	2
Chlordane	0.5
Dieldrin	0.02
Endrin	0.02
Lindane	0.32
Total PCBs	23

- a Primarily adapted from Long et al (1995)
- b Normalised to 1% organic carbon
- c Low molecular weight PAHs are the sum of concentrations of acenaphthene, acenaphthalene, anthracene, fluorene, 2-methylnaphthalene, naphthalene and phenanthrene; high molecular weight PAHs are the sum of concentrations of benzo(a)anthracene, benzo(a)pyrene, chrysene, dibenzo(a, h) anthracene, fluoranthene and pyrene.

## Appendix E – Receiving Water Quality Standards

These standards apply to the effects of discharges following reasonable mixing with the receiving waters, unless otherwise stated. They do not apply to waters within artificial storage ponds such as effluent storage ponds or stock water reservoirs or to temporarily ponded rainfall.

The standard for a given parameter will not apply in a lake, river, artificial watercourse or modified watercourse or natural wetland where:

- (a) due to natural causes, that parameter cannot meet the standard; or
- (b) due to the effects of the operation of the Manapōuri hydro-electric generation scheme that alters natural flows, that parameter cannot meet the standard.

Plan users should contact the Southland Regional Council for guidance on standard methodologies for collecting water quality data. Monitoring requirements imposed as consent conditions require sample collection, preservation and analysis to be carried out in accordance with the most recent edition of American Public Health Association (APHA) “Standard Methods for the Examination of Water and Wastewater” or National Environmental Monitoring Standard (NEMS) and analyses to be carried out by a laboratory with International Accreditation New Zealand (IANZ) registration or equivalent.

### **Surface waterbodies classified as “Natural State Waters”**

The natural quality of the water shall not be altered.

### **Surface waterbodies classified as “Lowland soft bed”**

The temperature of the water:

- shall not exceed 23°C
- the daily maximum ambient water temperature shall not be increased by more than 3°C when the natural or existing water temperature is 16°C or less, as a result of any discharge. If the natural or existing water temperature is above 16°C, the natural or existing water temperature shall not be exceeded by more than 1°C as a result of any discharge.

The pH of the water shall be within the range 6.5 to 9, and there shall be no pH change in water due to a discharge that results in a loss of biological diversity or a change in community abundance and composition.

The change in sediment cover must not exceed 10%.

The concentration of dissolved oxygen in water shall exceed 80% of saturation concentration.

There shall be no bacterial or fungal slime growths visible to the naked eye as obvious plumose growths or mats. Note that this standard also applies to within the zone of reasonable mixing for a discharge.

When the flow is below the median flow, the visual clarity of the water shall not be less than 1.3 metres.<sup>35</sup>

The concentration of total ammonia shall not exceed the values specified in Table 1 “Ammonia standards for Lowland and Hill surface waterbodies”.

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<sup>35</sup> Visual clarity is assessed using the black disc method or other comparable method employed by Environment Southland.

The concentration of faecal coliforms shall not exceed 1,000 coliforms per 100 millilitres, except for popular bathing sites, defined in Appendix G “Popular Bathing Sites” and within 1 km immediately upstream of these sites, where the concentration of *Escherichia coli* shall not exceed 130 *E. coli* per 100 millilitres.

The Macroinvertebrate Community Index shall exceed 80 and the Semi-Quantitative Macroinvertebrate Community Index shall exceed 3.5.<sup>36</sup>

Fish shall not be rendered unsuitable for human consumption by the presence of contaminants.

#### **Surface waterbodies classified as “Lowland hard bed”**

The temperature of the water:

- shall not exceed 23°C
- shall not exceed 11°C in trout spawning areas during May to September inclusive
- the daily maximum ambient water temperature shall not be increased by more than 3°C when the natural or existing water temperature is 16°C or less, as a result of any discharge. If the natural or existing water temperature is above 16°C, the natural or existing water temperature shall not be exceeded by more than 1°C as a result of any discharge.

The pH of the water shall be within the range 6.5 to 9, and there shall be no pH change in water due to a discharge that results in a loss of biological diversity or a change in community composition.

The change in sediment cover must not exceed 10%.

The concentration of dissolved oxygen in water shall exceed 80% of saturation concentration.

There shall be no bacterial or fungal slime growths visible to the naked eye as obvious plumose growths or mats. Note that this standard also applies to within the zone of reasonable mixing for a discharge.

When the flow is below the median flow, the visual clarity of the water shall not be less than 1.6 metres, except where the water is naturally low in clarity as a result of high concentrations of tannins, in which case the natural colour and clarity shall not be altered.<sup>37</sup>

The concentration of total ammonia shall not exceed the values specified in Table 1 “Ammonia standards for Lowland and Hill surface waterbodies”.

The concentration of faecal coliforms shall not exceed 1,000 coliforms per 100 millilitres, except for popular bathing sites, defined in Appendix G “Popular Bathing Sites” and within 1 km immediately upstream of these sites, where the concentration of *Escherichia coli* shall not exceed 130 *E. coli* per 100 millilitres.

For the period 1 November through to 30 April, filamentous algae of greater than 2 cm long shall not cover more than 30% of the visible stream bed. Growths of diatoms and cyanobacteria greater than 0.3 cm thick shall not cover more than 60% of the visible stream bed.<sup>38</sup>

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<sup>36</sup> MCI and SQMCI indices to be determined using Environment Southland’s SOE sampling protocol and MfE’s Protocol P2 for sample processing (Stark et al. 2001)

<sup>37</sup> Visual clarity is assessed using the black disc method or other comparable method employed by Environment Southland.

<sup>38</sup> Applies to the part of the bed that can be seen from the bank during summer low flows or walked on.

Biomass shall not exceed 35 grams per square metre for either filamentous algae or diatoms and cyanobacteria.<sup>39</sup>

Chlorophyll a shall not exceed 120 milligrams per square metre for filamentous algae and 200 milligrams per square metre for diatoms and cyanobacteria.<sup>40</sup>

The Macroinvertebrate Community Index shall exceed a score of 90 and the Semi-Quantitative Macroinvertebrate Community Index shall exceed a score of 4.5.

Fish shall not be rendered unsuitable for human consumption by the presence of contaminants.

### **Surface waterbodies classified as “Hill”**

The temperature of the water:

- shall not exceed 23°C
- shall not exceed 11°C in trout spawning areas during May to September inclusive
- the daily maximum ambient water temperature shall not be increased by more than 3°C when the natural or existing water temperature is 16°C or less, as a result of any discharge. If the natural or existing water temperature is above 16°C, the natural or existing water temperature shall not be exceeded by more than 1°C as a result of any discharge.

The pH of the water shall be within the range 6.5 to 9, and there shall be no pH change in water due to a discharge that results in a loss of biological diversity or a change in community composition.

The change in sediment cover must not exceed 10%.

The concentration of dissolved oxygen in water shall exceed 80% of saturation concentration.

There shall be no bacterial or fungal slime growths visible to the naked eye as obvious plumose growths or mats. Note that this standard also applies to within the zone of reasonable mixing for a discharge.

When the flow is below the median flow, the visual clarity of the water shall not be less than 1.6 metres.<sup>41</sup>

The concentration of total ammonia shall not exceed the values specified in Table 1 “Ammonia standards for Lowland and Hill surface waterbodies”.

The concentration of faecal coliforms shall not exceed 1,000 coliforms per 100 millilitres, except for popular bathing sites, defined in Appendix G “Popular Bathing Sites” and within 1 km immediately upstream of these sites, where the concentration of *Escherichia coli* shall not exceed 130 *E. coli* per 100 millilitres.

Filamentous algae of greater than 2 cm long shall not cover more than 30% of the visible stream bed. Growths of diatoms and cyanobacteria greater than 0.3cm thick shall not cover more than 60% of the visible stream bed.

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<sup>39</sup> Expressed in terms of reach biomass per unit of exposed strata (i.e., tops and sides of stones) averaged across the full width of the stream or river

<sup>40</sup> Expressed in terms of reach biomass per unit of exposed strata (i.e., tops and sides of stones) averaged across the full width of the stream or river

<sup>41</sup> Visual clarity is assessed using the black disc method or other comparable method employed by Environment Southland.

Biomass shall not exceed 35 grams per square metre for filamentous algae.

Chlorophyll a shall not exceed 120 milligrams per square metre for filamentous algae.

The Macroinvertebrate Community Index shall exceed a score of 100 and the Semi-Quantitative Macroinvertebrate Community Index shall exceed a score of 5.5.

Fish shall not be rendered unsuitable for human consumption by the presence of contaminants.

#### **Surface waterbodies classified as “Mountain”**

The temperature of the water:

- shall not exceed 21°C
- shall not exceed 11°C in trout spawning areas during May to September inclusive
- the daily maximum ambient water temperature shall not be increased by more than 3°C when the natural or existing water temperature is 16°C or less, as a result of any discharge. If the natural or existing water temperature is above 16°C, the natural or existing water temperature shall not be exceeded by more than 1°C as a result of any discharge.

The pH of the water shall be within the range 7.2 to 8, and there shall be no pH change in water due to a discharge that results in a loss of biological diversity or a change in community composition.

The change in sediment cover must not exceed 10%.

The concentration of dissolved oxygen in water shall exceed 99% of saturation concentration.

There shall be no bacterial or fungal slime growths visible to the naked eye as obvious plumose growths or mats. Note that this standard also applies to within the zone of reasonable mixing for a discharge.

When the flow is below the median flow, the visual clarity of the water shall not be less than 3 metres.

The concentration of total ammonia shall not exceed 0.32 milligrams per litre.

The concentration of *Escherichia coli* shall not exceed 130 *E. coli* per 100 millilitres in any sample.

Filamentous algae of greater than 2 cm long shall not cover more than 30% of the visible stream bed.

Biomass shall not exceed 35 milligrams per square metre for filamentous algae.

Chlorophyll a shall not exceed 50 milligrams per square metre for filamentous algae.

Growths of diatoms and cyanobacteria greater than 0.3 cm thick shall not cover more than 60% of the visible stream bed.

The Macroinvertebrate Community Index shall exceed a score of 120 and the Semi-Quantitative Macroinvertebrate Community Index shall exceed a score of 7.

Fish shall not be rendered unsuitable for human consumption by the presence of contaminants.

### **Surface waterbodies classified as “Lake Fed”**

The temperature of the water:

- shall not exceed 21°C
- shall not exceed 11°C in trout spawning areas during May to September inclusive
- the daily maximum ambient water temperature shall not be increased by more than 3°C when the natural or existing water temperature is 16°C or less, as a result of any discharge. If the natural or existing water temperature is above 16°C, the natural or existing water temperature shall not be exceeded by more than 1°C as a result of any discharge.

The pH of the water shall be within the range 7.2 to 8, and there shall be no pH change in water due to a discharge that results in a loss of biological diversity or a change in community composition.

The change in sediment cover must not exceed 10%.

The concentration of dissolved oxygen in water shall exceed 99% of saturation concentration.

There shall be no bacterial or fungal slime growths visible to the naked eye as obvious plumose growths or mats. Note that this standard also applies to within the zone of reasonable mixing for a discharge.

When the flow is below the median flow, the visual clarity of the water shall not be less than 3 metres.<sup>42</sup>

The concentration of total ammonia shall not exceed 0.32 milligrams per litre.

The concentration of *Escherichia coli* shall not exceed 130 *E. coli* per 100 millilitres in any sample.

Chlorophyll a shall not exceed 50 milligrams per square metre at any time or exceed a monthly mean of 15 milligrams per square metre for filamentous algae or diatoms and cyanobacteria.<sup>43</sup>

The Macroinvertebrate Community Index shall exceed a score of 90 and the Semi-Quantitative Macroinvertebrate Community Index shall exceed a score of 4.5.

Fish shall not be rendered unsuitable for human consumption by the presence of contaminants.

### **Surface waterbodies classified as “Spring Fed”**

The temperature of the water:

- shall not exceed 21°C
- shall not exceed 11°C in trout spawning areas during May to September inclusive
- the daily maximum ambient water temperature shall not be increased by more than 3°C when the natural or existing water temperature is 16°C or less, as a result of any discharge. If the natural or existing water temperature is above 16°C, the natural or existing water temperature shall not be exceeded by more than 1°C as a result of any discharge.

The pH of the water shall be within the range 6.5 to 9, and there shall be no pH change in water due to a discharge that results in a loss of biological diversity or a change in community composition.

The change in sediment cover must not exceed 10%.

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<sup>42</sup> Visual clarity is assessed using the black disc method or other comparable method employed by Environment Southland.

<sup>43</sup> Expressed in terms of reach biomass per unit of exposed strata (i.e., tops and sides of stones) averaged across the full width of the river.

The concentration of dissolved oxygen in water shall exceed 99% of saturation concentration.

There shall be no bacterial or fungal slime growths visible to the naked eye as obvious plumose growths or mats. Note that this standard also applies to within the zone of reasonable mixing for a discharge.

When the flow is below the median flow, the visual clarity of the water shall not be less than 3 metres.<sup>44</sup>

The concentration of total ammonia shall not exceed 0.32 milligrams per litre.

The concentration of faecal coliforms shall not exceed 1,000 coliforms per 100 millilitres, except for popular bathing sites, defined in Appendix G “Popular Bathing Sites” and within 1 km immediately upstream of these sites, where the concentration of Escherichia coli shall not exceed 130 E. coli per 100 millilitres.

Chlorophyll a shall not exceed 50 milligrams per square metre at any time, or exceed a monthly mean of 15 milligrams per square metre for filamentous algae or diatoms and cyanobacteria.<sup>45</sup>

The Macroinvertebrate Community Index shall exceed a score of 90 and the Semi-Quantitative Macroinvertebrate Community Index shall exceed a score of 4.5.

Fish shall not be rendered unsuitable for human consumption by the presence of contaminants.

#### **Surface waterbodies classified as “Lowland/Coastal Lakes and Wetlands”**

The temperature of the water:

- shall not exceed 23°C
- the daily maximum ambient water temperature shall not be increased by more than 3°C when the natural or existing water temperature is 16°C or less, as a result of any discharge. If the natural or existing water temperature is above 16°C, the natural or existing water temperature shall not be exceeded by more than 1°C as a result of any discharge.

The pH of the water shall be within the range 6.5 to 9, and there shall be no pH change in water due to a discharge that results in a loss of biological diversity or a change in community composition.

The change in sediment cover must not exceed 10%.

The concentration of dissolved oxygen in water shall exceed 80% of saturation concentration.

There shall be no bacterial or fungal slime growths visible to the naked eye as obvious plumose growths or mats. Note that this standard also applies to within the zone of reasonable mixing for a discharge.

When lake inflows are below their median values, the Secchi depth clarity of the water shall not be less than 1.5 metres, except where the water is naturally low in clarity as a result of high concentrations of tannins, in which case the natural colour and clarity shall not be altered.<sup>46</sup>

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<sup>44</sup> Visual clarity is assessed using the black disc method or other comparable method employed by Environment Southland

<sup>45</sup> Expressed in terms of reach biomass per unit of exposed strata (i.e., tops and sides of stones) averaged across the full width of the river.

<sup>46</sup> Visual clarity in lakes to be measured as Secchi depth.

The concentration of total ammonia shall not exceed the values specified in Table 1 “Ammonia standards for Lowland and Hill surface waterbodies”.

The concentration of faecal coliforms shall not exceed 1,000 coliforms per 100 millilitres, except for popular bathing sites, defined in Appendix G “Popular Bathing Sites”, where the concentration of *Escherichia coli* shall not exceed 130 *E. coli* per 100 millilitres.

The concentration of chlorophyll a shall not exceed 5 milligrams per cubic metre.<sup>47</sup>

Fish shall not be rendered unsuitable for human consumption by the presence of contaminants.

#### **Surface waterbodies classified as “Hill Lakes and Wetlands”**

The temperature of the water shall not exceed 23°C the daily maximum ambient water temperature shall not be increased by more than 3°C when the natural or existing water temperature is 16°C or less, as a result of any discharge. If the natural or existing water temperature is above 16°C, the natural or existing water temperature shall not be exceeded by more than 1°C as a result of any discharge.

The pH of the water shall be within the range 6.5 to 9, and there shall be no pH change in water due to a discharge that results in a loss of biological diversity or a change in community composition.

The change in sediment cover must not exceed 10%.

The concentration of dissolved oxygen in water shall exceed 80% of saturation concentration.

There shall be no bacterial or fungal slime growths visible to the naked eye as obvious plumose growths or mats. Note that this standard also applies to within the zone of reasonable mixing for a discharge.

When lake inflows are below their median values, the Secchi depth clarity of the water shall not be less than 5 metres.

The concentration of total ammonia shall not exceed the values specified in Table 1 “Ammonia standards for Lowland and Hill surface waterbodies”.

The concentration of faecal coliforms shall not exceed 130 *E. coli* per 100 millilitres.

Biomass shall not exceed 35 grams per square metre for filamentous algae.

The concentration of chlorophyll a shall not exceed 5 milligrams per cubic metre.

Fish shall not be rendered unsuitable for human consumption by the presence of contaminants.

#### **Surface waterbodies classified as “Mountain Lakes and Wetlands”**

The temperature of the water

- shall not exceed 21°C
- the daily maximum ambient water temperature shall not be increased by more than 3°C when the natural or existing water temperature is 16°C or less, as a result of any discharge. If the

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<sup>47</sup> Determination of lake chlorophyll concentration to be follow the protocols in Burns et al. (2000).



natural or existing water temperature is above 16°C, the natural or existing water temperature shall not be exceeded by more than 1°C as a result of any discharge.

The pH of the water shall be within the range 6.5 to 9, and there shall be no pH change in water due to a discharge that results in a loss of biological diversity or a change in community composition.

The change in sediment cover must not exceed 10%.

The concentration of dissolved oxygen in water shall exceed 99% of saturation concentration.

There shall be no bacterial or fungal slime growths visible to the naked eye as obvious plumose growths or mats. Note that this standard also applies to within the zone of reasonable mixing for a discharge.

The natural colour and clarity of the waters must not be changed to a conspicuous extent.

When lake inflows are below their median values, the Secchi depth clarity of the water shall not be less than 10 metres.

The concentration of total ammonia shall not exceed 0.32 milligrams per litre.

The concentration of Escherichia coli shall not exceed 130 E. coli per 100 millilitres in any sample.

The concentration of chlorophyll a shall not exceed 2 milligrams per cubic metre.

Fish shall not be rendered unsuitable for human consumption by the presence of contaminants.

#### **Surface waterbodies classified as “Mataura 1”**

The Protected Waters<sup>48</sup> between map references NZMS 260 F45:967-503 to F45:963-508 (Mataura River).

Any discharge is to be substantially free from suspended solids, grease and oil.

The daily maximum ambient water temperature shall not be increased by more than 3°C when the natural or existing water temperature is 16°C or less, as a result of any discharge. If the natural or existing water temperature is above 16°C, the natural or existing water temperature shall not be exceeded by more than 1°C as a result of any discharge.

The pH of the water must be within the range 6 to 8.5, except when due to natural causes.

The waters must not be tainted so as to make them unpalatable, nor must they contain toxic substances to the extent that they are unsafe for consumption by humans or farm animals, nor must they emit objectionable odours.

There shall be no bacterial or fungal slime growths visible to the naked eye as obvious plumose growths or mats. Note that this standard also applies to within the zone of reasonable mixing for a discharge.

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<sup>48</sup> Protected Waters means:

(a) the Mataura River from its source (approximate map reference NZMS 260 E42:502-333) to its confluence with the sea (approximate map reference NZMS 260 F47:877-946); and

(b) the Waikaia River and its tributaries, the Ōtamita Stream, and all other tributaries of the Mataura River upstream of its confluence with the Ōtamita Stream (approximate map reference NZMS 260 F45:881-582); and

(c) the Mimihau Stream and the Mokoreta River and each of their tributaries.

There must not be any destruction of natural aquatic life by reason of a concentration of toxic substances.

The natural colour and clarity of the waters must not be changed to a conspicuous extent.

The change in sediment cover must not exceed 10%.

The oxygen concentration in solution in the waters must not be reduced below 6 milligrams per litre.

Based on no fewer than five samples taken over not more than a 30-day period, the median value of the faecal coliform bacteria content of the water must not exceed 2000 per 100 millilitres and the median value of the total coliform bacteria content of the water must not exceed 10,000 per 100 millilitres.

Fish shall not be rendered unsuitable for human consumption by the presence of contaminants.

### **Surface waterbodies classified as “Mataura 2”**

The Protected Waters between map references NZMS 260 F45:894-581 to F45:885-584 (Mataura River) and NZMS 260 F46:917-391 to F46:924-396 (Mataura River).

Any discharge is to be substantially free from suspended solids, grease and oil.

The natural water temperature must not be changed by more than 3°C when the natural or existing water temperature is 16°C or less, as a result of a discharge. If the natural or existing water temperature is above 16°C, the natural or existing water temperature shall not be exceeded by more than 1°C as a result of any discharge.

The pH of the water must be within the range 6.5 to 8.3, except when due to natural causes.

The waters must not be tainted so as to make them unpalatable, nor must they contain toxic substances to the extent that they are unsafe for consumption by humans or farm animals, nor must they emit objectionable odours.

There shall be no bacterial or fungal slime growths visible to the naked eye as obvious plumose growths or mats. Note that this standard also applies to within the zone of reasonable mixing for a discharge.

There must not be any destruction of natural aquatic life by reason of a concentration of toxic substances.

The natural colour and clarity of the waters must not be changed to a conspicuous extent.

The change in sediment cover must not exceed 10%.

The oxygen concentration in solution in the waters must not be reduced below 6 milligrams per litre.

Based on no fewer than five samples taken over not more than a 30-day period, the median value of the faecal coliform bacteria content of the water must not exceed 200 per 100 millilitres.

Fish shall not be rendered unsuitable for human consumption by the presence of contaminants.

### **Surface waterbodies Classified as “Mataura 3”**

The Protected Waters other than those parts classified as Mataura 1 and Mataura 2.

Any discharge is to be substantially free from suspended solids, grease and oil.

The daily maximum ambient water temperature shall not be increased by more than 3°C when the natural or existing water temperature is 16°C or less, as a result of any discharge. If the natural or existing water temperature is above 16°C, the natural or existing water temperature shall not be exceeded by more than 1°C as a result of any discharge.

The pH of the water must be within the range 6 to 9, except when due to natural causes.

The waters must not be tainted so as to make them unpalatable, nor must they contain toxic substances to the extent that they are unsafe for consumption by humans or farm animals, nor must they emit objectionable odours.

There shall be no bacterial or fungal slime growths visible to the naked eye as obvious plumose growths or mats. Note that this standard also applies to within the zone of reasonable mixing for a discharge.

There must not be any destruction of natural aquatic life by reason of a concentration of toxic substances.

The natural colour and clarity of the waters must not be changed to a conspicuous extent.

The change in sediment cover must not exceed 10%.

The oxygen concentration in solution in the waters must not be reduced below 5 milligrams per litre.

The concentration of faecal coliforms shall not exceed 1,000 coliforms per 100 millilitres, except for popular bathing sites, defined in Appendix G “Popular Bathing Sites” and within 1 km immediately upstream of these sites, where the concentration of Escherichia coli shall not exceed 130 E. coli per 100 millilitres.

Fish shall not be rendered unsuitable for human consumption by the presence of contaminants.

**Table 31 “Ammonia standards for Lowland and Hill surface waterbodies”**

Total Ammoniacal Nitrogen in mg/m <sup>3</sup> at different pH	
pH	NH <sub>4</sub> <sup>+</sup> -N + NH <sub>3</sub> -N mg/m <sup>3</sup>
6.0	2570
6.1	2555
6.2	2540
6.3	2520
6.4	2490
6.5	2460
6.6	2430

Total Ammoniacal Nitrogen in mg/m <sup>3</sup> at different pH	
pH	NH <sub>4</sub> <sup>+</sup> -N + NH <sub>3</sub> -N mg/m <sup>3</sup>
6.7	2380
6.8	2330
6.9	2260
7.0	2180
7.1	2090
7.2	1990
7.3	1880
7.4	1750
7.5	1610
7.6	1470
7.7	1320
7.8	1180
7.9	1030
8.0	900
8.1	780
8.2	660
8.3	560
8.4	480
8.5	400
8.6	340
8.7	290
8.8	240
8.9	210
9.0	180

### References

- Australian and New Zealand Environment and Conservation Council 2000. *Australian and New Zealand guidelines for fresh and marine water quality*.
- Burns, N., Bryers, G., and Bowman, E. 2000. *Protocol for monitoring trophic levels of New Zealand lakes and reservoirs*. Prepared for the Ministry for the Environment.
- Stark, J.D., Boothroyd, I.K.G., Harding, J.S., Macted, J.R. and Scarsbrook, M.R. 2001. *Protocols for sampling macroinvertebraes in wadeable streams. New Zealand Macroinvertebrate Working Group Report No. 1*. Prepared for the Ministry for the Environment.

# Appendix F – Water Conservation Orders

## Water Conservation (Mataura River) Order 1997

SR 1997/126

PURSUANT to Sections 214 and 423 of the Resource Management Act 1991, His Excellency the Governor-General, acting by and with the advice and consent of the Executive Council, and on the recommendation of the Minister for the Environment made in accordance with the report of the Environment Court following an inquiry by that Court, makes the following order.

### **Analysis**

(List of Sections)

- 1 Title and commencement
- 2 Interpretation
- 3 Outstanding features
- 4 Rates of flow in Mataura River and Waikaia River
- 5 General provisions relating to water permits, discharge permits, and regional plans
- 6 Water permit to dam not to be granted, etc
- 7 Provisions relating to discharges
- 8 Scope of this order

### **Orders**

#### **1. Title and commencement—**

- (1) This order may be cited as the Water Conservation (Mataura River) Order 1997.
- (2) This order comes into force on the 28th day after the date of its notification in the Gazette.

#### **2. Interpretation—**

In this order, unless the context otherwise requires,—

“Act” means the Resource Management Act 1991:

“Authorised inflows” means discharges of water or water containing waste into protected waters pursuant to a discharge permit:

“Protected waters” means—

- (1) the Mataura River from its source (approximate map reference NZMS 260 E42:502333) to its confluence with the sea (approximate map reference NZMS 260 F47:877946); and
- (2) the Waikaia River and its tributaries, the Ōtamita Stream, and all other tributaries of the Mataura River upstream of its confluence with the Ōtamita Stream (approximate map reference NZMS 260 F45:881582); and
- (3) the Mimiha Stream and the Mokoreta River and each of their tributaries.

### 3. **Outstanding features —**

It is declared that the protected waters include outstanding fisheries and angling amenity features.

### 4. **Rates of flow in Mataura River and Waikaia River —**

- (1) Because of the outstanding features specified in clause 3, the rates of flow in the Mataura River and in the Waikaia River must not be reduced, by the grant or exercise of water permits, below the minimum rate of flow specified in subclauses (2) and (3).
- (2) The minimum rate of flow at any point in the Mataura River and the Waikaia River above the Mataura Island Road Bridge (approximate map reference NZMS 260 F46:850158), where the flow is estimated by the Southland Regional Council from measurements taken at that point, must be 95% of —
  - (a) the flow so estimated by the Southland Regional Council at that point; plus
  - (b) water taken in accordance with the Act from the protected waters upstream of that point and not returned to the protected waters —less authorised inflows upstream of that point which did not have their source in the protected waters.
- (3) The minimum rate of flow at any point in the Mataura River below the Mataura Island Road Bridge (approximate map reference NZMS 260 F46:850158), where the flow is estimated by the Southland Regional Council from measurements taken at that point, must be 90% of—
  - (a) the flow so estimated by the Southland Regional Council at that point; plus
  - (b) water taken in accordance with the Act from the protected waters upstream of that point and not returned to the protected waters—less authorised inflows upstream of that point which did not have their source in the protected waters.

### 5. **General provisions relating to water permits, discharge permits, and regional plans —**

- (1) A water permit or a discharge permit must not be granted under Part 6 of the Act and a regional plan must not be made under Part 5 of the Act in respect of any part of the protected waters if such a permit or plan would contravene the provisions of this order.
- (2) The prohibitions in subclause (1) do not apply to water permits or discharge permits granted or regional plans made in respect of any part of the protected waters for all or any of the following purposes:
  - (a) research into, and enhancement of, fisheries and wildlife habitats;
  - (b) the construction, maintenance, or protection of roads, bridges, pylons, and other necessary public utilities;
  - (c) soil conservation and river protection and other activities undertaken pursuant to the Soil Conservation and Rivers Control Act 1941;
  - (d) stock water and stock-water reservoirs.

### 6. **Water permit to dam not to be granted, etc—**

- (1) A permit to dam the Mataura River from its source to the sea and the Waikaia River from its source to its confluence with the Mataura River must not be granted under Part 6 of the Act.
- (2) A permit to dam any tributary of the Waikaia River or the Mataura River which forms part of the protected waters must not be granted under Part 6 of the Act if the dam would harm salmonid fish-spawning or prevent the passage of salmonid fish.
- (3) The prohibition in subclause (1) does not apply to water permits in respect of the weir at approximate map reference NZMS 260 F46:912385 if the water permits are granted

or renewed subject to similar terms and conditions to which the former permits were subject.

## 7. Provisions relating to discharges

- (1) A discharge permit must not be granted and a regional plan must not be made for any discharge into the protected waters if the effect of the discharge would be to breach the following provisions and standards:
  - (a) Any discharge is to be substantially free from suspended solids, grease, and oil;
  - (b) After allowing for reasonable mixing of the discharge with the receiving water in that part of the protected water between map references NZMS 260 F45:967503 to F45:963508 (Mataura River), —
    - (i) the natural water temperature must not be changed by more than 3 degrees Celsius;
    - (ii) the acidity or alkalinity of the waters as measured by the pH must be within the range of 6.0 to 8.5, except when due to natural causes;
    - (iii) the waters must not be tainted so as to make them unpalatable, nor must they contain toxic substances to the extent that they are unsafe for consumption by humans or farm animals, nor must they emit objectionable odours;
    - (iv) there must not be any destruction of natural aquatic life by reason of a concentration of toxic substances;
    - (v) the natural colour and clarity of the waters must not be changed to a conspicuous extent;
    - (vi) the oxygen content in solution in the waters must not be reduced below 6 milligrams per litre;
    - (vii) based on not fewer than 5 samples taken over not more than a 30-day period, the median value of the faecal coliform bacteria content of the water must not exceed 2000 per 100 millilitres and the median value of the total coliform bacteria content of the water must not exceed 10,000 per 100 millilitres;
  - (c) After allowing for reasonable mixing of the discharge with the receiving water in that part of the protected waters between map references —
    - (i) NZMS 260 F45:894581 to F45:885584 (Mataura River); and
    - (ii) NZMS 260 F46:917391 to F46:924396 (Mataura River),—
      - (A) the natural water temperature must not be changed by more than 3 degrees Celsius;
      - (B) the acidity or alkalinity of the waters as measured by the pH must be within the range of 6.5 to 8.3, except when due to natural causes;
      - (C) the waters must not be tainted so as to make them unpalatable, nor must they contain toxic substances to the extent that they are unsafe for consumption by humans or farm animals, nor must they emit objectionable odours;
      - (D) there must not be any destruction of natural aquatic life by reason of a concentration of toxic substances;
      - (E) the natural colour and clarity of the water must not be changed to a conspicuous extent;
      - (F) the oxygen content in solution in the waters must not be reduced below 6 milligrams per litre;
      - (G) based on not fewer than 5 samples taken over not more than a 30-day period, the median value of the faecal coliform bacteria content of the waters must not exceed 200 per 100 millilitres;

- (d) After allowing for a reasonable mixing of the discharge with the receiving waters in those parts of the protected waters other than the parts specified in paragraphs (b) and (c),—
  - (i) the natural water temperature must not be changed by more than 3 degrees Celsius;
  - (ii) the acidity or alkalinity of the waters as measured by the pH must be within the range of 6.0 or 9.0, except when due to natural causes;
  - (iii) the waters must not be tainted so as to make them unpalatable, nor must they contain toxic substances to the extent that they are unsafe for consumption by humans or farm animals, nor must they emit objectionable odours;
  - (iv) there must not be any destruction of natural aquatic life by reason of a concentration of toxic substances;
  - (v) the natural colour and clarity of the waters must not be changed to a conspicuous extent;
  - (vi) the oxygen content in solution in the waters must not be reduced below 5 milligrams per litre.
- (2) Where it is impracticable, because of emergency overflows or the carrying out of maintenance work or any other temporary situation, to require compliance with the relevant provisions of subclause (1), water permits and discharge permits may be granted by the Southland Regional Council.

**8. Scope of this order—**

Nothing in this order limits the effect of Section 14(3)(b) and (e) of the Act relating to the use of water for domestic needs, for the needs of animals, or for fire-fighting purposes.

**Marie Shroff**

Clerk of the Executive Council.

**Explanatory Note**

This note is not part of the order, but is intended to indicate its general effect.

This order declares that the Mataura River and the Waikaia River and various other rivers, streams, and tributaries include outstanding fisheries and angling amenity features.

The order includes various provisions to preserve and protect these features.

Issued under the authority of the Acts and Regulations Publication Act 1989.

Date of notification in Gazette: 10 July 1997.

This order is administered in the Ministry for the Environment.



## Water Conservation (Oreti River) Order 2008

Issue 127-5744

ANAND SATYANAND, Governor-General  
ORDER IN COUNCIL  
At Wellington this 4th day of August 2008  
Present:  
HIS EXCELLENCY THE GOVERNOR-GENERAL  
PRESIDING IN COUNCIL

Pursuant to Section 214 of the Resource Management Act 1991, His Excellency the Governor-General, acting on the advice and with the consent of the Executive Council, makes the following Order.

### **Order**

1. **Title**—This order is the Water Conservation (Oreti River) Order 2008.
2. **Commencement**—This order comes into force 28 days after the date of its notification in the *New Zealand Gazette*.
3. **Interpretation**—In this order, unless the context otherwise requires:
  - “Act” means the Resource Management Act 1991
  - “damming” means the impounding of all or part of the natural flow of any water that may involve an associated temporary or permanent structure
  - “river” means the main stem of those waters identified in the Schedules to this order. The main stem shall be the river with that name on NZMS260 series topographical maps between specified lower and upper river limits as defined by map references in Schedules to this Order
  - “tributaries” means all the tributaries of rivers or sections of rivers identified in Schedules to this order.
4. **Outstanding characteristics**—The waters specified in Schedules 1 and 2 include or contribute to, to the extent identified in Schedule 2, the following outstanding characteristics, features, and values:
  - (a) habitat for brown trout;
  - (b) angling amenity;
  - (c) habitat for black-billed gulls;
  - (d) significance in accordance with tikanga Māori.
5. **Waters to be protected**—Because of the outstanding characteristics, features, and values identified in clause 4, the waters specified in Schedule 1 are to be protected in accordance with the relevant conditions in clauses 7 to 9 as specified in Schedule 1.
6. **Waters to be protected as contributing to outstanding features**—Because of their contribution to outstanding characteristics and features identified in clause 4, the waters specified in Schedule 2 are to be protected in accordance with clause 8 to the extent specified in those clauses and in Schedule 2.

7. **Restriction on damming of waters**—Subject to clauses 10 and 11, no water permit may be granted or rule included in a regional plan authorising the damming of waters specified in item 1 of Schedule 1.
8. **Requirement to maintain fish passage**—Subject to clauses 10 and 11, no water permit may be granted or rule included in a regional plan relating to the waters specified in Schedule 1 and item 1 of Schedule 2 authorising an activity that will adversely affect the passage of fish.
9. **Restriction on the alteration of water quality**—Subject to clauses 10 and 11, no discharge permit may be granted or rule included in a regional plan authorising a discharge into any of the waters specified in item 1 of Schedule 1 that will result in a reduction of water quality beyond the zone of reasonable mixing.
10. **Scope of order**—
  - (1) This order does not limit sections 14(3)(b) and (e) of the Act relating to the use of water for an individual’s reasonable domestic needs, or for the reasonable needs of an individual’s animals for drinking water, or taken or used for fire-fighting purposes.
  - (2) This order does not restrict or prevent the grant of resource consents for the purpose of:
    - (a) research into, and protection or enhancement of, fisheries and wildlife habitats; or
    - (b) the construction, removal, maintenance or protection of any road, ford or bridge, or the maintenance or protection of any network utility operation (as defined in section 166 of the Act); or
    - (c) the construction and maintenance of soil conservation and river protection works undertaken pursuant to the Soil Conservation and Rivers Control Act 1941; or
    - (d) the protection of human or animal health.
11. **Exemptions**—Nothing in this order prevents the grant of a discharge or water permit that would otherwise contravene conditions set out in clauses 7, 8 and 9 if:
  - (a) a consent authority is satisfied that:
    - (i) there are exceptional circumstances justifying the grant of a permit; or
    - (ii) the permit is for an activity that is of a temporary nature; or
    - (iii) the permit is for an activity that is associated with necessary construction and maintenance work; and
  - (b) the exercise of any such resource consent would not compromise the protection of the outstanding characteristics and features identified for the waters specified in the Schedules.

**Schedule 1**

**Clauses 5, 7, 8 and 9**

***Protected waters with outstanding characteristics***

Item	Waters	Outstanding Characteristics or Features	Conditions to Apply
1	Oreti River main stem at Rocky Point at NZMS 260 E44373946 upstream to the forks at E42 345 450	Habitat for brown trout Angling amenity Value in accordance with tikanga Māori	Prohibit damming (Clause 7) Maintenance of fish passage (Clause 8)

			Maintenance of water quality (Clause 9)
2	Weydon Burn, Windley River and all other tributaries upstream of the Oreti River at E43 305210 near Lincoln Hill	Habitat for brown trout	Maintenance of fish passage (Clause 8)

**Schedule 2**

**Clauses 6 and 8**

***Waters to be protected for their contribution to outstanding features***

<b>Item</b>	<b>Waters</b>	<b>Outstanding Characteristics or Features</b>	<b>Conditions to Apply</b>
1	Oreti River downstream of Rocky Point at E44 373946 to the Wallacetown Bridge at E46 455208	Habitat for brown trout Habitat for black-billed gull	Maintain fish passage (Clause 8)
2	Groundwater hydraulically connected to the surface water of the Oreti River from Rocky Point at E44 373946 upstream to the forks at E42 345450	Habitat for brown trout	Maintenance of fish passage (Clause 8)

**Michael Webster**

for Clerk of the Executive Council.

**Explanatory Note**

This note is not part of the order, but is intended to indicate its general effect.

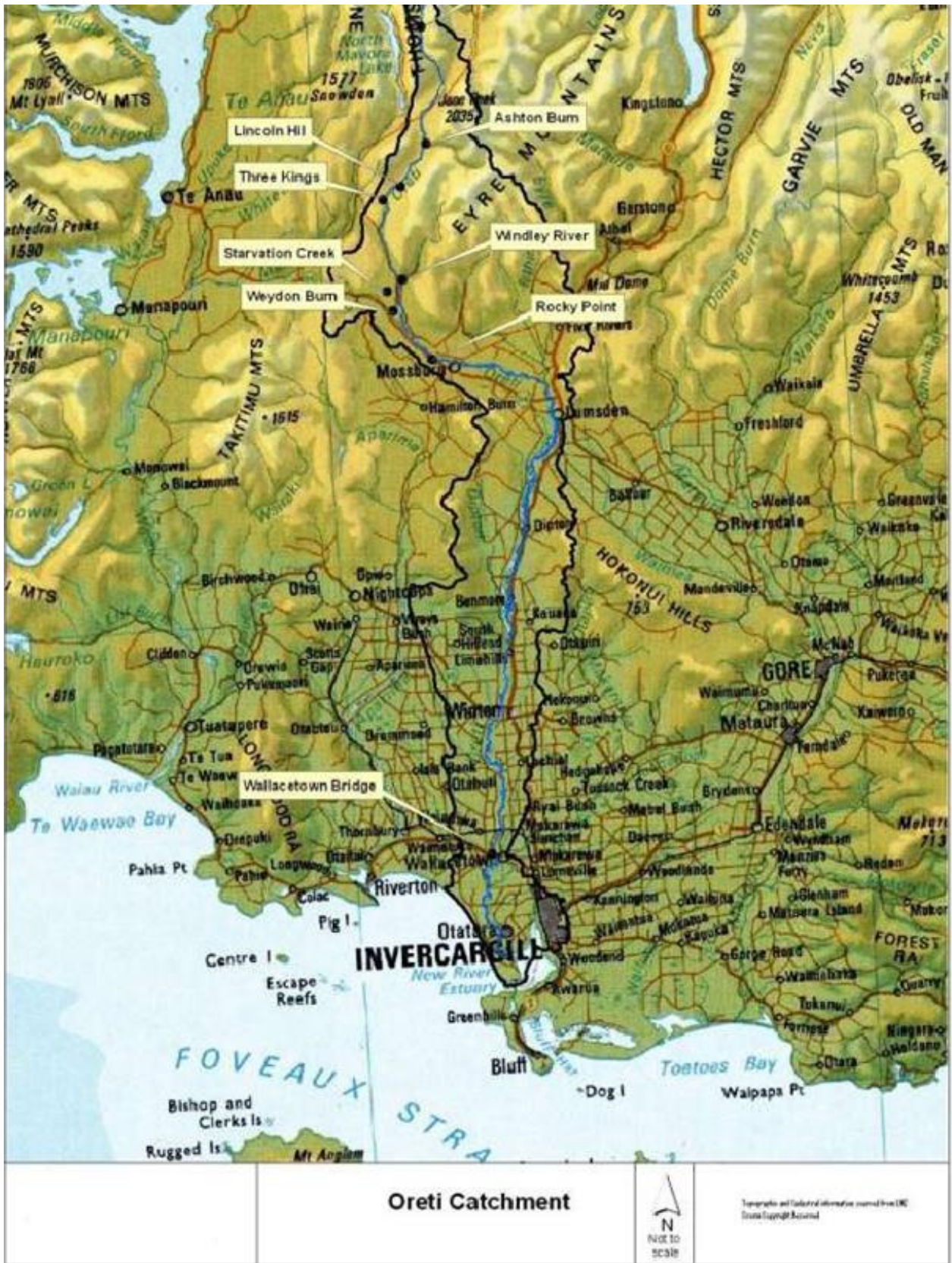
This order declares that the Oreti River and various other rivers, streams, and tributaries include outstanding fisheries and angling amenity features.

The order includes various provisions to preserve and protect these features.

Issued under the authority of the Acts and Regulations Publication Act 1989.

Date of notification in Gazette: 14 August 2008.

This order is administered in the Ministry for the Environment.



## Appendix G – Popular Bathing Sites

Each of the following sites encompasses the waters immediately under the relevant bridge and 100 metres upstream and downstream of the bridge:

- Ōreti River at Winton Bridge
- Ōreti River at Wallacetown Bridge
- Mataura River at Gore Bridge
- Aparima River at Thornbury Bridge
- Waiau River at Tuatapere Bridge
- Waikaia River at Waikaia Bridge
- Mataura River at Riversdale
- Mataura River at Mataura River Bridge
- Ōreti River at Branxholme Rail Bridge
- Mataura River at Woolwich Street Reserve

The following sites listed are considered indicative of popular bathing sites although they are not found within Southland's lowland, hill and spring-fed waterbodies. These sites are monitored each month for contact recreation standards:

- Waikaia River at Piano Flat – classified under the Mataura classification
- Mararoa River at Mavora Lake – classified as mountain

## Appendix I – Natural State Waters Outside National Parks

Table 1 “Natural State Waters outside National Parks”

Area Name	DOC code	DOC land status	Exclusions – refers to any waters on specified DOC managed land not to be managed as NS (all other waters on specified DOC land to be managed as NS)
Borland Mire	RASI	Scientific Reserve	
Burwood (Red Tussock)	RASI	Scientific Reserve	Excludes headwaters of Weydon Burn and Wash Creek
Dean Forest	CAST	Stewardship Land	Excludes tributaries within Motu Bush.
Eweburn, Lake Te Anau	CAST	Stewardship Land	
Eyre Mountains Taka Ra Haka Conservation Park	CACP	Conservation Park	Excludes Matura catchment.
Halfmoon Bay	CAST	Stewardship Land	Excludes Little River Catchment.
Hokonui Forest	CAST	Stewardship Land	Excludes tributaries of Makarewa River & Hedgehope Stream but includes Dunsdale Stream.
Lake George	RAGP	Government Purpose Reserve	Excludes tributaries flowing into Lake George
Lillburn Valley Road	CAST	Stewardship Land	
Lindsay Ecological Area	CAEA	Ecological Area	Excludes Masson Creek East Branch but includes Masson Creek West Branch
Longwood Forest	CAST	Stewardship Land	Excludes areas within the Conservation Area near Pourakino Stream and small tributary of Aparima.
Mavpra Park	CAST	Stewardship Land	
Paddock Hill	CAST	Stewardship Land	
Pyke Forest	CAST	Stewardship Land	
Rowallan Forest	CAST	Stewardship Land	
Seaward Moss	CAST	Stewardship Land	
Snowdon Forest	CAST	Stewardship Land	
Stewart Island Forest	CAST	Stewardship Land	Excludes Little River

Area Name	DOC code	DOC land status	Exclusions – refers to any waters on specified DOC managed land not to be managed as NS (all other waters on specified DOC land to be managed as NS)
			Catchment.
Takitimu Conservation Area	CAST	Stewardship Land	
Te Anau Downs	CAST	Stewardship Land	
Te Anau Downs, Henry Creek	CAST	Stewardship Land	
The Cone Forest	CAST	Stewardship Land	
Tiwai Spit	CAST	Stewardship Land	Excludes surface water on land to the west of a straight line drawn on the edge of the main eastern Tiwai North South aligned Boundary and groundwater within the Tiwai groundwater zone.
Toetoes	CAST	Stewardship Land	Excludes two tributaries that flow into Mataura River.
Upper McLeod's Conservation Area	CAST	Stewardship Land	Excludes headwaters to the Ōreti River that do not adjoin Snowden Forest
Woodlaw Forest	CAST	Stewardship Land	

CAST = Stewardship Area – s.25 Conservation Act 1987

CAEA = Ecological Area – s.21 Conservation Act 1987

NPNP = National Park – s.4 National Parks Act 1980

RAGP = Government Purpose Reserve – s.22 Reserves Act 1977

RASI = Scientific Reserve – s.21 Reserves Act 1977

CACP = Conservation Park – s19 Conservation Act 1987

## Appendix J – Drinking Water Protection Zones

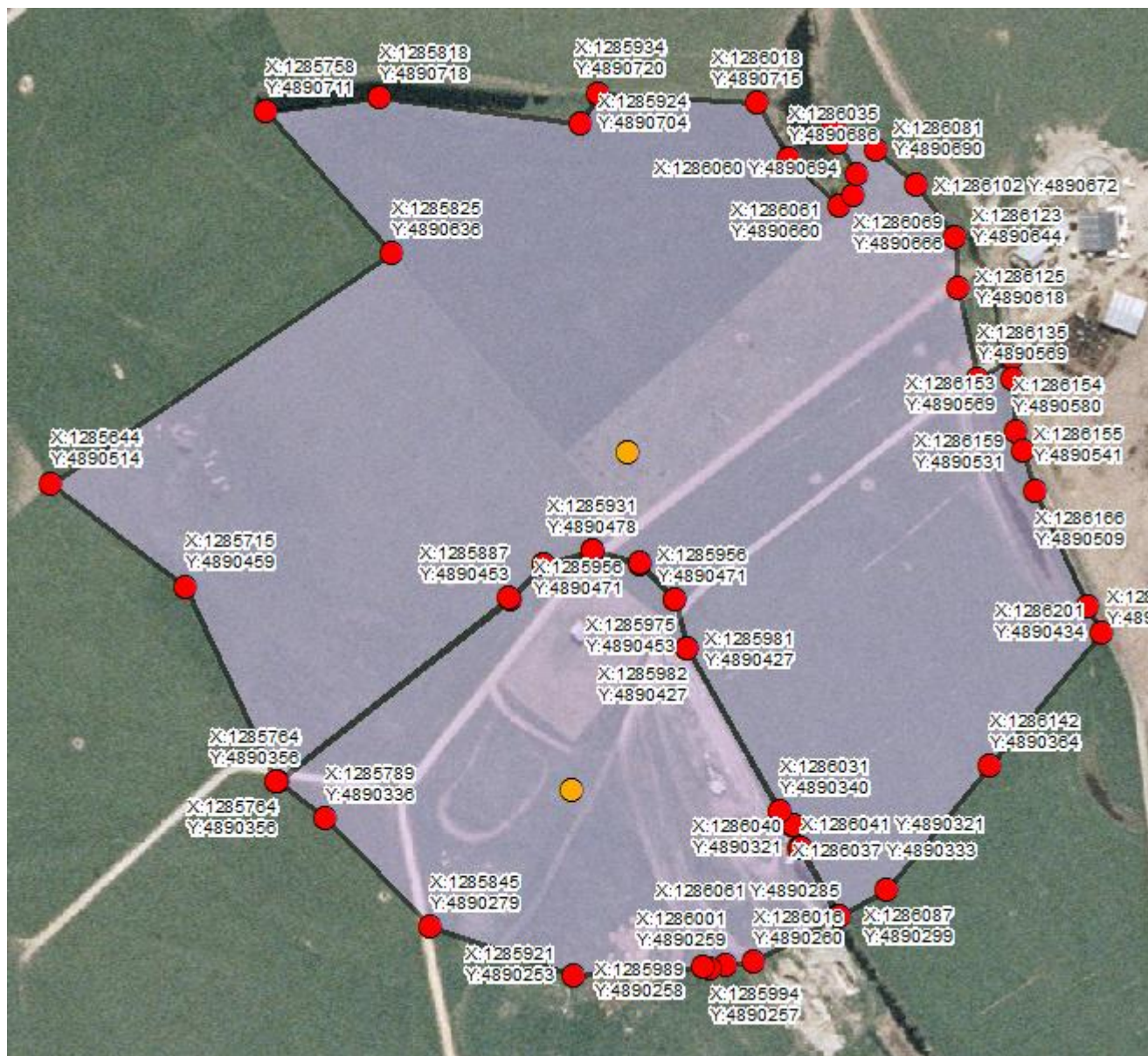
Operator	Catchment	Groundwater Zone	Source	Northing	Easting	Popln
Alliance Group Ltd	Oreti River		River	1236114	4858300	>501
Alliance Group Ltd	Makarewa River		River	1238519	4857204	>501
Gore District Council	Mataura River	Knapdale	River/Bore	1285995	4890305	>501
Gore District Council	Mataura River	Knapdale	River/Bore	1285928	4890434	>501
Gore District Council	Mataura River	Knapdale	River/Bore	1286408	4888536	>501
Gore District Council	Mataura River	Knapdale	River/Bore	1286408	4888436	>501
Gore District Council	Mataura River		River	1286553	4888712	>501
Gore District Council	Mataura River		River	1285399	4890083	>501
Invercargill City Council	Oreti River		River	1237097	4862497	>501
Southland District Council		Lintley Aquifer	Bore	1244564	4925736	>501
Gore District Council	Waikana Stream		River	1282755	4875915	>501
Gore District Council	Pluera Stream		River	1286578	4875590	>501
Gore District Council	Mataura River		River	1282177	4877303	>501
NZAS		Tiwai	Bore	1249296	4829996	>501
NZAS		Tiwai	Bore	1251688	4829407	>501
NZAS		Tiwai	Bore	1250182	4829324	>501
NZAS		Tiwai	Bore	1250919	4829631	>501
NZAS		Tiwai	Bore	1252451	4829364	>501
NZAS		Tiwai	Bore	1253998	4829272	>501
Southland District Council	Morley Creek		River	1210668	4902284	>501
Southland District Council	Aparima River	Lower Aparima	River/Bore	1213438	4878962	>501
Southland District Council	Aparima River	Lower Aparima	River/Bore	1217611	4859627	>501
Southland District Council <sup>49</sup>		Lower Aparima	River/Bore	1215783	4859557	>501
Southland District Council	Upukerora River	Te Anau	River/Bore	1188566	4957972	>501
Southland District Council	Lake Te Anau	Te Anau	Lake/Bore	1185870	4958439	>501
Southland District Council	Lake Te Anau	Te Anau	Lake/Bore	1185840	4958399	>501
Southland District Council	Lake Te Anau	Te Anau	Lake/Bore	1185766	4958246	>501
Southland District		Lower Waiau	Bore	1189060	4878081	>501

<sup>49</sup> 247.27 Environment Southland



Council						
Southland District Council		Lower Waiau	Bore	1189273	4877842	>501
Southland District Council		Lower Oreti	Bore	1237485	4880559	>501
Southland District Council		Lower Oreti	Bore	1237669	4880633	>501
Southland District Council	Bowen River		River	1198112	5041740	>501

### Gore District – Coopers Wells - Microbial Health Protection Zone



## Appendix K – Surface Water Appendix

### Methodology for establishing the point used to determine minimum flow and the level of allocation

The point used to determine the minimum flow and the level of allocation for the purposes of Policy 22 is as follows:

- (i) the point of take; or
- (ii) in the case of lakes, rivers, artificial watercourses, modified watercourses or natural wetlands where flow is lost to groundwater along the length of the lakes, rivers, artificial watercourses, modified watercourses or natural wetlands, the most flow sensitive point downstream.

The Southland Regional Council will determine the location of the above. Minimum flows are to be developed through gauging of river flows correlated with Southland Regional Council approved water level monitoring sites, rated flow recording sites, or hydrologic modelling.

#### **Minimum Flows**

The minimum flow will be as follows:

- (i) for takes from the primary allocation, the minimum flow will be Q95;
- (ii) for takes from the secondary allocation, the minimum flow will be the natural median flow during the period from 1 April to 30 November each year and the natural mean flow during the period from 1 December to 31 March each year;
- (iii) for takes outside of the primary or secondary allocation, the minimum flow will be derived on a case-by-case basis using the guidance contained in Method 2 of Appendix K.

In situations where surface water and groundwater interact, a minimum groundwater level may also be set to maintain instream values.

In the absence of quality information, a precautionary approach will be adopted.

#### **Primary and secondary allocation**

Primary allocation regimes will be determined by:

- (i) for any lakes, rivers, artificial watercourses, modified watercourses or natural wetlands outside the Waiau catchment and not subject to a Water Conservation Order that specifies an alternative environmental flow and level regime, a primary allocation is available when the following criteria can be met:
  - (1) the total surface water allocation does not exceed a volume of 30 percent of the natural pre-allocation Q95 as determined by Southland Regional Council following the methodology established in Appendix K, at any downstream point in the catchment; and
  - (2) the flow at that location is at or above the natural Q95;
- (ii) in the Waiau catchment, the primary allocation is that authorised through resource consents in force and operative with their terms;
- (iii) for any lakes, rivers, modified watercourses or natural wetlands subject to a Water Conservation Order that specifies an environmental flow and level regime, the primary allocation will be that specified in the Order;
- (iv) in the absence of quality information, a precautionary approach will be adopted.

Secondary allocation regimes will be determined by:

- (i) for any lakes, rivers, artificial watercourses, modified watercourses or natural wetlands, outside the Waiau catchment and not subject to a Water Conservation Order that specifies an alternative environmental flow and level regime, a supplementary allocation is available when the following criteria can be met:
  - (1) the total surface water allocation does not exceed a volume of 10 percent of the relevant seasonal flow cut-off flow in the lakes, rivers, artificial watercourses, modified watercourses or natural wetlands at the time of take; and
  - (2) the flow at that location is at or above the natural median flow during the period from 1 April to 30 November each year and the natural mean flow during the period from 1 December to 31 March each year;
- (ii) in the Waiau catchment and for any lakes, rivers, modified watercourses or natural wetlands subject to a Water Conservation Order that specifies an environmental flow and level regime, the primary allocation encompasses any supplementary allocation;
- (iii) in the absence of quality information, a precautionary approach will be adopted.

## Assessments of environmental effects for surface water takes, diversion and use

- (i) In situations where the total volume of surface water allocation is between 10 and 30 percent of the Q95 as determined by the Southland Regional Council following the methodology established above, at any downstream point in the catchment, an assessment of environment effects using Method 1 below will be required.
- (ii) In situations where the total volume of surface water allocation will breach 30 percent of the Q95, as determined by the Southland Regional Council following the methodology established above, at any downstream point in the catchment, an assessment of environment effects using Method 2 below will be required.

### Method 1 – Assessment using Generalised Habitat Models

The process for undertaking an assessment of environmental effects using generalised habitat models is as follows:

- **Step 1:** Determine the relevant surface water management unit and flow range using Southland Regional Council flow data.
- **Step 2:** Determine the appropriate critical value from the data obtained in Step 1 using following table which shows critical values by surface water management unit and flow range:

Median flow	Surface Water Management Unit		
	Lowland	Hill/Mountain	Hill2 (Hokonui/Catlins)
0 – 300 L/s	Diadromous galaxiid	Non-diadromous galaxiid	Diadromous galaxiids (low elevation) and non-diadromous galaxiids at higher elevations
300 – 750 L/s	Redfin/common bully	Trout spawning/juvenile rearing or non-diadromous galaxiid if trout	Trout spawning/juvenile rearing or non-diadromous galaxiid if trout excluded Large adult trout

Median flow	Surface Water Management Unit		
	Lowland	Hill/Mountain excluded	Hill2 (Hokonui/Catlins)
0.75 – 2.5 m <sup>3</sup> /s	Trout spawning/juvenile rearing* Large adult trout	Trout spawning/juvenile rearing Large adult trout	Trout spawning/juvenile rearing
2.5 – 5 m <sup>3</sup> /s	Trout spawning/juvenile rearing*	Large adult trout	Large adult trout
> 5 m <sup>3</sup> /s	Large adult trout	Large adult trout	Large adult trout

- **Step 3:** Determine the level of habitat at the Q95 using generalised habitat models for the critical value species (refer to *Review of methods for setting water quantity conditions in the Environment Southland draft Regional Water Plan, NIWA, June 2004*) and compare with the cumulative effect of the allocated and proposed water takes.

#### **Method 2 – Assessment using Instream Habitat Flow Incremental Methodology**

The process for undertaking an assessment of environmental effects using instream habitat analysis is the same as the process using generalised habitat models outlined in Steps 1 and 2 above. Steps 3 and 4 of this process are as follows:

- **Step 3:** Determine the level of habitat across the flow range using detailed instream habitat analysis for the critical value species (refer to *Review of methods for setting water quantity conditions in the Environment Southland draft Regional Water Plan, NIWA, June 2004*). For catchments with rivers with a median flow greater than 4.5 m<sup>3</sup>/s, Net Rate of Energy Intake modelling will be used to determine/revise allocation policy for that catchment.
- **Step 4:** Determine the habitat maintenance level using the following table. The habitat maintenance level is based on retaining a percentage of the habitat across the flow range and will be used to determine the impact of the cumulative abstraction on the water body and assist in determining if consent should be granted and if so, the appropriate minimum flow.

Fishery quality will be assumed to be high unless agreed otherwise by key stakeholders such as the Department of Conservation, Fish and Game New Zealand and Te Ao Mārama. Similarly, the habitat maintenance level could be adjusted depending on the perceived values of the out-of-stream use in consultation with key stakeholders.

Critical value	Fishery quality	Significance ranking	% Habitat retention
Large adult trout – perennial fishery	High	1	90
Diadromous galaxiid	High	1	90
Non-diadromous galaxiid	-	2	80
Trout spawning/juvenile rearing	High	3	70
Large adult trout – perennial	Low	3	70

fishery			
Diadromous galaxiid	Low	3	70
Trout spawning/juvenile rearing	Low	5	60
Redfin/common bully	-	5	60

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## Appendix L – Groundwater Appendix

### Appendix L.1 Aquifer test requirements

Minimum aquifer test requirements to support resource consent applications to take groundwater, other than replacement consent applications for abstraction volumes that have been occurring with no adverse effects of a more than minor scale, are outlined in Table L.1 below.

**Table L.1: Minimum aquifer test requirements**

Size of take (m <sup>3</sup> /day)	Minimum Aquifer Test Requirements
<250	Standard yield test comprising 2 hours abstraction at the proposed maximum rate with drawdown and recovery of water levels in the pumped bore measured at regular intervals.
250 to 750	<p>A step-drawdown aquifer test comprising a minimum of 3, 1-hour pumping steps followed by measurement of water level recovery. The maximum pumping rate utilised should be equal to or greater than the maximum proposed abstraction rate.</p> <p>A 24-hour constant-rate aquifer test undertaken at the maximum proposed abstraction rate. Water level monitoring should include drawdown and recovery (to within 10% of the initial static water level) in the pumped bore and in at least one observation bore within the area of localised drawdown. The pump rate should be kept constant within +/- 5%.</p>
>750	<p><b>Confined Aquifers</b></p> <p>A step-drawdown aquifer test comprising a minimum of 3, 1-hour pumping steps followed by measurement of water level recovery. The maximum pumping rate utilised should be equal to or greater than the maximum proposed abstraction rate.</p> <p>A 24-hour constant-rate aquifer test undertaken at the maximum proposed abstraction rate. Water level monitoring should include drawdown and recovery (to within 10% of the initial static water level) in the pumped bore and in at least two observation bores in the source aquifer and one observation bore in the overlying aquifer within the area of localised drawdown. The pump rate should be kept constant within +/- 5%.</p> <p><b>Unconfined Aquifers</b></p> <p>A step-drawdown aquifer test comprising a minimum of 3, 1-hour pumping steps followed by measurement of water level recovery. The maximum pumping rate utilised should be equal to or greater than the maximum proposed abstraction rate.</p> <p>A 24-hour constant-rate aquifer test undertaken at the maximum proposed abstraction rate. Water level monitoring should include drawdown and recovery (to within 10% of the initial static water level) in the pumped bore and at least two observation bores within the area of localised drawdown. The pump rate should be kept constant within +/- 5%.</p>

## Appendix L.2 Stream depletion effects

The stream depletion effects resulting from groundwater abstraction will be classified and managed following the criteria outlined in Table L.2:

- assessment of the magnitude of stream depletion will be supported by a conceptual hydrogeological model that describes the nature of local surface water/groundwater interaction;
- calculation of the magnitude of stream depletion will be undertaken using relevant analytical or numerical assessment techniques which are suitable for application in the hydrogeological setting in which abstraction will occur;
- representative hydraulic properties for assessment of the magnitude of stream depletion will be derived from aquifer testing undertaken in accordance with requirements outlined in Appendix L.1, as well as an assessment of representative values from the wider hydrogeological environment;
- waterbodies characterised as ephemeral will be excluded from consideration of stream depletion effects;
- stream depletion effects due to groundwater abstraction should not result in a more than minor effect on the frequency, extent and duration of flow loss in intermittent waterbodies;
- where the pumped well borders two or more streams the magnitude of stream depletion will be assessed in the following manner:
  - if  $SD_1 + SD_2 < 0.9Q$ , stream depletion will be managed on the basis of the calculated depletion in each stream;
  - if  $SD_1 + SD_2 > 0.9Q$ , the take will be classified as having a Direct hydraulic connection and managed following the criteria outlined in Table Y.2.

Where:  $SD_1$  = calculated magnitude of stream depletion in Stream 1  
 $SD_2$  = calculated magnitude of stream depletion in Stream 2  
 $Q$  = the assessed pumping rate

- in the Mataura River catchment, the relevant minimum flow cut-off for groundwater takes classified as having a Riparian, Direct or High hydraulic connection will be determined as the figure required to maintain compliance with the flow allocation provisions of the Water Conservation (Mataura River) Order 1997. In all other catchments minimum flow cut-offs for groundwater takes classified as having a Riparian, Direct or High hydraulic connection will be determined following the methodology outlined in Appendix K.

**Table L.2: Classification and management of surface water depletion effects**

Hydraulic Connection	Classification	Management Approach
Riparian	Any groundwater take within 5 metres of a surface water body <sup>a</sup>	The groundwater take will be managed as an equivalent surface

		water take unless there is clear hydrogeological evidence that demonstrates that pumping will not impact on the surface water body <sup>a</sup>
Direct	Where the calculated effect on an adjacent surface waterbody after 7 days abstraction at the maximum authorised rate is equal to or greater than 80 percent of the assessed pumping rate.	The groundwater take will be managed as an equivalent surface water take for flow and allocation purposes and therefore subject to any relevant minimum flow regime.
High	Where the calculated effect on an adjacent surface water body <sup>a</sup> after 7 days abstraction at the maximum authorised rate is less than 80 percent of the assessed pumping rate; and, Where the calculated effect on an adjacent surface water body <sup>a</sup> after pumping at the maximum authorised rate for either: <u>(i)</u> the maximum period allowed by the seasonal volume <sup>b</sup> , or <u>(ii)</u> a continuous period of 90 days is equal to or greater than 60 percent of the assessed pumping rate.	Where the magnitude exceeds 2 litres per second, the calculated stream depletion effect will be managed as an equivalent take from an adjacent surface waterbody with the remainder of the allocation included in the allocation volume for the relevant groundwater zone. Groundwater takes classified as having a high degree of hydraulic connection will be subject to any relevant minimum flow regime.
Moderate	Where the calculated effect on an adjacent surface water body <sup>a</sup> after pumping at the maximum authorised rate for either: <u>(i)</u> the maximum period allowed by the seasonal volume; or <u>(ii)</u> a continuous period of 90 days is between 30 and 60 percent of the assessed pumping rate or has a magnitude greater than 5 litres per second	Where the magnitude exceeds 2 litres per second, the calculated stream depletion effect will be included in the allocation calculated from an adjacent surface waterbody with the balance of the abstraction included in the allocation volume for the relevant groundwater zone. No specific minimum flow restrictions will be imposed on the groundwater take.
Low	Where the abstraction is not classified as having a riparian, high, direct or moderate hydraulic connection.	The take will be managed solely as a groundwater take and the full allocation included in the allocation volume for the relevant groundwater management zone.

### Notes

<sup>a</sup> Includes rivers, lakes and wetlands.

<sup>b</sup> In situations where the seasonal volume limits maximum rate abstraction to a period of less than 90 days.



The assessment of stream depletion effects will take into account any non-consumptive component of the groundwater take.

In circumstances where groundwater has a Moderate, High, Direct or Riparian degree of hydraulic connection then the allocation for groundwater in Table L.4 is only available where there is an available surface water allocation.

## Appendix L.3 Interference effects

### Determination of “Acceptable”

- (a) The cumulative interference effect of any new groundwater abstraction (in conjunction with other lawfully established groundwater takes) is considered “acceptable” if the drawdown does not exceed any of the following limits in properly constructed and operated bores:
  - (i) 20 percent of the available drawdown in any existing bore which adequately penetrates an unconfined aquifer that is not utilised for long-term monitoring of water levels; or
  - (ii) 50 percent of the potentiometric head in any existing bore screened in a confined aquifer that is not utilised for long-term monitoring of water levels; or
  - (iii) no more than 10 percent of the available drawdown in a unconfined aquifer which exists 50 percent of the time during natural conditions when no pumping is occurring from the aquifer, for bores utilised for long-term monitoring of water levels; or
  - (iv) no more than 20 percent of the available potentiometric head in a confined aquifer that exists 50 percent of the time during natural conditions when no pumping is occurring from the aquifer, for bores utilised for long-term monitoring of water levels; or
  - (v) in any situation where the drawdown interference exceeds any of the limits in sub-clauses (i)-(iv) the new groundwater abstraction will be considered acceptable if it can be demonstrated that the drawdown interference will not have an impact upon the yield of the bore that is any more than minor or the effect is mitigated.
- (b) An increased volume or increased pumping rate for any lawfully established groundwater abstraction will be considered a new groundwater abstraction under Policy 22.
- (c) Adequacy of bore construction and the available drawdown will be calculated following the methodology outlined in Appendix L.3.
- (d) An exception to clause (a) above may be appropriate for aquifer testing and necessary infrastructure works, and in certain circumstances for mining activities where dewatering occurs for a short duration.
- (e) The assessment of drawdown interference shall take into account the offsetting component of any non-consumptive aspects of the take and use of water.

### Assessment of Interference Effects

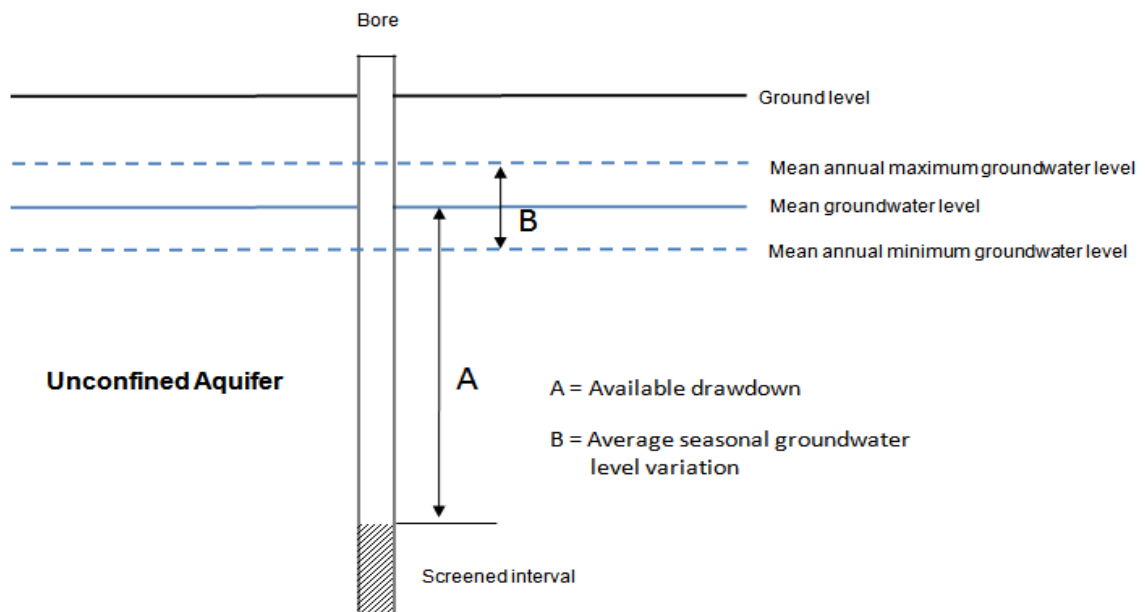
The magnitude of pumping interference effects will be assessed as the drawdown occurring in response to pumping at the maximum rate and/or duration using standard hydrogeological analysis methods appropriate for the hydrogeological setting.

### Unconfined Aquifers

An existing bore or well will be classified as adequately penetrating an unconfined aquifer where the interval over which groundwater enters the bore or well is located at a depth exceeding 3 times the average seasonal groundwater level variation below the mean groundwater level (i.e.  $A > 3 \times B$ ).

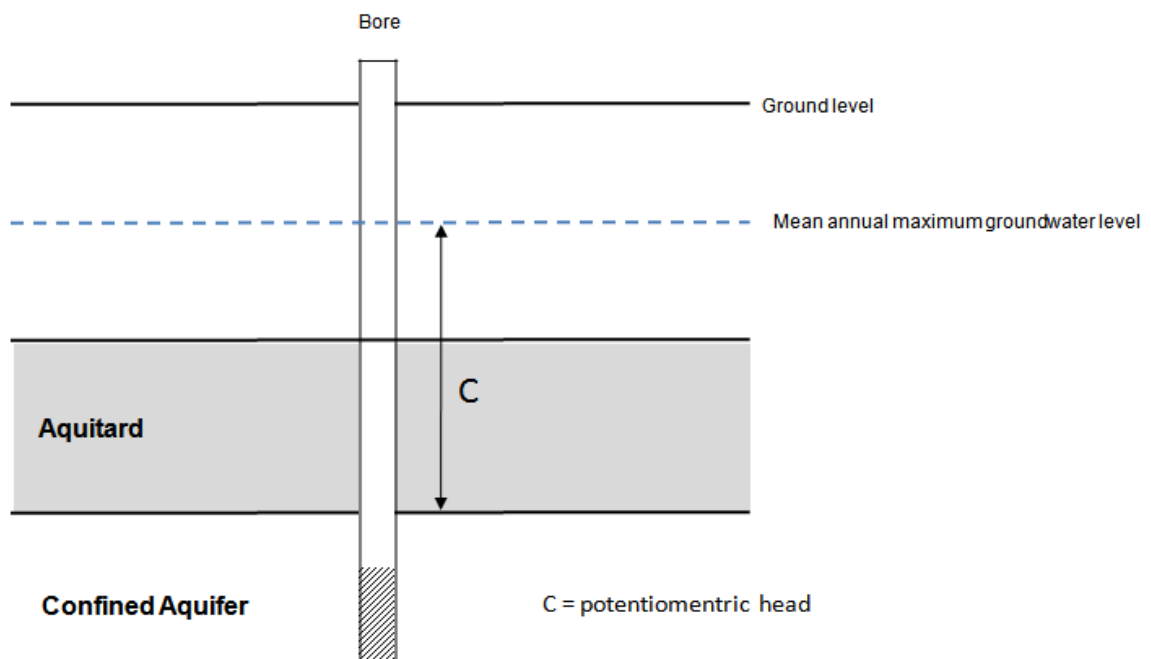
The available drawdown in an adequately penetrating bore screened in an unconfined aquifer is defined as the distance between the mean groundwater level and the top of the screened interval.

Bores or wells not meeting the criteria for adequate penetration will be excluded from assessment of pumping interference effects. Where the depth of the screened interval in a bore or well is not known, available drawdown will be assessed assuming the screened interval extends 1 metre upwards from the full bore or well depth.



### Confined Aquifers

The potentiometric head in a bore screened in a confined aquifer is defined as the head between the mean annual maximum piezometric level and top of the confined aquifer.



## Appendix L.4 Calculation of seasonal surface water and groundwater allocation

Where not specified by existing resource consent conditions, maximum daily and seasonal abstraction rates used for calculating total groundwater allocation under Rule 49 and Rule 54, and for calculating 'reasonable use' of water where relevant, will be established on the following basis.

### Stock water and dairy use

Peak daily demand and annual allocation for surface water and groundwater takes for stock and dairy use will be calculated based on the number of each stock type multiplied by the relevant figures outlined in Table L.3.

**Table L.3 Peak and average daily water use for various stock types**

Water Use	Peak (daily) water requirement L/head	Average (annual) water requirement L/day
Dairy - lactating cows (including dairy shed use)	140	95
Drystock	45	30
Beef Cattle	45	30
Deer - hinds	45	30
Stags	30	20

### Seasonally Variable Water Uses

For water uses which exhibit significant seasonal variability in daily water use (e.g. municipal supply, milk processing, meat processing), seasonal abstraction rates will be calculated on the basis of the following:

$$\text{Seasonal Abstraction Rate} = (\text{Peak daily water use} \times 0.75) \times 365 \text{ days}$$

## Appendix L.5 Groundwater Allocation

### L.5.1 Unconfined Aquifers

The primary allocation for groundwater management zones defined on Map Series 3: Groundwater Management Zones are listed in Table L.4.

**Table L.4 Primary groundwater allocation limits**

Groundwater Zone	Primary Allocation (m <sup>3</sup> x 10 <sup>6</sup> /year)
Awarua	45.81
Blackmount	21.12
Castlerock	6.12
Cattle Flat	2.39
Central Plains	31.29
Centre Hill	6.07
Croydon	2.56
Dipton	9.52
Edendale	11.71
Five Rivers	17.05
Knapdale	2.74
Longridge	4.67
Lower Aparima	32.41
Lower Mataura	34.98
Lower Oreti	19.31
Makarewa	62.67
Orepuki	10.54
Oreti	2.73
Riversdale	6.53
Te Anau	118.25
Te Waewae	18.94
Tiwai	2.57
Upper Aparima	56.93
Upper Mataura	10.40
Waihopai	44.50
Waimatuku	22.27
Waimea Plains	12.41
Waipounamu	1.16
Wendon	5.22
Wendonside	9.56

**Note:** In circumstances where groundwater has a Moderate, High, Direct or Riparian degree of hydraulic connection then the allocation for groundwater in Table L.4 is only available where there is an available surface water allocation.

## L.5.2 Confined Aquifers

### *Lumsden Aquifer*

Groundwater abstraction from the Lumsden aquifer will be managed in accordance with the allocation volume and minimum water level cut-offs outlined in Table L.5.

**Table L.5 Lumsden Aquifer allocation and minimum groundwater level cut-offs**

Primary Allocation (m <sup>3</sup> x 10 <sup>6</sup> /year)	Monitoring bore	Initial level trigger		Minimum level cut-off	
		m asl	% reduction in maximum daily abstraction rate (m <sup>3</sup> /day)	m asl	% reduction in maximum daily abstraction rate (m <sup>3</sup> /day)
5.76	E44/0300	202.5	50	201.5	100

### *North Range Aquifer*

Groundwater abstraction from the North Range aquifer will be managed in accordance with the allocation volume and minimum water level cut-off specified in Table L.7. Groundwater takes from this aquifer will also be subject to a pro-rata reduction in seasonal allocation (1 October - 30 September) based on the seasonal recovery triggers specified in Table L.8.

**Table L.7 North Range Aquifer minimum groundwater level cut-off**

Primary Allocation (m <sup>3</sup> x 10 <sup>6</sup> /year)	Monitoring bore	Minimum level cut-off	
		m asl	% reduction in maximum daily abstraction rate (m <sup>3</sup> /day)
1.83	E44/0196	245.0	100

**Table L.8: North Range Aquifer seasonal recovery triggers**

E44/0196 Water Level 1 October (m asl)	Percentage of seasonal allocation available (%)
>250	100
>249	75
>248	50
>247	25

### *All Other Confined Aquifers*

Allocation volumes, minimum water level cut-offs and seasonal recovery triggers for confined aquifers not listed in Table L.5 to Table L.8 will be established following the methodology outlined in Appendix L.6.

## Appendix L.6 Establishing allocation volumes for confined aquifers

- In addition to confined aquifers specifically identified in Appendix L.5, aquifer systems elsewhere in the Southland Region may be classified by the Southland Regional Council as confined where aquifer test data collected in accordance with requirements outlined in Appendix L.1 exhibit no significant departure from 'ideal' confined aquifer conditions.
- For aquifers which are characterised by the Southland Regional Council as semi-confined (i.e. exhibiting a significant departure from 'ideal' confined aquifer conditions), allocation will be managed as part of that established for adjacent, hydraulically connected groundwater resources;
- Allocation volumes for confined aquifer aquifers not identified in Appendix L.6 will be determined on the basis of groundwater throughflow following Rule 54(e). Where alternative methods (such as numerical modelling) are not available, primary allocation for confined aquifers will be based on the following relation:

$$\text{Annual allocation} = 0.75(T \times i \times W)$$

Where T = representative aquifer transmissivity

i = hydraulic gradient

W = aquifer width perpendicular to groundwater flow

- Minimum groundwater level cut-offs (and/or seasonal recovery triggers) for confined aquifers will be established to:
  - ◆ maintain long-term aquifer storage volumes (taking into account observed temporal groundwater level variations, recharge and seasonal recovery characteristics);
  - ◆ establish and maintain a consistent reliability of supply for all groundwater users within the primary allocation volume. Trigger levels for supplementary groundwater allocation will be established at a level which maintains reliability of supply for the primary groundwater allocation.

## Appendix M – Taonga Species List

### Birds

Name in Māori	Name in English	Scientific name
Hoiho	Yellow-eyed penguin	<i>Megadyptes antipodes</i>
Kāhu	Australasian harrier	<i>Circus approximans</i>
Kākā	South Island kākā	<i>Nestor meridionalis meridionalis</i>
Kākāpō	Kākāpō	<i>Strigops habroptilus</i>
Kākāriki	New Zealand parakeet	<i>Cyanoramphus</i> spp
Kakaruai	South Island robin	<i>Petroica australis australis</i>
Kakī	Black stilt	<i>Himantopus novaezelandiae</i>
Kāmana	Crested grebe	<i>Podiceps cristatus</i>
Kārearea	New Zealand falcon	<i>Falco novaeseelandiae</i>
Karoro	Black-backed gull	<i>Larus dominicanus</i>
Kea	Kea	<i>Nestor notabilis</i>
Kōau	Black shag	<i>Phalacrocorax carbo</i>
	Pied shag	<i>Phalacrocorax varius varius</i>
	Little shag	<i>Phalacrocorax melanoleucos brevirostris</i>
Koekoeā	Long-tailed cuckoo	<i>Eudynamys taitensis</i>
Kōparapara or Korimako	Bellbird	<i>Anthornis melanura melanura</i>
Kororā	Blue penguin	<i>Eudyptula minor</i>
Kōtare	Kingfisher	<i>Halcyon sancta</i>
Kōtuku	White heron	<i>Egretta alba</i>
Kōwhiowhio	Blue duck	<i>Hymenolaimus malacorhynchos</i>
Kūaka	Bar-tailed godwit	<i>Limosa lapponica</i>
Kūkupa/Kererū	New Zealand wood pigeon	<i>Hemiphaga novaeseelandiae</i>
Kuruwhengu/Kuruwhengi	New Zealand shoveller	<i>Anas rhynchotis</i>
Mātā	Fernbird	<i>Bowdleria punctata punctata</i> and
		<i>Bowdleria punctata stewartiana</i> and
		<i>Bowdleria punctata wilsoni</i> and
		<i>Bowdleria punctata candata</i>
Matuku moana	Reef heron	<i>Egretta sacra</i>
Miromiro	South Island tomtit	<i>Petroica macrocephala</i>
		<i>macrocephala</i>
Miromiro	Snares Island tomtit	<i>Petroica macrocephala dannefaerdi</i>
Mohua	Yellowhead	<i>Mohoua ochrocephala</i>
Pākura/Pūkeko	Swamp hen/Pūkeko	<i>Porphyrio porphyrio</i>
Pārera	Grey duck	<i>Anas superciliosa</i>
Pateke	Brown teal	<i>Anas aucklandica</i>
Pīhoihoi	New Zealand pipit	<i>Anthus novaeseelandiae</i>
Pīpīwharau	Shining cuckoo	<i>Chrysococcyx lucidus</i>
Pīwakawaka	South Island fantail	<i>Rhipidura fuliginosa fuliginosa</i>
Poaka	Pied stilt	<i>Himantopus himantopus</i>
Pokotiwaha	Snares crested penguin	<i>Eudyptes robustus</i>



Name in Māori	Name in English	Scientific name
Pūtakitaki	Paradise shelduck	<i>Tadorna variegata</i>
Riroriro	Grey warbler	<i>Gerygone igata</i>
Roroa	Great spotted kiwi	<i>Apteryx haastii</i>
Rowi	Ōkārīto brown kiwi	<i>Apteryx mantelli</i>
Ruru koukou	Morepork	<i>Ninox novaeseelandiae</i>
Takahē	Takahē	<i>Porphyrio mantelli</i>
Tara	Terns	<i>Sterna</i> spp
Tawaki	Fiordland crested penguin	<i>Eudyptes pachyrhynchus</i>
Tete	Grey teal	<i>Anas gracilis</i>
Tīeke	South Island saddleback	<i>Philesturnus carunculatus carunculatus</i>
Tītī	Sooty shearwater/Muttonbird/Hutton's shearwater Common diving petrel South Georgian diving petrel Westland petrel Fairy prion Broad-billed prion White-faced storm petrel Cook's petrel Mottled petrel	<i>Puffinus griseus</i> and <i>Puffinus huttoni</i> and <i>Pelecanoides urinatrix</i> and <i>Pelecanoides georgicus</i> and <i>Procellaria westlandica</i> and <i>Pachyptila turtur</i> and <i>Pachyptila vittata</i> and <i>Pelagodroma marina</i> and <i>Pterodroma cookii</i> and <i>Pterodroma inexpectata</i>
Tītipounamu	South Island rifleman	<i>Acanthisitta chloris chloris</i>
Tokoeka	South Island brown kiwi	<i>Apteryx australis</i>
Toroa	Albatrosses and Mollymawks	<i>Diomedea</i> spp
Toutouwai	Stewart Island robin	<i>Petroica australis rakiura</i>
Tūī	Tūī	<i>Prothemadera novaeseelandiae</i>
Tutukiwi	Snares Island snipe	<i>Coenocorypha aucklandica huegeli</i>
Weka	Western weka	<i>Gallirallus australis australis</i>
Weka	Stewart Island weka	<i>Gallirallus australis scotti</i>
Weka	Buff weka	<i>Gallirallus australis hectori</i>

## Plants

Name in Māori	Name in English	Scientific name
Akatorotoro	White rata	<i>Metrosideros perforata</i>
Aruhe	Fernroot (bracken)	<i>Pteridium aquilinum</i> var <i>esculentum</i>
Harakeke	Flax	<i>Phormium tenax</i>
Horoeka	Lancewood	<i>Pseudopanax crassifolius</i>
Houhi	Mountain ribbonwood	<i>Hoheria lyalli</i> and <i>H. glabata</i>
Kahikatea	Kahikatea/White pine	<i>Dacrycarpus dacrydioides</i>
Kāmahi	Kāmahi	<i>Weinmannia racemosa</i>
Kānuka	Kānuka	<i>Kunzia ericoides</i>
Kāpuka	Broadleaf	<i>Griselinia littoralis</i>
Karaeopirita	Supplejack	<i>Ripogonum scandens</i>
Karaka	New Zealand	<i>Corynocarpus laevigata</i>

Name in Māori	Name in English	Scientific name
	laurel/Karaka	
Karamū	Coprosma	<i>Coprosma robusta, coprosma lucida, coprosma foetidissima</i>
Kātote	Tree fern	<i>Cyathea smithii</i>
Kiekie	Kiekie	<i>Freycinetia baueriana</i> subsp <i>banksii</i>
Kōhia	NZ Passionfruit	<i>Passiflora tetrandra</i>
Korokio	Korokio Wire-netting bush	<i>Corokia cotoneaster</i>
Koromiko/Kōkōmuka	Koromiko	<i>Hebe salicifolia</i>
Kōtukutuku	Tree fuchsia	<i>Fuchsia excorticata</i>
Kōwahi Kōhai	Kōwhai	<i>Sophora microphylla</i>
Mamaku	Tree fern	<i>Cyathea medullaris</i>
Mānia	Sedge	<i>Carex flagellifera</i>
Mānuka Kahikātoa	Tea-tree	<i>Leptospermum scoparium</i>
Māpou	Red matipo	<i>Myrsine australis</i>
Mataī	Mataī/Black pine	<i>Prumnopitys taxifolia</i>
Miro	Miro/Brown pine	<i>Podocarpus ferrugineus</i>
Ngaio	Ngaio	<i>Myoporum laetum</i>
Nīkau	New Zealand palm	<i>Rhopalostylis sapida</i>
Pānako	(Species of fern)	<i>Asplenium obtusatum</i>
Pānako	(Species of fern)	<i>Botrychium australe</i> and <i>B. biforme</i>
Pātōtara	Dwarf mingimingi	<i>Leucopogon fraseri</i>
Pīngao	Pīngao	<i>Desmoschoenus spiralis</i>
Pōkākā	Pōkākā	<i>Elaeocarpus hookerianus</i>
Ponga/Poka	Tree fern	<i>Cyathea dealbata</i>
Rātā	Southern rātā	<i>Metrosideros umbellata</i>
Raupō	Bulrush	<i>Typha angustifolia</i>
Rautāwhiri/Kōhūhū	Black matipo/Māpou	<i>Pittosporum tenuifolium</i>
Rimu	Rimu/Red pine	<i>Dacrydium cypressinum</i>
Rimurapa	Bull kelp	<i>Durvillaea antarctica</i>
Taramea	Speargrass, spaniard	<i>Aciphylla</i> spp
Tarata	Lemonwood	<i>Pittosporum eugenioides</i>
Tawai	Beech	<i>Nothofagus</i> spp
Tētēaweka	Muttonbird scrub	<i>Olearia angustifolia</i>
Tī rākau/Tī Kōuka	Cabbage tree	<i>Cordyline australis</i>
Tikumu	Mountain daisy	<i>Celmisia spectabilis</i> and <i>C. semicordata</i>
Tītoki	New Zealand ash	<i>Alectryon excelsus</i>
Toatoa	Mountain Toatoa, Celery pine	<i>Phyllocladus alpinus</i>
Toetoe	Toetoe	<i>Cortaderia richardii</i>
Tōtara	Tōtara	<i>Podocarpus totara</i>
Tutu	Tutu	<i>Coriaria</i> spp
Wharariki	Mountain flax	<i>Phormium cookianum</i>
Whīnau	Hīnau	<i>Elaeocarpus dentatus</i>
Wī	Silver tussock	<i>Poa cita</i>
Wīwī	Rushes	<i>Juncus</i> all indigenous <i>Juncus</i> spp and <i>J. maritimus</i>

## Freshwater Fish and Shellfish

Name in Māori	Name in English	Scientific name
Inanga	(whitebait species)	<i>Galaxias maculatus</i>
	Banded kokopu	<i>Galaxias fasciatus</i>
Koaro	(whitebait species)	<i>Galaxias brevipinnis</i>
	Shortjaw kokopu	<i>Galaxias postvectis</i>
Taiwharu	Giant kokopu	<i>Galaxias argenteus</i>
	Upland bully	<i>Gobiomorphus breviceps</i>
	Bluegill bully	<i>Gobiomorphus hubbsi</i>
Kokopu/hawai	Giant bully	<i>Gobiomorphus gobioides</i>
	Common bully	<i>Gobiomorphus cotidianus</i>
	Redfin bully	<i>Gobiomorphus huttoni</i>
Tuna	Longfin eel	<i>Anguilla dieffenbachii</i>
Tuna	Shortfin eel	<i>Anguilla australis</i>
Kanakana	lamprey	<i>Geotria australis</i>
	Alpine galaxias	<i>Galaxias paucispondylus</i>
	Gollum galaxias	<i>Galaxias gollumoides</i>
	Southern flathead galaxias	<i>Galaxias depressiceps</i>
Piripiripohatu	Torrentfish	<i>Cheimarrichthys fosteri</i>
Paraki/ngaiore	Common smelt	<i>Retropinna retropinna</i>
	Black flounder	<i>Rhombosolea retiaria</i>
Koura/kewai	Freshwater crayfish	<i>Paranephrops planifrons, Paranephrops zealandicus</i>
Kakahi	Freshwater mussels	<i>Echyridella menziesi</i>
Pipi/Kākahi	Pipi	<i>Paphies australe</i>
Tuaki	Cockle	<i>Austrovenus stutchburgi</i>
		<i>Dosinia anus, Paphies donacina, Mactra discor, Mactra murchsoni, Spisula aequilateralis, Basina yatei, or Dosinia subrosa</i>
Tuaki/Hākiari, Kuhakuha/Pūrimu	Surfclam	<i>Paphies subtriangulata, Paphies donacina</i>
Tuatua	Tuatua	<i>Amphibola crenata, Turbo smaragdus, Zedilom spp</i>
Waikaka/Pūpū	Mudsnail	

# Appendix N – Farm Environmental Management Plan Requirements

## Part A – Farm Environmental Management Plans

A Farm Environmental Management Plan (FEMP) can be based on either of:

1. the material set out in Part B below; or
2. industry prepared FEMP templates and guidance material, with Southland-specific supplementary material added where relevant, so that it includes the material set out in Part B below.

## Part B – Farm Environmental Management Plan Content

1. A written FEMP that is:
  - (a) prepared and retained, identifying the matters set out in clauses 2 to 5 below; and
  - (b) reviewed at least once every 12 months by the landholding owner or their agent and the outcome of the review documented; and
  - (c) provided to the Southland Regional Council upon request.
2. The FEMP contains the following landholding details:
  - (a) physical address; and
  - (b) description of the landholding ownership and the owner's contact details; and
  - (c) legal description(s) of the landholding; and
  - (d) a list of all resource consents held for the landholding and their expiry dates.
3. The FEMP contains a map(s) or aerial photograph(s) of the landholding at a scale that clearly shows the locations of:
  - (a) the boundaries; and
  - (b) the physiographic zones (and variants where applicable) and soil types (or Topoclimate South soil maps); and
  - (c) all lakes, rivers, streams, ponds, artificial watercourses, modified watercourses and natural wetlands; and
  - (d) all existing and proposed riparian vegetation and fences (or other stock exclusion methods) adjacent to waterbodies; and
  - (e) places where stock access or cross water bodies (including bridges, culverts and fords); and
  - (f) all known subsurface drainage system(s) and the locations of the drain outlets; and
  - (g) all land that may be cultivated and land to be cultivated over the next 12-month period; and
  - (h) all land that may be intensively winter grazed and the land to be planted for winter grazing for the next period 1 May to 30 September; and
  - (i) for land to be cultivated or intensively winter grazed:
    - (i) critical source areas; and
    - (ii) intended setbacks from any lake, river (excluding ephemeral rivers), artificial watercourses, modified watercourse or natural wetland; and
    - (iii) land with a slope greater than 20 degrees.
4. Nutrient Budget  
For all landholdings over 20ha, the FEMP contains a nutrient budget (which includes nutrient losses to the environment) calculated using the latest version of the OVERSEER model in accordance with the latest version of the OVERSEER Best Practice Data Input Standards (or an

alternative model approved by the Chief Executive of Southland Regional Council), and which is repeated:

- (a) where a material change in land use associated with the farming activity occurs (including a change in crop area, crop rotation length, type of crops grown, stocking rate or stock type) at the end of the year in which the change occurs, and also every three years after the change occurs; and
- (b) each time the nutrient budget is repeated all the input data used to prepare it shall be reviewed by or on behalf of the landholding owner, for the purposes of ensuring the nutrient budget accurately reflects the farming system. A record of the input data review shall be kept by the landholding owner.

#### 5. Good Management Practices

The FEMP contains a good management practices section which identifies:

- (a) the good management practices implemented since 3 June 2016; and
- (b) the good management practices which will be undertaken over the coming 12-month period. These must include practices for:
  - (i) the reduction of sediment and nutrient losses from critical source areas, particularly those associated with overland flow;
  - (ii) cultivation (including practices such as contour ploughing, strip cultivation or direct drilling);
  - (iii) the use of land for intensive winter grazing (including those practices specified in Rule 20(a)(iii));
  - (iv) riparian areas (including those from which stock are excluded under Rule 70) and the type of riparian vegetation to be planted, how it will be maintained and how weeds will be controlled;
  - (v) minimising of the discharge of contaminants to surface water or groundwater, with particular reference to the contaminant pathways identified for the landholding.

Examples of general good management practices are provided on the Southland Regional Council, DairyNZ and Beef and Lamb New Zealand websites and in the document<sup>50</sup> titled "Industry-agreed Good Management Practices relating to water quality, Version 2, 18 September 2015".

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<sup>50</sup> Released by FAR, New Zealand Pork, Dairy NZ, beef + lamb New Zealand, Horticulture New Zealand and Deer Industry New Zealand.

# Appendix O – Reasonable and Efficient Use of Water

## Irrigation

- (a) Seasonal allocation for new resource consents to take and use water for irrigation at a rate exceeding (the equivalent of) 3,000 m<sup>3</sup>/ha/year will be established by use of a field-validated daily time-step irrigation demand model to calculate the annual irrigation volume 90 percent (9 in 10 year) reliability which takes account of:
- physical factors including crop and soil type;
  - climatic factors including rainfall variability and evapo-transpiration;
  - an irrigation application efficiency of 80%.
- (b) Replacement resource consent applications to take and use water for irrigation will utilise records of historical water use to establish a seasonal allocation which takes into account:
- the requirements of Policy 42;
  - whether the previous seasonal allocation as determined under Appendix O(a) remains appropriate for the farming activity being undertaken;
  - the volume of water utilised in previous irrigation seasons;
  - any proposed changes to the operation of the irrigation system or farming system.

## Group or Community Water Supplies

A water management plan shall be submitted with a resource consent application to take and use water for group or community water supplies that addresses:

- the estimated average and peak demand for water taking into account the number of connections, the nature of water use and projected future demand;
- the current effectiveness and efficiency of the distribution network as well as works proposed to improve the efficiency of water distribution and use;
- how water demand will be managed during periods of water shortage.

## Other Uses

- The rate and volume of abstraction for resource consent applications to take and use water for purposes other than irrigation, group or community water supply will be calculated in accordance with best management practices for efficient use of water in relation to that use; and for stock and dairy shed use will be calculated in accordance with Table L.3 in Appendix L.4. Applications for replacement resource consents may also demonstrate by way of independent verification or audit that existing (and proposed) usage is in accordance with rates and volumes sought and does not result in wastage or inefficient use of water.

## Appendix P – Effluent Pond Drop Test methodology

- Testing is undertaken over a minimum period of 48 hours.
- Testing recording equipment is to be accurate to 0.8 mm or less.
- Continuous readings are to be taken over the entire test period at not more than 10 second intervals.
- Any change in pond fluid level over the test period needs to be accounted for.
- Ponds must be at or over 75% design depth before a test can be undertaken.
- The pond has been de-sludged in the 12 months prior to the test being undertaken and there shall be no sludge or crust on the pond surface during the test.
- The pond surface is not frozen during any part of the testing.
- An anemometer shall be installed for the duration of the test and wind speed shall be at 10 metres per second or less for at least 24 hours during the test.

### Pass/Fail Criteria

When tested in accordance with the methodology above, the pond “meets” the pond drop test criteria if the maximum pond level drop does not exceed the following:

<b>Maximum Depth of Pond (m) excluding freeboard</b>	<b>Maximum Allowable Pond Level Drop (mm per 24 hours)</b>
<0.5	1.2
0.5 to 1.0	1.4
1.0 to 1.5	1.6
1.5 to 2.0	1.8
>2.0	2.0 <sup>51</sup>

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<sup>51</sup> Clause 16(2) amendment

## Appendix R – Fish Screen Standards and Guidelines

- (a) Where the diversion or take does not exceed a maximum rate of 10 litres per second and a maximum volume of 100 cubic metres per day, a fish screen shall be installed to prevent fish from entering the intake. The fish screen shall be designed to the following standard and kept functional at all times while water is being taken:
- (i) Water shall only be taken when a fish screen with a mesh size or slope width not exceeding 2 millimetres for intakes within 2 kilometres of the coast, a coastal lake or estuary, or 3 millimetres for anywhere else is operated and maintained across the full width of the intake to ensure that fish and fish fry are prevented from bypassing the screen into the intake; and
  - (ii) The screen area shall be designed to ensure the calculated average through screen velocity does not exceed 0.12 metres per second (screens should generally be designed to exceed this to account for some routine level of clogging of the screen with detritus). The required area (square metres) of fish screen should exceed = Flow (litres per second)/120.

Example: The minimum required fish screen area for a cylindrical screen can therefore be calculated from:

$$\text{Area} = 2\pi r (r + h) \times z$$

Where:  $\pi = 3.141592659$

r = radius of cylinder (metres)

h = length or height of cylinder (metres)

z = proportional open mesh area of screen material

(i.e. 0.5 for mesh that is 50% open area)

**Note:** The above formula holds where the screen is fully immersed in water as is usually the case with pump takes. Where this is not the case, the area will need to be adjusted accordingly. Where 50% of the screen may be exposed, then the area calculation will need to be adjusted to half (or multiplied by 0.5), or the actual screen area would need to be doubled (multiplied by 2) in order to achieve the same area immersed. This example makes no allowance for the area taken up by the end of the intake pipe. Where high levels of detritus and other clogging materials are present, screen areas should be increased to account for reduced effective screen area.

- (b) Where the diversion or take does not exceed a maximum rate of 10 litres per second and a maximum volume of 100 cubic metres per day but does not meet the standards in (1) above; or where the diversion or take exceeds a maximum rate of 10 litres per second and a maximum volume of 100 cubic metres per day and the diversion is less than 10 cubic metres per second or the take is less than 500 litres per second pumped, a fish screen shall be installed to prevent fish from entering the intake. The fish screen shall be designed with the following features:
- (i) The site is located as close to the river source as possible to minimise exposure of fish to the fish screen structure, and minimises the length of stream affected while providing the best possible conditions for (b) - (f) below;
  - (ii) Water velocity through the screen (“approach velocity”) is slow enough (generally <0.12 metres per second) to allow fish to escape the entrainment (being sucked though or



- washed over the screen) or impingement (being squashed or rubbed against the screen);
- (iii) Water velocity across (or past) the screen (“sweep velocity”) is greater than the approach velocity (b) and is sufficient to sweep the fish past the intake;
  - (iv) An effective bypass system is provided that is easily accessible to entrained fish, and fish are taken away from the intake and back into the source channel, or into water which provides the fish with unimpeded passage back into the source channel;
  - (v) Screening material (mesh, profile bars or other) on the screen needs to have a smooth surface and openings that prevent any damage to fish coming into contact with the screening material; and
  - (vi) The intake structure and fish screen are operated to a consistent, appropriate standard with appropriate operation and maintenance procedures, and this operation and maintenance should be regularly checked or monitored. A record should be kept of all the maintenance and monitoring carried out.
- (c) Where the diversion is more than 10 cubic metres per second or the take is more than 500 litres per second pumped, in addition to the features listed in (2)(a) to (f) above, it will be necessary for the intake to be purpose designed and to consider on a case by case basis whether any additional features will be necessary to ensure fish are prevented from entering the intake.

**Note:** Submerged galleries (abstracting water vertically) and galleries in the river banks (abstraction water horizontally), or behavioural barriers and devices such as those that use light and sound diversions that may not meet all of the engineering features set out in (2) above, but shall be considered to comply with them where it is demonstrated that they are able to exclude fish to the same degree of effectiveness.

## Appendix S – Archaeological Site Responsibilities

This appendix sets out information to alert the public to their responsibilities regarding archaeological sites. This is relevant with regards to:

- (a) Demolition/destruction of any structure associated with human activity prior to 1900, whether or not it is scheduled in a district or regional plan.
- (b) Earthworks or other works that may disturb pre-1900 surface or subsurface archaeological sites or material.

An archaeological site is as defined by the Heritage New Zealand Pouhere Taonga Act 2014 as being:

- (a) any place in New Zealand, including any building or structure (or part of a building or structure), that:
  - (i) was associated with human activity that occurred before 1900 or is the site of the wreck of any vessel where the wreck occurred before 1900; and
  - (ii) provides or may provide, through investigation by archaeological methods, evidence relating to the history of New Zealand.

It is also possible for Heritage New Zealand Pouhere Taonga (Heritage New Zealand) to declare a post-1900 sites as an archaeological site.

### Consent required from Heritage New Zealand

An authority (consent) from Heritage New Zealand must be obtained prior to the commencement of works noted in (a) or (b) above, and preferably before submitting a resource consent application. It is an offence to modify or destroy an archaeological site, or demolish/destroy a whole building, without an authority if the person knew or ought to reasonably suspect it to be an archaeological site. For further information, contact Heritage New Zealand. The relevant legislation is the Heritage New Zealand Pouhere Taonga Act 2014, in particular sections 42 and 44 of that Act.

### Known or suspected archaeological sites

The following resources may assist in determining if an archaeological site is or may be present:

- Historic and cultural heritage scheduled in a district or regional plan.
- Sites listed by the New Zealand Archaeological Association's Archaeological Site Recording Scheme (latest information is on the New Zealand Archaeological Association website).
- Council GIS information that highlights known sites and areas where there is a higher risk of unidentified historic heritage being encountered.
- Written and oral histories of the area including those of Tangata Whenua.

### Archaeological discovery without an authority (Protocol)

If an authority is obtained, and an archaeological site is subsequently discovered, the following protocol must be followed:

- (a) immediately cease operations;
- (b) inform the relevant iwi authority;
- (c) inform Heritage New Zealand and apply for the appropriate authority, if required;
- (d) inform the Council and apply for the appropriate resource consent, if required;
- (e) take appropriate action, after discussing with Heritage New Zealand, Council and relevant iwi authority to remedy damage and/or restore the site.