environment SOUTHLAND
REGIONAL COUNCIL
Te Taiao Tonga

Proposed Southland Water and Land Plan Part A

03 November 2017
(Reply Report version)

Mai ea i te po i te ti Mātānga.
Mai ea ki nga hekenga kia Maku.

Otira, ka kii a ngā puna roi Mātā a Rangi,
ko tona aroha kia Papatūānuku, kia kii
ona puna hei oranga mona me ona
Taonga e noho ake nei.

Ko tatou, ngā kaitiaki o tenei taonga tuku iho
kia kaha i roto i te tapu, kia whai mana
i roto i tona wehi, kia u tona 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 Rangi 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 Tāngata 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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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 the past ~~is deteriorating.~~ [1]

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) ~~*– a treasure of the people and there is a collective responsibility to look after it now and into the future*~~[2]. 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 ~~those natural qualities of importance~~ water quantity and quality.[3]

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" ~~– (from the mountains to the sea)~~[4]. 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 Environment Southland 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 of the[5] National Policy Statement for Freshwater Management 2014 (as amended in 2017)[6], the policies of[7] which will be ~~further~~[8] implemented through a time-staged implementation programme to set freshwater[9] 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 ~~(inherent health)~~[10] of the waterbody and its ability to provide for te hauora o te tangata (the health of the people)[11], te hauora o te taiao (health of the environment)[12] and te hauora o te wai (the health of the waterbody)[13] to the forefront of freshwater management.

[1] 265.4 Federated Farmers
[2] Te Rūnanga o Ngāi Tahu supplementary evidence
[3] 265.4 Federated Farmers
[4] Te Rūnanga o Ngāi Tahu supplementary evidence
[5] Clause 16(2) amendment
[6] Clause 16(2) amendment
[7] Clause 16(2) amendment
[8] Clause 16(2) amendment
[9] Clause 16(2) amendment
[10] Te Rūnanga o Ngāi Tahu supplementary evidence
[11] Te Rūnanga o Ngāi Tahu supplementary evidence
[12] Te Rūnanga o Ngāi Tahu supplementary evidence
[13] Te Rūnanga o Ngāi Tahu supplementary evidence

Te Mana o te Wai has three key functions:

1. it is a korowai (cloak)[14] 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.

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~~[15] 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.

[14] Te Rūnanga o Ngāi Tahu supplementary evidence
[15] Clause 16(2) amendment

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 Regional Water and Land Plan has been developed by Environment Southland 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.[16]

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~~[17] (NPS-FM) 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 NPS-FM includes a requirement to define the waterbodies 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 NPS-FM.

This ~~Water and Land~~[18] Plan outlines objectives, policies and rules that apply to the whole of the region. Through the FMU limit setting process, freshwater[19] objectives, policies, limits[20] 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 ~~Water and Land~~[21] Plan may be added to or replaced by the freshwater[22] objectives, policies, limits[23] and rules specific to each FMU. Environment Southland 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 National Policy Statement

[16] 872.1 William J Wyatt Consulting
[17] Clause 16(2) amendment
[18] Clause 16(2) amendment
[19] Clause 16(2) amendment
[20] Clause 16(2) amendment
[21] Clause 16(2) amendment
[22] Clause 16(2) amendment
[23] Clause 16(2) amendment

for Freshwater Management. Freshwater objectives established in accordance with Section CA2 of the National Policy Statement for Freshwater Management will be developed under Environment Southland's Freshwater Management Unit process, in time, in accordance with Environment Southland's Progressive Implementation Programme.[24]

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 Environment Southland and Ngai Tāhu ki Murihiku

~~Ngāi Tahu are the tangata whenua of Southland/Murihiku[25], and have occupied the area and used its natural resources for centuries. For Ngāi Tahu, the natural environment (including lands, coasts, water, air and biodiversity) and how they engage with it is a critical component of their identity as a people and in maintaining their culture.~~

As tangata whenua of Murihiku (includes Southland region), Ngāi Tahu share a strong connection to the natural environment (including lands, coasts, water, air and biodiversity) of the area.[26]

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 ~~Southland/~~Murihiku are the principal mana whenua and kaitiaki (guardian)[27] for the Southland region:

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

Environment Southland and these four papatipu rūnanga have an enduring and legitimate relationship, established over many years. Environment Southland 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

[24] 277.1 Fonterra
[25] Te Rūnanga o Ngāi Tahu Act 1996
[26] 797.4 Te Rūnanga o Ngāi Tahu
[27] Te Rūnanga o Ngāi Tahu supplementary evidence

ancestral lands, water, sites, waāhi[28] tapu and other taonga (a treasure of the people, a sacred place)[29].

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)[30] in this Plan reinforces that approach. There is no specific or separate section in this document that deals with taāngata[31] whenua matters. Rather, tāngata whenua themes and issues have been integrated through this Plan to reinforce the Ngāi Tahu philosophy of *ki uta ki tai* (from mountians to sea)[32].

Water, and land, like all things in the natural world, are seen by Māori as having the spiritual qualities of mauri ~~(life force)~~[33] and wairua (spiritual dimension)[34]. 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, auhority)[35] of the kaitiaki (guardian)[36]. 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 taāngata[37] whenua in relation to waterbodies 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);

- ***Waāhi[38] tapu and other taonga*** - The protection of waāhi[39] 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 Taāhu[40] 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, hāpua (coastal/estuarine lagoon)[41], estuaries 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.

[28] Clause 16(2) amendment
[29] Te Rūnanga o Ngāi Tahu supplementary evidence
[30] Te Rūnanga o Ngāi Tahu supplementary evidence
[31] Clause 16(2) amendment
[32] Te Rūnanga o Ngāi Tahu supplementary evidence
[33] Te Rūnanga o Ngāi Tahu supplementary evidence
[34] Te Rūnanga o Ngāi Tahu supplementary evidence
[35] Te Rūnanga o Ngāi Tahu supplementary evidence
[36] Te Rūnanga o Ngāi Tahu supplementary evidence
[37] Clause 16(2) amendment
[38] Clause 16(2) amendment
[39] Clause 16(2) amendment
[40] Clause 16(2) amendment
[41] Te Rūnanga o Ngāi Tahu supplementary evidence

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)[42], nohoanga ~~(campsites alongside specified rivers and lakes)~~[43], mahinga kai, and taonga ~~(treasured or valued)~~[44] 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 places, ways of doing things, and resources that sustain the people.

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 o Ngāi Tahu on the landscape, and restores the ability of Ngāi Tahu to give practical effect to kaitiaki (guardian)[45] 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 primarily in the coastal marine area, mātaitai in Southland comprise of coastal and inland areas within the Mataura River Mātaitai Reserve, New Zealand's first freshwater mātaitai. Freshwater quality and quantity and land use have direct and indirect effects on the regulations of all mātaitai in Southland and Ngāi Tahu's execution of customary rights.

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 Mataura River Mātaitai Reserve being the first freshwater mātaitai in New Zealand. The quality and quantity of

[42] Te Rūnanga o Ngāi Tahu supplementary evidence
[43] Te Rūnanga o Ngāi Tahu supplementary evidence
[44] Te Rūnanga o Ngāi Tahu supplementary evidence
[45] Clause 16(2) amendment

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.[46]

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 waterbodies, 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~~, and the prevention or mitigation of effects from the use, storage, transport or disposal of hazardous substances~~[47]. 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

Under the Section 67(3) of the RMA, a regional plan must give effect to any operative national policy statement. There are currently five ~~three~~ [48]operative National Policy Statements:

- ***National Policy Statement for Freshwater Management 2014***

  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 NPS-FM ~~national policy statement is a first step~~ aims[49] to improve freshwater management at a national level to address the over-allocation of water in catchments for abstraction or discharges. This ~~p~~Plan[50], and the processes established for Freshwater Management Units, gives effect to the NPS-FM ~~this National Policy Statement~~.[51]

[46] 797.4 Te Rūnanga o Ngāi Tahu
[47] Consequence of RMA Amendment Act 2017
[48] Clause 16(2) amendment
[49] Clause 16(2) amendment
[50] Clause 16(2) amendment
[51] Clause 16(2) amendment

- ***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 ~~Coastal Policy Statement~~[52] is highly relevant to this Plan. The Plan's provisions ~~within the Water and Land Plan~~[53] 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 ~~Coastal Policy Statement~~.[54]

- ***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. This National Policy Statement includes a requirement for regional councils to include objectives, policies and methods to facilitate long-term planning for investment in transmission infrastructure and its integrations with land uses.[55]

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 ~~2012~~ 2017***[56]

  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

[52] Clause 16(2) amendment
[53] Clause 16(2) amendment
[54] Clause 16(2) amendment
[55] Clause 16(2) amendment – based on evidence from Transpower
[56] Clause 16(2) amendment

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 ~~two~~ [57]National Environmental Standards relevant to this ~~the Water and Land~~[58] 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.

[57] Clause 16(2) amendment
[58] Clause 16(2) amendment

- ***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.[59]

  Note: *This list of applicable National Policy Statements and National Environmental Standards is current at November 2017. Please see the Ministry for the Environment's website for any updates.*[60]

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

~~The other National Environmental Standards relate to Air Quality, Electricity Transmission and Telecommunications facilities and are less relevant to this Plan.~~[61]

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.

[59] In accordance with Section 44A RMA
[60] Clause 16(2) amendment – based on evidence from Transpower
[61] Clause 16(2) amendment

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 ~~(spiritual essence or life force)~~[62] 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 esturaries, freshwater lakes and coastal lagoons and lakes, which are all particularly sensitive to nutrient and sediment loads. Degraded estuary, lagoon and lake[63] 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 stream bank and bed erosion. To date, there has been little regulatory[64] management of non-point source discharges~~, particularly~~[65] 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

[62] Te Rūnanga o Ngāi Tahu supplementary evidence
[63] 752.6 Fish and Game
[64] Clause 16(2) amendment
[65] Clause 16(2) amendment

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 Power 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.[66]

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, heritage, cultural and spiritual values, with rivers and lakes used for a range of recreational and cultural activities, including walking, fishing, game bird hunting,[67] 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[68]. 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~~ecological~~[69] 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 ta~~a~~ngata whenua,[70] have a significant interest in the protection, management and restoration of indigenous ecosystems and biodiversity. This stems from their close interaction with

[66] 752.11 Fish and Game
[67] 752.12 Fish and Game
[68] 210.8 DOC
[69] 210.9 DOC
[70] Clause 16(2) amendment

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[71] 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 streams.

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 streams;
- ***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.

[71] Clause 16(2) amendment

Key transport pathways for contaminants:

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

Bedrock/Hill Country

The Bedrock/Hill Country physiographic zone is the largest in 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 streams;
- ***Artificial drainage (in some parts of the zone – (a) variant) –*** nitrogen, phosphorus, sediment and microbes to streams.

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

Old Mataura

The Old Mataura physiographic zone is located on the older, high terraces in the Mataura 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 Mataura 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 streams;
- ***Artificial drainage (in some parts of the zone – (a) variant) –*** nitrogen, phosphorus, sediment and microbes to streams.

Peat Wetlands

The Peat Wetlands physiographic zone was once extensive across Southland. However, today it accounts for is 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 streams;
- ***Lateral drainage*** – microbes and phosphorus to streams.

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 streams.

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 Environment Southland's Freshwater Management Unit process, in time, in accordance with Environment Southland's Progressive Implementation Programme.[72]

Objective 1

Land and water and associated ecosystems are sustainably[73] 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[74] the economic, social and cultural wellbeing of the region.

Objective 3

The mauri ~~(inherent health)~~[75] of waterbodies provide for te hauora o te tangata (health and mauri of the people)[76], te hauora o te taiao (health and mauri of the environment)[77] and te hauora o te wai (health and mauri of the waterbody)[78].

Objective 4

Taāngata[79] 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, mātaitai and taiāpure[80].

Objective 6

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

[72] 277.1 Fonterra
[73] 279.3 Forest and Bird
[74] 640.31 Pourakino CG
[75] Te Rūnanga o Ngāi Tahu supplementary evidence
[76] Te Rūnanga o Ngāi Tahu supplementary evidence
[77] Te Rūnanga o Ngāi Tahu supplementary evidence
[78] Te Rūnanga o Ngāi Tahu supplementary evidence
[79] Clause 16(2) amendment
[80] Mātaitai and taiāpure are defined in the Introduction to the Plan on page 11

(a) maintaining the quality of water in waterbodies, estuaries and coastal lagoons, where the water quality is not degraded and until Freshwater Management Unit processes establish water quality limits; and

(b) improving the quality of water in waterbodies, estuaries and coastal lagoons, that have been degraded by human activities to the point where freshwater objectives established under Freshwater Management Unit processes are not met[81].

Objective 7

Any further over-allocation of freshwater (water quality and quantity) is avoided and any[82] existing over-allocation is phased out in ~~in~~[83] accordance with freshwater objectives, freshwater quality limits and[84] timeframes established under Freshwater Management Unit processes.

Objective 8

(a) The quality of groundwater ~~in aquifers~~ that meet 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 ~~in aquifers~~ that ~~have been degraded by~~ does not meet Objective 8(a) because of the effects of land use ~~and~~ or discharge activities ~~(with the exception of those aquifers where ambient water quality is naturally less than the Drinking-Water Standards for New Zealand 2005 (revised 2008))~~ 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);[85] and

(2) groundwater meets any freshwater objectives and freshwater quality limits established under Freshwater Management Unit processes.[86]

Objective 9

~~(a)~~ The quantity of water in surface waterbodies is managed so that aquatic ecosystem health, life-supporting capacity, outstanding natural features and landscapes, ~~recreational values,~~[87] natural character, and ~~historic~~[88] heritage values of surface waterbodies ~~and their margins are~~[89] safeguarded.~~; and~~

Objective 9A

~~(b) Provided (a) is met, water is~~Surface water is sustainably managed ~~available both instream and out-of-stream~~[90] to support the reasonable needs of people and communities to provide for their social, economic and cultural wellbeing.

[81] 277.10 Fonterra
[82] 265.20 Federated Farmers
[83] Clause 16(2) amendment
[84] 803.9 FANZ
[85] 752.24 Fish and Game
[86] 277.11 Fonterra
[87] 414.1 INZ, 277.12 Fonterra
[88] Consequential to Kiwi Rail legal submission
[89] Clause 16(2) amendment
[90] 265.22 Federated Farmers

Objective 9B

The effective development, operation, maintenance and upgrade of Southland's regionally and nationally significant infrastructure is enabled.[91]

Objective 10

The national importance of ~~the~~ existing hydro-electric generation schemes, including the Manapōuri Power Scheme in the Waiau catchment, are~~is~~ provided for, and recognised in any resulting flow and level regime and their structures are considered as part of the existing environment[92].

Objective 11

The amount of water abstracted is shown to be reasonable for its intended use and[93] w~~W~~ater is allocated and used efficiently.

Objective 12

Groundwater ~~levels~~ quantity is sustainably managed, including safeguarding the life-supporting capacity, ecosystem processes and indigenous species of~~, and minimum~~ surface water bodies~~flows~~ where ~~these are~~ their flow is, at least in part,[94] derived from groundwater~~, are maintained~~[95].

Objective 13

Enable the use and development of land and soils to support the economic, social, and cultural wellbeing of the region.[96] ~~, provided:~~

Objective 13A[97]

~~(a)~~ ~~t~~The quantity, quality and structure of soil resources are not irreversibly degraded through land use activities ~~and~~ or[98] discharges to land.~~;~~

Objective 13B[99]

~~(b)~~ ~~t~~The ~~d~~Discharges of contaminants to land or water that have significant or cumulative adverse[100] effects on human health are avoided.~~; and~~

~~(c) adverse effects on ecosystems (including diversity and integrity of habitats), amenity values, cultural values and historic heritage values are avoided, remedied or mitigated to ensure these values are maintained or enhanced.~~[101]

[91] 330.2 GDC, ICC and SDC; 614.2 NZTA
[92] 562.1 Meridian
[93] 414.2 INZ, 752.27 Fish and Game
[94] Response to Hearing Panel's Questions, para 5.150
[95] 414.2 INZ
[96] 558.2 N McRae
[97] Consequential amendment to 558.2 N McRae
[98] Clause 16(2) amendment
[99] Consequential amendment to 558.2 N McRae
[100] 279.12 Forest and Bird, 342.2 H W Richardson Group, 390.5 Horticulture NZ, 661.9 Ravensdown Ltd, 803.11 FANZ
[101] 558.2 N McRae

Objective 14

The range and diversity of indigenous ecosystem types and habitats within ~~dryland environments,~~[102] 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[103] river and lake beds is maintained, and enhanced[104] except in circumstances where public health and safety are at risk.

Objective 17

The natural character values of wetlands, rivers and lakes and their margins,[105] including channel form, bed rapids, seasonably variable flows and natural habitats, are protected from inappropriate use and development.

Objective 18

All activities operate in accordance with (at least) ~~at~~ "good ~~(environmental)~~ management practice" or better to optimise efficient resource use, safeguard the life supporting capacity of ~~and protect~~ the region's land~~,~~ and soils, and maintain or improve the ~~water from~~ quality and quantity of the region's water resources. ~~degradation.~~[106]

[102] 411.2 ICC
[103] 752.32 Fish and Game
[104] 108.16 J Bythell, 752.32 Fish and Game
[105] 752.33 Fish and Game
[106] 277.16 Fonterra

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[107] to effectively undertake their kaitiaki (guardian/steward)[108] responsibilities in freshwater and land management through Environment Southland:

1. providing copies of all applications that may affect a Statutory Acknowledgement area, tōpuni (landscape features of special importance or value)[109], nohoanga, mātaitai or taiāpure to Te Rūnanga o Ngāi Tahu and the relevant papatipu rūnanga;
2. identifying Ngāi Tahu interests in freshwater and associated ecosystems in ~~Southland/~~Murihiku (Southland)[110];
3. reflect Ngāi Tahu values and interests in the management of and decision-making on freshwater and freshwater ecosystems in ~~Southland/~~Murihiku (Southland)[111], consistent with the Charter of Understanding.

Policy 2 – Take into account iwi management plans

Any assessment of an activity covered by this ~~p~~Plan[112] must:

1. take into account any relevant iwi management plan; and
2. assess water quality and quantity taking into account~~based on~~[113] 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.

[107] Papatipu rūnanga are defined in the Introduction to the Plan on page 9
[108] Te Rūnanga o Ngāi Tahu supplementary evidence
[109] Te Rūnanga o Ngāi Tahu supplementary evidence
[110] Clause 16(2) amendment
[111] Clause 16(2) amendment
[112] Clause 16(2) amendment
[113] 712.11 Seaview Trust & Oraka Farm

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 management plans;
3. prohibiting dairy farming, and intensive winter grazing and decision makers should generally not grant ~~strongly discouraging the granting of~~[114] 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 management plans.
3. decision makers should generally not grant resource consents for additional dairy farming of cows and additional intensive winter grazing where contaminant losses increase.[115]

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

In the Gleyed, Bedrock/Hill Country and Lignite-Marine Terraces[116] 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;
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 management plans.

~~Policy 7 – Bedrock/Hill Country~~

~~In the Bedrock/Hill Country 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 and artificial drainage where relevant;~~
2. ~~having particular regard to adverse effects on water quality from contaminants transported via overland flow and artificial drainage where relevant when assessing resource consent applications and preparing or considering management plans.~~

[114] 210.43 DOC
[115] 752.54 Fish and Game
[116] 895.3 Oil Companies

~~Policy 8 – Lignite-Marine Terraces~~

~~In the 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 overland flow and artificial drainage where relevant;~~

~~2. having particular regard to adverse effects on water quality from contaminants transported via overland flow and artificial drainage where relevant when assessing resource consent applications and preparing or considering management plans.~~ [117]

Policy 9 – Old Mataura

In the Old Mataura 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 management plans;
3. decision makers should not grant ~~strongly discouraging the granting of~~ resource consents for additional dairy farming of cows and additional intensive winter grazing where contaminant losses increase[118].

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 management plans.
3. decision makers should not grant resource consents for additional dairy farming of cows and additional intensive winter grazing where contaminant losses increase[119].

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 management plans;
3. decision makers should not grant ~~strongly discouraging the granting of~~ resource consents for additional dairy farming of cows and additional intensive winter grazing where contaminant losses increase.[120]

[117] Clause 16(2) amendment
[118] 661.13 Ravensdown
[119] 752.54 Fish and Game

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 management plans.
3. <u>decision makers should not grant resource consents for additional dairy farming of cows and additional intensive winter grazing where contaminant losses increase</u>[121].

<u>Policy 12A – Improved physiographic zone information</u>

<u>Where site specific information is available that better identifies the relevant physiographic zone or contaminant pathway, regard should be had to that information when undertaking activities on a site, when preparing Farm Environmental Management Plans, or when determining a resource consent application.</u>[122]

[120] 661.13 Ravensdown
[121] 752.56 Fish and Game and 797.19 Ngāi Tahu
[122] 277.39 Fonterra

Water Quality

Policy A4 of the National Policy Statement for Freshwater Management 2014

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 ~~secondary~~[123] 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 ~~secondary~~[124] 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

Manage land use activities and discharges (point source and non-point source) to land and water so that water quality and the health of humans~~,~~ domestic animals and aquatic life, is protected.

Policy 14 – Preference for discharges to land

Prefer discharges <u>of contaminants</u> to land, ~~rather than direct~~ <u>over</u> discharges <u>of contaminants</u> to water<u>, unless</u> adverse effects<u>, 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.</u> [125]

15A – Maintain water quality where standards are met:

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

[123] Consequence of NPS-FM amendment 2017
[124] Consequence of NPS-FM amendment 2017
[125] 48.21 Ballance, 330.4 GDC, ICC and SDC

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.

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 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.[126]

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

Following the establishment of freshwater objectives and limits under Freshwater Management Unit processes and through implementation of non-regulatory methods, improve water quality where it is degraded to the point where freshwater objectives are not being met and is otherwise maintain where freshwater objectives are being met.[127]

~~Policy 15 – Maintaining and improving water quality~~

~~Maintain and improve water quality by:~~

1. ~~despite any other policy or objective in this Plan, avoiding new discharges to surface waterbodies that will reduce water quality beyond the zone of reasonable mixing;~~
2. ~~avoiding point source and non-point source discharges to land that will reduce surface or groundwater quality, unless the adverse effects of the discharge can be avoided, remedied or mitigated;~~
3. ~~avoiding land use activities that will reduce surface or groundwater quality, unless the adverse effects can be avoided, remedied or mitigated; and~~
4. ~~avoiding discharges to artificial watercourses that will reduce water quality in a river, lake or moidified watercourse beyond the zone of reasonable mixing;~~

~~so that:~~

1. ~~water quality is maintained where it is better than the water quality standards specified in Appendix E "Water Quality Standards"; or~~
2. ~~water quality is improved where it does not meet the water quality standards specified in Appendix E "Water Quality Standards"; and~~
3. ~~water quality meets the Drinking Water Standards for New Zealand 2005 (revised 2008); and~~
4. ~~ANZECC sediment guidelines (as shown in Appendix C of this Plan) are met.~~

[126] 17.19 Alliance, 614.3 NZTA, 895.27 Oil Companies, 330.5 GDC, ICC and SDC
[127] 277.23 Fonterra

Policy 16 – Farming activities that affect water quality

1. Minimising the adverse environmental effects (including on the quality of water in rivers, coastal lakes, lagoons, tidal estuaries, salt marshes and coastal wetlands, and groundwater) from farming activities by:
   (a) ~~strongly~~[128] 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 ~~Q~~ A[129]; and
   (b) ensuring that, in the interim period prior to the development of freshwater objectives under Freshwater Management Unit processes,[130] ~~strongly discouraging~~ applications to establish new, or further intensify existing dairy farming of cows or intensive winter grazing activities will not be granted where:
      (i) the adverse effects, including cumulatively, on the quality of water~~, including cumulatively,~~[131] of groundwater, ~~waterbodies,~~ lakes, rivers, modified water courses, wetlands,[132] coastal lakes, lagoons, tidal estuaries, salt marshes and coastal wetlands cannot be avoided or fully mitigated; or
      (ii) ~~in areas where~~ existing water quality is already degraded to the point of being overallocated; or
      (iii) does not meet the Appendix E Water Quality Standards or bed sediments do not meet the Appendix C ANZECC sediment guidelines;
   (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). should not be granted where freshwater objectives are not being met; and
      (ii). where freshwater objectives are being met, should not be granted unless the proposed activity (allowing for any offsetting effects) will maintain the overall quality of groundwater and water in lakes, perennial rivers, modified water courses, wetlands, coastal lakes, lagoons, tidal estuaries, salt marshes and coastal wetlands.[133]
2. Requiring all farming activities, including existing activities, to:
   (a) ~~either~~ implement a Farm Environmental[134] Management Plan, as set out in Appendix N~~, or be listed on the Environment Southland Register of Independently Audited Self-Management Participants~~;
   (b) actively manage sediment run-off risk from farming and hill country development by requiring setbacks from waterbodies, riparian planting, limits on areas or duration of exposed soils and the prevention of stock entering the beds of[135] surface waterbodies;
   (c) manage collected and diffuse run-off and leaching of nutrients, microbial contaminants and sediment through the identification and management of higher risk physiographic zones on a regional scale, and critical source areas within individual properties.
3. When considering a resource consent application for farming activities, consideration should be given to the following:
   (a) whether multiple farming activities, such as cultivation, setbacks, and winter grazing can be addressed in a single resource consent;
   (b) that a normal duration of the consent would be at least 5 years; and
   (c) whether the consent can enable flexibility to accommodate market and climatic changes.[136]

[128] Clause 16(2) amendment
[129] 210.101 DOC, 279.126 Forest and Bird and 752.193 Fish and Game.
[130] 277.1 Fonterra
[131] Clause 16(2) amendment
[132] 752.60 Fish and Game
[133] 277.24 Fonterra (for new (c))
[134] 247.1 Environment Southland
[135] 210.55 DOC
[136] 179.1 Crooks, J and S; 450.1 Kmore Farming Ltd

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

Minimise the adverse environmental effects (including on the quality of water in lakes, perennial rivers, modified water courses, wetlands, coastal lakes, lagoons, tidal estuaries, salt marshes and coastal wetlands, 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.[137]

Policy 17 – Effluent management

1. Avoid significant adverse effects on water quality, and avoid, remedy, or mitigate as far as practicable[138] other adverse environmental effects of the operation of, and discharges from effluent management systems.
2. Manage effluent systems and discharges from them by:
   (a) designing, constructing and locating systems appropriately and in accordance with best practice~~standards~~[139];
   (b) maintaining and operating effluent systems in accordance with best practice guidelines;
   (c) avoiding any surface run-off/overland flow, ponding or contamination of water including via sub-surface drainage,[140] resulting from the application of agricultural effluent to pasture;
   (d) avoiding the discharge of ~~raw sewage and~~[141] untreated agricultural effluent to water.

   Note: *Examples of best practice referred to in 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.*[142]

   Note: *Examples of best practice guidelines referred to in 17(2)(b) for agricultural effluent include DairyNZ's guidelines A Farmer's Guide to Managing Farm Dairy Effluent – A Good Practice Guide for Land Application Systems, 2015 and A Staff Guide to Operating Your Effluent Irrigation System, 2013.*[143]

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;
   (b) Implementing contingency 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, and avoid, remedy, or mitigate the adverse effects of discharges from on-site wastewater systems by:
   (a) Avoiding any surface run-off/overland flow, ponding of contamination of water from the application of domestic effluent to land; and

[137] 277.40 Fonterra
[138] 265.48 Federated Farmers; 752.61 Fish and Game
[139] 247.4 Environment Southland
[140] 752.61 Fish and Game; 210.56 DOC
[141] 411.31 GDC, ICC, SDC; 440.1 Kent, R
[142] 877.21 A Wilson
[143] 189.14 DHL

(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. [144]

Policy 18 – Stock exclusion from waterbodies

Reduce sedimentation and microbial contamination of waterbodies and improve river and riparian ecosystems and habitats by:

1. requiring progressive exclusion of all stock, except sheep, from ~~all waterbodies, including artificial watercourses,~~ lakes, rivers (including intermittent but excluding ephemeral watercourses), natural wetlands, artificial watercourses, modified watercourses, estuaries and lagoons[145] on land with a slope of less than 16° by 2030~~2025 , and~~[146];
2. requiring the the management of sheep in critical source areas and in those catchments where *E.coli* levels fail to meet the National Objectives Framework secondary contact bottom line[147];
2. ~~requiring adoption of management plans that set out methods and timeframes to achieve these outcomes;~~[148]
3. encouraging the establishment and enhancement of healthy vegetative cover in riparian areas, particularly through use of indigenous vegetation;
4. ensuring that when stock access ~~waterbodies, including artificial watercourses,~~ lakes, rivers (including intermittent but excluding ephemeral watercourses), natural wetlands, artificial watercourses, modified watercourses, estuaries and lagoons[149] this is managed in a manner that avoids significant adverse effects on water quality, bed and bank integrity and stability, mahinga kai, and aquatic~~, river~~[150] and riparian ecosystems and habitats.

[144] 411.31 GDC, ICC, SDC; 440.1 Kent, R
[145] 247.41 Environment Southland
[146] 610.1 NZ Deer
[147] 752.62 Fish and Game
[148] 265.49 Federated Farmers
[149] 609.2 NZ Deer
[150] Clause 16(2) amendment

Water Quantity

Policy B7 of the National Policy Statement for Freshwater Management 2014

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:

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[151];
   (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 ~~rights of~~ reliability of supply for lawful existing surface water[152] users, including those with existing, but not yet implemented, resource consents[153];
   (h) groundwater quality and quantity;
   (i) ~~historic~~ heritage values of surface water bodies[154];
   (j) mātaitai, taiāpure and nohoanga[155];
2. avoid, remedy or mitigate significant adverse effects from the use and development of groundwater resources on[156]:
   (a) long-term aquifer storage volumes;
   (b) the reliability of supply for existing groundwater users, including those with existing but not yet implemented, resource consents[157];

[151] 752.63 Fish and Game
[152] Clause 16(2) amendment
[153] 189.16 DHL
[154] Consequential to Kiwi Rail legal submissions
[155] Mātaitai and taiāpure are defined in the Introduction to the Plan on page 11
[156] Clause 16(2) amendment
[157] 189.16 DHL

(c) surface water flows and levels, particularly in spring-fed streams, natural wetlands and lakes, and aquatic ecosystems and habitats, including life supporting capacity and ecosystem health and processes of waterbodies, and their natural character[158]; and

(d) water quality;

3. ensure water is used efficiently and reasonably by requiring that the rate and volume of abstraction ~~and abstraction volumes~~ 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[159];
4. recognise the positive effects resulting from the use and development of water resources.

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,[160] minimum groundwater level cutoffs and/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)[161]is not adversely affected
4. when considering levels of abstraction, recognise the need to exlude takes for non-consumptive uses that return the same amount (or more) water to the same aquifer or a hydraulically connected ~~surface waterbody~~ lake, river, modified watercourse, natural wetland, coastal lagoon, or estuary[162].[163]

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 ~~base flow of any waterway is depleted, in order to protect~~[164] the mauri of that waterway and mahinga kai, ~~or~~ taonga species, or trout and salmon;[165]
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 ~~with a daily volume exceeding 86 cubic metres per day~~ on surface waterbodies; and
   (b) assess and manage the effects of consented groundwater abstractions ~~with a daily volume exceeding 86 cubic metres per day~~ in groundwater management zones other than those specified in Appendix L.5.

[158] 752.63 Fish and Game
[159] 247.5 Environment Southland
[160] 752.64 Fish and Game
[161] 189.17 DHL
[162] 247.41 Environment Southland – definition of surface waterbody
[163] 277.28 Fonterra, 895.29 Oil Companies
[164] 277.29 Fonterra
[165] 752.65 Fish and Game

Policy 23 – Stream depletion effects

Manage stream depletion effects resulting from groundwater takes ~~with a daily average rate of take exceeding 2 litres per second~~[166] which are classified as having a Riparian, ~~Direct,~~ [167] 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, High or Moderate hydraulic connection[168];
2. result in abstraction occurring when surface water flows or levels less than prescribed minimum flows or levels ~~or long-term baseflow~~ for groundwater takes classified as Riparian or High hydraulic connection[169].

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[170]:
   (a) the quality and quantity of aquatic habitat, including the life supporting capacity and ecosystem health and processes of waterbodies[171];
   (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
   (h) ~~historic~~ heritage values of surface water bodies.[172]~~; and~~
2. ~~p~~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, Environment Southland will give priority to reasonable water abstractions for the following uses (in no particular order)[173]:

1. ~~reasonable~~ domestic needs, including community water supplies[174];
2. reasonable animal drinking needs;
3. fire-fighting purposes;
4. public health needs; and~~or~~

~~6~~5.[175] animal welfare needs.

[166] Clause 16(2) amendment [Note Table L.2 refers to 2 L/s and 5 L/s]
[167] Clause 16(2) amendment - Response to Hearing Panel's Questions, para 8.294
[168] 277.30 Fonterra
[169] 277.30 Fonterra
[170] 752.67 Fish and Game
[171] 752.67 Fish and Game
[172] Consequential amendment relating to 449.33 KiwiRail
[173] Clause 16(2) amendment
[174] 330.7 GDC, ICC, SDC
[175] Clause 16(2) amendment

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 facilities in the Waiau catchment), ~~and~~ the national, regional and local benefits of~~relevant to~~ 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,[176] 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 upgrade 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.[177]

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 streams and modified watercourses) and lakes

Manage structures~~, and~~ bed disturbance activities and associated discharges[178] in the beds and margins[179] of rivers and lakes, to avoid, remedy or mitigate adverse effects on:

1. water quality and quantity;
2. habitats, ecosystems and fish passage;
3. indigenous biological diversity;
4. ~~historic~~ heritage values of surface water bodies[180];
5. the spiritual and cultural values and beliefs of the tangata whenua;
6. mātaitai and taiāpure[181];
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; ~~and~~
12. navigational safety; and[182]
13. landscape values.[183]

[176] 562.6 Meridian
[177] 330.10 GDC, ICC, SDC, Transpower and others
[178] 562.7 Meridian
[179] 752.69 Fish and Game
[180] Consequential amendment relating to 449.33 Kiwirail
[181] Mātaitai and taiāpure are defined in the Introduction to the Plan on page 11
[182] Clause 16(2) amendment
[183] 210.61 DOC

Policy 29 – Provide for the extraction of gravel

Recognise the value of gravel and provide[184] for ~~the~~ its extraction ~~of gravel~~ to meet the social, economic and cultural[185] needs of the community, in a way that avoids, remedies or mitigates adverse effects on land, groundwater quality;[186] ~~and~~ rivers and their margins; and:

1. for river based extractions, requires the restoration of ~~maintains or enhances~~ aquatic and riparian habitat once the gravel extraction activity has ceased;[187] ~~or~~ and[188]
2. ~~ensures~~ results in no long-term net loss of habitat in the river channel, bed ~~and~~ or floodplain; and
2a. ensures that the rate and volume of gravel extraction is sustainable; ~~or~~ and[189]
3. ~~maintains or enhances~~ ensures no degradation of flood protection and~~,~~ erosion control ~~or~~ infrastructure and[190] 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 ~~mahinga kai and~~ taonga species habitat, mahinga kai[191], mātaitai and taiāpure[192]; and
5. ~~does not adversely affect~~ results in no long-term adverse effects on recreational values.; and[193]
6. maintains public access (except in circumstances where public health and safety are at risk).[194]

Policy 30 – Drainage maintenance

In recognition of the community benefits of maintaining flood 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, modified watercourses and streams 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[195] ~~to improve soil health, water quality, water quantity and ecosystem health~~.

[184] 288.22 Fulton Hogan
[185] 10.1 AQA; 288.22 Fulton Hogan & Southern Aggregates
[186] 288.22 Fulton Hogan
[187] 288.22 Fulton Hogan
[188] 279.35 Forest and Bird; 749.56 SCB
[189] 752.70 Fish and Game
[190] 279.35 Forest and Bird
[191] 797.26 Te Rūnanga o Ngāi Tahu
[192] Mātaitai and taiāpure are defined in the Introduction to the Plan on page 11
[193] 342.5 H W Richardson Group
[194] 279.35 Forest and Bird; 752.70 Fish and Game
[195] Relates to 48.24 Balance; 411.17 ICC; 614.7 NZTA; 640.23 Pourakino CG; and others

Policy 33 – Adverse effects on natural wetlands

Prevent the reduction in area, function and quality of natural[196] wetlands, including through drainage, discharges[197] and vegetation removal.

Policy 34 – Restoration of existing wetlands, ~~and~~ the creation of wetlands and riparian planting[198]

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[199]wetlands and the creation of new wetlands; and
2. the establishment of wetland areas and associated indigenous riparian plantings[200], including on-farm, in subdivisions, on industrial sites and for community sewage schemes; and
3. offsetting peak flows and assisting with flood control.

Policy 35 – Discharge waste and cleanfill appropriately

Ensure that sites used for the discharge of contaminants as waste or cleanfill ~~occurs at an~~ are appropriate ~~site~~.[201]

Policy 36 – Manage contaminated land ~~contamination~~[202]

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 ~~adverse effects~~[203] on the environment arising from climate change, particularly taking ~~by recognising and providing for the development and protection of the built environment and infrastructure in a manner that takes~~ into account the potential effects of rising sea levels and the potential for more variable and extreme weather patterns in coming decades.[204]

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.

[196] 640.24 Pourakino CG
[197] 742.8 SIEIA
[198] 277.33 Fonterra
[199] 640.25 Pourakino CG
[200] 277.33 Fonterra
[201] Clause 16(2) amendment
[202] 895.33 Oil Companies
[203] Evidence of Mr T Davidson for Te Rūnanga o Ngāi Tahu
[204] 210.68 DOC

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, Environment Southland should~~will~~[205] 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[206]~~: To improve~~ [207]

1. the integrated management of freshwater and the use and development of ~~land in whole catchments,~~ including the interactions between freshwater, land and associated ecosystems (including estuaries)~~.~~;
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.[208]

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[209] 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, ~~plus material to support~~[210] 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[211]; 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 ~~any~~[212] revised frameworks established in those sections.

Policy 41 – Matching monitoring to risk

Consider the risk~~magnitude~~ of adverse environmental effects ~~and risk~~ occurring and their likely magnitude[213] when determining requirements for auditing and supply of monitoring information on resource consents.

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[205] Statement of Evidence of Mr Willis on behalf of Fonterra at paragraph 9.7.
[206] 390.18 Hort NZ
[207] Clause 16(2) amendment
[208] 189.21 Dairy Holdings
[209] Clause 16(2) amendment
[210] Clause 16(2) amendment
[211] 647.3 Progressive Engineering Southland
[212] Clause 16(2) amendment
[213] 661.28 Ravensdown

Policy 42 – Consideration of water permit applications

When considering resource consent applications for water permits to take water:[214]

1. except for non-consumptive uses,[215] consent will not be granted if a waterbody is over allocated or fully allocated; or to ~~do so~~ grant consent would result in a waterbody becoming over allocated or ~~over-allocation being increased~~ would not allow an allocation target for a waterbody to be achieved within a time period defined in this Plan;[216]
2. except for non-consumptive uses,[217] consents replacing an expiring resource consent for an abstraction from an over-allocated waterbody will generally only be granted at a reduced rate, ~~may be granted with a lesser volume and rate or~~ the reduction being ~~take~~[218] proportional to the amount of over-allocation and previous use, using the method set out in Appendix O;[219]
3. installation of water measuring devices will be required on all new permits to take and use water~~,~~ and existing permits in accordance with the Resource Management (Measurement and Reporting of Water Takes) Regulations 2010;
4. where appropriate, minimum level and/or flow cut-offs and seasonal recovery triggers on resource consents for groundwater abstraction will be imposed;
5. conditions will be specified relating to a minimum flow~~/~~ or level, or environmental flow or level regime (which may include flow sharing)[220], in accordance with Appendix ~~L~~K[221], ~~to~~ for all new or replacement resource consents (except for water permits for non-consumptive uses,[222] community water supplies and waterbodies 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 ~~where there is Riparian, Direct or High degree of hydraulic connection~~ in accordance with Policy 23 "Stream Depletion Effects" ~~and the stream depletion effect exceeds two litres per second~~.

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 ~~and~~ or[223] 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 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[224] and effects of the new abstraction are consistent with the provisions of this Plan.

[214] 661.29 Ravensdown
[215] 277.37 Fonterra
[216] 752.82 Fish and Game; 279.48 Forest and Bird
[217] 277.37 Fonterra
[218] 797.28 Ngāi Tahu
[219] 189.24 DHL
[220] 752.82 Fish and Game
[221] 17.23 Alliance
[222] 277.37 Fonterra
[223] Clause 16(2) amendment
[224] 210.72 DOC

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 ~~to be~~ determined in the ~~f~~Freshwater ~~m~~Management ~~u~~Unit limit setting process:

- Te Hauora o te Wai~~/~~ (the health and mauri of water)[225];
- Te Hauora o te Tangata~~/~~ (the health and mauri of the people)[226];
- Te Hauora o te Taiao~~/~~ (the health and mauri of the environment)[227];
- Mahinga kai~~/ (food gathering, places of food)~~[228];
- Mahi māra~~/~~ (cultivation)[229];
- Wai Tapu~~/~~ (Sacred Waters)[230];
- Wai Māori~~/~~ (municipal and domestic water supply)[231];
- Āu Putea~~/~~ (economic or commercial value~~development~~)[232];
- He ara haere~~/~~ (navigation)[233].

Policy 45 – Priority of FMU values, objectives[234] policies and rules

~~1.~~ [235]In response to Ngāi Tahu and community aspirations and local water quality and quantity issues, FMU sections may include additional catchment-specific values, objectives~~, and~~ policies~~, values and~~ attributes, rules and limits which ~~These FMU objectives and policies~~ will be read and considered together with the Region-wide Objectives and Region-wide Policies. Any ~~policy~~ provision on the same subject matter in the relevant FMU section of this Plan prevails over the relevant ~~policy~~ provision[236] within ~~this~~ the Region-wide Objectives and ~~Regional~~ Region-wide Policy ~~Policies~~ 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~~, and will not deviate from the structure and methodology outlined in these Process Policies~~.[237]

Note: *~~As the FMU sections are developed in a specific geographical area, it is~~ 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.*

[225] Te Rūnanga o Ngāi Tahu supplementary evidence
[226] Te Rūnanga o Ngāi Tahu supplementary evidence
[227] Te Rūnanga o Ngāi Tahu supplementary evidence
[228] Te Rūnanga o Ngāi Tahu supplementary evidence
[229] Te Rūnanga o Ngāi Tahu supplementary evidence
[230] Te Rūnanga o Ngāi Tahu supplementary evidence
[231] Te Rūnanga o Ngāi Tahu supplementary evidence
[232] Te Rūnanga o Ngāi Tahu supplementary evidence
[233] Te Rūnanga o Ngāi Tahu supplementary evidence
[234] 661.30 Ravensdown
[235] Clause 16(2) amendment
[236] 265.38 Federated Farmers
[237] 265.63 Federated Farmers

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 7: Freshwater Management Units:

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

Policy 47 – FMU processes

The FMU sections will:

1. ~~establish freshwater~~ identify values and establish freshwater[238] objectives for each Freshwater Management Unit, including where appropriate at a catchment or sub-catchment level,[239] ~~catchment,~~ 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 2017~~2014~~[240];
2. set water quality and water quantity limits and targets to achieve the freshwater objectives;
3. set methods to phase out any over-allocation, within a specified timeframe; and
4. assess water quality and quantity taking into account ~~based on~~[241] Ngāi Tahu indicators of health.

[238] 256.64 Federated Farmers, 390.20 Hort NZ
[239] 562.9 & 562.10 Meridian
[240] Consequence of NPS-FM amendment 2017
[241] 25.21 Ardel Dairies

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 nothing in this Regional Plan controls any activity specifically regulated by the Resource Management (National Environmental Standards for Plantation Forestry) Regulations 2017.

Nothing in this Regional Plan controls any activity specifically regulated by the Resource Management (National Environmental Standards for Electricity Transmission Activities) Regulations 2009.[242]

Rule 1

Any activity must comply with all applicable rules within the ~~Regional~~ Region-wide Rules ~~S~~section[243] of this Plan, unless it is explicitly stated to the contrary in any other applicable rule in this Plan.

Rule 2

Any rule on the same subject matter in the relevant FMU section of this Plan prevails over the relevant rule within the ~~Regional~~ Region-wide Rules ~~S~~section [244], unless it is explicitly stated to the contrary in any applicable rule in this Plan.

Rule 3

When considering applications for controlled activities or restricted discretionary activities, in addition to the matters over which:

(a) control is reserved; or
(b) 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

Any activity that:

(a) would otherwise contravene Sections 13(1), 14(2), 14(3) or 15(1) of the RMA; and
(b) 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.*

[242] Clause 16(2) amendment
[243] Clause 16(2) amendment
[244] Clause 16(2) amendment

Discharge Rules

Rule 5 – Discharges to surface waterbodies ~~that meet water quality standards~~[245]

Except as provided for elsewhere in this Plan the discharge of any:

(a) contaminant, or water, into a ~~surface waterbody~~ lake, river, modified watercourse, natural wetland, coastal lagoon or estuary[246]; or

(b) contaminant onto or into land in circumstances where it may enter a ~~surface waterbody~~ lake, river, modified watercourse, natural wetland, coastal lagoon or estuary[247];

is a discretionary activity provided the following conditions are ~~is~~[248] met:

(i) where the water quality upstream of the discharge meets the standards set for the relevant waterbody in Appendix E "Water Quality Standards", the discharge does not reduce the water quality below those ~~any~~ standards at the downstream edge of the reasonable mixing zone ~~set for the relevant waterbody in Appendix E "Water Quality Standards" at the downstream edge of the reasonable mixing zone~~[249]; ~~and~~or

(ii) where the water quality upstream of the discharge does not meet the standards set for the relevant waterbody 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

(iii) Except for a Territorial Authority reticulated system, the discharge does not contain any raw sewage.

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

Except as provided for elsewhere in this Plan the discharge of any:

(a) contaminant, or water, into a ~~surface waterbody~~ lake, river, modified watercourse, natural wetland, coastal lagoon or estuary[250]; or

(b) contaminant onto or into land in circumstances where it may enter a ~~surface waterbody~~ lake, river, modified watercourse, natural wetland, coastal lagoon or estuary,[251] that does not meet the conditions in Rule 5;

is a non-complying activity.

~~Rule 7 – Other discharges to water~~

~~Except as provided for elsewhere in the Plan, the discharge of any contaminant or water into water is a discretionary activity.~~[252]

Rule 8 – Discharges of surface water

Except as provided for elsewhere in this Plan, t~~T~~he discharge of surface water into a ~~surface waterbody~~ lake, river, modified watercourse, natural wetland, coastal lagoon, estuary[253] or artificial watercourse is a controlled activity provided the following conditions are met:

[245] 562.11 Meridian
[246] 247.41 Environment Southland – definition of surface waterbody
[247] 247.41 Environment Southland – definition of surface waterbody
[248] Cl 16, Schedule 1 RMA
[249] Cl 16, Schedule 1 RMA
[250] 247.41 Environment Southland – definition of surface waterbody
[251] 247.41 Environment Southland – definition of surface waterbody
[252] 17.27 Alliance
[253] 247.41 Environment Southland – definition of surface waterbody

(a) the discharge was lawfully established prior to 1 January 2010; and[254]
(b) the lawfully established discharge point has not changed; and
(c) 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:
    (i) the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials; or[255]
    (ii) any conspicuous change in visual clarity; or
    (iii) the rendering of freshwater unsuitable for consumption by farm animals; or
    (iv) any significant adverse effects on aquatic life~~, other than the target species~~[256].

Environment Southland will restrict 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; and
2. erosion of the bed or banks of the receiving ~~surface waterbody~~ lake, river, modified watercourse, natural wetland, coastal lagoon, estuary[257] or artificial watercourse~~,~~ as a result of the discharge; and
3. actual or potential effects on existing water users and aquatic ecosystems.[258]

Rule 9 – Discharge of agrichemicals onto or into surface water

The discharge of agrichemicals and any associated wetting, antifoaming and anti-drifting agent and marker dyes, into or onto[259] surface water, is a permitted activity provided the following conditions are met:

(a) 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[260]
(b) 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
(ba) The discharge shall be 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[261]; and
(c) all practicable measures are taken to minimise spray drift beyond the target area; and
(d) at the downstream edge of the reasonable mixing zone[262], the discharge does not give rise to any of the following effects in the receiving water:
    (i) the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials; or[263]
    (ii) any conspicuous change in visual clarity; or
    (iii) the rendering of freshwater unsuitable for consumption by farm animals; or
    (iv) any significant adverse effects on aquatic life, other than the target species; and

[254] Clause 16(2) amendment
[255] Clause 16(2) amendment
[256] 330.12 GDC, IDC and SDC
[257] 247.41 Environment Southland – definition of surface waterbody
[258] Clause 16(2) amendment
[259] 390.24 Hort NZ
[260] Clause 16(2) amendment
[261] 390.24 Hort NZ
[262] Clause 16(2) amendment
[263] Clause 16(2) amendment

(e) there is no adverse effect on any water take~~s~~ permitted by the RMA, this Plan or under a resource consent; and

~~(f) there are no recorded historic heritage sites in the surface waterbody or artificial watercourse, at the point of discharge or within 1 km downstream of the discharge point;~~[264]

(g) the discharge ~~does not take place~~ must not be into water within natural state waters, a mātaitai reserve or taiāpure[265][266] ~~or into waters subject to a water conservation order~~[267], or occur 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[268]; and

(h) the discharge must not be into waters subject to the Mataura River Water Conservation Order or identified in item 1 of Schedule 1 of the Oreti River Water Conservation Order, unless the discharge is undertaken pursuant to the Soil Conservation and Rivers Control Act 1941[269] or by a provider of regional, national or critical infrastructure as part of infrastructure maintenance or protection activities.[270]

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.*[271]

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 is set out in Appendix T.*[272]

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

The discharge of agrichemicals and any associated wetting, antifoaming and anti-drifting agents and marker dyes onto or into land including[273] where they may enter water is a permitted activity provided the following conditions are met:

(a) 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[274]

(b) all practicable measures are taken to minimise spray drift beyond the target area[~~275~~]; and

(c) the discharge ~~shall~~ must[276] not be to a mātaitai reserve or taiāpure[277][278] 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 Mataura River Water Conservation Order or identified in

[264] 265.78 Federated Farmers
[265] Mātaitai and taiāpure defined in the introduction at page 11
[266] 797.33 Ngāi Tahu
[267] 247.6 Environment Southland; 523.6 G McGregor; and others
[268] 17.29 Alliance
[269] 247.6 Environment Southland
[270] 614.16 NZTA
[271] Clause 16(2) amendment
[272] Consequential amendment relating to 449.33 Kiwi Rail
[273] 698.3 Rural Contractors of NZ (G Mathieson)
[274] Clause 16(2) amendment
[~~275~~] Appendix D of this Plan contains an extract from New Zealand Standard 8409: 2004 (Management of Agrichemicals) providing guidance on minimising spray drift
[276] Clause 16(2) amendment
[277] Mātaitai and taiāpure defined in the introduction at page 11
[278] 797.34 Te Rūnanga o Ngāi Tahu

item 1 of Schedule 1 of the Oreti River Water Conservation Order.[279] ~~natural state waters or to waters subject to a water conservation order.~~[280]

Rule 11 - Discharge of vertebrate pest control poisons

The discharge of ~~vertebrate pest control poisons, including sodium monofluoroacetate (1080), baits, pre-feed and deer repellent~~ a vertebrate toxic agent, other than those complying with the Resource Management (Exemption) Regulations 2017,[281] into or onto land where it may enter water is a permitted activity provided the following conditions are met:

(a) the vertebrate toxic agent ~~agrichemical~~[282] 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[283]

(b) 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 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.*[284]

Rule 12 – Discharge of non-toxic dyes

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

Environment Southland will restrict the exercise of its control to the following matters:

(a) the type of dye used;
(b) the amount of dye used and the rate of application;
(c) any requirements for public notice of the ~~test~~ investigation occurring;
(d) duration of the ~~test~~investigation[285].

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

Rule 13 – Discharge from ~~installed~~[286] 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:[287]
    (i) the discharge does not cause:[288]
        (1) a ~~there is no~~ conspicuous change to the colour and/or clarity of the receiving waters ~~at a distance of~~ beyond 20 metres from the point of discharge; or[289]

[279] 247.7 Environment Southland
[280] 247.7 Environment Southland, 523.7 G McGregor and 614.17 NZTA
[281] 620.1 OSPRI
[282] 390.26 Hort NZ
[283] Clause 16(2) amendment
[284] Clause 16(2) amendment
[285] Clause 16(2) amendment
[286] 277.41 Fonterra
[287] Clause 16(2) amendment
[288] 640.33Pourakino CG; 386.7 Hopcroft Farms Ltd, 235.1 Eade
[289] Clause 16(2) amendment

(2) conspicuous oil or grease films, scrums or foams, or floatable or suspended materials beyond 20 metres from the point of discharge; and[290]

(ii) the discharge does not render freshwater unsuitable for consumption by farm animals; and[291]

(iii) the discharge does not cause ~~or exacerbate~~[292] the flooding of any other landholding; and[293]

(iv) the discharge does not cause any scouring or erosion of any land or bed of a waterbody beyond the point of discharge; and[294]

(v) for any new drains or the maintenance or upgrading of existing drains, the location of the sub-surface drains and outlet relative depth and position is mapped and provided to Environment Southland upon request; and[295]

(vi) the discharge does not cause any significant adverse effects on aquatic life~~.~~; and[296]

(vii) the subsurface drainage system does not drain a natural wetland; and[297]

(viii) for any known existing drains and for any new existing drains, the locations of the drain outlets are mapped and provided to Environment Southland on request.[298]

(b) The discharge of land drainage water to water from an on–farm subsurface drainage system that does not comply with Rule 13(a)~~,~~[299] is a discretionary activity.

Rule 14 – Discharge of fertiliser

(a) The discharge of fertiliser onto or into[300] land[301] 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 [302]there is no direct discharge of fertiliser into a ~~surface waterbody~~ lake, river (including intermittent, but excluding ephemeral watercourses), modified watercourse, natural wetland, coastal lagoon, estuary,[303] or to[304] water in an artificial watercourse 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[305] that includes surface water[306]; and[307]

(iv) where any lake, river (including intermittent, but excluding ephemeral watercourses), modified watercourse, natural wetland, coastal lagoon, estuary,[308] artificial 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

[290] 752.105 Fish and Game; 279.63 Forest and Bird
[291] Clause 16(2) amendment
[292] 420 Wallace Jack
[293] Clause 16(2) amendment
[294] Clause 16(2) amendment
[295] Clause 16(2) amendment
[296] 247.8 Environment Southland
[297] 247.8 Environment Southland
[298] 133.2 Civil Tech, 760 St Patricks Farm
[299] Clause 16(2) amendment
[300] Clause 16(2) amendment
[301] 698.4 Rural Contractors of NZ (G Mathieson)
[302] 497.1 Mainland Minerals
[303] 247.41 Environment Southland – definition of surface waterbody
[304] Clause 16(2) amendment
[305] 661.35 Ravensdown
[306] 48.31 Ballance
[307] 247.8 Environment Southland
[308] 247.41 Environment Southland – definition of surface waterbody

(2) does not have riparian planting from which stock is excluded, fertiliser is not discharged directly into or within 3 ~~10~~[309] metres of the bed or within 3 ~~10~~[310] metres of a wetland boundary ~~or any identified significant indigenous biodiversity site~~[311].

(b) The discharge of fertiliser 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 a ~~surface waterbody~~ lake, river, natural wetland, modified watercourse or, ~~including an~~[312]artificial watercourse, is a permitted activity provided the following conditions are met:

(i) the discharge is not from a reticulated system; and[313]

(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, other than from a Territorial Authority reticulated system, does not contain any sewage, contaminants from on-site wastewater systems and mobile toilets, or agricultural effluent; and

(iv) for discharges to a ~~surface waterbody~~ lake, river, natural wetland, modified or artificial watercourse[314] the discharge does not result in:

(1) the production of any conspicuous oil or grease films, scums, foams or floatable or suspended materials; or[315]

(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[316]; 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.

(b) The discharge of stormwater onto or into land where contaminants may enter water or into a lake, river, natural wetland, modified or artificial watercourse that does not meet Rule 15(a)(i) is a discretionary activity provided the following conditions are met:

(i) the reticulated system is owned and operated by a Territorial Authority; 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:

[309] 296.3 Gardyne Trust & C K Gardyne, 365.2 M & D Heenan and others
[310] 296.3 Gardyne Trust & C K Gardyne, 365.2 M & D Heenan and others
[311] 48.31 Ballance
[312] 247.41 Environment Southland
[313] Clause 16(2) amendment
[314] 247.41 Environment Southland
[315] Clause 16(2) amendment
[316] 752.107 Fish and Game

(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 discharges; and

(2) a monitoring and investigation programme to identify and remedy 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. [317]

(~~b~~c) The discharge of stormwater onto or into land in circumstances where contaminants may enter water or into a ~~surface waterbody~~lake, river, natural wetland, modified or artificial watercourse[318] that does not meet one or more of the conditions in Rule 15(a), excluding condition (a)(iii) and is not otherwise specified in Rule 15(b), is a discretionary activity.

(~~c~~d) The discharge of stormwater onto or into land in circumstances where contaminants may enter water or into a ~~surface waterbody~~lake, river, natural wetland, modified or artificial watercourse[319] that does not meet Rule 15(a)(iii) and is not otherwise specified in Rule 15(b) is a non-complying activity.

Rule 16 – Discharge of water from bores and wells

The discharge of water from any bore or well into a ~~or water in an artificial watercourse surface waterbody~~lake, river, natural wetland, modified or artificial watercourse[320] or onto or into land where it may enter a ~~or water in an artificial watercourse surface waterbody~~lake, river, natural wetland, modified or artificial watercourse[321], as a result of aquifer testing, is a permitted activity provided the following conditions are met:

(a) 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

(b) 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 ~~the discharge is only of vegetable oil, or of new light fuel or new lubricating oil and is:~~

~~(1) applied in a manner that does not result in pooling or run-off, with a maximum application rate not exceeding 2 litres per square metre per day and 4 litres per square metre per annum; and~~

~~(2) not within 20 metres of a surface waterbody, the Coastal Marine Area, a bore or soakhole; or~~[322]

(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 ~~oil as~~[323] a dust suppressant onto or into land in circumstances where a contaminant may enter water that does not meet ~~one or more of~~[324] the conditions in Rule 17(a) is a ~~restricted~~ discretionary activity.

[317] 330.13 GDC, ICC, SDC
[318] 247.41 Environment Southland
[319] 247.41 Environment Southland
[320] 247.41 Environment Southland
[321] 247.41 Environment Southland
[322] 622.21 P F Olsen; 750.14 SDC; and 249.23 Ernslaw One

~~***Environment Southland will restrict the exercise of its discretion to the following matters:***~~

~~1. the actual and potential environmental effects of not meeting the condition or conditions of Rule 17(a).~~[325]

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

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[326] onto or into land in circumstances where contaminants may enter water is a permitted activity, provided the following conditions are met:

(a) the volume of water discharged does not exceed 3 cubic metres per day; and[327]

(b) the concentration of chlorine shall not exceed 2 milligrams per litre; and[328]

(c) the pH of the discharge shall be between 6 and 8; and

(d) 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 and contaminants associated with emergency fire-fighting activities into or onto surface water or onto or into land in circumstances where a contaminant may enter water, is a permitted activity.[329]

Rule 18B – Discharges from emergency response training activities

(a) The discharge of water and 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 or onto surface water or onto or into land in circumstances where the 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 a surface water body:

    (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 must not occur to a surface water body for more than two continuous hours within a 24 hour period; and

  (iii) The discharge of firefighting foam or powder (whether mixed with water or not) must not occur directly to a surface water body.[330]

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[323] Consequential to removal of conditions, per 622.21 P F Olsen; 750.14 SDC; and 249.23 Ernslaw One

[324] Clause 16(2) amendment

[325] Clause 10(2)(b) amendment

[326] 611.9 NZDF

[327] Clause 16(2) amendment

[328] Clause 16(2) amendment

[329] 612.7 NZFS

[330] 612.7 NZFS

Rule 19 – Discharge of water associated with water treatment processes

The discharge of water containing contaminants associated with water treatment processes from a water treatment plant onto or into land in circumstances where contaminants may enter water is a controlled activity, provided the following conditions are met:

(a) the associated water take does not exceed 7,500 cubic metres per day;

(b) the discharged volume of water containing contaminants does not exceed 8% of the daily water take; and[331]

(c) at the boundary of the reasonable mixing zone[332] the discharge does not give rise to any or all of the following effects in the receiving water:

  (i) the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials;

  (ii) any conspicuous change in visual clarity;

  (iii) the rendering of freshwater unsuitable for consumption by farm animals;

  (iv) any significant adverse effects on aquatic life; and.

(d) at the boundary of the the reasonable mixing zone the discharge does not reduce the water quality below any standards set for the relevant waterbody in Appendix E "Water Quality Standards".[333]

Environment Southland will restrict 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;[334]

2. compliance with the ANZECC Guidelines for Fresh and Marine Water Quality (2000) and/or the WHO Guidelines for Drinking-water Quality (4th Edition 2011)[335];

3. the separation distance of the discharge from surface waterbodies, artificial watercourses, subsurface drains, the coastal marine area, residential dwellings, landholding boundaries and drinking water sources;

4. management of the discharge, including discharge methods.

[331] Clause 16(2) amendment
[332] Clause 16(2) amendment
[333] 279.66 Forest and Bird
[334] 611.9 NZDF
[335] 793.2 P Tayler

Land Use Rules

Rule 20 – Farming

~~(a) The use of land for a farming activity on a landholding that is less than 20 hectares is a permitted activity.~~

~~(b) Until 30 May 2018, the use of land for a farming activity in the Oxidising, Riverine or Peat Wetlands Physiographic Zones, other than dairy farming of cows or intensive winter grazing, is a permitted activity.~~

~~(c) Until 30 May 2019, the use of land for a farming activity in the Central Plains, Bedrock/Hill Country or Gleyed Physiographic Zones, other than dairy farming of cows or intensive winter grazing, is a permitted activity.~~

~~(d) Until 30 May 2020, the use of land for a farming activity in the Old Mataura or LigniteMarine Terraces Physiographic Zones, other than dairy farming of cows or intensive winter grazing, is a permitted activity.~~

~~(e) Despite any other rule, from 30 May 2018 the use of land for the farming of sheep, deer or beef on a landholding that is between 20 hectares and 100 hectares in area is a permitted activity, provided the following condition is met:~~

~~(i) a Management Plan is prepared and implemented in accordance with Appendix N, but excluding part 4 (Nutrient Budget), which includes mitigations relevant to the farming type being undertaken and relevant physiographic zone, and provided to Environment Southland upon request, or the farming activity and the property on which the activity is undertaken is listed on the Environment Southland Register of Independently Audited Self-Management Participants.~~

~~(f) From 30 May 2018, the use of land for a farming activity in the Oxidising, Riverine or Peat Wetlands Physiographic Zones, other than dairy farming of cows or intensive winter grazing, is a permitted activity, provided the following condition is met:~~

~~(i) a Management Plan is prepared and implemented in accordance with Appendix N, including mitigations relevant to the farming type being undertaken and relevant physiographic zone, and provided to Environment Southland upon request, or the farming activity and the property on which the activity is undertaken is listed on the Environment Southland Register of Independently Audited Self-Management Participants.~~

~~(g) From 30 May 2019, the use of land for a farming activity in the Central Plains, Bedrock/Hill Country or Gleyed Physiographic Zones, other than dairy farming of cows or intensive winter grazing, is a permitted activity, provided the following condition is met:~~

~~(i) a Management Plan is prepared and implemented in accordance with Appendix N, including mitigations relevant to the farming type being undertaken and relevant physiographic zone, and provided to Environment Southland upon request, or the farming activity and the property on which the activity is undertaken is listed on the Environment Southland Register of Independently Audited Self-Management Participants.~~

~~(h) From 30 May 2020, the use of land for a farming activity in the Old Mataura or LigniteMarine Terraces Physiographic Zones, other than dairy farming of cows or intensive winter grazing, is a permitted activity, provided the following condition is met:~~

~~(i) a Management Plan is prepared and implemented in accordance with Appendix N, including mitigations relevant to the farming type being undertaken and relevant physiographic zone, and provided to Environment Southland upon request, or the farming activity and the property on which the activity is undertaken is listed on the Environment Southland Register of Independently Audited Self-Management Participants.~~

~~(i) From 30 May 2018, the use of land for a farming activity in the Oxidising, Riverine or Peat Wetlands Physiographic Zones, other than dairy farming of cows or intensive winter grazing, that does not comply with the condition of Rule 20(e) or Rule 20(f) is a discretionary activity.~~

~~(j) From 30 May 2019, the use of land for a farming activity in the Central Plains, Bedrock/Hill Country or Gleyed Physiographic Zones, other than dairy farming of cows or intensive winter grazing, that does not comply with the condition of Rule 20(g) is a discretionary activity.~~

~~(k) From 30 May 2020, the use of land for a farming activity in the Old Mataura or Lignite-Marine Terraces Physiographic Zones, other than dairy farming of cows or intensive winter grazing, that does not comply with the condition of Rule 20(h) is a discretionary activity.~~[336]

(a) The use of land for farming is a permitted activity if:
  (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 specifies 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) That on request the landowner provides a written record to Environment Southland:
      a. of the good management practices, and 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 effective area of a 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 20m 'last-bite' strip is left at the base of the slope; and

[336] 62.8 Beef and Lamb; 184.1 Cuthbertson, S; 812.1 Allan, T; 225.1 Dugdale, P; 265.83 Federated Farmers and others

(b) when the area is being break-fed, the stock 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 access surface water bodies 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 comprises no more than 120 cattle or 250 deer; and
(f) swales within the area being grazed (critical source areas) that accumulate runoff from adjacent flats and slopes are grazed last; and

(4) From 1 May 2019, a vegetated strip is maintained, and stock excluded from, the area between the outer edge of the bed of any lake, river (including intermittent, but excluding ephemeral rivers), modified watercourse, artificial watercourse or natural wetland and a distance of:
(a) 5 metres from the outer edge of the bed on land with a slope of less than or equal to 7 degrees; and
(b) 20 metres from the outer edge of the bed on land with a slope of greater than 7 degrees; 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, coastal lake or lagoon, 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) Despite any other rule, the use of land for a dairy platform or intensive winter grazing, at an altitude of greater than 800 metres above mean sea level, is a prohibited activity.

(c) The use of land for farming that does not meet one or more of conditions (ii) or (iii) of Rule 20(a), is a restricted discretionary activity, provided the following conditions are met:
(i) A Farm Environmental Management Plan is prepared in accordance with Appendix N;
(ii) The application includes the following material, prepared by a suitably qualified and experienced person:
(a) An assessment that shows the amount of, and adverse effects from, the nitrogen, phosphorus, sediment and microbiological contaminants discharged from the landholding will be no greater than lawfully existed for the five years prior to the application being made
(b) For any mitigation proposed, a detailed mitigation plan (based on the physiographic zone and contaminant pathways) that identifies the mitigation or actions to be undertaken including any physical works to be completed, their timing, operation and their potential effectiveness; and
(c) A monitoring plan that specifies how compliance will be achieved in the years following implementation of any consent granted.

Environment Southland will restrict the exercise of its discretion to the following matters:

1. the quality of, compliance with and auditing of the Farm Environmental Management Plan for the landholding, and the applicant's past compliance for this or any other landholding; and
2. whether the assessment undertaken under (ii) above takes into account reasonable and appropriate good management practices to minimise the losses of contaminants from the existing activity, and if not, what additional reductions in contaminant losses will be required; and

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 the physiographic zone and contaminant pathways; and
4. the potential benefits of the activity to the applicant, the community and the environment; and
5. the potential effects of the land use on surface and groundwater quality and sources of drinking-water.

(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.[337]

~~Rule 21 – Existing dairy farming of cows~~

~~The use of land for dairy farming of cows that existed as at 30 May 2016 is a permitted activity, provided the following conditions are met:~~

~~(a) the dairy platform has a discharge consent for agricultural effluent that specifies a maximum number of cows; and~~
~~(b) there is no increase in the number of cows, beyond that specified in Rule 21(a); and~~
~~(c) a Management Plan is prepared and implemented in accordance with Appendix N, including the mitigations relevant to the farming type being undertaken and relevant physiographic zone, and provided to Environment Southland upon request, or the farming activity and the landholding on which the activity is undertaken is listed on the Environment Southland Register of Independently Audited Self-Management Participants; and~~
~~(d) the activity does not occur in the Alpine physiographic zone.[338]~~

~~Rule 22 – New or expanded dairy farming of cows~~

~~(a) The use of land for dairy farming of cows that did not exist as at 30 May 2016 or does not comply with Rule 21(a) or 21(b) in the Riverine, Gleyed, Bedrock/Hill Country, Oxidising, Central Plains, or Lignite-Marine Terraces physiographic zones, is a discretionary activity, provided the following condition is met:~~
~~(i) a Management Plan is prepared and implemented in accordance with Appendix N including the mitigations relevant to the farming type being undertaken and relevant physiographic zone, and provided to Environment Southland upon request, or the farming activity and the landholding on which the activity is undertaken is listed on the Environment Southland Register of Independently Audited Self-Management Participants.~~

~~(b) The use of land for dairy farming of cows that did not exist as at 30 May 2016 or does not comply with Rule 21(a) or 21(b) in the Old Mataura, or Peat Wetlands physiographic zones is a non-complying activity.~~

~~(c) The use of land for dairy farming of cows that does not comply with Rule 21(c) or Rule 22(a)(i) is a non-complying activity.~~

~~(d) The use of land for dairy farming of cows in the Alpine physiographic zone is a prohibited activity.~~

[337] 206.24 Dillon Ag Ltd; 247.9 Environment Southland; 265.83 Federated Farmers; and others
[338] 29.2 Austin Brother, 47.11 Balfour, Wendonside & Waikaia Group; 759.10 Springlands Group Ltd

(e) Where new or expanded dairy farming of cows includes land in more than one physiographic zone, the rules for each physiographic zone shall apply to the land within that zone.

(f) Despite Rule 22(e), where new or expanded dairy farming of cows includes land of less than 10 hectares in any one physiographic zone, the landholder may determine whether the physiographic zone for that area, or the prevalent physiographic zone for the landholding, applies to that area of the land.

(g) Despite Rule 22(a) to (e) the use of land for dairy farming of cows is a restricted discretionary activity, provided the following conditions are met:

(i) the activity occurs on those parcels of land wholly contained with Computer Freehold Registers SL134/119, 307310, 307311, SL198/159, and SL151/191; and Lot 5 DP 376415 as contained in Computer Freehold Register 307305, and Lots 6 and 7 DP 376415 and Part Lot 8 DP 376415 as contained in Computer Freehold Register 307307;

(ii) the primary purpose of the activity is to contribute to publicly available research on the mitigation of environmental effects of dairy farming or wintering;

(iii) a Management Plan is prepared and implemented in accordance with Appendix N including the mitigations relevant to the farming type being undertaken and relevant physiographic zone, and provided to Environment Southland.

Environment Southland will restrict the exercise of its discretion to the following matters:

1. the quality of and compliance with and auditing of the Management Plan;
2. the proposed research to be undertaken and associated environmental effects, including methods and timing of publication;
3. monitoring and reporting;
4. the proposed management practices to minimise the discharge of nitrogen, phosphorus, sediment and microbiological contaminants to water from the use of land;
5. the potential benefits of the activity to the community and the environment.[339]

Rule 23 – Intensive winter grazing

(a) Until 30 May 2018, the use of land for intensive winter grazing is a permitted activity.

(b) From 30 May 2018, the use of land for intensive winter grazing is a permitted activity, provided the following conditions are met:

(i) a Management Plan is prepared and implemented in accordance with Appendix N, including the mitigations relevant to the farming type being undertaken and relevant physiographic zone, and provided to Environment Southland upon request, or the farming activity and the landholding on which the activity is undertaken is listed on the Environment Southland Register of Independently Audited Self-Management Participants;

(ii) no intensive winter grazing is undertaken in the Alpine physiographic zone;

(iii) not more than 20 hectares of intensive winter grazing is undertaken on a landholding within the Old Mataura, or Peat Wetlands physiographic zones;

(iv) not more than 50 hectares of intensive winter grazing is undertaken on a landholding within the Riverine, Gleyed, Bedrock/Hill Country, Oxidising, Central Plains, or Lignite-Marine Terraces physiographic zones;

(v) the area of land used for intensive winter grazing is recorded for each year and provided to Environment Southland on request;

[339] 11.5 Agribusiness Consultants Ltd; 693.5 Roy, B; 699.3 Rural Livestock Ltd; and others

(vi) the location of any sub-surface drains within the area of land used for intensive winter grazing, and their outlet position and relative depth, is mapped and provided to Environment Southland upon request;

(vii) a vegetated strip is maintained, and stock excluded from, the outer edge of the bed of any river, wetland, modified watercourse or artificial watercourse for a distance of:

(1) 3 metres from the outer edge of the bed on land with a slope[340] of less than 4 degrees; and

(2) 10 metres from the outer edge of the bed on land with a slope between 4 and 16 degrees; and

(3) 20 metres from the outer edge of the bed on land with a slope of greater than 16 degrees; and

(viii) the winter grazing does not occur within 100 m of the outer edge of the bed of any lake or the Coastal Marine Area;

(ix) overland flow of run-off water does not cause a conspicuous discolouration or sedimentation of any adjacent waterbody.

(c) From 30 May 2018, the use of more than 20 hectares of a landholding for intensive winter grazing in the Old Mataura, or Peat Wetlands physiographic zones or 50 hectares in the Riverine, Gleyed, Bedrock/Hill Country, Oxidising, Central Plains or Lignite-Marine Terraces physiographic zone is a restricted discretionary activity, provided the following conditions are met:

(i) the area of land used on the landholding for intensive winter grazing has not increased beyond the area of land used, averaged over the previous three years;

(ii) conditions (v) to (ix) of Rule 23(b) are met; and

(iii) a Management Plan has been prepared in accordance with Appendix N;

Environment Southland will restrict the exercise of its discretion to the following matters:

1. the quality of, compliance with and auditing of the Management Plan;
2. the proposed management practices to minimise the discharge of nitrogen, phosphorus, sediment and microbiological contaminants to water from the use of land;
3. the quantum of and timing of any reductions in the discharge of nitrogen, phosphorus, sediment and microbiological contaminants to water from the use of land;
4. the potential benefits of the activity to the applicant, the community and the environment;
5. the potential effects of the land use on surface and groundwater quality and sources of drinking-water.

An application for resource consent under Rule 23(c) will be processed and considered without public or limited notification unless the applicant requests notification or Environment Southland considers special circumstances exist that warrant notification of the application.

(d) From 30 May 2018, the use of land for intensive winter grazing in the Riverine, Gleyed, Bedrock/Hill Country, Oxidising, Central Plains, or Lignite-Marine Terraces physiographic zones that does not meet condition (i), or (v) to (ix) of Rule 23(b) or condition (i) to (iii) of Rule 23(c) is a discretionary activity.

(e) From 30 May 2018, the use of land for intensive winter grazing in the Old Mataura or Peat Wetlands physiographic zones that does not meet conditions (i) to (iii) of Rule 23(c) is a non-complying activity.

[340] Slope in Rule 23 is the average slope from the outer edge of the bed to a point 20 metres from the outer edge of the bed

~~(f) From 30 May 2018 and despite any other rule, the use of land for intensive winter grazing within the Alpine physiographic zone is a prohibited activity.~~

~~(g) Despite Rule 23(a) to (f) the use of land for intensive winter grazing is a restricted discretionary activity, provided the following conditions are met:~~

~~(i) the activity occurs on those parcels of land wholly contained with Computer Freehold Registers SL134/119, 307310, 307311, SL198/159, and SL151/191; and Lot 5 DP 376415 as contained in Computer Freehold Register 307305, and Lots 6 and 7 DP 376415 and Part Lot 8 DP 376415 as contained in Computer Freehold Register 307307;~~

~~(ii) the primary purpose of the activity is to contribute to publicly available research on the mitigation of environmental effects of dairy farming or wintering;~~

~~(iii) a Management Plan is prepared and implemented in accordance with Appendix N including the mitigations relevant to the farming type being undertaken and relevant physiographic zone, and provided to Environment Southland.~~

~~***Environment Southland will restrict the exercise of its discretion to the following matters:***~~

~~1. the quality of and compliance with and auditing of the Management Plan;~~

~~2. the proposed research to be undertaken and associated environmental effects, including methods and timing of publication.~~

~~3. monitoring and reporting~~

~~4. the proposed management practices to minimise the discharge of nitrogen, phosphorus, sediment and microbiological contaminants to water from the use of land;~~

~~5. the potential benefits of the activity to the community and the environment.~~[341]

Rule 24 – Incidental discharges from farming

(a) The discharge of nitrogen, phosphorus, sediment and 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 <u>are</u> ~~is~~[342] met:

(i) the land use activity associated with the discharge is authorised under Rules ~~20, 21, 22 or 23.~~<u>; and</u>[343]

<u>(ii) any discharge of a contaminant resulting from any activity permitted by Rule 20 is managed to ensure that after reasonable mixing it does not give rise to any of the following effects on receiving waters:</u>

<u>(1) any conspicuous oil or grease films, scums or foams, or floatable or suspended materials; and</u>

<u>(2) any conspicuous change in the colour or visual clarity; and</u>

<u>(3) any emission of objectionable odour; and</u>

<u>(4) the rendering of fresh water unsuitable for consumption by farm animals; and</u>

<u>(5) any significant adverse effects on aquatic life; and</u>[344]

(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 ~~does not comply with~~ <u>is not authorised by</u>[345] Rules <u>25(a)</u> ~~20, 21, 22 or 23~~[346] is a non-complying activity.

[341] 12.4 Agricentre South Ltd; 46.4 Balfour Engineering Ltd; 247.10 Environment Southland and others
[342] Clause 16(2) Amendment
[343] Clause 16(2) Amendment
[344] 752 Fish and Game
[345] 247.3 Environment Southland
[346] Clause 16(2) Amendment

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 (including intermittent, but excluding ephemeral rivers),[347] natural wetland, modified watercourse or artificial watercourse; and

(ii) cultivation does not take place within a distance from the outer edge of the bed of a lake, river (including intermittent, but excluding ephemeral rivers) or modified watercourse ~~and within~~[348] of:

(1) 3 metres from the outer edge of the bed on land with a slope[349] of less than or equal to 7~~4~~ degrees ~~(flat)~~[350]; and

~~(2) 10 metres from the outer edge of the bed on land with a slope between 4 and 16 degrees (rolling); and~~[351]

~~(3)~~(2) 20 metres from the outer edge of the bed on land with a slope of greater than 7~~16~~ degrees ~~(strongly rolling)~~; and

(iii) cultivation does not occur above 800~~700~~[352] metres above mean sea level~~;~~, and ~~or~~

(iv) ~~mechanical~~ cultivation does not occur[353] on land with a slope greater than 20 degrees. ~~(moderately steep)~~[354].

(b) The use of land for cultivation, that does not meet the setback distances 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 (including intermittent, but excluding ephemeral rivers),[355] natural wetland, modified watercourse or artificial watercourse 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 five year period; and

(iii) cultivation is for the purpose of renewing or establishing pasture; and

(iiia) cultivation is only by spraying and direct drilling; and[356]

(iv) cultivation does not occur above 700 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.

Environment Southland will restrict the exercise of its discretion to the following matters:

1. the management of sediment and other contaminants from critical source areas;
2. risks to biodiversity and water quality and mitigation measures for addressing those risks; and
3. monitoring, inspection and audit requirements.

(d) Despite any other rule, the use of land for cultivation above 800 metres above mean sea level ~~in the Alpine physiographic zone~~,[357] is a non-complying activity.

[347] 277.63 Fonterra
[348] 133.5 Civil Tech Ltd; 277.33 Fonterra
[349] Slope in Rule 25(a)(i)(1)-(3) is the average slope from the outer edge of the bed to a point 20 metres from the outer edge of the bed.
[350] 265.88 Federated Farmers
[351] 265.88 Federated Farmers
[352] 265.88 Federated Farmers
[353] 265.88 Federated Farmers
[354] Slope in Rule 25(a)(ii) is the average slope over any 20 metre distance.
[355] 277.63 Fonterra
[356] 538.6 McKenzie, H
[357] 265.88 Federated Farmers

Wastewater, Effluent and Sludge

Rule 26 – Discharges from on-site wastewater systems

(a) The discharge of treated domestic wastewater, onto or into land in circumstances where a contaminant may enter water from an existing on-site wastewater system 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~~1~~[358] June 2016;

(ii) the discharge does not exceed 1,250 litres per day, averaged over a period of one month;

(iii) the discharge consists only of contaminants normally associated with domestic wastewater;

(iv) the on-site wastewater system is not used for the disposal of wastewater from chemical toilets;

(v) there is no faecal contamination of any take of water for human consumption as a result of the discharge;

(vi) there is no discharge above the soil surface; and

(vii) there is no direct discharge to groundwater, ~~surface water, an artificial watercourse~~ a lake, river, natural wetland, artificial watercourse, modified watercourse [359]or the coastal marine area, including discharge via ~~tile drains~~ subsurface drainage systems,[360] stormwater drains, artificial free draining areas such as soak holes and overland flow;

(viii) the inflow or infiltration of stormwater, other surface water and groundwater to the system is minimised;

(ix~~viii~~) 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 250 metres of the abstraction point of a drinking water supply site identified in Appendix J.

(b) The discharge of treated domestic wastewater, onto or into land in circumstances where a contaminant may enter water from a new on-site wastewater system or a replacement of an existing system is a permitted activity provided the following conditions are met:

(i) the discharge does not exceed 14,000 litres per week;[361]

(~~i~~ii) 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~~ [362]

(~~ii~~iii) 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~~ [363]

(~~iii~~iv) ~~the discharge does not result in wastewater being visible on the ground~~ there is no discharge above the soil surface; [364]

(~~iv~~v) the discharge ~~does not contain any hazardous substance.~~ consists only of contaminants normally associated with domestic wastewater;[365]

(~~v~~vi) the on-site wastewater system is not used for the disposal of wastewater from chemical toilets;

(~~vi~~vii) the discharge is not within:

[358] Consequential change to reflect notification date of the Plan – 277.45 Fonterra
[359] 247.41 Environment Southland
[360] 152.16 Clover Bell; 752.119 Fish and Game; and 750.15 SDC
[361] 330.14 GDC, ICC and SDC; 658.1 Ralph Moir & Associates; and 750.15 SDC
[362] 247.3 Environment Southland; or Clause 16(2) Amendment
[363] 247.3 Environment Southland; or Clause 16(2) Amendment
[364] 330.14 GDC, ICC and SDC
[365] 658.1 Ralph Moir & Associates

(1) 20 metres of ~~any surface waterbody or artificial watercourse~~ a lake, river, natural wetland, artificial watercourse or modified watercourse,[366] excluding interception drains constructed to enable the effective operation of[367] the on-site wastewater system;

(2) 50 metres of the coastal marine area or any natural state waters; ~~or~~[368]

(3) 50 metres of any bore or well ~~used for potable or stock water supply~~;[369] or[370]

(4) the microbial health protection zone of a drinking water supply site identified in Appendix J, or where no such zone is identified, then 250 metres of the abstraction point of a drinking water supply site identified in Appendix J; or

(5) 20 metres of any ~~tile drain~~ subsurface drainage system, excluding subsurface drainage systems ~~which benefit~~ constructed to enable the effective operation of the on-site wastewater system.[371]

(viii) 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.[372]

(c) The discharge of treated domestic wastewater, onto or into land in circumstances where a contaminant may enter water from an on-site wastewater system 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, and any associated discharge to air ~~from an on-site wastewater system~~[373] 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;

(ii) the discharge consists only of contaminants normally associated with domestic wastewater.

(iii) the on-site wastewater system is not used for the disposal of wastewater from chemical toilets;

(iv) there is no faecal contamination of any take of water for human consumption as a result of the discharge;

(v) the maximum depth of septage application is 7 mm;

(vi) no other effluent is discharged to the septage application area for 28 days before and 28 days after the septage application;

(vii) the discharge onto or into land does not occur at a location where overland flow will result in contaminants reaching ~~surface water~~ a lake, river, natural wetland, artificial watercourse, modified watercourse or the coastal marine area;[374]

(viii) the discharge is not within:

(1) 20 metres of any ~~surface waterbody or artificial watercourse~~ a lake, river, natural wetland, artificial watercourse or modified watercourse;[375]

(2) 50 metres of the coastal marine area or any natural state waters; or

(3) 100 metres of any bore or well ~~used for potable or stock water supply~~;[376]

(4) 100 metres of any landholding boundary;

(5) 200 metres of any school, marae, or residential dwelling other than residential dwellings on the landholding;

[366] 247.41 Environment Southland
[367] 247.3 Environment Southland; or Clause 16(2) Amendment
[368] 247.3 Environment Southland; or Clause 16(2) Amendment
[369] 750.15 SDC
[370] 247.3 Environment Southland; or Clause 16(2) Amendment
[371] 658.1 Ralph Moir & Associates
[372] 330.14 GDC, ICC and SDC; and 750.15 SDC
[373] 247.3 Environment Southland; or Clause 16(2) Amendment
[374] 247.41 Environment Southland
[375] 247.41 Environment Southland
[376] 750.15 SDC

(6) the microbial health protection zone of a drinking water supply site identified in Appendix J, or where no such zone is identified, then 250 metres of the abstraction point of a drinking water supply site identified in Appendix J;

(ix) there is no direct discharge to groundwater, ~~surface water, an artificial watercourse~~ a lake, river, natural wetland, artificial watercourse, modified watercourse[377] or the coastal marine area, including discharge via ~~tile drains~~ subsurface drainage system,[378] stormwater drains, artificial free draining areas such as soak holes, and overland flow;

(x) the discharge does not result in any emission of odour that is offensive or objectionable at or beyond the boundary of the landholding[379];

(xi) the discharge does not occur on a site less than 100 hectares in area~~.~~;

(xii) the application is managed to reduce the risk of vector attraction.[380]

(e) The discharge of septage into or onto land from an on-site wastewater system, 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, ~~raw sewage,~~[381] or effluent from mobile toilets, into ~~surface~~ a lake, river, natural wetland, artificial watercourse, modified watercourse the coastal marine area[382] or groundwater is a prohibited activity.

Rule 27 – Discharges from pit toilets

(a) Notwithstanding Rule 26 the discharge of contaminants onto or into land~~,~~[383] in circumstances where a contaminant may enter water from a pit toilet is a permitted activity provided the following conditions are met:

(i) the discharge does not exceed 320 litres per week; and[384]

(ii) the discharge comprises only contaminants normally associated with human excreta; and[385]

(iii) the pit toilet is not used for the disposal of wastewater from chemical toilets;

(iv) there is no faecal contamination of any take of water for human consumption as a result of the discharge; and[386]

(v) the discharge is not within:

(1) 20 metres of any ~~surface waterbody~~ lake, river, natural wetland modified watercourse[387] or artificial watercourse, 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 ~~used for potable or stock water supply~~; or[388]

(4) the microbial health protection zone of a drinking water supply site identified in Appendix J, or where no such zone is identified, then 250 metres of the abstraction point of a drinking water supply site identified in Appendix J; or[389]

(5) a site that is zoned for residential, commercial or industrial purposes in any district plan; and[390]

(vi) there is no direct discharge above the soil surface, or to groundwater a lake, river, natural wetland, artificial watercourse, modified watercourse~~, surface water, an~~

[377] 247.41 Environment Southland
[378] 152.16 Clover Bell; 752.119 Fish and Game; and 750.15 SDC
[379] Clause 16(2) Amendment
[380] 330.14 GDC, ICC and SDC
[381] 247.3 Environment Southland; or Clause 16(2) Amendment
[382] 247.41 Environment Southland
[383] Clause 16(2) amendment
[384] Clause 16(2) amendment
[385] Clause 16(2) amendment
[386] Clause 16(2) amendment
[387] 247.41 Environment Southland
[388] Clause 16(2) amendment
[389] Clause 16(2) amendment
[390] Clause 16(2) amendment

~~artificial watercourse~~[391] or the coastal marine area, including discharge via subsurface drainage systems~~tile drains~~[392], stormwater drains, artificial free draining areas such as soak holes~~, and~~ or[393] overland flow; and[394]

(vii) the soil type does not comprise gravels, coarse~~/~~ or[395] medium sands, fissured rock, or other such materials likely to permit the[396] free travel of contaminants away from the pit; and[397]

(viii) stormwater or other surface water is prevented from entering the pit toilet; and

(ix) the discharge ~~shall~~does[398] not accumulate within 500 millimetres of the land surface; and[399]

(x) for any new pit toilet that has been installed and was operational on 3 June ~~1 January~~[400] 2016 or later, the bottom of the pit is not less than 900 millimetres above the mean seasonal high groundwater table~~;~~.[401]

(b) The discharge of contaminants onto or into land, in circumstances where a contaminant may enter water from a pit toilet that 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[402]

(ii) the volume of the discharge does not exceed 105 litres per week; and[403]

(iii) the discharge comprises only contaminants normally associated with human excreta; and[404]

(iv) there is no faecal contamination of any take of water for human consumption as a result of the discharge; and[405]

(v) the discharge is not within:

(1) 20 metres of any ~~surface waterbody~~ lake, river, modified watercourse, natural wetland, coastal lagoon, estuary[406] or artificial watercourse; or[407]

(2) 50 metres of the coastal marine area or any natural state waters; or

(3) 50 metres of any bore or well ~~used for potable or stock water supply~~; or[408]

(4) the microbial health protection zone of a drinking water supply site identified in Appendix J, or where no such zone is identified, then 250 metres of the abstraction point of a drinking water supply site identified in Appendix J; and[409]

[391] 247.41 Environment Southland
[392] 752.120 Fish and Game
[393] Clause 16(2) amendment
[394] Clause 16(2) amendment
[395] Clause 16(2) amendment
[396] Clause 16(2) amendment
[397] Clause 16(2) amendment
[398] Clause 16(2) amendment
[399] Clause 16(2) amendment
[400] 247.3 Environment Southland
[401] Clause 16(2) amendment
[402] Clause 16(2) amendment
[403] Clause 16(2) amendment
[404] Clause 16(2) amendment
[405] Clause 16(2) amendment
[406] 247.41 Environment Southland – definition of surface waterbody
[407] Clause 16(2) amendment
[408] Clause 16(2) amendment
[409] Clause 16(2) amendment

(vi) there is no discharge above the soil surface, or direct discharge to groundwater, ~~surface water, an artificial watercourse~~ lake, river, natural wetland, artificial watercourse, modified watercourse[410] or the coastal marine area, including discharge via subsurface drainage systems ~~tile drains~~[411], stormwater drains, artificial free draining areas such as soak holes and overland flow; and[412]

(vii) no stormwater, other surface water or groundwater ~~shall~~ infiltrates[413] the wastewater treatment unit; and

(viii) stormwater, other surface water or groundwater ~~shall be~~ is[414] directed away from the land application system area; and[415]

(ix) for any land application system that has been installed and was operational on ~~1 January~~ 3 June[416] 2016 or later ~~the system is designed so that:~~[417]

~~(1) the soil beneath the soil infiltration surface is maintained as free draining to a depth of at least 600 millimetres; and~~

~~(2)~~ 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 onto or into land, in circumstances where a contaminant may enter water, and any associated discharge to air from a waterless composting toilet system is a permitted activity provided the following conditions are met:

(i) the discharge occurs on the same landholding as a waterless composting toilet system is located; and[418]

(ii) the discharge comprises only contaminants normally associated with human excreta; and[419]

(iii) the waterless composting toilet system is not used for the disposal of wastewater from chemical toilets; and[420]

(iv) there is no contamination of any take of water for human consumption as a result of the discharge; and[421]

(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[422]

(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[423]

[410] 247.41 Environment Southland – definition of surface waterbody
[411] 752.121 Fish and Game
[412] Clause 16(2) amendment
[413] Clause 16(2) amendment
[414] Clause 16(2) amendment
[415] Clause 16(2) amendment
[416] 247.3 Environment Southland
[417] Clause 16(2) amendment
[418] Clause 16(2) amendment
[419] Clause 16(2) amendment
[420] Clause 16(2) amendment
[421] Clause 16(2) amendment
[422] Clause 16(2) amendment
[423] Clause 16(2) amendment

(vii) the discharge onto or into land does not occur at a location where overland flow will result in contaminants reaching ~~surface water~~ a lake, river, natural wetland, artificial watercourse, modified watercourse or the coastal marine area[424]; and[425]

(viii) the working of the compost into the soil does not encounter any groundwater or perched water; and[426]

(ix) the discharge is not within:

(1) 20 metres of any ~~surface waterbody~~ lake, river, modified watercourse, natural wetland, coastal lagoon, estuary[427] or artificial watercourse; or[428]

(2) 50 metres of the coastal marine area or any natural state waters; or[429]

(3) 50 metres of any bore ~~or well used for potable or stock water supply~~;[430]

(4) 10 metres of a landholding boundary; or[431]

(5) the microbial health protection zone of a drinking water supply site identified in Appendix J, or where no such zone is identified, then 250 metres of the abstraction point of a drinking water supply site identified in Appendix J; and[432]

(x) the discharge does not result in any emission of odour that is offensive or objectionable at or beyond the boundary of the landholding;

(b) The discharge of contaminants onto or into land, in circumstances where a contaminant may enter water from aerobically composted human excreta 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

The discharge of effluent from a mobile toilet into or onto land, into or onto the bed of a lake or river,[433] or into water is a prohibited activity.

Rule 31 – Dump stations

The discharge of effluent into or onto land from an on-site wastewater system that receives ~~wastewater~~ effluent[434] from a dump station is a non-complying activity.

Rule 32 – Use of land for e~~E~~ffluent storage - new

(a) The use of land for a new effluent storage facility, including ancillary structures, other than onsite wastewater system, composting toilet system or mobile toilet, but including wastewater, sludge or effluent from industrial or trade processes or agricultural effluent, and any incidental discharge directly onto or into land, is a permitted activity provided the following conditions are met:

(i) the total capacity of all effluent storage on a landholding, excluding storage authorised by a resource consent, does not exceed 35 cubic metres; and[435]

(ii) the effluent storage is constructed using an impermeable concrete or synthetic lining so there is no overflow or leakage of effluent to land, surface water or groundwater; and

[424] 247.41 Environment Southland – definition of surface waterbody
[425] Clause 16(2) amendment
[426] Clause 16(2) amendment
[427] 247.41 Environment Southland – definition of surface waterbody
[428] Clause 16(2) amendment
[429] Clause 16(2) amendment
[430] 750.18 SDC
[431] Clause 16(2) amendment
[432] Clause 16(2) amendment
[433] Clause 16(2) amendment
[434] Clause 16(2) amendment
[435] Clause 16(2) amendment

(iii) the effluent storage is not within 50 metres of any lake, river, modified watercourse, artificial watercourse, natural wetland or coastal marine area; and
(iv) the effluent storage is not within 200 metres of any dwelling not on the same landholding, or 50 metres of the boundary of any other landholding or road[436]; and
(v) the effluent storage is not within 100 metres of any water abstraction point; and
(vi) the effluent storage is not located above sub-surface drainage.[437]

(b) The use of land for a new agricultural effluent storage facility, and any associated discharge directly onto or into land from that storage, which does not meet the conditions in Rule 32(a), is a controlled activity provided the following conditions are met[438]:
(i) the design, and build process, is certified by a Chartered Professional Engineer as being in accordance with IPENZ Practice Note 21: Farm Dairy Effluent Pond Design and Construction (2013) or IPENZ Practice Note 27: Dairy Farm Infrastructure (2013)[439]; and
(ii) any clay lined effluent storage is certified by a Suitably Qualified Person as meeting the relevant pond drop criteria in Appendix P; and
(iii) the effluent storage is not within 50 metres of any lake, river, modified watercourse, artificial watercourse, natural wetland or coastal marine area; and
(iv) the effluent storage is not within 200 metres of any dwelling not on the same landholding, or 50 metres of the boundary of any other landholding or road; and
(v) the effluent storage is not within 100 metres of any water abstraction point.

Environment Southland will exercise its control over the following matters:
1. the design and construction of the storage and ancillary structures, including capacity of storage and nature of effluent that will enter; and
2. methods to be used to protect any embankments from damage by stock and machinery; and
4. the potential adverse effects of the effluent storage on: lakes, rivers, artificial watercourses, installed subsurface drains, groundwater, bores, registered drinking-water supplies, the coastal marine area, trees, stop banks, residential dwellings, places of assembly, urban areas, landholding boundaries and historic heritage; and
5. the height of the embankments and placement and orientation of the effluent storage relative to flood flows and stormwater run-off; and
6. the quality of, and compliance with, an operational management plan, including operational procedures, emergency response, monitoring and reporting requirements, and installation of monitoring devices; and
7. adoption and implementation of an Accidental Discovery Protocol.[440]

~~(a)~~(c) The use of land for the construction of any effluent storage, other than onsite wastewater system, composting toilet system, mobile toilet[441] or agricultural effluent, but[442] including waste-water, sludge or effluent from industrial or trade processes, and any incidental discharge directly onto or into land, ~~or agricultural effluent~~, is a restricted discretionary activity provided the following conditions are met:
(i) the storage is certified as being structurally sound by a Chartered Professional Engineer[443] ~~for agricultural effluent storage the design, and build process, is certified by~~

[436] 247.11 Environment Southland
[437] 752.125 Fish and Game
[438] 712.31 Seaview Trust & Oraka Farms; 666.19 Rimu Grasslands & Leicester Downs; and others.
[439] 412.1 IPENZ
[440] 152.17 Clover Bell; 408.2 Hynds Pip Systems; 614.20 NZTA; and 810.39 Three Rivers CG.
[441] 247.11 Environment Southland
[442] Consequential amendment: 152.17 Clover Bell; 408.2 Hynds Pip Systems; 614.20 NZTA; and 810.39 Three Rivers CG.
[443] 663.2 RD Agritech

~~a Chartered Professional Engineer as being in accordance with IPENZ Practice Note 21: Farm Dairy Effluent Pond Design and Construction (2013)~~[444]; and

(ii) the effluent storage is not within 50 metres of any lake, river, modified watercourse, natural wetland ~~surface waterbody,~~ [445]artificial watercourse or coastal marine area; and

(iii) the effluent storage is not within 200 metres of any dwelling not on the same landholding, or 50 metres of the boundary of any other landholding or road[446]; and

(iv) the effluent storage is not within 100 metres of any water abstraction point.

Environment Southland will restrict its discretion to the following matters:

1. the design and construction of the storage and ancillary structures; and
2. methods to be used to protect its embankments from damage by stock and machinery; and
3. the adverse effects of the effluent storage on: ~~surface waterbodies~~ lake, river, modified watercourse, natural wetland[447], artificial watercourses, installed subsurface drains, groundwater, bores, registered drinking- water supplies, the coastal marine area, trees, stop banks, residential dwellings, places of assembly, urban areas, landholding boundaries and historic heritage; and
4. the height of the embankments and placement and orientation of the effluent storage relative to flood flows and stormwater run-off; and
5. the storage capacity of the effluent storage in relation to the volume and nature of the liquid that will enter the effluent storage facility; and
6. the quality of, and compliance with, an operational management plan, including operational procedures, emergency response, monitoring and reporting requirements, and installation of monitoring devices; and
7. adoption and implementation of an Accidental Discovery Protocol.

(cc) The use of land for the construction of any effluent storage, other than onsite wastewater system, composting toilet system, mobile toilet, but including of waste-water, sludge or effluent from industrial or trade processes, and any incidental discharge directly onto or into land from that storage, that does not meet ~~the~~ conditions (a), (b)(ii)-(v) or (c)(ii)-(iv) of Rule 32 is a discretionary activity.[448]

~~(b)~~(d) The use of land for the construction of any effluent storage, other than onsite wastewater system, composting toilet system, mobile toilet[449], but including of waste-water, sludge or effluent from an industrial or trade processes,[450]and any incidental discharge directly onto or into land from that storage, that does not meet ~~the~~ conditions (b)(i), (c)[451](i) of Rule 32 is a non-complying activity.

Rule 32A – Use of land for effluent storage

(a) The use land for an existing effluent storage system for waste-water, sludge or effluent from an industrial or trade processes or agricultural effluent and including ancillary structures, but excluding an onsite wastewater system, composting toilet system or mobile toilet, and any incidental discharge directly onto or into land from that storage, is a permitted activity provided the following conditions are met:

(i) The effluent storage system was either:

[444] 152 Consequential amendment: 152.17 Clover Bell; 408.2 Hynds Pip Systems; 614.20 NZTA; and 810.39 Three Rivers CG.
[445] 247.11 Environment Southland
[446] 247.11 Environment Southland
[447] 247.11 Environment Southland
[448] Consequential amendment relating to 752.125 Fish and Game
[449] 247.11 Environment Southland.
[450] Consequential amendment: 247.11 Environment Southland.
[451] Consequential amendment: 152.17 Clover Bell; 408.2 Hynds Pip Systems; 614.20 NZTA; and 810.39 Three Rivers CG.

(1) a permitted activity prior to this plan becoming operative; or
(2) constructed in accordance with a resource consent; and

(ii) any, pond, tank or structure used to store agricultural effluent with a capacity of more than 35 cubic metres prior to discharge is either:
(1) fully lined with an impermeable synthetic liner or is of concrete construction, above ground level, and:
(a) has a leak detection system that underlies the entire pond surface 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 criteria in Appendix P; or
(2) is certified by a Suitably Qualified Person in accordance with Appendix P within the last three years as:
(a) having no visible cracks or defects that would allow effluent to leak from the storage; and
(b) meeting the relevant pond drop criteria in Appendix P.

(b) The use of land for an existing effluent storage system for waste-water, sludge or effluent from industrial or trade processes or agricultural effluent and including ancillary structures, but excluding an onsite wastewater system, composting toilet system or mobile toilet, and any incidental discharge directly onto or into land from storage, that does not meet one or more conditions of Rule 32A(a) is a discretionary activity.[452]

Rule 33 – Community sewerage schemes

(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 ~~is~~ are met:

~~(i) any pond, tank or structure used to store the effluent or bio-solids prior to discharge is certified by a Chartered Professional Engineer as:~~[453]
~~(1) being structurally sound;~~[454]
~~(2) meeting the relevant pond drop level outlined below, when tested in accordance with the methodology in Appendix P.~~[455]

~~Maximum Depth of Pond (m) excluding freeboard~~	~~Maximum Allowable Pond Level Drop (mm per 24 hours)~~
~~<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~~

(ii) the discharge of effluent or bio solids is not within 20 metres of any river, lake, natural wetland, artificial watercourse or the coastal marine area; and
(iii) the discharge of effluent or bio solids 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

[452] 832.95 Van Gool, R; 687.2 Roseneath Dairies
[453] 330.15 GDC, ICC, SDC
[454] 330.15 GDC, ICC and SDC; 411.31 ICC
[455] 330.15 GDC, ICC and SDC; 411.31 ICC

(iv) the discharge is not within 100 metres of any water abstraction point.[456]

(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

(a) The discharge of effluent or bio-solids into water, from a community sewerage scheme is a non-complying activity.[457]

Rule 34 – Industrial and trade processes

(a) The discharge onto or into land, in circumstances where contaminants may enter water, of wastewater, sludge or effluent from industrial and trade processes, other than agricultural effluent, is a discretionary activity provided the following condition is met:

(i) any pond, tank or structure used to store the ~~waste water~~ wastewater[458], sludge or effluent prior to discharge is certified by a Chartered Professional Engineer as~~:~~[459]

(1) ~~being structurally sound;~~ having no visible cracks or defects that would allow wastewater, sludge or effluent to leak from the storage.[460]

~~(2) meeting the relevant pond drop level outlined below, when tested in accordance with the methodology in Appendix P.~~[461]

~~Maximum Depth of Pond (m) excluding freeboard~~	~~Maximum Allowable Pond Level Drop (mm per 24 hours)~~
~~<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~~

(b) The discharge onto or into land, in circumstances where contaminants may enter water, of wastewater, sludge or effluent from industrial and trade processes, other than agricultural effluent, that does not meet the condition of Rule 34(a) is a non-complying activity.

Rule 35 – Discharge of agricultural effluent to land

(a) 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 from;

(1) a dairy shed servicing a maximum of 20 cows or 100 of any other animal; or

(2) piggeries with a maximum of 70 x 50 kg pig equivalents; or

(3) directly from feed pads/lots~~, and wintering pads~~[462] ~~that~~ authorised under Rule 35A; or~~:~~[463]

[456] 279.79 Forest and Bird; 780.6 Strathfair Farms; and 275.4 A Flett
[457] 440.1 Kent, R, 386.2 Hopcroft Farms Ltd
[458] Clause 16(2) amendment
[459] Clause 16(2) amendment
[460] 330.15 GDC, ICC and SDC, 411.31 ICC
[461] 17.40 Alliance
[462] 672.6 A Robertson; 346.1 K & D Hall; 270.3 Firdale Farms; and 220.16 Drylands Farming
[463] Consequential to new feed pad/lot rule 35A

~~(a) until 31 December 2017 service no more than 100 adult cattle or 250 adult deer; and~~

~~(b) from 1 January 2018 service no more than 100 adult cattle or 250 adult deer where the feed lot or wintering pad:~~

~~(i) is not less than 20 metres from the nearest sub-surface (tile) drain, surface waterbody or wetland; and~~

~~(ii) is the only feed lot or wintering pad on the landholding;~~ [464]or

~~(c) service no more than 10 adult cattle or 25 adult deer in any other circumstance; or~~

(4) stock underpasses; or

(5) holding tanks on stock trucks; and[465]

(ii) there is no discharge of agricultural effluent or water containing agricultural effluent to any surface watercourse, 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 ~~surface waterbody~~ river, lake, artificial watercourse, natural wetland~~s, listed in Appendix A~~[466] 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[467]; and

(vi) the discharge is not within 100 metres of any authoirsed[468] water abstraction point; and

(vii) provided the soil moisture does not exceed field capacity, 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

(ix) the discharge system is operated and maintained so that there is no spray drift or offensive or objectionable odour beyond the landholding boundary; and

(x) the minimum return period for discharging collected[469] 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 250 metres of the abstraction point of a drinking water supply site identified in Appendix J; and

(xii) the location of any known[470] sub-surface drains within the discharge area, and their outlet position and relative depth, is mapped and provided to Environment Southland upon request.

(b) 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),[471] is a restricted discretionary activity, provided the following conditions are met:

(i) the discharge is the replacement of ~~a lawfully established~~ an existing discharge consent[472] pursuant to Sections 124-124C of the RMA, and

[464] 79.5 P Blair
[465] Clause 16(2) amendment
[466] 247.11 Environment Southland.
[467] Clause 16(2) amendment
[468] Clause 16(2) amendment
[469] Clause 16(2) amendment
[470] 759.15 Springlands Group
[471] Cl 16, Schedule 1 RMA
[472] 189.38 DHL

(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; ~~and~~

~~(iii) any pond, tank or structure used to store agricultural effluent prior to discharge is certified by a Chartered Professional Engineer as:~~

~~(1) being structurally sound[473];~~

~~(2) meeting the relevant pond drop level outlined below when tested in accordance with the methodology in Appendix P.~~

~~Maximum Depth of Pond (m) excluding freeboard~~	~~Maximum Allowable Pond Level Drop (mm per 24 hours)~~
~~<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~~

Environment Southland will restrict the exercise of its discretion to the following matters:

1. application depth and/or rate, storage requirements, nutrient loading rates[474] (in particular nitrogen), ~~and~~ size of the disposal area, timing of the discharge[475], and contingency plans;
2. the separation distance (beyond that required under conditions (i), (ii) and (iii) above) of the discharge from rivers, lakes, natural wetlands, ~~surface waterbodies~~,[476] artificial watercourses, subsurface drains, the coastal marine area, infrastructure[477] residential dwellings, places of assembly, urban areas, landholding boundaries, water abstraction points and registered drinking-water supplies;
3. other 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, including the physiographic zone that the discharge is located in;
4. the duration of the discharge permit to be issued, including[478] in order to implement the outcomes of any Freshwater Management Unit Process to be undertaken in accordance with Policy 47[479]~~1~~;
5. ~~the adequacy of information provided to demonstrate that any pond, tank or structure used to store agricultural effluent prior to discharge does not leak; and~~
6. ~~the structural integrity of any pond, tank or structure used to store agricultural effluent prior to it being discharged~~.

(c) The discharge of agricultural effluent or water containing agricultural effluent onto or into land, in circumstances where contaminants may enter water ~~that did not exist as at 1 May 2016, or seeks to increase the number of stock provided for in the Riverine, Gleyed, Bedrock/Hill Country, Oxidising, Central Plains, or Lignite-Marine Terraces physiographic zones~~ that does not meet one or more conditions of Rule 35(a), or Rule 35(b)(i) and (ii)[480] is a discretionary activity, provided the following conditions are met:

(i) the discharge is not within 20 metres of any ~~surface waterbody~~ lake, river, modified watercourse, natural wetland, coastal lagoon or estuary[481], artificial watercourse or the coastal marine area;

[473] 190.17 DairyNZ
[474] Clause 16(2) amendment
[475] Clause 16(2) amendment
[476] 752.128 Fish and Game
[477] 410.11 Invercargill Airport Ltd
[478] Clause 16(2) amendment
[479] 247.12 Environment Southland
[480] 277.50 Fonterra
[481] 247.41 Environment Southland – definition of surface waterbody

(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;

(iii) the discharge is not within 100 metres of any water abstraction point.

(d) 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(b)(iii)[482] or Rule 35(c) is a non-complying activity.

(e) Despite any other rule, the discharge of untreated agricultural effluent directly[483] into surface 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 adult cattle or adult deer, each feed pad/lot services no more than 100 adult cattle or 250 adult deer at any one time; and

(iii) animals do not remain on the feed pad/lot for longer than three continuous months; and

(iv) the feed pad/lot is not located;

(1) within 50 metres from the nearest sub-surface drain, river, (including intermittent but excluding ephemeral) watercourse, lake, natural wetland or artificial watercourse 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 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 on the same landholding, or 20 metres of the boundary of any other landholding; or

(4) within a critical source area; and

(v) the feed pad/lot is constructed with a sealed and impermeable base, or a minimum depth of 500 millimetres of wood-based material (bark, sawdust or chip) across the base of the feed pad/lot to prevent the leakage of animal effluent into land and groundwater; and

(vi) the overland flow of stormwater or surface runoff from surrounding land is prevented from entering the feed pad/lot; and

(vii) all liquid animal effluent or stormwater containing animal effluent is collected and disposed of to a sealed animal effluent storage system authorised under Rule 32 or Rule 32A; and

(viii) 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.

(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.[484]

Rule 36 – Horticulture wash-water

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:

(aa) either the discharge complies with Section 2 "Good Practices" of the Horticulture NZ Washwater Discharge Code of Practice 2017;[485] or

(a) the discharge does not exceed 20 cubic metres per day; and[486]

[482] Clause 16(2) amendment
[483] Clause 16(2) amendment
[484] 208.3 Dillon, M and S; 265.93 Federated Farmers
[485] 390.31 Hort NZ
[486] Clause 16(2) amendment

(b) ~~the rate of discharge does not result in any ponding of the contaminants or water containing contaminants;~~ there is no overland flow; or ponding for more than 24 hours[487] of horticultural washwater, or application of the washwater to land when soil moisture exceeds field capacity; and[488]

(c) the discharge only contains water, ~~and~~ soil, and ~~there are no measurable concentrations of chemical additives present in the discharge~~ HSNO approved sanitisers that are used in accordance with their label instructions and comply with NZS 8409:2004 Management of Agrichemicals; and[489]

(d) the discharge is not within:
   (i) 20 metres of any lake, river, modified watercourse, artificial watercourse, the coastal marine area,[490] or natural[491] wetland ~~listed in Appendix A[4], but excluding groundwater~~; or
   (ii) 20 metres of any landholding boundary; or
   (iii) 100 metres of any residential dwelling; or
   (iv) the microbial health protection zone of a drinking water supply site identified in Appendix J, or where no such zone is identified, then 250 metres of the abstraction point of a drinking water supply site identified in Appendix J~~;~~.[492]

Rule 37 – Agricultural dips

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:

(a) there is no discharge of agricultural dip effluent directly to water, including groundwater, or the coastal marine area; and[493]

(b) ~~the rate of discharge does not result in any ponding of the agricultural effluent~~ there is no overland flow or ponding of agricultural dip effluent, or application onto land when soil moisture exceeds field capacity[494]; and[495]

(c) the discharge is not within:
   (i) 20 metres of any river, lake, ~~waterbody or~~ natural wetland~~s~~ or the coastal marine area ~~listed in Appendix A~~[496] ~~excluding groundwater~~; or
   (ii) 100 metres from any existing potable water abstraction point; or
   (iii) 20 metres of any landholding boundary; or
   (iv) 100 metres from any residential dwelling other than residential dwellings on the landholding; and
   (v) the microbial health protection zone of a drinking water supply site identified in Appendix J, or where no such zone is identified, then 250 metres of the abstraction point of a drinking water supply site identified in Appendix J; and[497]

(d) 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

(e) the discharge is undertaken in accordance with any Hazardous Substances and New Organisms Act 1996 approval for the substances being discharged; and

(f) a written record of the ~~nature of the~~ chemicals used and the~~,~~ volume and location of the discharge is kept and provided to Environment Southland on request.

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[487] 507.6 Marshall, A
[488] 752.129 Fish and Game
[489] Consequential Amendment: 390.42 Hort NZ
[490] 279.82 Forest and Bird
[491] 247.11 Environment Southland
[492] Clause 16(2) Amendment
[493] Clause 16(2) amendment
[494] 752.130 Fish and Game
[495] Clause 16(2) amendment
[496] 752.130 Fish and Game, 279.83 Forest and Bird
[497] Clause 16(2) amendment

Rule 38 – Animal and vegetative waste

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 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:

(a) the material does not contain any hazardous substance or hazardous waste; and

(b) the material does not include any waste from a human effluent treatment process; and[498]

(c) the maximum loading rate of nitrogen onto any land area does not exceed 150 kilograms of nitrogen per hectare per year; and

(d) the material is not discharged:

  (i) onto the same area of land more frequently than once every two months; or

  (ii) 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

  (iii) onto land when the soil moisture exceeds field capacity or when soil temperatures are below 5 degrees[499]; or

  ~~(iv) from 1 May to 30 September in any year; or~~ [500]

  (iv) within 20 metres of the landholding boundary, a bore used for water abstraction, the bed of a river, lake, natural wetland, artificial watercourse or modified watercourse or the coastal marine area[501]; or

  (v) with an average[502] depth of material of greater than 10 millimetres on the land surface.

Rule 39 – Other agricultural effluent disposal

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 32 to 38 is discretionary activity.

Rule 40 – Silage storage[503]

(a) The use of land as a silage storage facility, and any incidental air discharge, is a permitted activity provided the following conditions are met:

  (i) the activity does not cause any discharge that results in a noxious, dangerous, offensive, or objectionable odour beyond the boundary of the landholding on which silage is stored; and[504]

  (ii) there is no overland flow of stormwater into the silage storage facility; and

  ~~(iii) there is no discharge of contaminants from the silage storage facility to any surface or groundwater or naturally occurring wetland;~~[505]

  ~~(iv) the activity does not modify, damage or destroy any recorded historic heritage site;~~[506]

  (v) no part of the silage storage facility is within:

[498] Clause 16(2) amendment
[499] 96.2 S Browning
[500] 759.17 Springlands Group, 482.17 Lower Aparima CG, 248.4 Erne Hill and others
[501] Clause 16(2) amendment
[502] 190.18 Dairy NZ
[503] Clause 16(2) amendment
[504] Clause 16(2) amendment
[505] 277.52 Fonterra
[506] Consequential amendment relating to 449.33 KiwiRail

(1) 50 metres of any ~~surface waterbody~~ lake, river, modified watercourse, artificial watercourse[507] or natural~~ly~~ ~~occurring~~[508] 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 250 metres of the abstraction point of a drinking water supply site identified in Appendix J; and

(vi) no part of the silage storage facility is ~~on land~~ located within 50 metres of a classified ~~as a~~ 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 streams, or flows of stormwater other than from the cover of any silage stack; and[509]

(viii) cattle are not able to graze directly from the silage storage facility, unless the area where the cattle access complies with Rule 35A.[510]

(b) The use of land as 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 a ~~surface waterbody~~ lake, river, modified watercourse, artificial 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 250 metres of the abstraction point of a drinking water supply site identified in Appendix J.

~~(ii) no part of the silage storage facility is within the Coastal Marine Area.~~[511]

Environment Southland will restrict the exercise of its discretion to the following matters:

~~1. measures necessary to avoid, remedy or mitigate the discharge of silage leachate to water;~~

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;

~~5. measures necessary to avoid adverse effects on historic heritage; and~~[512]

6. methods of containing any silage leachate that may be emitted prior to application to land, including volume of 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 Environment Southland considers that special circumstances exist that warrant notification of the application.

[507] 247.41 Environment Southland
[508] Clause 16(2) amendment
[509] 189.40 DHL
[510] Consequential amendment relating to 208.3 Dillon, M and S; 265.93 Federated Farmers
[511] Clause 16(2) amendment
[512] Consequential amendment relating to 449.33 KiwiRail

(c) The use of land as 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 T.*[513]

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) the discharge of silage leachate does not enter any surface or naturally occurring~~[514] ~~wetland; and~~

(iia) 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;[515] and[516]

(iii) any discharge is not within:

(1) 20 metres of a ~~surface waterbody, artificial watercourse~~ lake, river, modified watercourse, artificial watercourse, natural wetland 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 a water abstraction point; ~~and~~ 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 250 metres of the abstraction point of a drinking water supply site identified in Appendix J; and

(iv) any discharge does not result in:

~~(1) overland flow or ponding of silage leachate~~[517],

(2) an average[518] depth of application 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,[519] that does not[520] meet the conditions in Rule 41(a) is a discretionary activity.

[513] Heritage NZ (evidence para 4.5.1)
[514] Clause 16(2) Amendment.
[515] Consequential amendment relating to 277.52 Fonterra
[516] Clause 16(2) amendment
[517] Consequential amendment relating to 277.52 Fonterra
[518] 190.20 Dairy NZ
[519] Clause 16(2) amendment
[520] 797.49 Ngāi Tahu

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 in the case of a formed road reserve or a rail corridor, where no limit applies;[521]; and[522]

(ii) the discharge does not occur within:

(1) the bed of a lake or river; or[523]

(2) 50 metres of a ~~surface waterbody~~ lake, river, modified watercourse, artificial watercourse, natural wetland, [524] the coastal marine area, or landholding boundary; or[525]

(3) the flood banks of the Waiau, Aparima, Ōreti or Mataura rivers, or 50 metres of these rivers where flood banks are not present; or[526]

(4) 100 metres of a water abstraction point; and[527]

~~(iii) the activity does not modify, damage or destroy any recorded historic heritage sites;~~[528]

(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.

Environment Southland 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, ~~or~~ and[529] the restriction or diversion of flood flows or coastal water; and[530]
2. ~~site selection and~~ effects on sensitive receiving environments; and[531]
3. ~~effects on historic heritage;~~[532]
4. design, construction and management of the cleanfill site; and[533]
5. post-closure management practices and procedures; and[534]
6. information and monitoring requirements; and[535]
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 Environment Southland considers special circumstances exist that warrant notification of the application.

[521] 449.20 KiwiRail
[522] Clause 16(2) amendment
[523] Clause 16(2) amendment
[524] 247.41 Environment Southland – definition of surface waterbody
[525] Clause 16(2) amendment
[526] Clause 16(2) amendment
[527] Clause 16(2) amendment
[528] Consequential amendment relating to 449.33 Kiwirail
[529] Clause 16(2) amendment
[530] Clause 16(2) amendment
[531] Clause 16(2) amendment
[532] Consequential amendment relating to 449.33 Kiwirail
[533] Clause 16(2) amendment
[534] Clause 16(2) amendment
[535] Clause 16(2) amendment

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 T.*[536]

Rule 43 – Farm landfills

(a) The discharge of contaminants into or onto land in circumstances where that contaminant may enter water at a farm landfill is a permitted activity provided the following conditions are met:

(i) the carcass, offal, compost bulking agent or waste and any associated discharge 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;

(ii) the discharge does not include septic tank sludge, dairy farm sludge or hazardous substance;

(iii) the discharge does not occur within:

(1) the bed of any river or critical source area; or

(2) 50 metres of any lake, river, modified watercourse, artificial watercourse, wetland, or the coastal marine area; or

(3) the flood banks of the Waiau, Aparima, Ōreti or Mataura rivers, or 50 metres of these rivers where flood banks are not present; or

(4) 100 metres of a water abstraction point, dwelling, place of assembly, or land holding 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 250 metres of the abstraction point of a drinking water supply site identified in Appendix J; or

(6) 100 metres of a dwelling, place of assembly, or landolding 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 discharges are covered with soil and the resulting soil surface restored to a similar state as the surrounding land; and

(vii) any carcass or offal must not contact naturally formed limestone rock.

(b) The discharge of contaminants 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) Nonwithstanding the provisions of Rule 43(a) and (b), the discharge of the carcass of, or offal from, a single animal into or onto land in circumstances where that contaminant may enter water is a permitted activity provided the following conditions are met:

(i) the carcass or offal connot 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 is buried in a shallow pit that has no water in it and is immediately and completely covered by soil or plant material to prevent discharge of odour to air; and

(iv) the carcass or offal buried does not occur within:

[536] Heritage NZ (evidence para 4.5.1)

(1) 20 metres of surface water or a 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.[537]

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 T.*[538]

~~(a) The discharge of contaminants into or onto land in circumstances where that contaminant may enter water at a farm landfill is a permitted activity provided the following conditions are met:~~
~~(i) the discharge is derived from the same landholding on which the farm landfill is located;~~
~~(ii) the discharge does not include septic tank sludge, dairy farm sludge, liquids, carcasses, offal, or a hazardous substance;~~
~~(iii) the discharge does not occur within:~~
~~(1) the bed of a lake or river;~~
~~(2) 50 metres of a surface waterbody, artificial watercourse, or the coastal marine area;~~
~~(3) the flood banks of the Waiau, Aparima, Ōreti or Mataura rivers, or 50 metres of these rivers where flood banks are not present;~~
~~(4) 100 metres of a water abstraction point, dwelling, place of assembly, or landholding boundary;~~
~~(iv) the activity does not modify, damage or destroy any recorded historic heritage sites;~~
~~(v) stormwater is directed away from the discharge site~~
~~(vi) the farm landfill does not intercept an on-farm subsurface drain, or a spring or is not excavated below the seasonal mean groundwater level in that location;~~
~~(vii) as each section of the farm landfill becomes full or unused, the discharges are covered and the surface restored to a similar state as the surrounding land;~~
~~(viii) the microbial health protection zone of a drinking water supply site identified in Appendix J, or where no such zone is identified, then 250 metres of the abstraction point of a drinking water supply site identified in Appendix J;.~~

~~(b) The discharge of contaminants 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.~~

~~Rule 44 – Dead holes (offal pits)~~

~~(a) The discharge of a carcass or offal into or onto land at a dead hole in circumstances where that contaminant may enter water is a permitted activity provided the following conditions are met:~~
~~(i) the carcass or offal is derived from the same landholding on which the dead hole is situated or the activity is carried out by a local authority or government agency in the exercise of their statutory powers;~~
~~(ii) the discharge does not include any contaminant other than carcasses, offal, or a compost bulking agent;~~

[537] 265.99 Federated Farmers, 299.19 J Gardyne and 402.17 A & B Hunt
[538] Heritage NZ (evidence para 4.5.1)

(iii) the discharge of a carcass or offal does not occur within:
  (1) the bed of a lake or river (including ephemeral streams), a gully, or a swale;
  (2) 50 metres of a surface waterbody, artificial watercourse, or the coastal marine area, or 150 metres of a surface waterbody where the discharge is to loose gravels;
  (3) the flood banks of the Waiau, Aparima, Ōreti or Mataura rivers, or 50 metres of these rivers where flood banks are not present;
  (4) 100 metres of a water abstraction point other than a registered drinking water supply, or 200 metres where the discharge is to loose gravels;
  (5) 100 metres of a dwelling, place of assembly, or landholding boundary;
(iv) the activity does not modify, damage or destroy any recorded historic heritage sites;
(v) stormwater is directed away from the dead hole site;
(vi) the dead hole does not intercept an on-farm subsurface drain, or a spring or is not excavated below the highest groundwater level in that location;
(vii) the carcass or offal does not contact naturally formed limestone rock;
(viii) the microbial health protection zone of a drinking water supply site identified in Appendix J, or where no such zone is identified, then 250 metres of the abstraction point of a drinking water supply site identified in Appendix J;.

(b) The discharge of a carcass or offal into or onto land at a dead hole in circumstances where that contaminant may enter water that does not meet all one or more of the conditions in of Rule 44(a) is a discretionary activity.

(c) Notwithstanding the provisions of Rule 44(a) and (b), the discharge of the carcass of, or offal from, a single animal into or onto land in circumstances where that 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 in Rule 44(a);
(ii) the carcass or offal is derived from the same landholding;
(iii) the carcass or offal is buried in a shallow pit that has no water in it and is immediately and completely covered by soil or plant material so as to prevent discharge of odour to air, or other nuisance;
(iv) the carcass or offal burial does not occur within:
  (1) 20 metres of surface water or a water abstraction point;
  (2) 20 metres of a dwelling, place of assembly, or landholding boundary;
(v) the activity does not modify, damage or destroy any recorded historic heritage sites.

(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 44(c) is a discretionary activity.

Rule 45 – Landfills

Except as provided for elsewhere in this Plan, the discharge of contaminants into or onto land in circumstances where that contaminant may enter water at a landfill 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 Southland Regional Council[539]; ~~and~~ or[540]

(ii) the discharge does not result in a breach of the trigger values for toxicants, presented in Table 3.4.1 in the[541] 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; and[542]

(2) the landholding boundary; and[543]

(3) any point immediately adjacent to a ~~surface waterbody~~ lake, river, modified watercourse, artificial watercourse, the coastal matine area, natural wetland[544] or water abstraction bore (excluding monitoring bores); and[545]

(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[546]; 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.

~~(d) The use of land for a site investigation to assess concentrations of hazardous substances that may be present in the soil 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~~

[539] 449.21 KiwiRail
[540] 895.54 Oil Companies
[541] 661.41 Ravensdown, 803.42 FANZ
[542] Clause 16(2) amendment
[543] Clause 16(2) amendment
[544] 247.41 Environment Southland – definition of surface waterbody
[545] Clause 16(2) amendment
[546] 449.21 KiwiRail

~~(ii) the person or organisation initiating the site investigation provides a copy of the report of the site investigation to Environment Southland within two months of the completion of the investigation.~~

~~(e) The use of land for a site investigation to assess concentrations of hazardous substances that may be present in the soil that does not meet one or more of the conditions in Rule 46(d) is a discretionary activity.~~[547]

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 incidential 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 Environment Southland 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 incidential 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.[548]

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[549] which demonstrates that the environmental risk is low; and[550]

(ii) a copy of the risk assessment was lodged with Environment Southland prior to 1 November 2015.

(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.

[547] 895.54 Oil Companies

[548] 895.54 Oil Companies

[549] 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)

[550] Clause 16(2) amendment

(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 a ~~surface waterbody~~ lake, river, modified watercourse, artificial watercourse, ephemeral waterway, natural wetland,[551] or the coastal marine area[552]; or

(2) within 50 metres of a bore used for water abstraction; ~~or~~ and[553]

(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; and[554]

(4) where the depth to groundwater ~~exceeds 3~~ is less than[555] 2.5[556] 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.

[551] 247.41 Environment Southland – definition of surface waterbody
[552] Clause 16(2) amendment
[553] Clause 16(2) amendment
[554] Clause 16(2) amendment
[555] Clause 16(2) amendment
[556] 750.21 SDC

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~~[557] 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[558]

(ii) the maximum volume of take allowed under this rule and Rule 54(a) is not added. 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[559] may be taken; and[560]

(iii) the rate ~~volume~~ of take does not exceed 30 percent of the ~~naturalised~~ instantaneous flow in the ~~surface waterbody~~ lake, river, modified watercourse, natural wetland or coastal lagoon[561] at the time of take; and[562]

(iv) the rate of take does not exceed 2 litres per second; and[563]

(v) fish are prevented from entering the reticulation system in accordance with Appendix R[564]; and

(vi) the following details are supplied to Environment Southland upon request:

(1) farming type; and[565]

(2) stocking rate; and[566]

(3) point of abstraction; and[567]

(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 maximum daily volume of the take is used. The water take data must be recorded daily and that data must be provided to Environment Southland on request. The accuracy of the water meter must be verified every 12 months.[568]

(aa) 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 the take does not exceed 100m^3 per day; and

(iii) the rate of the take does not exceed 30 percent of the instantaneous flow in the lake, river, modified water course or coastal lagoon at the time of the take; and

(iv) the point of abstraction is not located within 50 metres of any existing lawfully established surface water take; and

[557] Clause 16(2) amendment
[558] Clause 16(2) amendment
[559] 247.14 Environment Southland
[560] Clause 16(2) amendment
[561] 247.41 Environment Southland – definition of surface waterbody
[562] Clause 16(2) amendment
[563] Clause 16(2) amendment
[564] 279.95 Forest and Bird, 752.142 Fish and Game
[565] Clause 16(2) amendment
[566] Clause 16(2) amendment
[567] Clause 16(2) amendment
[568] 247.14 Environment Southland; 464.24 Landpro

(v) Environment Southland is notified at least three working days prior to the take commencing; and

(vi) the take occurs between 1 September and 31 March inclusive; and

(vii) fish are prevented from entering the water intake in accordance with Appendix R; and

(viii) where the volume of the take exceeds 20,000 litres per day, a water meter capable of recording the rate of take, and maximum daily volume shall be installed. The water take data shall be recorded daily and that data shall be provided to Environment Southland on request. The accuracy of the water meter shall be verified every 12 months.[569]

(b) Except as provided for in Rules 49(a), 49(aa)[570], 50(a), 50(b), 51(a) and 51(b), the taking, diversion and use of surface water ~~from any of the following sources~~ is a restricted discretionary activity provided the following conditions are met[571]:

(i) for any ~~surface waterbody~~ lake, river, modified watercourse, natural wetland, coastal lagoon[572] or artificial watercourse ~~where~~ the total surface water allocation is within the secondary allocation specified in Policy 21(3); or~~and~~

(ii) for non-consumptive takes ~~any surface waterbody or artificial watercourse where~~[573] the total volume of water taken or diverted is returned within 100 metres of the take or diversion point; or

(iii) for any ~~surface waterbody~~ lake, river, modified watercourse, natural wetland, coastal lagoon[574] or artificial watercourse ~~where~~ the total volume of water taken is greater than 40 cubic metres per landholding per day but[575] is less than 70 cubic metres per landholding per day.

Environment Southland 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 ~~surface waterbody~~ lake, river, modified watercourse, natural wetland, coastal lagoon or artificial watercourse[576] and the delay between the taking and returning of this water); and[577]
2. any effects on river ~~and stream~~ [578]flows (including effects on minimum flows, flow variability and duration of flows), wetland ~~and~~ or[579] lake water levels, aquatic ecosystems, aquifer storage volumes, the availability and reliability of supply for existing users and water quality; and[580]
3. the location of the take or diversion; and[581]
4. the efficiency of water use, in accordance with Appendix O[582]; and[583]
5. ~~the need for~~ the installation and use of a water meter; and[584]
6. monitoring requirements; and[585]
7. methods to prevent fish from entering the intake ~~reticulation system~~; and[586]
8. take cessation in response to minimum flow ~~and level~~ requirements; and[587]

[569] 288.33 Fulton Hogan Ltd and Southern Aggregates Ltd
[570] 288.33 Fulton Hogan Ltd and Southern Aggregates Ltd
[571] Clause 16(2) amendment
[572] 247.41 Environment Southland – definition of surface waterbody
[573] 464.24 Landpro
[574] 247.41 Environment Southland – definition of surface waterbody
[575] Clause 16(2) amendment
[576] 247.41 Environment Southland – definition of surface waterbody
[577] Clause 16(2) amendment
[578] Clause 16(2) amendment
[579] Clause 16(2) amendment
[580] Clause 16(2) amendment
[581] Clause 16(2) amendment
[582] 47.21 Balfour, Wendonside & Waikaia Group, 259.17 F D Enterprise, 464.24 Landpro and others
[583] Clause 16(2) amendment
[584] Clause 16(2) amendment
[585] Clause 16(2) amendment
[586] Clause 16(2) amendment
[587] Clause 16(2) amendment

9. consistency with any water conservation order; and[588]
10. the degree of hydraulic connection to groundwater; and[589]
11. any effect on a natural ~~regionally significant~~ wetland; and[590]
12. the proposed method of take and delivery of the water; and
13. any water storage available for the water taken and its volume.

(c) Except as provided for in Rules 49(a), 49(aa)[591], 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 ~~allocation is within~~[592] the primary allocation specified in Appendix K is a discretionary activity.

(d) Except as provided for in Rules 49(a), 49(aa)[593], 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, unless 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, is a prohibited activity.

Rule 50 – Community water supply

(a) **Existing community water supply**

~~(i) Notwithstanding Rules 49(d) and (e) and 53(c) and (d), t~~The taking and use of water for a community water supply is a controlled activity provided:

(1) 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, and use of the water is not changing; and

(2) a water demand management strategy is lodged as a part of the application.

Environment Southland will exercise its control over the following matters:

1. ~~T~~the[594] 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 ~~surface waterbody~~ lake, river, modified watercourse, natural wetland, coastal lagoon or artificial watercourse[595]); and[596]
3. any effects on river ~~and stream~~[597] flows (including effects on minimum flows, flow variability and duration), wetland ~~and~~ or[598] lake water levels, aquatic ecosystems, and aquifer storage volumes~~,~~; and[599]
4. the availability and reliability of supply for existing users; and[600]

4a. water quality;

4b. methods to prevent fish from entering the intake;

5. monitoring requirements; and[601]

[588] Clause 16(2) amendment
[589] Clause 16(2) amendment
[590] Clause 16(2) amendment
[591] 288.33 Fulton Hogan Ltd and Southern Aggregates Ltd
[592] Clause 16(2) amendment
[593] 288.33 Fulton Hogan Ltd and Southern Aggregates Ltd
[594] Clause 16(2) amendment
[595] 247.41 Environment Southland – definition of surface waterbody
[596] Clause 16(2) amendment
[597] Clause 16(2) amendment
[598] Clause 16(2) amendment
[599] Clause 16(2) amendment
[600] Clause 16(2) amendment
[601] Clause 16(2) amendment

6. take cessation in response to minimum flow ~~and level~~ requirements; and[602]
7. consistency with any water conservation order; and[603]
8. the degree of hydraulic connection to groundwater or other surface water bodies;~~.~~
9. management of the take during water shortages.[604]

(b) **New community water supply**

Except as provided for in Rule 50(a) ~~and notwithstanding any provision of Rules 49 and 54~~ 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 ~~and~~ or enhancement~~,~~;[605] or hydrologic research; and~~: is carried out in accordance with the following conditions:~~

(1) fish passage ~~shall~~ is not ~~be~~ impeded as a result of the activity; and[606]

(2) there ~~shall be~~ is no bed disturbance of ~~the~~ roosting and nesting areas of the black fronted tern, black billed gull, ~~and~~ or banded and black fronted dotterel; and[607]

(3) any activity in the water ~~shall be~~ is kept to a minimum to avoid, as much as practicable, discoloration ~~to~~ of the river or lake water~~. Where any sediment release occurs, it will be only temporary~~; and[608]

(4) any bed disturbance ~~shall be kept to~~is the minimum necessary to undertake the activity and the bed must~~shall~~ be returned as near as practicable to its original channel shape, area, depth, or gradient on completion of the activity ~~(with the exception of revegetation)~~; and[609]

(5) no fuel storage or machinery refuelling ~~shall~~ occurs[610] on any area of the bed;

(6) no contaminants, other than sediment released from the bed, ~~shall be~~ are[611] discharged to water during the activity unless allowed by a permitted activity rule or resource consent; and[612]

~~(7) there are no recorded historic heritage sites, at the site of the activity;~~[613]

(8) before any equipment, machinery, or operating plant is moved to a new activity site it ~~shall~~ must[614] be effectively cleaned to prevent the spread of "pests" or "unwanted organisms" as defined by the Biosecurity Act 1993; and[615]

(9) all equipment, machinery, operating plant and debris associated with the bed disturbance activity ~~shall be~~ is[616] removed from the site on completion of the activity; and

(10) from the beginning of November until the end of May, there ~~shall be~~ is[617] no disturbance of the tidal river habitat up to the spring tide level~~.~~; and[618]

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[602] Clause 16(2) amendment
[603] Clause 16(2) amendment
[604] 390.33 Hort NZ
[605] Clause 16(2) amendment
[606] Clause 16(2) amendment
[607] Clause 16(2) amendment
[608] Clause 16(2) amendment
[609] Clause 16(2) amendment
[610] Clause 16(2) amendment
[611] Clause 16(2) amendment
[612] Clause 16(2) amendment
[613] 449.23 Kiwi Rail
[614] Clause 16(2) amendment
[615] Clause 16(2) amendment
[616] Clause 16(2) amendment
[617] Clause 16(2) amendment
[618] Clause 16(2) amendment

(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[619]

(iii) the water is returned to its original course after completion of the activity, no later than one month after the diversion occurs; and[620]

(iiia) 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[621]

(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.[622]

(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 ~~drainage~~[623] and associated discharge does not cause erosion or deposition; and[624]

(ii) the diversion ~~drainage~~[625] ~~shall~~ does[626] not cause flooding of downstream or adjacent properties; and[627]

(iii) the diversion of water is not from a Regionally Significant Wetland identified in Appendix A or any natural~~ly occurring~~ 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; or[628]

(ii) a drain known as the West Drain on the Tiwai Peninsula, at about Map Reference NZTopo50 CG10 457 302; ~~and/~~or[629]

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

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[630]

(2) machinery may only cross~~s~~es through ~~the~~ a drain~~s~~ to ~~the extent that it is necessary to~~ obtain reasonable access to the side of the drain from which the work is to be undertaken; and[631]

(3) the diversion ~~opening~~ is constructed at right angles to the line of the beach; and[632]

(4) any excavated spoil is removed from the site and legally disposed of or spread over non-vegetated areas adjacent to the diversion; and[633]

(5) the body or person responsible advises ~~the Director of Policy, Planning and Regulatory Services,~~ Environment Southland~~,~~ of the details of the time and extent of the work to be undertaken, prior to the work commencing; and[634]

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[619] Clause 16(2) amendment
[620] Clause 16(2) amendment
[621] Consequential amendment to 330.2 GDC, ICC and SDC and 614.2 NZTA
[622] Clause 16(2) amendment
[623] 247.15 Environment Southland
[624] Clause 16(2) amendment
[625] 247.15 Environment Southland
[626] Clause 16(2) amendment
[627] Clause 16(2) amendment
[628] Clause 16(2) amendment
[629] Clause 16(2) amendment
[630] Clause 16(2) amendment
[631] Clause 16(2) amendment
[632] Clause 16(2) amendment
[633] Clause 16(2) amendment
[634] Clause 16(2) amendment

(6) in the event of a discovery, or suspected discovery, of a site of cultural, heritage or archaeological value, the operation ~~shall~~ must cease immediately in that location and ~~the Director of Policy, Planning and Regulatory Services,~~ Environment Southland ~~shall~~ must[635] be informed. Operations may recommence with the permission of Environment Southland ~~the Director of Policy, Planning and Regulatory Services~~.

(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[636] 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 T.*[637] *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.*[638]

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),[639] 51(a), 51(b), 52A and 52B ~~and 51(c)~~[640] (including ~~and the~~ takes authorised by Section 14(3) of the Act)[641], any take, damming, diversion and use of water from the Waiau catchment is a discretionary activity provided the following conditions are ~~is~~[642] 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[643]

(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.[644]

(b) Except as provided in Rules 49(a), 49(b), 49(c), 50(a), 50(b),[645]51(a), 51(b), 52A and 52B ~~and 51(c)~~[646] (including~~and the~~ takes authorised by Section 14(3) of the Act),[647] any take, damming, diversion and use of water from the Waiau catchment that does not meet the conditions[648] of Rule 52(a) is a non-complying activity.

Rule 52A - Manapouri Hydro-electric Generation Schemes

(a) Despite any other rules in this Plan, any activity that is part of the Manapouri hydro-electric generation schemes, for which consent is held and which is the subject of an application for a new consent for the same activity and is:

[635] Clause 16(2) amendment
[636] Clause 16(2) amendment
[637] Heritage NZ (evidence para 4.5.1)
[638] 372.14 HNZ
[639] 330.17 GDC, ICC, SDC
[640] 247.16 Environment Southland
[641] Clause 16(2) amendment
[642] Clause 16(2) amendment
[643] Clause 16(2) amendment
[644] 464.23 Landpro
[645] 330.17 GDC, ICC, SDC
[646] 247.16 Environment Southland
[647] Clause 16(2) amendment
[648] Clause 16(2) amendment

(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 restricted discretionary 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.

Environment Southland will restrict the exercise of its discretion 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; and
2. any effects on river and stream flows, wetland and lake water levels, aquatic ecosystems, and water quality;
3. mitigation or remediation measures to address adverse effects on the environment; and
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 Manapouri hydro-electric generation schemes, 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.[649]

Rule 53 - Bores and wells

(a) The use of land for [650]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 prevents~~.~~[651]:
(1) the infiltration of contaminants; and
(2) the uncontrolled discharge or leakage of water to the ground surface ~~and~~ 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[652]
(iii) for bores to be used for the supply of water from unconfined aquifers, the bore screen fully penetrates the aquifer ~~location of the top of the screened interval is a minimum of 10 metres below the mean water table depth (unconfined aquifers)~~.[653]

Environment Southland will restrict the exercise of its control to the following matters:

[649] 562.15 Meridian
[650] Clause 16(2) amendment
[651] Clause 16(2) amendment
[652] Clause 16(2) amendment
[653] 464.26 Landpro

1. the proximity of the bore or well to surface water bodies (including spring-fed streams), potential sources of groundwater contamination, existing bores and wells ~~and historic heritage~~[654]; and[655]
2. the design and depth of the bore or well; and[656]
3. the method of drilling ~~and~~ or excavation; and[657]
4. the design and management of the bore head; and[658]
5. the use, maintenance and decommissioning of the bore or well; and[659]
6. ~~the~~ information and monitoring requirements; and[660]
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 Environment Southland considers special circumstances exist that warrant notification of the application.

(b) 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 and decommissioning of any bore or well is a permitted activity provided the following conditions are met:
   (i) the bore or well design and headworks prevents[661]:
      (1) the infiltration of contaminants; and
      (2) the uncontrolled discharge or leakage of water to the ground surface ~~and~~ or[662] between aquifers.

(d) The use, maintenance and 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[663]

(a) The take and use of groundwater is a permitted activity provided the following conditions are met:
   (i) the rate and volume 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[664]
   (ii) the maximum volume of take allowed under this rule and Rule 50(a) is not added. 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,[665] is allowed; and[666]
   (iii) the following details are supplied to Environment Southland upon request:

[654] Consequential amendment relating to 449.33 KiwiRail
[655] Clause 16(2) amendment
[656] Clause 16(2) amendment
[657] Clause 16(2) amendment
[658] Clause 16(2) amendment
[659] Clause 16(2) amendment
[660] Clause 16(2) amendment
[661] Clause 16(2) amendment
[662] Clause 16(2) amendment
[663] **Advice 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, to establish the relevant groundwater zone. Once the relevant groundwater zone has been established, Appendix L can be used to determine the aquifer type.
[664] Clause 16(2) amendment
[665] 247.14 Environment Southland
[666] Clause 16(2) amendment

(1) farming type; and[667]
(2) stocking rate; and
(3) point of abstraction.;and[668]
(4) What the water is used for; and
(5) Maximum rate of take.[669]

(iv) Where the volume of the take exceeds 20,000 litres per day[670], a water meter capable of recording the rate of take, and the maximum daily volume of take, must be used. The water take data must be recorded daily and that data must be provided to Environment Southland on request. The water meter must be verified every 12 months.[671]

(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[672]
(2) a maximum daily volume of 750 cubic metres; and[673]
~~(3) if the degree of hydraulic connection, calculated in accordance with Appendix L.2 is not Riparian, Direct or High, the relevant surface water minimum flows and allocation limits are met;~~[674]
(ii)~~(4)~~ any interference effects are "acceptable" in accordance with Appendix L.3; and[675]
(iii)~~(ii)~~ the same amount of water is returned to the same ~~waterbody or~~ aquifer within 250 metres of the point at which it was taken; and[676]
(iv)~~(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) Environment Southland ~~must be~~ is notified at least three days prior to test commencement; and[677]
(ii) the rate of take ~~must~~ does not exceed 75 litres per second; and[678]
(iii) the duration of pumping does not exceed five consecutive days; and[679]
(iv) any discharge of water to water is consistent with the water quality requirements of section 70 of the RMA; and[680]
(v) water discharged onto land must not contribute to flooding on any other landholding; and[681]
(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[682] are provided to Environment Southland within one month of the completion of the test.

[667] Clause 16(2) amendment
[668] Clause 16(2) amendment
[669] 752.147 Fish and Game
[670] 464.13 Landpro
[671] 247.17 Environment Southland
[672] Clause 16(2) amendment
[673] Clause 16(2) amendment
[674] 247.17 Environment Southland
[675] Clause 16(2) amendment
[676] Clause 16(2) amendment
[677] Clause 16(2) amendment
[678] Clause 16(2) amendment
[679] Clause 16(2) amendment
[680] Clause 16(2) amendment
[681] Clause 16(2) amendment
[682] Clause 16(2) amendment

(ca) The taking of water from 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) Environment Southland 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 moderate, high or direct stream depletion effect on a surface waterbody, determined in accordance with Appendix L.2, unless the abstracted groundwater is being discharged to the surface waterbody 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, group or private drinking-water supply bore will be prevented from taking water; and

(ix) At the point and time of any discharge to surface water, the rate of flow in the river or artificial watercourse is at least five times the rate of the discharge; and

(x) The concentration of total suspended solids in any discharge to a lake, river, modified watercourse, natural wetland, coastal lagoon does not exceed:

(a) 100 g/m³ where the discharge is to any Lowland softbed, Lowland hard bed, or Hill river or to an artificial watercourse; or

(b) 50 g/m^3 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 Environment Southland within three months. [683]

(d) Other than as ~~that~~ provided by Rules[684] 54(a), 54(b), 54(c)[685] and 54(ca) the take and use of[686] groundwater ~~takes~~ from groundwater management zones listed in Appendix L.5[687] is a discretionary activity provided the following conditions are met:

(i) the total volume of authorised groundwater abstraction ~~allocation~~ is within the primary or secondary 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 ~~not~~ Riparian, ~~Direct or~~ High or Moderate the relevant surface water minimum flows and allocation limits specified in Table L.2 are complied with ~~are met~~; and [688]

(iii) any interference effects are 'acceptable' in accordance with Appendix L.3; and[689]

(iv) if the total ~~groundwater~~ volume of authorised groundwater abstraction ~~allocation~~[690] is within the secondary allocation limit, then minimum groundwater level cut-offs and seasonal recovery triggers are established in accordance with criteria outlined in Appendix L.6.

[683] 895.56 Oil Companies
[684] Clause 16(2) amendment
[685] 457.1 L & M
[686] 247.17 Environment Southland
[687] 247.17 Environment Southland
[688] Clause 16(2) amendment
[689] Clause 16(2) amendment
[690] Clause 16(2) amendment

(e) Other than as ~~that~~ provided by Rules 54(a), 54(b), 54(c)[691] 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 ~~groundwater~~ volume of authorised groundwater abstraction ~~allocation~~[692] 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[693]

(ii) any interference effects are 'acceptable' in accordance with Appendix L.3.[694]

(f) Other than as ~~that~~ provided by Rules[695] 54(a), 54(b) and 54(c)[696] and 54(ca) the take and use of groundwater outside the[697] groundwater management zones listed in Appendix L.5 is a discretionary activity provided the following conditions are ~~is~~[698] met;

(i) the total volume of authorised groundwater abstraction is withing the primary allocation limit established following the methodology outlined in Appendix L.7[699]; and

(ii) any interference effects are 'acceptable' in accordance with Appendix L.3~~:~~.[700]

(g) The take and use of groundwater that does not comply with Rules 54(b) to 54(f) is a non-complying activity.

[691] 457.1 L & M
[692] Clause 16(2) amendment
[693] Clause 16(2) amendment
[694] Clause 16(2) amendment
[695] Clause 16(2) amendment
[696] 457.1 L & M
[697] Clause 16(2) amendment
[698] Clause 16(2) amendment
[699] 247.17 Environment Southland
[700] Clause 16(2) amendment

Structures in river and lake beds

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 river (including intermittent, but excluding ephemeral watercourses)[701], modified watercourse~~,~~ or lake for the purpose of carrying out inspections, surveys, investigations, tests, measurements, or taking samples~~,~~ is a permitted activity provided the following conditions are met:

(i) fish passage ~~shall~~ is not ~~be~~ impeded as a result of the activity; and[702]

(ii) there ~~shall be~~ is no ~~bed~~ disturbance of ~~the~~ roosting and nesting areas of the black fronted tern, black billed gull, ~~and~~ or banded and black fronted dotterel; and[703]

(iii) any activity in the water ~~shall be~~ is kept to a minimum to avoid, as much as practicable, discoloration ~~to~~ of the river or lake. Where any sediment release occurs, it will be only temporary; and[704]

(iv) any bed disturbance shall be kept to the minimum necessary to undertake the activity and the bed must ~~shall~~ be returned as near as practicable to its original channel shape, area, depth, or gradient on completion of the activity (with the exception of revegetation); and[705]

(v) no fuel storage or machinery refuelling ~~shall~~ occurs[706] on any area of the bed;

(vi) no contaminants, ~~shall be~~ are[707]discharged to water as a result of use of the structure unless allowed by a relevant permitted activity rule or a[708] resource consent.

(vii) no contaminants, ~~shall be~~ are[709]discharged to water as a result of use of the structure unless allowed by a relevant permitted activity rule or a[710] resource consent.

(viii) there are no recorded historic heritage sites, at the site of the activity; and[711]

(ix) before any equipment, machinery, or operating plant is moved to a new activity site it ~~shall~~ must[712] be effectively cleaned to prevent the spread of "pests" or "unwanted organisms" as defined by the Biosecurity Act 1993; and[713]

(x) all equipment, machinery, operating plant and debris associated with the bed disturbance activity ~~shall be~~ is[714] removed from the site on completion of the activity; and

(xi) the structure or bed disturbance activity shall not cause significant erosion of, or deposition on, the surrounding bed or banks; and

(xii) any build-up of debris against the structure or bed disturbance activity, which may adversely affect flood risk, drainage capacity or bed or bank stability, ~~shall be~~ is[715]removed as soon as practicable.

(b) The use, placement, erection or reconstruction (and any associated bed disturbance and discharge) of any equipment, measuring apparatus or similar devices[716], in, on or over the bed

[701] 277.63 Fonterra
[702] Clause 16(2) amendment
[703] Clause 16(2) amendment
[704] Clause 16(2) amendment
[705] Clause 16(2) amendment
[706] Clause 16(2) amendment
[707] Clause 16(2) amendment
[708] Clause 16(2) amendment
[709] Clause 16(2) amendment
[710] Clause 16(2) amendment
[711] Clause 16(2) amendment
[712] Clause 16(2) amendment
[713] Clause 16(2) amendment
[714] Clause 16(2) amendment
[715] Clause 16(2) amendment
[716] Clause 16(2) amendment

of any river, modified watercourse, or lake, that does not meet one or more of the conditions of Rule 55(a) is a discretionary activity.

Rule 56 - Boat ramps, jetties, ~~and~~ wharves and slipways[717]

(a) The placement, erection or reconstruction of any boat ramp, jetty, ~~or~~ wharf or slipway[718] in, on or over the bed of any river (including intermittent, but excluding ephemeral watercourses)[719], modified watercourse, or lake, and any associated bed disturbance and discharge resulting from the carrying out of the activity, is a discretionary activity.

(b) The use of any boat ramp, jetty, wharf or slipway[720] in, on or over the bed of any river (including intermittent, but excluding ephemeral watercourses)[721], modified watercourse, or lake is a permitted activity provided the following conditions are met:
   (i) the structure is lawfully established;
   (ii) fish passage shall not be impeded as a result of the activity;
   (iii) the structure shall not cause significant erosion of, or deposition on, the surrounding bed or banks;
   (iv) any build-up of debris against the structure, which may adversely affect flood risk, drainage capacity or bed or bank stability, shall be removed as soon as practicable;
   (v) the structure shall be maintained in a state of good repair; and
   (vi) no contaminants, shall be discharged to water as a result of use of the structure unless allowed by a relevant permitted activity rule or resource consent.

(c) The use of any boat ramp, jetty, wharf or slipway[722] in, on or over the bed of any river (including intermittent, but excluding ephemeral watercourses)[723], modified watercourse, or lake 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 river (including intermittent, but excluding ephemeral rivers)[724], modified watercourse, or lake 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:
   (i) there are no support structures (for example, piles) in the bed; and[725]
   (ii) the bridge and its abutments ~~shall~~ do[726] not increase the risk of flooding to surrounding land; and[727]
   (iii) the bridge and its bank abutments ~~shall~~ do[728] not impede the flow of water within the river channel; and[729]
   (iv) the structure is not within any mātaitai, nohoanga, or taiāpure[730]; and[731]
   (v) fish passage ~~shall~~ is not ~~be~~ impeded as a result of the activity; and[732]

[717] 664.24 Real Journeys
[718] 664.24 Real Journeys
[719] 277.63 Fonterra
[720] 664.24 Real Journeys
[721] 277.63 Fonterra
[722] 664.24 Real Journeys
[723] 277.63 Fonterra
[724] 277.63 Fonterra
[725] Clause 16(2) amendment
[726] Clause 16(2) amendment
[727] Clause 16(2) amendment
[728] Clause 16(2) amendment
[729] Clause 16(2) amendment
[730] Mātaitai and taiāpure defined in the introduction at page 11
[731] Clause 16(2) amendment
[732] Clause 16(2) amendment

(vi) there ~~shall be~~ is no ~~bed~~ disturbance of ~~the~~ roosting and nesting areas of the black fronted tern, black billed gull, ~~and~~ or banded and black fronted dotterel; and[733]

(vii) any activity in the water ~~shall be~~ is kept to a minimum to avoid, as much as practicable, discoloration ~~to~~ of the river or lake water. Where any sediment release occurs, it will be only temporary; and[734]

(viii) any bed disturbance is ~~shall be~~ kept to the minimum necessary to undertake the activity and the bed must ~~shall~~ be returned as near as practicable to its original channel shape, area, depth, or gradient on completion of the activity (with the exception of revegetation); and

(ix) no fuel storage or machinery refuelling ~~shall~~ occurs[735] on any area of the bed;

(x) no contaminants, other than sediment released from the bed, ~~shall be~~ are[736] discharged to water during the activity unless allowed by a relevant permitted activity rule or a resource consent; and [737]

~~(xi) there are no recorded historic heritage sites, at the site of the activity;~~[738]

(xii) before any equipment, machinery, or operating plant is moved to a new activity site it ~~shall~~ must[739] be effectively cleaned to prevent the spread of "pests" or "unwanted organisms" as defined by the Biosecurity Act 1993; and[740]

(xiii) all equipment, machinery, operating plant and debris associated with the bed disturbance activity ~~shall~~ must [741] be removed from the site on completion of the activity; and

(xiv) from the beginning of November until the end of May, there ~~shall be~~ is no disturbance of the tidal river habitat up to the spring tide level; and[742]

(xv) the structure ~~shall~~ must [743]not cause significant erosion of, or deposition on, the surrounding bed or banks; and[744]

(xvi) any build-up of debris against the structure, which may adversely affect flood risk, drainage capacity or bed or bank stability, ~~shall be~~ is [745]removed as soon as practicable; and

(xvii) the structure ~~shall be~~ is[746] maintained in a state of good repair.

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 T.*[747]

(b) The placement, erection or reconstruction and any associated bed disturbance of any bridge in, on or over the bed of any river (including intermittent, but excluding ephemeral rivers)[748], modified watercourse, or lake 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.

[733] Clause 16(2) amendment
[734] Clause 16(2) amendment
[735] Clause 16(2) amendment
[736] Clause 16(2) amendment
[737] Clause 16(2) amendment
[738] 449.26 KiwiRail
[739] Clause 16(2) amendment
[740] Clause 16(2) amendment
[741] Clause 16(2) amendment
[742] Clause 16(2) amendment
[743] Clause 16(2) amendment
[744] Clause 16(2) amendment
[745] Clause 16(2) amendment
[746] Clause 16(2) amendment
[747] Heritage NZ (evidence para 4.5.1)
[748] 277.63 Fonterra

Environment Southland will restrict its discretion to the following matters:

1. the design and location of the bridge; and[749]
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, ~~historic~~ heritage values of surface water bodies, natural character and amenity values, outstanding natural features,[750] public access[751] and navigational safety; and[752]
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 river (including intermittent, but excluding ephemeral rivers)[753], modified watercourse, or lake is a permitted activity provided the following conditions are met:

(i) the structure is lawfully established; and[754]

(ii) fish passage ~~shall~~ is not ~~be~~ impeded as a result of the activity; and[755]

(iii) the structure ~~shall~~ does not cause significant erosion of, or deposition on, the surrounding bed or banks; and[756]

(iv) any build-up of debris against the structure, which may adversely affect flood risk, drainage capacity or bed or bank stability~~, shall be~~ is[757] removed as soon as practicable; and[758]

(v) the structure ~~shall be~~is[759]maintained in a state of good repair; and

(vi) no contaminants, ~~shall be~~are [760]discharged to water as a result of use of the structure unless allowed by a relevant permitted activity rule or a [761]resource consent.

(d) The use of any bridge in, on or over the bed of any river, modified watercourse, or lake 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[762]) and associated safety signs or markers in, on, under or over the bed of any river (including intermittent, but excluding ephemeral rivers)[763], modified watercourse, or lake 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:

(i) the structure shall 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[764]

(ii) the structure shall not cause a hazard to boating/navigation, or aircraft/aviation;

(iii) where the structure crosses over the bed, and is not a temporary structure, it ~~shall~~ does[765]not impede the flow of water within the river channel; and[766]

[749] Clause 16(2) amendment
[750] 210.89 DOC
[751] 752.150 Fish and Game
[752] Clause 16(2) amendment
[753] 277.63 Fonterra
[754] Clause 16(2) amendment
[755] Clause 16(2) amendment
[756] Clause 16(2) amendment
[757] Clause 16(2) amendment
[758] Clause 16(2) amendment
[759] Clause 16(2) amendment
[760] Clause 16(2) amendment
[761] Clause 16(2) amendment
[762] Clause 16(2) amendment
[763] 277.63 Fonterra
[764] Clause 16(2) amendment

(iv) where the structure crosses over the bed, and is designed to carry contaminants, it ~~shall~~ must[767] comply with the relevant construction standards imposed by a territorial authority under the Building Act; and[768]

(v) where the structure crosses under the bed it ~~shall~~must [769]be completely buried and remain buried, with the depth of burial being indicated on markers on either bank; and[770]

(vi) where the structure is an intake pipe, it ~~shall~~ must [771]have a screening device to prevent fish from entering the pipe; and[772]

(vii) where the structure is a discharge pipe, any discharge from the pipe ~~shall~~ must[773] not cause significant erosion of, or deposition on, the surrounding bed or banks; and[774]

(viii) the structure is not within any mātaitai, nohoanga, or taiāpure; and[775]

(ix) fish passage ~~shall~~ is not ~~be~~ impeded as a result of the activity; and[776]

(x) there ~~shall be~~ is no ~~bed~~ disturbance of ~~the~~ roosting and nesting areas of the black fronted tern, black billed gull, ~~and~~ or banded and black fronted dotterel; and[777]

(xi) any activity in the water ~~shall be~~ is[778] kept to a minimum to avoid, as much as practicable, discoloration ~~to~~ of the river or lake. Where any sediment release occurs, it will be only temporary; and[779]

(xii) any bed disturbance ~~shall be~~ is[780] kept to the minimum necessary to undertake the activity, and the bed must ~~shall~~[781] be returned as near as practicable to its original channel shape, area, depth, or gradient on completion of the activity (with the exception of revegetation); and[782]

(xiii) no fuel storage or machinery refuelling ~~shall~~ occurs[783] on any area of the bed;

(xiv) no contaminants, other than sediment released from the bed, ~~shall be~~ are[784] discharged to water during the activity unless allowed by a relevant permitted activity rule or a resource consent; and[785]

~~(xv) there are no recorded historic heritage sites, at the site of the activity;~~[786]

(xvi) before any equipment, machinery, or operating plant is moved to a new activity site it ~~shall be~~ must be[787] effectively cleaned to prevent the spread of "pests" or "unwanted organisms" as defined by the Biosecurity Act 1993; and[788]

(xvii) all equipment, machinery, operating plant and debris associated with the structure or bed disturbance activity ~~shall be~~ is[789]removed from the site on completion of the activity; and[790]

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[765] Clause 16(2) amendment
[766] Clause 16(2) amendment
[767] Clause 16(2) amendment
[768] Clause 16(2) amendment
[769] Clause 16(2) amendment
[770] Clause 16(2) amendment
[771] Clause 16(2) amendment
[772] Clause 16(2) amendment
[773] Clause 16(2) amendment
[774] Clause 16(2) amendment
[775] Clause 16(2) amendment
[776] Clause 16(2) amendment
[777] Clause 16(2) amendment
[778] Clause 16(2) amendment
[779] Clause 16(2) amendment
[780] Clause 16(2) amendment
[781] Clause 16(2) amendment
[782] Clause 16(2) amendment
[783] Clause 16(2) amendment
[784] Clause 16(2) amendment
[785] Clause 16(2) amendment
[786] 449.27 Kiwi Rail
[787] Clause 16(2) amendment
[788] Clause 16(2) amendment
[789] Clause 16(2) amendment
[790] Clause 16(2) amendment

(xviii) from the beginning of November until the end of May, there ~~shall be~~ is[791] no disturbance of the tidal river habitat up to the spring tide level; and[792]

(xix) the structure ~~shall not~~ does not[793] cause significant erosion of, or deposition on, the surrounding bed or banks; and[794]

(xx) any build-up of debris against the structure, which may adversely affect flood risk, drainage capacity or bed or bank stability, ~~shall be~~ is[795] removed as soon as practicable; and

(xxi) the structure ~~shall be~~ is[796] maintained in a state of good repair.

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 T.*[797]

(b) The placement, erection or reconstruction ~~and any associated bed disturbance~~ of any cable, wire, pipe or pipeline (including any intake or discharge pipe or temporary gauging) and associated safety signs or markers in, on, under or over the bed of any river (including intermittent, but excluding ephemeral rivers)[798], modified watercourse, or lake 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.

Environment Southland will restrict its discretion to the following matters:

1. the design and location of the structure; and[799]
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, ~~historic~~ heritage values of surface water bodies, taonga species, landscape, [800]natural character and amenity values, navigation and aviation hazards [801], and public access and recreation values; and[802]
3. any conditions in Rule 58(a) that cannot be met.

(c) The use of any cable, wire, pipe or pipeline, and associated safety signs or markers in, on or over the bed of any river (including intermittent, but excluding ephemeral rivers)[803], modified watercourse, or lake is a permitted activity provided the following conditions are met:

(i) the structure ~~shall~~ is not ~~be~~[804] used to store hazardous substances; and[805]

(ii) the structure ~~shall~~ does [806]not cause significant erosion of, or deposition on, the surrounding bed or banks; and[807]

[791] Clause 16(2) amendment
[792] Clause 16(2) amendment
[793] Clause 16(2) amendment
[794] Clause 16(2) amendment
[795] Clause 16(2) amendment
[796] Clause 16(2) amendment
[797] Heritage NZ (evidence para 4.5.1)
[798] 277.63 Fonterra
[799] Clause 16(2) amendment
[800] 752.151 Fish and Game
[801] Clause 16(2) amendment
[802] Clause 16(2) amendment
[803] 277.63 Fonterra
[804] Clause 16(2) amendment
[805] Clause 16(2) amendment
[806] Clause 16(2) amendment
[807] Clause 16(2) amendment

(iii) any build-up of debris against the structure, which may adversely affect flood risk, drainage capacity or bed or bank stability, ~~shall be~~ is [808]removed as soon as practicable; and[809]

(iv) the structure ~~shall be~~ is[810] maintained in a state of good repair; and

(v) no contaminants~~, shall be~~are[811] discharged to water as a result of use of the structure unless allowed by a relevant permitted activity rule or a[812] resource consent.

(d) The use of any cable, wire, pipe or pipeline, and associated safety signs or markers in, on or over the bed of any river, modified watercourse, or lake that does not meet one or more of the conditions of Rule 58(c) is a discretionary activity.

Rule 59 – Culverts ~~and Sediment Traps~~

(a) The placement, erection or reconstruction of any culvert, including any associated inlet or outlet protection structure~~, or sediment trap~~ in, on, under or over the bed of any river (including intermittent, but excluding ephemeral river)[813], modified watercourse, or lake, 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:

(i) the maximum diameter of any culvert is~~shall be~~ 1,200 millimetres; and[814]

(ii) any culvert is a single structure (i.e. it is not placed in combination with other culverts across the width of the river); and

(iii) any culvert is ~~shall be~~ positioned so that its alignment is the same as the river; and

(iv) any culvert is ~~shall be~~ designed to pass flood flows (either through, around or over the culvert) and does ~~shall~~ not increase the risk of flooding to neighbouring properties; and

(v) the invert (or bottom) of any culvert is ~~shall be~~ 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 ~~shall be~~ purpose built for the passage of water (i.e. it shall not be a drum, container or other item not designed as a culvert); and

~~(vii) any sediment trap is less than or equal to 2.5 square metres in surface area;~~

(viii) fill over any culvert is ~~shall~~ not be greater than 4 metres (the vertical distance measured from the crest of the ~~culvert~~fill to the natural bed at the downstream invert of the structure)[815]; and

(ix) any structure is not within any mātaitai, nohoanga, or taiāpure[816]; and

(x) fish passage is ~~shall~~ not ~~be~~ impeded as a result of the activity; and

(xi) there is ~~shall be~~ no bed disturbance of the roosting and nesting areas of the black fronted tern, black billed gull, and banded and black fronted dotterel; and

(xii) any activity in the water is ~~shall be~~ kept to a minimum to avoid, as much as practicable, discoloration to the river or lake. Where any sediment release occurs, it will be only temporary; and

(xiii) any bed disturbance is ~~shall be~~ kept to the minimum necessary to undertake the activity, and is ~~shall be~~ returned as near as practicable to its original channel shape, area, depth, or gradient on completion of the activity (with the exception of revegetation); and

(xiv) no fuel storage or machinery refuelling ~~shall~~ occurs on any area of the bed; and

[808] Clause 16(2) amendment
[809] Clause 16(2) amendment
[810] Clause 16(2) amendment
[811] Clause 16(2) amendment
[812] Clause 16(2) amendment
[813] 277.63 Fonterra
[814] Clause 16(2) amendment
[815] 523.9 G McGregor
[816] Mātaitai and taiāpure defined in the introduction at page 11

(xv) no contaminants, other than sediment released from the bed, is ~~shall be~~ discharged to water during the activity unless allowed by a relevant permitted activity rule or resource consent; and

~~(xvi) there are no recorded historic heritage sites, at the site of the activity;~~[817]

(xvii) before any equipment~~,~~ or machinery, ~~or operating plant~~ is moved to a new activity site it is ~~shall be~~ effectively cleaned to prevent the spread of "pests" or "unwanted organisms" as defined by the Biosecurity Act 1993; and

(xviii) all equipment, or machinery~~, operating plant~~ and debris associated with the structure or bed disturbance activity is ~~shall be~~ removed from the site on completion of the activity; and

(xix) from the beginning of November until the end of May, there is ~~shall be~~ no disturbance of the tidal river habitat up to the spring tide level; and

(xx) the structure does ~~shall~~ not cause significant erosion of, or deposition on, the surrounding bed or banks; and

(xxi) any build-up of debris against the structure, which may adversely affect flood risk, drainage capacity or bed or bank stability, is ~~shall be~~ removed as soon as practicable; and

(xxii) the structure is ~~shall be~~ maintained in a state of good repair.

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 is set out in Appendix T.*[818]

(b) The placement, erection or reconstruction ~~and any associated bed disturbance~~[819] of any culvert, including any associated inlet or outlet protection structure, ~~or sediment trap,~~ in, on, under or over the bed of any river (including intermittent, but excluding ephemeral rivers)[820], modified watercourse, or lake, and any associated bed disturbance and discharge resulting from the carrying out of the activity,[821] that cannot meet one or more of the conditions of Rule 59(a) is a controlled activity.

Environment Southland will exercise control over the following matters:

1. the design and location[822] 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), taong species, the spiritual and cultural values and beliefs of the tangata whenua, and historic heritage, landscape, natural character and amenity values, navigational safety, and public access.[823]
3. any conditions in Rule 59(a) that cannot be met.

(c) The use of any culvert including any associated inlet or outlet protection structure ~~or sediment trap~~ in, on or over the bed of any river (including intermittent, but excluding ephemeral rivers)[824], modified watercourse, or lake is a permitted activity provided the following conditions are met:

(i) the structure shall not cause significant erosion of, or deposition on, the surrounding bed or banks;

[817] 449.28 KiwiRail
[818] Consequential amendment relating to 449.28 KiwiRail
[819] 101.11 T Buckingham; A & K Marshall; 646.9 Progress Valley Farms; and others
[820] 277.63 Fonterra
[821] 562.18 Meridian
[822] 752.153 Fish and Game
[823] 752.153 Fish and Game
[824] 277.63 Fonterra

(ii) any build-up of debris against the structure, which may adversely affect flood risk, drainage capacity or bed or bank stability, shall be removed as soon as practicable;
(iii) the structure shall be maintained in a state of good repair; and
(iv) no contaminants, shall be discharged to water as a result of use of the structure unless allowed by a relevant permitted activity rule or resource consent.

(d) The use of any culvert including any associated inlet or outlet protection structure ~~or sediment trap~~ in, on or over the bed of any river (including intermittent, but excluding ephemeral rivers)[825], modified watercourse, or lake that does not meet one or more of the conditions of Rule 59(c) is a discretionary activity.

Rule 59A – Sediment traps

(a) The construction, excavation, modification or maintenance of a sediment trap in, on, under or over the bed of any river (including intermittent, but excluding ephemeral rivers) or modified watercourse 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) 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
(ii) the sediment trap is not within any mātaitai, nohoanga, or taiāpure[826]; and
(iii) there is no disturbance of:
(1) the roosting, and nesting areas of the black fronted tern, black billed gull, and banded and black fronted dotterel; and
(2) the tidal river habitat up to the spring tide level between 1 November and 31 May (inclusive); and
(3) trout spawning habitat during the trout spawning season between 1 June and 31 October (inclusive); and
(iv) the sediment trap has:
(1) a maximum surface area (of water) of 20 square metres; and
(2) rock armouring at the upstream end of the sediment trap, to prevent scouring; and
(3) fencing to prevent stock access; and
(4) 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) no contaminants, other than sediment released from the bed, or rock armouring required to prevent erosion, is discharged to water during the activity unless allowed by a relevant permitted activity rule or discharge permit; and
(vii) fish passage is not impeded as a result of the construction, excavation, modification or maintenance of the sediment trap; and
(viii) the sediment trap does not cause erosion of, or deposition on, the surrounding bed or banks; and
(ix) 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; and
(x) no fuel storage or machinery refuelling occurs on any area of the bed; and

[825] 277.63 Fonterra
[826] Mātaitai and taiāpure defined in the introduction at page 11

(xi) before any equipment, machinery, or operating plant is moved to a new activity site it shall be effectively cleaned to prevent the spread of "pests" or "unwanted organisms" as defined by the Biosecurity Act 1993; and

(xii) all equipment, machinery, sediment and debris associated with the sediment trap shall be removed from the site on completion of the activity; and

(xiii) where the modified watercourse is spring-fed removal of aquatic weeds and plants shall be only to the extent that is necessary to undertake the activity and shall be kept to an absolute minimum.

(b) The construction, excavation. modification or maintenance of a sediment trap in, on, under or over the bed of any rivers (including intermittent, but excluding ephemeral watercourses), modified watercourse or lake and any associated bed disturbance, removal of aquatic weeds and plants, and associated discharge resulting from carrying out the activity that does not met one or more of the conditions of Rule 74A is a discretionary activity. [827]

Rule 60 - Dams and weirs

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

Note 2: *These rules manage dam and weir structures. Any associated take, diversion, use or discharge of water is covered by ~~requires consent under~~ other rules.*

Note 3: *This rule does not apply to weirs constructed for erosion control purposes under Rule 61.*[828]

(a) The ~~use,~~[829] placement, erection or reconstruction of any dam or weir, in, on or over the bed of any lake, river (including intermittent, but excluding ephemeral rivers)[830], modified watercourse and the associated damming of water (either inside or outside the bed of a river or lake), 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:

(i) if the maximum height of the dam or weir is ~~4 metres~~ 2 metres[831] or less ~~in height~~ (the vertical distance measured from the crest of the dam to the natural[832] bed) and the impoundment volume is ~~shall be~~ less than 20,000 cubic metres of water or other fluid; and

(ia) if the maximum height of the dam is between 2 to 4 metres (the vertical distance measured from the crest of the dam to the natural bed), and[833] the impoundment volume is less than 20,000 cubic metres[834] the design and construction of the dam or weir is certified by a suitably qualified and experienced engineer; and

(iii) the dam or weir is located below a catchment area of less than 500 hectares; and[835]

(iv) the dam or weir shall not be 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 shall have a spillway, or an auxiliary spillway that is capable of conveying flood flows; and

[827] 737.29 Smithhill Ltd; 114.9 Callahan, P
[828] 614.24 NZTA
[829] 247.18 Environment Southland
[830] 277.63 Fonterra
[831] 560.12 T & J McRae
[832] Consequential amendment to 523.9 G McGregor and to align with the Building Act 2004
[833] 414.11 INZ
[834] 759.23 Springlands Group (subsequent amendment due to height changes required for certification)
[835] Clause 16(2) amendment

(vi) the dam or weir shall neither impound water nor adversely affect drainage beyond the landholding on which it is constructed, unless agreed to in writing by any affected landowner; and

(vii) the discharge from the dam or weir shall be to the original channel, and shall 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)(i)(1) 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 stream, from the natural bed of the stream at the lowest downstream outside limit of the dam or weir; and

(2) in the case of a dam or weir not across a stream, from the lowest elevation at the outside limit of the dam or weir; and

(3) in the case of a canal, from the invert of the canal; and

(x) the structure is not within any mātaitai, nohoanga, or taiāpure[836]; and

(xi) fish passage shall not be impeded as a result of the activity; and

(xii) there shall be no bed disturbance of the roosting and nesting areas of the black fronted tern, black billed gull, and banded and black fronted dotterel; and

(xiii) any activity in the water shall be kept to a minimum to avoid, as much as practicable, discoloration to the river or lake. Where any sediment release occurs, it will be only temporary; and

(xiv) any bed disturbance shall be kept to the minimum necessary to undertake the activity, and shall be returned as near as practicable to its original channel shape, area, depth, or gradient on completion of the activity (with the exception of revegetation); and

(xv) no fuel storage or machinery refuelling shall occur on any area of the bed; and

(xvi) no contaminants, other than sediment released from the bed, shall be discharged to water during the activity unless allowed by a relevant permitted activity rule or resource consent; and

~~(xvii) there are no recorded historic heritage sites, at the site of the activity;~~[837]

(xviii) before any equipment, machinery, or operating plant is moved to a new activity site it shall be effectively cleaned to prevent the spread of "pests" or "unwanted organisms" as defined by the Biosecurity Act 1993; and

(xix) all equipment, machinery, operating plant and debris associated with the structure or bed disturbance activity shall be removed from the site on completion of the activity; and

(xx) from the beginning of November until the end of May, there shall be no disturbance of the tidal river habitat up to the spring tide level; and

(xxi) the structure shall not cause significant erosion of, or deposition on, the surrounding bed or banks; and

(xxii) any build-up of debris against the structure, which may adversely affect flood risk, drainage capacity or bed or bank stability, shall be removed as soon as practicable; and

(xxiii) the structure shall be maintained in a state of good repair.

(aa) The use of any dam or weir is a permitted activity provided the following conditions are met:

(i) the structure was lawfully established;

(ii) the structure does not cause significant erosion of, or deposition on, the surrounding bed or banks;

(iii) 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;

(iv) the structure is maintained in a state of good repair; and

[836] Mātaitai and taiāpure defined in the introduction at page 11

[837] Consequential amendment relating to 449.28 KiwiRail

(v) no contaminants, other than sediment released from the bed, are discharged to water during the activity unless allowed by a relevant permitted activity rule.[838]

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 is set out in Appendix T.*[839]

(b) The use, placement, erection or reconstruction ~~and any associated bed disturbance~~ of any dam or weir, in, on or over the bed of any lake, river (including intermittent, but excluding ephemeral rivers)[840], modified watercourse and the associated damming of water (either inside or outside the bed of a river or lake), and any associated bed disturbance and discharge resulting from the carrying out of the activity,[841] that does not meet one or more of the conditions of Rule 60(a) 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 ~~damming of water~~[842] on the main stems of the Aparima River, downstream of the Aparima Forks at NZ Topo 50 CE09 051 299, and the Ōreti River, downstream of Rocky Point ~~the forks~~ at NZ Topo 50 CE09:274-327~~CC09 245 832~~[843], is a non-complying activity.

(d) The placement or erection of dams or weirs in the Mataura or Waikaia River~~, including the tributaries~~[844] and in the Ōreti River main stem from Rocky Point at NZMS 260 E44373946[845] upstream to the forks at E42345 450[846][847] 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[848] or anchored or layered trees in, on, under or over the bed of any river (including intermittent, but excluding ephemeral rivers)[849], modified watercourse, or lake, 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:

(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[850]

(ii) any anchored or layered trees ~~shall be~~ are [851]anchored to the bed or banks so that they will not wash away in a 2% Annual Exceedance Probability flood event; and[852]

(iii) there ~~shall be~~ is [853]no planting of pest plant species as identified in the Regional Pest Management Strategy for Southland 2013 or Biosecurity NZ Register of Unwanted Organisms; and[854]

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[838] 247.19 Environment Southland
[839] Consequential amendment relating to 449.28 KiwiRail
[840] 277.63 Fonterra
[841] Clause 16(2) amendment to make consistent with (a).
[842] Clause 16(2) amendment to make consistent with (a).
[843] Consequential amendment relating to 752.154 Fish and Game
[844] 47.23 Balfour, Wendonside & Waikaia Group
[845] NZ Topo50 CE09:274-327; NZTM2000 1227364 mE, 4932686 mN
[846] 752.154 Fish and Game
[847] NZ Topo50 CC09:245-832; NZTM2000 1224494 mE, 4983155 mN
[848] 449.30 KiwiRail
[849] 277.63 Fonterra
[850] Clause 16(2) amendment
[851] Clause 16(2) amendment
[852] Clause 16(2) amendment
[853] Clause 16(2) amendment

(iv) the structure is not within any mātaitai, nohoanga, or taiāpure: and[855]

(v) fish passage ~~shall~~ is not ~~be~~[856] impeded as a result of the activity; and[857]

(vi) there ~~shall be~~ is no ~~bed~~ disturbance of ~~the~~ roosting and nesting areas of the black fronted tern, black billed gull, ~~and~~ or[858] banded and black fronted dotterel; and[859]

(vii) any activity in the water ~~shall be~~ is kept to a minimum to avoid, as much as practicable, discoloration ~~to~~ of the river or lake. Where any sediment release occurs, it will be only temporary; and[860]

(viii) any bed disturbance ~~shall be kept to~~ is the minimum necessary to undertake the activity and the bed must ~~shall~~[861] be returned as near as practicable to its original channel shape, area, depth, or gradient on completion of the activity (with the exception of revegetation); and[862]

(ix) no fuel storage or machinery refuelling ~~shall~~ occurs on any area of the bed; and[863]

(x) no contaminants, other than sediment released from the bed, ~~shall be~~ is discharged to water during the activity unless allowed by a relevant permitted activity rule or a resource consent; and[864]

~~(xi) there are no recorded historic heritage sites, at the site of the activity;~~[865]

(xii) before any equipment, machinery, or operating plant is moved to a new activity site it ~~shall~~ must[866] be effectively cleaned to prevent the spread of "pests" or "unwanted organisms" as defined by the Biosecurity Act 1993; and[867]

(xiii) all equipment, machinery, operating plant and debris associated with the bed disturbance activity ~~shall be~~ is[868] removed from the site on completion of the activity; and[869]

(xiv) from the beginning of November until the end of May, there shall be no disturbance of the tidal river habitat up to the spring tide level; and[870]

(xv) the structure ~~shall~~ does[871] not cause significant erosion of, or deposition on, the surrounding bed or banks; and[872]

(xvi) any build-up of debris against the structure, which may adversely affect flood risk, drainage capacity or bed or bank stability, ~~shall be~~ is [873]removed as soon as practicable; and

(xvii) the structure ~~shall be~~ is[874] maintained in a state of good repair.

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 is set out in Appendix T.*[875]

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[854] Clause 16(2) amendment
[855] Clause 16(2) amendment
[856] Clause 16(2) amendment
[857] Clause 16(2) amendment
[858] Clause 16(2) amendment
[859] Clause 16(2) amendment
[860] Clause 16(2) amendment
[861] Clause 16(2) amendment
[862] Clause 16(2) amendment
[863] Clause 16(2) amendment
[864] Clause 16(2) amendment
[865] 449.30 KiwiRail
[866] Clause 16(2) amendment
[867] Clause 16(2) amendment
[868] Clause 16(2) amendment
[869] Clause 16(2) amendment
[870] Clause 16(2) amendment
[871] Clause 16(2) amendment
[872] Clause 16(2) amendment
[873] Clause 16(2) amendment
[874] Clause 16(2) amendment
[875] Consequential amendment relating to 449.38 KiwiRail

(b) The placement or reconstruction of preformed[876]concrete in, on, under or over the bed of any river (including intermittent, but excluding ephemeral rivers)[877], modified watercourse, or lake, 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:

(i) the river is less than 3 metres wide on average over the area of construction; and[878]

(ii) the placement of the concrete ~~shall be~~ is[879] for the sole purpose of remedying or mitigating ~~an~~ erosion ~~problem~~; and[880]

(iii) the work ~~shall~~ is not ~~be~~[881] 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[882]

(iv) any individual concrete piece ~~shall have~~ has [883]a minimum length of 300 millimetres; and[884]

(v) there ~~shall be~~ is [885]no concrete that has not set~~,~~[886] or loose cement present; and[887]

(vi) the concrete shall not have been used in direct contact with chemicals that are toxic to aquatic life; and[888]

(vii) the concrete ~~shall~~ must [889]not contain asbestos pipe or asbestos cement mixtures; and[890]

(viii) ~~no~~ reinforcing steel ~~shall~~ must not[891] protrude from the completed works; and[892]

(ix) fish passage ~~shall~~ is not ~~be~~ impeded as a result of the activity; and[893]

(x) there ~~shall be~~ is no ~~bed~~[894] disturbance of ~~the~~ roosting and nesting areas of the black fronted tern, black billed gull, ~~and~~ or[895] banded and black fronted dotterel; and[896]

(xi) any activity in the water ~~shall be~~ is[897] kept to a minimum to avoid, as much as practicable, discoloration ~~to~~ of the river or lake. Where any sediment release occurs, it will be only temporary; and[898]

(xii) any bed disturbance ~~shall be kept to~~ is the minimum necessary to undertake the activity and the bed must ~~shall~~[899] be returned as near as practicable to its original channel shape, area, depth, or gradient on completion of the activity (with the exception of revegetation); and[900]

(xiii) no fuel storage or machinery refuelling ~~shall~~ occurs[901] on any area of the bed; and[902]

(xiv) no contaminants, other than sediment released from the bed, shall be discharged to water during the activity unless allowed by a relevant permitted activity rule or a resource consent.; and[903]

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[876] 614.26 NZTA
[877] 277.63 Fonterra
[878] Clause 16(2) amendment
[879] Clause 16(2) amendment
[880] Clause 16(2) amendment
[881] Clause 16(2) amendment
[882] Clause 16(2) amendment
[883]Clause 16(2) amendment
[884] Clause 16(2) amendment
[885] Clause 16(2) amendment
[886] Clause 16(2) amendment
[887] Clause 16(2) amendment
[888] Clause 16(2) amendment
[889] Clause 16(2) amendment
[890] Clause 16(2) amendment
[891] Clause 16(2) amendment
[892] Clause 16(2) amendment
[893] Clause 16(2) amendment
[894] Clause 16(2) amendment
[895] Clause 16(2) amendment
[896] Clause 16(2) amendment
[897] Clause 16(2) amendment
[898] Clause 16(2) amendment
[899] Clause 16(2) amendment
[900] Clause 16(2) amendment
[901] Clause 16(2) amendment
[902] Clause 16(2) amendment

~~(xv) there are no recorded historic heritage sites, at the site of the activity~~;[904]

(xvi) before any equipment, machinery, or operating plant is moved to a new activity site it ~~shall~~ must[905] be effectively cleaned to prevent the spread of "pests" or "unwanted organisms" as defined by the Biosecurity Act 1993; and[906]

(xvii) all equipment, machinery, operating plant and debris associated with the structure or bed disturbance activity ~~shall be~~ is[907] removed from the site on completion of the activity; and[908]

(xviii) from the beginning of November until the end of May, there ~~shall be~~ is no disturbance of the tidal river habitat up to the spring tide level; and[909]

(xix) the structure ~~shall~~ does not cause significant erosion of, or deposition on, the surrounding bed or banks; and[910]

(xx) any build-up of debris against the structure, which may adversely affect flood risk, drainage capacity or bed or bank stability, ~~shall be~~ is[911] removed as soon as practicable; and

(xxi) the structure ~~shall be~~ is[912] maintained in a state of good repair.

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 is set out in Appendix T.*[913]

(c) The placement, erection or reconstruction of rock rip rap, gabion baskets or anchored or layered trees or[914] erosion control structures, debris traps, rail and mesh, rope retards, gabion baskets, drop structures, groynes, weirs, and pre-formed concrete in, on, under or over the bed of any river (including intermittent, but excluding ephemeral rivers)[915], modified watercourse, or lake, 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.

(d) The placement or reconstruction of erosion control structures in, on, under or over the bed of any river (including intermittent, but excluding ephemeral rivers), modified watercourse, or lake, and any associated bed disturbance and discharge resulting from the carrying out of the activity, which are not provided for in Rules 61(a) to (c), is a discretionary activity.[916]

Rule 62 – Fords

(a) The excavation of the bed of any river (including intermittent, but excluding ephemeral rivers)[917], modified watercourse or lake for the purpose of constructing a ford is a permitted activity provided the following conditions are met:

(i) fish passage ~~shall~~ is not ~~be~~ impeded as a result of the activity; and[918]

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[903] Clause 16(2) amendment
[904] 449.30 Kiwi Rail
[905] Clause 16(2) amendment
[906] Clause 16(2) amendment
[907] Clause 16(2) amendment
[908] Clause 16(2) amendment
[909] Clause 16(2) amendment
[910] Clause 16(2) amendment
[911] Clause 16(2) amendment
[912] Clause 16(2) amendment
[913] Consequential amendment relating to 449.38 KiwiRail
[914] 614.26 NZTA
[915] 277.63 Fonterra
[916] Consequential amendment
[917] 277.63 Fonterra
[918] Clause 16(2) amendment

(ii) there ~~shall be~~ is no ~~bed~~ disturbance of ~~the~~ roosting and nesting areas of the black fronted tern, black billed gull, ~~and~~ or banded and black fronted dotterel; and[919]

(iii) any activity in the water ~~shall be~~ is kept to a minimum to avoid, as much as practicable, discoloration ~~to~~ of the river or lake. Where any sediment release occurs, it will be only temporary; and[920]

(iv) any bed disturbance ~~shall be~~ is ~~kept to~~[921] the minimum necessary to undertake the activity; and[922]

(v) no fuel storage or machinery refuelling ~~shall~~ occurs [923] on any area of the bed; and[924]

(vi) no contaminants, other than sediment released from the bed, ~~shall be~~ are[925] discharged to water during the activity unless allowed by a relevant permitted activity rule or a resource consent:and[926]

~~(vii) there are no recorded historic heritage sites, at the site of the activity;~~[927]

(viii) before any equipment, machinery, or operating plant is moved to a new activity site it ~~shall~~ must[928] be effectively cleaned to prevent the spread of "pests" or "unwanted organisms" as defined by the Biosecurity Act 1993; and[929]

(ix) all equipment, machinery, operating plant and debris associated with the structure or bed disturbance activity ~~shall be~~ is[930]removed from the site on completion of the activity; and[931]

(x) from the beginning of November until the end of May, there ~~shall be~~ is no disturbance of the tidal river habitat up to the spring tide level; and[932]

(xi) the structure ~~shall~~ does not cause significant erosion of, or deposition on, the surrounding bed or banks; and[933]

(xii) any build-up of debris against the structure, which may adversely affect flood risk, drainage capacity or bed or bank stability, ~~shall~~ is[934] ~~be~~ removed as soon as practicable; and

(xiii) the structure ~~shall be~~ is[935] maintained in a state of good repair.

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 is set out in Appendix T.*[936]

(b) The excavation of the bed of any river (including intermittent, but excluding ephemeral rivers)[937], modified watercourse or lake, 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 the condition 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.

[919] Clause 16(2) amendment
[920] Clause 16(2) amendment
[921] Clause 16(2) amendment
[922] Clause 16(2) amendment
[923] Clause 16(2) amendment
[924] Clause 16(2) amendment
[925] Clause 16(2) amendment
[926] Clause 16(2) amendment
[927] 449.31 Kiwi Rail
[928] Clause 16(2) amendment
[929] Clause 16(2) amendment
[930] Clause 16(2) amendment
[931] Clause 16(2) amendment
[932] Clause 16(2) amendment
[933] Clause 16(2) amendment
[934] Clause 16(2) amendment
[935] Clause 16(2) amendment
[936] Consequential amendment relating to 449.38 KiwiRail
[937] 277.63 Fonterra

(c) The use of any ford in, on or over the bed of any river (including intermittent, but excluding ephemeral rivers)[938], modified watercourse or lake 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:

(i) the ford is lawfully established ~~(either before or after this Plan came into force)~~[939]; and[940]

(ii) where the ford is used as a vehicle crossing, the activity ~~shall~~ meets[941] the conditions set out in Rule 62(a); and[942]

(iii) the structure ~~shall~~ does[943] not cause significant erosion of, or deposition on, the surrounding bed or banks; and[944]

(iv) any build-up of debris against the structure, which may adversely affect flood risk, drainage capacity or bed or bank stability, ~~shall be~~ is[945] removed as soon as practicable; and[946]

(v) the structure ~~shall be~~ is maintained in a state of good repair; and

(vi) no contaminants, ~~shall be~~ are[947] discharged to water as a result of use of the structure unless allowed by a relevant permitted activity rule or a resource consent.

(d) The use of any ford in, on or over the bed of any river (including intermittent, but excluding ephemeral rivers)[948], modified watercourse or lake 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, ~~navigational aids~~[949] and signs

Note: *The installation of moorings within the Fiordland National Park will require a Department of Conservation Concession.*[950]

(a) The placement, erection or reconstruction of any mooring, ~~navigational aid~~ or[951] stand-alone[952] sign in, on, under or over the bed of any river (including intermittent, but excluding ephemeral rivers)[953], modified watercourse, or lake 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:

(i) the ~~structure~~ mooring or stand-alone sign is located in Fiordland National Park (including lakes Te Anau, Manapōuri, Monowai and Hauroko); and[954]

(ii) in the case of a mooring, the mooring block ~~shall be~~ is[955] free of contaminants including oil and grease; and[956]

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938 277.63 Fonterra
939 Clause 16(2) amendment
940 Clause 16(2) amendment
941 Clause 16(2) amendment
942 Clause 16(2) amendment
943 Clause 16(2) amendment
944 Clause 16(2) amendment
945 Clause 16(2) amendment
946 Clause 16(2) amendment
947 Clause 16(2) amendment
948 277.63 Fonterra
949 247.20 Environment Southland
950 664.26 Real Journeys
951 247.20 Environment Southland
952 614.27 NZTA
953 277.63 Fonterra
954 Clause 16(2) amendment
955 Clause 16(2) amendment
956 Clause 16(2) amendment

(iii) in the case of a mooring, the use of the mooring ~~shall~~ does [957] not interfere with the use of existing lawful moorings; and[958]

(iv) where the ~~structure~~ mooring or stand-alone sign has been moved to the site from any other area, it shall must be effectively cleaned to prevent the spread of pest species; and

(v) the ~~structure~~ mooring or stand-alone sign ~~shall be~~ is[959] maintained in a state of good repair; and

(vi) the ~~structure~~ mooring or stand-alone sign is not within any mātaitai, nohoanga, or taiāpure[960].

(b) The placement, erection or reconstruction and any associated bed disturbance of any mooring, navigational aid or[961] stand-alone sign in, on, under or over the bed of any river (including intermittent, but excluding ephemeral rivers)[962], modified watercourse or lake, and any associated bed disturbance and discharge resulting from the carrying out of the activity[963] 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:

(i) fish passage ~~shall~~ is not ~~be~~[964] impeded as a result of the activity; and[965]

(ii) there ~~shall be~~ is[966] no bed disturbance of ~~the~~[967] roosting and nesting areas of the black fronted tern, black billed gull, ~~and~~ or banded and black fronted dotterel; and[968]

(iii) any activity in the water ~~shall be~~ is kept to a minimum to avoid, as much as practicable, discoloration ~~to~~ of the river or lake. Where any sediment release occurs, it will be only temporary; and[969]

(iv) any bed disturbance ~~shall be kept to~~ is[970] the minimum necessary to undertake the activity and the bed must ~~shall~~[971] be returned as near as practicable to its original channel shape, area, depth, or gradient on completion of the activity (with the exception of revegetation); and[972]

(v) no fuel storage or machinery refuelling ~~shall~~ occurs on any area of the bed; and[973]

(vi) no contaminants, other than sediment released from the bed, ~~shall be~~ are [974]discharged to water during the activity unless allowed by a relevant permitted activity rule or a resource consent; and[975]

~~(vii) there are no recorded historic heritage sites, at the site of the activity;~~[976]

(viii) before any equipment, machinery, or operating plant is moved to a new activity site it ~~shall~~ must[977] be effectively cleaned to prevent the spread of "pests" or "unwanted organisms" as defined by the Biosecurity Act 1993; and[978]

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[957] Clause 16(2) amendment
[958] Clause 16(2) amendment
[959] Clause 16(2) amendment
[960] Mātaitai and taiāpure defined in the introduction at page 11
[961] Consequential amendment relating to 247.20 Environment Southland
[962] 277.63 Fonterra
[963] 562.19 Meridian
[964] Clause 16(2) amendment
[965] Clause 16(2) amendment
[966] Clause 16(2) amendment
[967] Clause 16(2) amendment
[968] Clause 16(2) amendment
[969] Clause 16(2) amendment
[970] Clause 16(2) amendment
[971] Clause 16(2) amendment
[972] Clause 16(2) amendment
[973] Clause 16(2) amendment
[974] Clause 16(2) amendment
[975] Clause 16(2) amendment
[976] Consequential amendment relating to 449.33 KiwiRail
[977] Clause 16(2) amendment
[978] Clause 16(2) amendment

(ix) all equipment, machinery, operating plant and debris associated with the structure or bed disturbance activity ~~shall be~~ is[979] removed from the site on completion of the activity; and[980]

(x) from the beginning of November until the end of May, there ~~shall be~~ is no disturbance of ~~the~~ tidal river bed habitat up to the spring tide level; and[981]

(xi) the ~~structure~~ mooring or stand-alone sign ~~shall~~ does[982] not cause significant erosion of, or deposition on, the surrounding bed or banks; and[983]

(xii) any build-up of debris against the ~~structure~~ mooring or stand-alone sign which may adversely affect flood risk, drainage capacity or bed or bank stability, ~~shall be~~ is [984]removed as soon as practicable; and

(xiii) the ~~structure~~ mooring or stand-alone sign ~~shall be~~ is[985] maintained in a state of good repair.

Environment Southland will restrict its discretion to the following matters:

1. the location of the ~~structure~~ mooring or stand-alone sign: and[986]
2. any effects on natural character and amenity values, the spiritual and cultural values and beliefs of the tangata whenua, taonga species, ~~historic~~ heritage values of surface waterbodies, existing users and navigational safety, suitability of the[987] mooring for its purpose, and maintenance requirements; and[988]
3. the use of the ~~structure~~ mooring or stand-alone sign; and[989]
4. where the ~~structure~~ mooring or stand-alone sign has been moved to the site from any other area, the cleaning required to prevent the spread of pest species~~;~~.[990]

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 T.*[991]

(c) The use of any mooring~~, navigational aid and~~ or sign in, on, under or over the bed of any river (including intermittent, but excluding ephemeral rivers)[992], modified watercourse, or lake is a permitted activity provided the following conditions are met:

(i) the ~~structure~~ mooring or stand-alone sign is located in Fiordland National Park (including lakes Te Anau, Manapōuri, Monowai and Hauroko); and[993]

(ii) in the case of a mooring, the use of the mooring ~~shall~~ does[994] not interfere with the use of existing lawful moorings; and

(iii) the ~~structure~~ mooring or stand-alone sign ~~shall~~ does[995] not cause significant erosion of, or deposition on, the surrounding bed or banks; and

[979] Clause 16(2) amendment
[980] Clause 16(2) amendment
[981] Clause 16(2) amendment
[982] Clause 16(2) amendment
[983] Clause 16(2) amendment
[984] Clause 16(2) amendment
[985] Clause 16(2) amendment
[986] Clause 16(2) amendment
[987] Clause 16(2) amendment
[988] Clause 16(2) amendment
[989] Clause 16(2) amendment
[990] Clause 16(2) amendment
[991] Heritage NZ (evidence para 4.5.1)
[992] 277.63 Fonterra
[993] Clause 16(2) amendment
[994] Clause 16(2) amendment
[995] Clause 16(2) amendment

(iv) any build-up of debris against the ~~structure~~ mooring or stand-alone sign, which may adversely affect flood risk, drainage capacity or bed or bank stability, ~~shall be~~ is[996] removed ~~structure~~ mooring or stand-alone sign soon as practicable; and

(v) the structure ~~shall be~~ is[997] maintained in a state of good repair; and

(vi) no contaminants, ~~shall be~~ are discharged to water as a result of use of the ~~structure~~ mooring or stand-alone sign unless allowed by a relevant permitted activity rule or a [998]resource consent.

(d) The use of any mooring~~, navigational aid and~~ or sign in, on or over the bed of any river, modified watercourse, or lake 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 river (including intermittent, but excluding ephemeral rivers), modified watercourse, or lake 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:

(i) where the navigational aid or health and safety sign has been moved to the site from any other area, it shall be effectively cleaned to prevent the spread of pest species; and

(ii) the navigational aid or health and safety sign shall be maintained in a state of good repair; and

(iii) the navigational aid or health and safety sign is not within any mātaitai, nohoanga, or taiāpure.

(b) The placement, erection or reconstruction and any associated bed disturbance of a navigational aid or health and safety sign in, on, under or over the bed of any river (including intermittent, but excluding ephemeral rivers), modified watercourse or lake, 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 river (including intermittent, but excluding ephemeral rivers), modified watercourse, or lake is a permitted activity provided the following conditions are met:

(i) the navigational aid or health and safety sign shall not cause significant erosion of, or deposition on, the surrounding bed or banks; and

(ii) any build-up of debris against the navigational aid or health and safety sign, which may adversely affect flood risk, drainage capacity or bed or bank stability, shall be removed as soon as practicable; and

(iii) the navigational aid or health and safety sign shall be maintained in a state of good repair; and

(vi) no contaminants, shall be discharged to water as a result of use of the navigational aid or health and safety sign unless allowed by a relevant permitted activity rule or resource consent.

(d) The use of a navigational aid or health and safety sign in, on or over the bed of any river (including intermittent, but excluding ephemeral rivers), modified watercourse, or lake that does not meet one or more of the conditions of Rule 63A(c) is a discretionary activity.[999]

[996] Clause 16(2) amendment
[997] Clause 16(2) amendment
[998] Clause 16(2) amendment
[999] 247.20 Environment Southland

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 river (including intermittent, but excluding ephemeral rivers), modified watercourse, or lake, 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:

(i) the structure ~~shall~~ remains in place ~~not~~ no longer than two weeks [1000]; and[1001]

(ii) the structure ~~shall~~ does not cause a hazard to boating/navigation; and[1002]

(iii) no contaminants, other than sediment released from the bed, ~~shall be~~ are[1003] discharged to water during the activity unless allowed by a relevant permitted activity rule or a resource consent.; and[1004]

~~(iv) there are no recorded historic heritage sites, at the site of the activity;~~[1005]

(v) before any equipment, machinery, or operating plant is moved to a new activity site it ~~shall~~ must[1006]be effectively cleaned to prevent the spread of "pests" or "unwanted organisms" as defined by the Biosecurity Act 1993; and[1007]

(vi) all equipment, machinery, operating plant and debris associated with the structure or bed disturbance activity ~~shall be~~ is [1008]removed from the site on completion of the activity; and[1009]

(vii) from the beginning of November until the end of May, there ~~shall be~~ *is* no disturbance of the tidal river habitat up to the spring tide level; and[1010]

(viii) the structure ~~shall~~ must[1011] not cause significant erosion of, or deposition on, the surrounding bed or banks; and[1012]

(ix) any build-up of debris against the structure, which may adversely affect flood risk, drainage capacity or bed or bank stability, ~~shall be~~ is[1013] removed as soon as practicable; and

(x) the structure ~~shall be~~ is[1014] maintained in a state of good repair.

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 is set out in Appendix T.*[1015]

(b) The use, placement, erection or reconstruction and any associated bed disturbance of any canoe gate or ski lane marker, in, on or over the bed of any river (including intermittent, but excluding ephemeral rivers), modified watercourse, or lake, that cannot meet one or more of the above conditions, is a restricted discretionary activity.

Environment Southland will restrict its discretion to the following matters:

1. the location of the structure; and[1016]

[1000] The "two weeks" can include three consecutive weekends
[1001] Clause 16(2) amendment
[1002] Clause 16(2) amendment
[1003] Clause 16(2) amendment
[1004] Clause 16(2) amendment
[1005] Consequential amendment relating to 449.33 KiwiRail
[1006] Clause 16(2) amendment
[1007] Clause 16(2) amendment
[1008] Clause 16(2) amendment
[1009] Clause 16(2) amendment
[1010] Clause 16(2) amendment
[1011] Clause 16(2) amendment
[1012] Clause 16(2) amendment
[1013] Clause 16(2) amendment
[1014] Clause 16(2) amendment
[1015] Consequential amendment relating to 449.38 KiwiRail
[1016] Clause 16(2) amendment

2. any effects on natural character and amenity values, the spiritual and cultural values and beliefs of the tangata whenua, ~~historic~~ heritage values of the surface waterbody, and navigational safety; and[1017]
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 (including intermittent, but excluding ephemeral rivers)[1018] is a controlled activity provided the following conditions are met:
   (i) the stand is secure against fluvial and coastal processes; and[1019]
   (ii) the stand is located so that it does not deflect flow into the river bank or increase water velocities near the bank, if the stand is either on piles or is a floating pontoon construction; and[1020]
   (iii) no stand ~~shall~~ exceeds[1021] more than one third of the width of the river at that place at that time~~;~~.[1022]

Environment Southland 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 is a permitted activity provided the following conditions are met:
   (i) the nature, scale and dimensions of the stand are unchanged; and[1023]
   (ii) the bed beneath, above or beyond the structure is not disturbed or any disturbance is corrected within 24 hours; and[1024]
   (iii) no debris from maintenance of the structure enters the river or bed;

(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 (including intermittent, but excluding ephemeral rivers)[1025] is a permitted activity provided the following conditions are met:
   (i) the nature, scale and dimensions of the stand are unchanged; and[1026]
   (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 (including intermittent, but excluding ephemeral rivers), or modified watercourse is a permitted activity provided all debris from the stand are removed from the bed.

(e) The placement or erection of any replacement whitebait stand in, on or over the bed of any lake, river (including intermittent, but excluding ephemeral rivers)[1027], or modified watercourse is a restricted discretionary activity provided the following conditions are met:

[1017] Clause 16(2) amendment
[1018] 277.63 Fonterra
[1019] Clause 16(2) amendment
[1020] Clause 16(2) amendment
[1021] Clause 16(2) amendment
[1022] Clause 16(2) amendment
[1023] Clause 16(2) amendment
[1024] Clause 16(2) amendment
[1025] 277.63 Fonterra
[1026] Clause 16(2) amendment
[1027] 277.63 Fonterra

(i) the original stand has been destroyed or it is necessary to move the stand due to natural alterations to the course of the river, bank erosion, or high water mark alterations; and[1028]
(ii) the replacement stand complies with the conditions in Rule 65(b); and[1029]
(iii) the replacement stand is erected a minimum distance of 20 metres from any existing stand; and[1030]
(iv) the replacement stand is located on the same river as the original stand, as close as practicable to the former site; and[1031]
(v) the original stand is removed in accordance with Rule 65(~~e~~ d)[1032].

Environment Southland will restrict its discretion to the following matters:

1. the location of the new stand; and
2. any effects on amenity values, natural character values and outstanding natural features,[1033] river morphology and dynamics (including erosion and deposition), public safety and public access.

(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(e) 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 river (including intermittent, but excluding ephemeral rivers), modified watercourse, or lake is a permitted activity provided the following conditions are met:
(i) the maimai does not exceed 10 square metres in area; and
(ii) there is no disturbance of the tidal river habitat up to the spring tide level between 1 November and 31 May (inclusive); and
(iii) there is no disturbance of the roosting and nesting areas of the black fronted tern, black billed gull, and banded and black fronted dotterel; and
(iv) the erection or placement does not impede any legal access to the river, modified watercourse or lake; and
(v) the maimai is on piles; and
(vi) the maimai is secure against fluvial and coastal processes; and
(vii) fish passage is not impeded as a result of the erection, placement or use of the maimai; and
(viii) no contaminants are discharged to water unless allowed by a relevant permitted activity rule or resource consent; and
(ix) the maimai does not cause erosion of, or deposition on, the surrounding bed or banks; and
(xii) any build-up of debris against the maimai, which may adversely affect flood risk, drainage capacity or bed or bank stability, is removed as soon as practicable; and
(xiii) the maimai is maintained in a structurally sound condition at all times.

(b) The erection, placement, use, maintenance or alteration of any maimai in, on, or over the bed of any river (including intermittent, but excluding ephemeral rivers), modified watercourse or

[1028] Clause 16(2) amendment
[1029] Clause 16(2) amendment
[1030] Clause 16(2) amendment
[1031] Clause 16(2) amendment
[1032] Clause 16(2) amendment
[1033] 752.158 Fish and Game

lake that does not meet one or more of the conditions of Rule 65A(a) is a restricted discretionary activity.

Environment Southland 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, historic heritage, landscape, natural character and amenity values, navigation hazard, and public access and recreation values.

(2) The actual and potential environmental effects of not meeting the condition or conditions of Rule 65A(a).[1034]

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 T.*[1035]

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 river (including intermittent, but excluding ephemeral rivers)[1036], modified watercourse, or lake, and any associated bed disturbance, gravel extraction[1037] and discharge resulting from the carrying out of the activity, is a permitted activity provided the following conditions are met:

(i) the structure ~~was~~ is[1038] lawfully established; and[1039]

(ii) fish passage ~~shall~~ is not ~~be~~[1040] impeded as a result of the activity; and[1041]

(iii) there ~~shall be~~ is no ~~bed~~ disturbance of ~~the~~[1042] roosting and nesting areas of the black fronted tern, black billed gull, ~~and~~ or banded and black fronted dotterel; and[1043]

(iv) any activity in the water ~~shall be~~ is[1044] kept to a minimum to avoid, as much as practicable, discoloration ~~to~~ of the river or lake. Where any sediment release occurs, it will be only temporary; and[1045]

(v) any bed disturbance ~~shall be kept to~~ is [1046]the minimum necessary to undertake the activity and the bed must ~~shall~~ [1047]be 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[1048]); and[1049]

(vi) no fuel storage or machinery refuelling ~~shall~~ occurs[1050] on any area of the bed; and[1051]

[1034] 752.173 Fish and Game
[1035] Heritage NZ (evidence para 4.5.1)
[1036] 277.63 Fonterra
[1037] 664.28 Real Journeys
[1038] Clause 16(2) amendment
[1039] Clause 16(2) amendment
[1040] Clause 16(2) amendment
[1041] Clause 16(2) amendment
[1042] Clause 16(2) amendment
[1043] Clause 16(2) amendment
[1044] Clause 16(2) amendment
[1045] Clause 16(2) amendment
[1046] Clause 16(2) amendment
[1047] Clause 16(2) amendment
[1048] 664.28 Real Journeys
[1049] Clause 16(2) amendment
[1050] Clause 16(2) amendment
[1051] Clause 16(2) amendment

(vii) no contaminants, other than sediment released from the bed, ~~shall be~~ are[1052] discharged to water during the activity unless allowed by a relevant permitted activity rule or a resource consent; and[1053]

~~(viii) there are no recorded historic heritage sites, at the site of the activity;~~[1054]

(ix) before any equipment, machinery, or operating plant is moved to a new activity site it ~~shall~~ must[1055] be effectively cleaned to prevent the spread of "pests" or "unwanted organisms" as defined by the Biosecurity Act 1993; and[1056]

(x) all equipment, machinery, operating plant and debris associated with the structure or bed disturbance activity ~~shall be~~ is[1057] removed from the site on completion of the activity; and[1058]

(xi) from the beginning of November until the end of May, there ~~shall be~~ is no disturbance of the tidal river habitat up to the spring tide level; and[1059]

(xii) the structure ~~shall~~ does not cause significant erosion of, or deposition on, the surrounding bed or banks; and[1060]

(xiii) any build-up of debris against the structure, which may adversely affect flood risk, drainage capacity or bed or bank stability, ~~shall be~~ is[1061] removed as soon as practicable; and

(xiv) the structure ~~shall be~~ is [1062]maintained in a state of good repair.

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 is set out in Appendix T.*[1063]

(b) Unless otherwise stated in this Plan, the maintenance, gravel extraction[1064] and any associated bed disturbance of any structure in, on, under or over the bed of any river (including intermittent, but excluding ephemeral rivers)[1065], modified watercourse, or lake and discharge from carrying out the activity[1066] that does not meet one or more of the conditions of Rule 66(a) is a restricted discretionary activity.

Environment Southland 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, outstanding natural features,[1067] and historic heritage.[1068]

Rule 67 – Alteration and/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 river (including intermittent, but excluding ephemeral rivers)[1069],

[1052] Clause 16(2) amendment
[1053] Clause 16(2) amendment
[1054] 449.33 Kiwirail
[1055] Clause 16(2) amendment
[1056] Clause 16(2) amendment
[1057] Clause 16(2) amendment
[1058] Clause 16(2) amendment
[1059] Clause 16(2) amendment
[1060] Clause 16(2) amendment
[1061] Clause 16(2) amendment
[1062] Clause 16(2) amendment
[1063] Consequential amendment relating to 449.38 KiwiRail
[1064] 664.28 Real Journeys
[1065] 277.63 Fonterra
[1066] 562.21 Meridian
[1067] 752.159 Fish and Game
[1068] Consequential amendment relating to 449.33 KiwiRail
[1069] 277.63 Fonterra

modified watercourse, or lake 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:

(i) the structure is lawfully established; and[1070]

~~(ii) the structure is not listed on the New Zealand Heritage List/Rarangi Korero, and was not constructed prior to 1920;~~[1071]

(iii) the alteration or extension ~~shall~~ does[1072] not involve an increase in the number or area of any support structures in the bed of the river, modified watercourse, or lake; and[1073]

(iv) fish passage ~~shall~~ is not ~~be~~ impeded as a result of the activity; and[1074]

(v) there ~~shall be~~ is no ~~bed~~ disturbance of ~~the~~ roosting and nesting areas of the black fronted tern, black billed gull, ~~and~~ or banded and black fronted dotterel; and[1075]

(vi) any activity in the water ~~shall be~~ is kept to a minimum to avoid, as much as practicable, discoloration ~~to~~ of the river or lake. Where any sediment release occurs, it will be only temporary; and[1076]

(vii) any bed disturbance ~~shall be kept to~~ is[1077] the minimum necessary to undertake the activity and the bed must ~~shall~~[1078] be returned as near as practicable to its original channel shape, area, depth, or gradient on completion of the activity (with the exception of revegetation); and[1079]

(viii) no fuel storage or machinery refuelling ~~shall~~ occurs on any area of the bed; and[1080]

(ix) no contaminants, other than sediment released from the bed, ~~shall be~~ are discharged to water during the activity unless allowed by a relevant permitted activity rule or a resource consent; and[1081]

~~(x) there are no recorded historic heritage sites, at the site of the activity;~~[1082]

(xi) before any equipment, machinery, or operating plant is moved to a new activity site it ~~shall~~ must[1083] be effectively cleaned to prevent the spread of "pests" or "unwanted organisms" as defined by the Biosecurity Act 1993; and[1084]

(xii) all equipment, machinery, operating plant and debris associated with the structure or bed disturbance activity ~~shall~~ must be removed from the site on completion of the activity; and[1085]

(xiii) from the beginning of November until the end of May, there ~~shall be~~ is no disturbance of the tidal river habitat up to the spring tide level; and[1086]

(xiv) the structure ~~shall~~ does not cause significant erosion of, or deposition on, the surrounding bed or banks; and[1087]

(xv) any build-up of debris against the structure, which may adversely affect flood risk, drainage capacity or bed or bank stability, ~~shall be~~ is removed as soon as practicable; and

(xvi) the structure ~~shall be~~ is[1088] maintained in a state of good repair.

[1070] Clause 16(2) amendment
[1071] 449.34 Kiwirail
[1072] Clause 16(2) amendment
[1073] Clause 16(2) amendment
[1074] Clause 16(2) amendment
[1075] Clause 16(2) amendment
[1076] Clause 16(2) amendment
[1077] Clause 16(2) amendment
[1078] Clause 16(2) amendment
[1079] Clause 16(2) amendment
[1080] Clause 16(2) amendment
[1081] Clause 16(2) amendment
[1082] 449.34 Kiwirail
[1083] Clause 16(2) amendment
[1084] Clause 16(2) amendment
[1085] Clause 16(2) amendment
[1086] Clause 16(2) amendment
[1087] Clause 16(2) amendment
[1088] Clause 16(2) amendment

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 is set out in Appendix T.*[1089]

(b) Unless otherwise stated in this Plan, the alteration or extension of any structure in, on, under or over the bed of any river (including intermittent, but excluding ephemeral rivers)[1090], modified watercourse, or lake 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.

Environment Southland will restrict its discretion to the following matters:

1. any effects on the morphology and dynamics (including erosion and deposition) of the river, modified watercourse, or lake, natural character and amenity values, the spiritual and cultural values and beliefs of the tangata whenua, taonga species, and ~~historic~~ heritage values of the surface waterbody[1091]; and
2. any conditions in Rule 67(a) that cannot be met.

Rule 68 – Demolition ~~and/~~or[1092] 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 river (including intermittent, but excluding ephemeral rivers)[1093], modified watercourse, or lake 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:

~~(i) the structure is not listed on the New Zealand Heritage List/Rārangi Kōrero, and was not constructed prior to 1920;~~[1094]

(ii) fish passage ~~shall~~ is not ~~be~~ impeded as a result of the activity; and[1095]

(iii) there ~~shall be~~ is no ~~bed~~ disturbance of ~~the~~ roosting and nesting areas of the black fronted tern, black billed gull, ~~and~~ or[1096] banded and black fronted dotterel; and[1097]

(iv) any activity in the water ~~shall be~~ is kept to a minimum to avoid, as much as practicable, discoloration ~~to~~ of the river or lake. Where any sediment release occurs, it will be only temporary; and[1098]

(v) any bed disturbance ~~shall be kept to~~ is [1099]the minimum necessary to undertake the activity, and the bed must ~~shall~~[1100] be returned as near as practicable to its original channel shape, area, depth, or gradient on completion of the activity (with the exception of revegetation); and[1101]

(vi) no fuel storage or machinery refuelling ~~shall~~ occurs[1102] on any area of the bed; and[1103]

(vii) no contaminants, other than sediment released from the bed, ~~shall be~~ are discharged to water during the activity unless allowed by a relevant permitted activity rule or a resource consent; and[1104]

[1089] Consequential amendment relating to 449.38 KiwiRail
[1090] 277.63 Fonterra
[1091] Consequential amendment relating to 449.38 KiwiRail
[1092] Clause 16(2) amendment
[1093] 277.63 Fonterra
[1094] 449.35 KiwiRail
[1095] Clause 16(2) amendment
[1096] Clause 16(2) amendment
[1097] Clause 16(2) amendment
[1098] Clause 16(2) amendment
[1099] Clause 16(2) amendment
[1100] Clause 16(2) amendment
[1101] Clause 16(2) amendment
[1102] Clause 16(2) amendment
[1103] Clause 16(2) amendment

~~(viii) there are no recorded historic heritage sites, at the site of the activity;~~[1105]

(ix) before any equipment, machinery, or operating plant is moved to a new activity site it ~~shall~~ must be effectively cleaned to prevent the spread of "pests" or "unwanted organisms" as defined by the Biosecurity Act 1993; and[1106]

(x) all equipment, machinery, operating plant and debris associated with the structure or bed disturbance activity ~~shall be~~ is removed from the site on completion of the activity; and[1107]

(xi) from the beginning of November until the end of May, there ~~shall be~~ is no disturbance of the tidal river habitat up to the spring tide level; and

(xii) demolition or removal of the structure ~~shall~~ 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 is set out in Appendix T.*[1108]

(b) Unless otherwise stated in this Plan, the demolition or removal of any structure in, on, under or over the bed of any river (including intermittent, but excluding ephemeral rivers), modified watercourse[1109], or lake 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.

Environment Southland 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, ~~historic~~ heritage values of the surface waterbody, ~~and~~[1110] natural character values and outstanding natural features[1111] and amenity values; and[1112]
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, alteration, extension, removal or demolition of any structure in, on, under or over the bed of any river (including intermittent, but excluding ephemeral rivers)[1113], ~~(including~~ modified watercourses~~)~~,[1114] or lake, and any associated bed disturbance and discharge resulting from the carrying out of 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).

[1104] Clause 16(2) amendment
[1105] 449.35 KiwiRail
[1106] Clause 16(2) amendment
[1107] Clause 16(2) amendment
[1108] Consequential amendment relating to 449.38 KiwiRail
[1109] 277.63 Fonterra
[1110] Clause 16(2) amendment
[1111] 752.161 Fish and Game
[1112] Clause 16(2) amendment
[1113] 277.63 Fonterra
[1114] 277.63 Fonterra

Bed disturbance activities in river and lake beds

Rule 70 – Stock exclusion from waterbodies

~~(a) The disturbance of the bed of a lake, river, natural wetland, artificial watercourse or modified watercourse by stock and associated discharge through access by stock is a permitted activity provided the following conditions are met:~~

~~(i) there is no discharge that gives rise to any conspicuous change in the colour or visual clarity in the receiving water;~~

~~(ii) there is no significant de-vegetation of the bed and banks, pugging, or alteration to the profile of the bed and banks, other than at fords or stock crossings;~~

~~(iii) there is no access by stock to roosting and nesting areas of the black fronted tern, black billed gull, and banded and black fronted dotterel;~~

~~(iv) there is no access by stock to the area of tidally influenced river and adjacent riparian habitat;~~

~~(v) where a dedicated stock crossing point or ford is used, condition (ii) above may be disregarded, provided the crossing point is not more than 20 metres wide and aligns with a constructed track or raceway on either side of the crossing point;~~

~~(vi) despite (i) to (v), stock (excluding sheep and deer) are to be excluded from 1 May 2018 from: all rivers, natural wetlands, artificial watercourses, modified watercourses and lakes in the Peat Wetlands, Lignite-Marine Terraces, Gleyed, Oxidising, Old Mataura, Central Plains, and Riverine physiographic zones; and in the Bedrock/Hill Country physiographic zone, from all rivers, natural wetlands, artificial watercourses, modified watercourses and lakes where the land, when measured over a width of 20 metres from the waterbody, has a slope of less than 16 degrees~~

~~(vii) despite (i) to (v), deer are to be excluded from 1 May 2020 from: rivers, natural wetlands, artificial watercourses, modified watercourses and lakes in the Peat Wetlands, Lignite-Marine Terraces, Gleyed, Oxidising, Old Mataura, Central Plains, and Riverine physiographic zones; and in the Bedrock/Hill Country physiographic zone from all rivers, natural wetlands, artificial watercourses, modified watercourses and lakes where the land, when measured over a width of 20 metres from the waterbody, has a slope of less than 16 degrees.~~

~~(b) The disturbance of the bed of a lake, river, natural wetland, artificial watercourse or modified watercourse by stock and associated discharge through access by stock, that does not meet one or more of conditions (vi) and (vii) of Rule 70(a) is a discretionary activity provided the following conditions are met:~~

~~(i) a Riparian Management Plan has been prepared in accordance with Appendix N that shows how the stock exclusion required by conditions (vi) and (vii) of Rule 70(a) will be achieved by 1 January 2025 and is implemented.~~

~~(c) The disturbance of the bed of a lake, river, natural wetland, artificial watercourse or modified watercourse and associated discharge through access by stock that does not comply with conditions (i)-(v) of Rule 70(a) or Rule 70(b) is a non-complying activity.~~

(a) From 1 July 2020 the disturbance of:

(i) roosting and nesting areas of the black fronted tern, black billed gull, and banded and black fronted dotterel; and

(ii) tidal river habitat up to the spring tide level;

located in the bed of a lake, river (including an intermittent river but excluding an ephemeral water body), natural wetland, estuary or lagoon by livestock including cattle, deer, pigs or sheep is a prohibited activity.

(b) From 1 July 2020, the disturbance of the bed of a sensitive waterbody 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 (including an intermittent river and a modified watercourse but excluding an ephemeral water body) or an artificial watercourse for the purposes of moving livestock including cattle, deer, pigs or sheep is a permitted activity provided the following conditions are met:

(i) the livestock are being supervised and are actively driven across the water body in one continuous movement; and

(ii) from 1 July 2019, the crossing occurs less frequently than once per week.

(d) Bed disturbance activities that do not comply with the conditions of 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 a lake, river (including an intermittent river but excluding an ephemeral water body), natural wetland, artificial watercourse (other than a stockwater dam or race), modified watercourse, estuary or lagoon by cattle, deer or pigs is a discretionary activity in accordance with the dates and conditions set out in Table xx below:

Table xx:

	Land slope (as classified by the LRI slope dataset)		
Farm/stock type	**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: • over 1 metre wide by 1 July 2017 on all slopes • less than 1 metre wide by 1 July 2020 on the Plains and undulating/rolling land		
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 All water bodies over 1 metre wide from 1 July 2030, unless the average stocking rate on the landholding is less than 6 stock units per hectare and the altitude is greater than 200 metres above sea level.	
	All water bodies where break feeding occurs from 1 July 2022[1115]		

Rule 71 – Channel realignment, widening or deepening

Except as provided for elsewhere in this Plan, t[1116]~~T~~he excavation or disturbance of the bed of any river (including intermittent, but excluding ephemeral rivers)[1117], modified watercourse, or lake for

[1115] 62.13 Beef and Lamb; 277.55 Fonterra
[1116] 449.36 Kiwirail
[1117] 277.63 Fonterra

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 river (including intermittent, but excluding ephemeral rivers)[1118], modified watercourse, or lake for the purpose of making a dry cut is a restricted discretionary activity provided the following conditions are met:

(i) fish passage ~~shall~~ is not ~~be~~ impeded as a result of the activity; and[1119]

(ii) there ~~shall be~~ is no bed disturbance of the roosting and nesting areas of the black fronted tern, black billed gull, ~~and~~ or banded and black fronted dotterel; and[1120]

(iii) any bed disturbance ~~shall be kept to~~ is the minimum necessary to undertake the activity and the bed must ~~shall~~ be returned as near as practicable to its original channel shape, area, depth, or gradient on completion of the activity (with the exception of revegetation); and[1121]

(iv) no fuel storage or machinery refuelling ~~shall~~ occurs[1122] on any area of the bed; and[1123]

(v) no contaminants, other than sediment released from the bed, ~~shall be~~ are discharged to water during the activity unless allowed by a relevant permitted activity rule or a resource consent; and[1124]

~~(vi) there are no recorded historic heritage sites, at the site of the activity;~~[1125]

(vii) before any equipment, machinery, or operating plant is moved to a new activity site it ~~shall~~ must[1126] be effectively cleaned to prevent the spread of "pests" or "unwanted organisms" as defined by the Biosecurity Act 1993; and[1127]

(viii) all equipment, machinery, operating plant and debris associated with the bed disturbance activity ~~shall be~~ is [1128] removed from the site on completion of the activity; and

(ix) from the beginning of November until the end of May, there shall be no disturbance of the tidal river habitat up to the spring tide level.

Environment Southland will restrict its discretion to the following matters:

1. the design and location of the work; and[1129]
2. any effects on river, modified watercourse, ~~stream~~[1130] or lake morphology and dynamics (including erosion and deposition), aquatic and riverine ecosystems and habitat, public access,[1131] the spiritual and cultural values and beliefs of the tangata whenua, landscape, natural character and amenity values, outstanding natural features, navigation hazards[1132] and historic heritage.

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*

[1118] 277.63 Fonterra
[1119] Clause 16(2) amendment
[1120] Clause 16(2) amendment
[1121] Clause 16(2) amendment
[1122] Clause 16(2) amendment
[1123] Clause 16(2) amendment
[1124] Clause 16(2) amendment
[1125] Consequential amendment relating to 449.38 KiwiRail
[1126] Clause 16(2) amendment
[1127] Clause 16(2) amendment
[1128] Clause 16(2) amendment
[1129] Clause 16(2) amendment
[1130] Clause 16(2) amendment
[1131] 752.165 Fish and Game
[1132] 752.165 Fish and Game

authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites is set out in Appendix T.[1133]

(b) The excavation or disturbance of the bed of any river (including intermittent, but excluding ephemeral rivers)[1134], modified watercourse, or lake 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 river (including intermittent, but excluding ephemeral rivers)[1135], modified watercourse, ~~stream~~[1136] or lake for the purpose of extracting gravel (except where the extraction of gravel is associated with the maintenance of structures which is otherwise authoirsed under Rule 66)[1137] is a restricted discretionary activity provided the following conditions are met:

(i) the quantity of gravel removed is less than 120 cubic metres per year; and[1138]

(ii) there shall be no extraction from flowing water ~~or from below the Q95 level of the river~~[1139]; and[1140]

(iii) no holes or pits shall be dug and the area shall be left level and tidy on completion of the activity; and[1141]

(iv) fish passage shall not be impeded as a result of the activity; and[1142]

(v) there shall be no bed disturbance of the roosting and nesting areas of the black fronted tern, black billed gull, and banded and black fronted dotterel; and[1143]

(vi) any activity in the water shall be kept to a minimum to avoid, as much as practicable, discoloration to the river or lake. Where any sediment release occurs, it will be only temporary; and[1144]

(vii) any bed disturbance shall be kept to the minimum necessary to undertake the activity and shall be returned as near as practicable to its original channel shape, area, depth, or gradient on completion of the activity (with the exception of revegetation); and[1145]

(viii) no fuel storage or machinery refuelling shall occur on any area of the bed; and[1146]

(ix) no contaminants, other than sediment released from the bed, shall be discharged to water during the activity unless allowed by a relevant permitted activity rule or a resource consent; and[1147]

~~(x) there are no recorded historic heritage sites, at the site of the activity~~[1148]

(xi) before any equipment, machinery, or operating plant is moved to a new activity site it shall be effectively cleaned to prevent the spread of "pests" or "unwanted organisms" as defined by the Biosecurity Act 1993; and[1149]

(xii) all equipment, machinery, operating plant and debris associated with the bed disturbance activity shall be removed from the site on completion of the activity; and

[1133] Consequential amendment relating to 449.38 KiwiRail
[1134] 277.63 Fonterra
[1135] 277.63 Fonterra
[1136] Clause 16(2) amendment
[1137] Consequential amendment relating to 664.28 Real Journeys
[1138] Clause 16(2) amendment
[1139] 288.36 Fulton Hogan
[1140] Clause 16(2) amendment
[1141] Clause 16(2) amendment
[1142] Clause 16(2) amendment
[1143] Clause 16(2) amendment
[1144] Clause 16(2) amendment
[1145] Clause 16(2) amendment
[1146] Clause 16(2) amendment
[1147] Clause 16(2) amendment
[1148] 449.37 Kiwirail
[1149] Clause 16(2) amendment

(xiii) from the beginning of November until the end of May, there shall be no disturbance of the tidal river habitat up to the spring tide level.

Environment Southland will restrict its discretion to the following matters:

1. the quantity and location of the extraction; and[1150]
2. any effects on infrastructure[1151], 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[1152], historic heritage 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 is set out in Appendix T.*[1153]

(b) The excavation or disturbance of the bed of any river (including intermittent, but excluding ephemeral rivers)[1154], modified watercourse, ~~stream~~[1155] or lake for the purpose of extracting gravel or aggregate for flood or erosion control or the protection of infrastructure is a restricted discretionary activity provided the following conditions are met:

(i) fish passage ~~shall~~ is not ~~be~~ impeded as a result of the activity; and[1156]

(ii) there ~~shall be~~ is no bed disturbance of the roosting and nesting areas of the black fronted tern, black billed gull, ~~and~~ or banded and black fronted dotterel; and[1157]

(iii) any activity in the water ~~shall be~~ is kept to a minimum to avoid, as much as practicable, discoloration ~~to~~ of the river or lake. Where any sediment release occurs, it will be only temporary; and[1158]

(iv) any bed disturbance ~~shall be~~ is ~~kept to~~ the minimum necessary to undertake the activity and the bed must[1159] ~~shall~~ be returned as near as practicable to its original channel shape, area, depth, or gradient on completion of the activity (with the exception of revegetation); and[1160]

(v) no fuel storage or machinery refuelling ~~shall~~ occurs on any area of the bed; and[1161]

(vi) no contaminants, other than sediment released from the bed, ~~shall be~~ are discharged to water during the activity unless allowed by a relevant permitted activity rule or a resource consent; and[1162]

~~(vii) there are no recorded historic heritage sites, at the site of the activity;~~[1163]

(viii) before any equipment, machinery, or operating plant is moved to a new activity site it ~~shall~~ must be effectively cleaned to prevent the spread of "pests" or "unwanted organisms" as defined by the Biosecurity Act 1993; and[1164]

(ix) all equipment, machinery, operating plant and debris associated with the bed disturbance activity ~~shall be~~ is removed from the site on completion of the activity; and

[1150] Clause 16(2) amendment
[1151] 614.34 NZTA
[1152] 752.166 Fish and Game
[1153] Consequential amendment relating to 449.38 KiwiRail
[1154] 277.63 Fonterra
[1155] Clause 16(2) amendment
[1156] Clause 16(2) amendment
[1157] Clause 16(2) amendment
[1158] Clause 16(2) amendment
[1159] Clause 16(2) amendment
[1160] Clause 16(2) amendment
[1161] Clause 16(2) amendment
[1162] Clause 16(2) amendment
[1163] 449.37 Kiwirail
[1164] Clause 16(2) amendment

(x) from the beginning of November until the end of May, there ~~shall be~~ is no disturbance of the tidal river habitat up to the spring tide level.

Environment Southland will restrict its discretion to the following matters:

1. the location of the extraction; and[1165]
2. the design of the works and the quantity of material extracted; and[1166]
3. any effects on infrastructure, flood risk, river morphology and dynamics (including erosion or deposition), aquatic and riverine ecosystems and habitat, taonga species, historic heritage 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 is set out in Appendix T.*[1167]

(c) The excavation or disturbance of the bed of any river (including intermittent, but excluding ephemeral rivers)[1168], modified watercourse~~, stream or~~ [1169]lake for the purpose of extracting gravel 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 ~~for the modification of~~ within[1170] a wetland for the purposes of:

(i) maintaining ~~and~~ or enhancing the wetland, or

(ia) maintaining a constructed sediment trap authorised under Rule 59A;[1171]

(ii) maintaining ~~and~~ or enhancing pedestrian access to the wetland (including the construction, maintenance or upgrading of structures),

is a permitted activity provided the following conditions are met:

(i) ~~the modification does not result in any~~ there is no destruction or removal of any indigenous vegetation from any natural wetland~~unless that vegetation was planted~~; and[1172]

(ii) ~~the modification does not result in any~~ there is no reduction in the size of the wetland; and[1173]

(iii) ~~the modification does not result in any~~ there is no flooding or ponding caused on any land owned or occupied by another person; ~~or~~ and[1174]

(iv) ~~the modification does not result in any~~ there is no[1175] establishment of pest plant species that:

(1) ~~is~~ are listed in the Regional Pest Management Strategy for Southland 2013; or

(2) may damage existing biodiversity values of the wetland; or

(3) will form the dominant vegetation type in the wetland.

(X) The use of land within a wetland is a discretionary activity provided the following conditions are met:

[1165] Clause 16(2) amendment
[1166] Clause 16(2) amendment
[1167] Consequential amendment relating to 449.38 KiwiRail
[1168] 277.63 Fonterra
[1169] Clause 16(2) amendment
[1170] Clause 16(2) amendment
[1171] Consequential change due to new Rule 59A
[1172] Clause 16(2) amendment
[1173] Clause 16(2) amendment
[1174] Clause 16(2) amendment
[1175] Clause 16(2) amendment

(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 from June 2006 to June 2016; and

(ii) there is no establishment of pest plant species that:

(1) is listed in the Regional Pest Management Strategy for Southland; or

(2) may damage existing biodiversity values of the wetland; or

(3) will form the dominant vegetation type in the wetland. [1176]

(b) The use of land ~~for the modification of~~ within[1177] a wetland that is for one or more of the purposes listed in Rule 74(a), but which ~~of maintaining or enhancing the wetland, or maintaining or enhancing pedestrian access to the wetland that~~[1178] does not comply with the conditions of Rule 74~~(1)~~(a)[1179], or the use of land within a wetland that is not a natural wetland that is not for one or more of the purposes listed in Rule 74(a)[1180], is a discretionary activity.

(c) The use of land ~~for the modification of~~ within[1181] a natural[1182] wetland, ~~including through the grazing by stock or drainage,~~ that is not for one or more of the purposes listed in Rule 74(a) or 74(X)~~provided for as a permitted activity or a discretionary activity~~[1183] is a non-complying activity.

Note: *Rule 70 - Stock exclusion from waterbodies and Rule 51 – Minor diversions of water must also be complied with*.[1184]

Rule 75 – Vegetation flood debris[1185] removal

(a) The removal of vegetation flood debris obstructing water flow, including plants dislodged and transplanted during flood flows,[1186] from any river (including intermittent, but excluding ephemeral rivers)[1187], modified watercourse, or lake 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:

(i) the removal of the material is for the purpose of flood or erosion control or maintaining the integrity of infrastructure; and[1188]

(ii) following the removal of material, the area of lake bed, modified watercourse or river which has been disturbed, ~~shall~~ must be returned as near as practicable to its original channel shape, area, depth and gradient; and[1189]

(iii) fish passage ~~shall~~ is not ~~be~~ impeded as a result of the activity; and[1190]

(iv) there ~~shall be~~ is no ~~bed~~ disturbance of ~~the~~ roosting and nesting areas of the black fronted tern, black billed gull, ~~and~~ or banded and black fronted dotterel; and[1191]

(v) any activity in the water ~~shall be kept to a~~ is the minimum to avoid, as much as practicable, discolouration ~~to~~ of the river or lake. Where any sediment release occurs, it will be only temporary; and[1192]

[1176] 897.1 TNZ Growing Products
[1177] Clause 16(2) amendment
[1178] Clause 16(2) amendment
[1179] 247.22 Environment Southland; 265.104 Federated Farmers
[1180] 897.2 TNZ Growing Products
[1181] Clause 16(2) amendment
[1182] 457.2 L & M; 640.51 Pourakino CG; and 810.50 Three Rivers CG
[1183] Clause 16(2) amendment
[1184] 125.5 P Chartres; 752.167 Fish and Game; and 797.51 Ngāi Tahu
[1185] Refer to the Glossary for the definition of "Vegetation flood debris"
[1186] 247.23 Environment Southland
[1187] 277.63 Fonterra
[1188] Clause 16(2) amendment
[1189] Clause 16(2) amendment
[1190] Clause 16(2) amendment
[1191] Clause 16(2) amendment

(vi) no fuel storage or machinery refuelling ~~shall~~ occurs[1193] on any area of the bed; and[1194]

(vii) no contaminants, other than sediment released from the bed, ~~shall be~~ are[1195] discharged to water during the activity unless allowed by a relevant permitted activity rule or a resource consent; and[1196]

~~(viii) there are no recorded historic heritage sites, at the site of the activity;~~[1197]

(ix) before any equipment, machinery, or operating plant is moved to a new activity site it ~~shall~~ must be effectively cleaned to prevent the spread of "pests" or "unwanted organisms" as defined by the Biosecurity Act 1993; and[1198]

(x) all equipment, machinery, operating plant and debris associated with the bed disturbance activity ~~shall be~~ is[1199] removed from the site on completion of the activity; and

(xi) from the beginning of November until the end of May, there ~~shall be~~ is no disturbance of ~~the~~ tidal river bed habitat up to the spring tide level.

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 is set out in Appendix T.*[1200]

(b) The removal of vegetation flood debris obstructing water flow from any river (including intermittent, but excluding ephemeral rivers)[1201], modified watercourse, or lake 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 75(a) is a restricted discretionary activity.

Environment Southland will restrict its discretion to the following matters:

1. any effects on flood risk, river, modified watercourse, or lake morphology and dynamics (including erosion or deposition), and aquatic and riverine ecosystems and habitat; and
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 of any lake, river (including intermittent, but excluding ephemeral rivers)[1202], or modified watercourse is a permitted activity, provided the following conditions are met:

(i) the planting (excluding farming activities in ephemeral water bodies)[1203] ~~in~~ is[1204] undertaken pursuant to a ~~Riparian Management Plan, or a Management Plan~~ Farm Environmental Management Plan prepared in accordance with Appendix N, or is for the purposes of soil conservation, river control[1205], enhancing biodiversity, improving aquatic habitats,[1206] or enhancing mahinga kai or taonga species identified in Appendix M; and[1207]

[1192] Clause 16(2) amendment
[1193] Clause 16(2) amendment
[1194] Clause 16(2) amendment
[1195] Clause 16(2) amendment
[1196] Clause 16(2) amendment
[1197] 449.38 Kiwirail
[1198] Clause 16(2) amendment
[1199] Clause 16(2) amendment
[1200] Consequential amendment relating to 449.38 KiwiRail
[1201] 277.63 Fonterra
[1202] 277.63 Fonterra
[1203] 277.63 Fonterra
[1204] Clause 16(2) amendment
[1205] 614.36 NZTA
[1206] Consequential amendment
[1207] 797.1 Te Rūnanga o Ngāi Tahu

(ii) the planting is not production forestry (excluding forestry species planted pursuant to the Soil Conservation and Rivers Control Act 1941); and[1208]

(iii) no plants listed in the Regional Pest Management Strategy for Southland 2013 are introduced or planted.

(b) The introduction or planting of any plant, or part of any plant, in the bed of any lake, river (including intermittent, but excluding ephemeral rivers)[1209], or modified watercourse not provided for under Rule 76(a) is a restricted discretionary activity provided the following conditions are met:

(i) fish passage ~~shall~~ is not ~~be~~ impeded as a result of the activity; and[1210]

(ii) there ~~shall be~~ is no bed disturbance of the roosting and nesting areas of the black fronted tern, black billed gull, ~~and~~ or banded and black fronted dotterel; and[1211]

(iii) any activity in the water ~~shall be~~ is kept to a minimum to avoid, as much as practicable, discoloration to the river or lake. Where any sediment release occurs, it will be only temporary; and[1212]

(iv) any bed disturbance ~~shall be~~ is kept to the minimum necessary to undertake the activity and the bed must be shall be returned as near as practicable to its original channel shape, area, depth, or gradient on completion of the activity (with the exception of revegetation); and[1213]

(v) no fuel storage or machinery refuelling ~~shall~~ occurs on any area of the bed; and[1214]

(vi) no contaminants, other than sediment released from the bed, ~~shall be~~ are discharged to water during the activity unless allowed by a relevant permitted activity rule or a resource consent; and[1215]

~~(vii) there are no recorded historic heritage sites, at the site of the activity;~~[1216]

(viii) before any equipment, machinery, or operating plant is moved to a new activity site it ~~shall~~ must be effectively cleaned to prevent the spread of "pests" or "unwanted organisms" as defined by the Biosecurity Act 1993; and[1217]

(ix) all equipment, machinery, operating plant and debris associated with the bed disturbance activity ~~shall be~~ is removed from the site on completion of the activity; and

(x) from the beginning of November until the end of May, there ~~shall be~~ is no disturbance of the tidal river habitat up to the spring tide level.

Environment Southland will restrict its discretion to the following matters:

1. the location of the planting; and[1218]
2. the species of plant; and[1219]
3. any effects on flood risk, river morphology and dynamics (including erosion or deposition), taonga species, and aquatic and riverine ecosystems and habitat.

(c) The introduction or planting of any plant, or part of any plant, in the bed of any lake, river (including intermittent, but excluding ephemeral rivers)[1220], or modified watercourse not provided for under Rule 76(a) or (b) is a discretionary activity.

[1208] 523.17 G McGregor; 614.36 NZTA; and 753.17 Southland RLC
[1209] 277.63 Fonterra
[1210] Clause 16(2) amendment
[1211] Clause 16(2) amendment
[1212] Clause 16(2) amendment
[1213] Clause 16(2) amendment
[1214] Clause 16(2) amendment
[1215] Clause 16(2) amendment
[1216] Consequential amendment relating to 449.38 KiwiRail
[1217] Clause 16(2) amendment
[1218] Clause 16(2) amendment
[1219] Clause 16(2) amendment
[1220] 277.63 Fonterra

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 is set out in Appendix T.*[1221]

Rule 77 – Vehicles and machinery

(a) The entry into or passage across the bed of any river (including intermittent, but excluding ephemeral rivers)[1222], modified watercourse, or lake by any wheeled or tracked vehicle or machine 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:

(i) there shall be no alteration to the original profile of the bed; and[1223]

(ii) the activity is necessary for the purposes of crossing over the bed, or carrying out another permitted or consented activity within the bed; and[1224]

(iii) there ~~shall be~~ is no bed disturbance of the roosting and nesting areas of the black fronted tern, black billed gull, and banded and black fronted dotterel; and[1225]

(iv) any activity in the water ~~shall be~~ is kept to a minimum to avoid, as much as practicable, discoloration to the river or lake. Where any sediment release occurs, it will be only temporary; and[1226]

(v) any bed disturbance ~~shall be~~ is kept to the minimum necessary to undertake the activity and ~~shall be~~ is[1227] returned as near as practicable to its original channel shape, area, depth, or gradient on completion of the activity (with the exception of revegetation); and[1228]

(vi) no fuel storage or machinery refuelling ~~shall~~ occurs on any area of the bed; and[1229]

(vii) no contaminants, other than sediment released from the bed, shall ~~be~~ are discharged to water during the activity unless allowed by a relevant permitted activity rule or a resource consent; and[1230]

~~(viii) there are no recorded historic heritage sites, at the site of the activity;~~[1231]

(ix) before any equipment, machinery, or operating plant is moved to a new activity site it ~~shall~~ must be effectively cleaned to prevent the spread of "pests" or "unwanted organisms" as defined by the Biosecurity Act 1993; and[1232]

(x) all equipment, machinery, operating plant and debris associated with the bed disturbance activity shall be removed from the site on completion of the activity; and

(xi) from the beginning of November until the end of May, there shall be no disturbance of the tidal river habitat up to the spring tide level.

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 is set out in Appendix T.*[1233]

[1221] Consequential amendment relating to 449.38 KiwiRail
[1222] 277.63 Fonterra
[1223] Clause 16(2) amendment
[1224] Clause 16(2) amendment
[1225] Clause 16(2) amendment
[1226] Clause 16(2) amendment
[1227] Clause 16(2) amendment
[1228] Clause 16(2) amendment
[1229] Clause 16(2) amendment
[1230] Clause 16(2) amendment
[1231] 449.39 Kiwirail
[1232] Clause 16(2) amendment
[1233] Consequential amendment relating to 449.38 KiwiRail

(b) The entry into or passage across the bed of any river (including intermittent water bodies but excluding ephemeral rivers), modified watercourse, or lake 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.

Environment Southland will restrict its discretion to the following matters:

1. the location, type of vehicle or machine, and frequency and duration of the activity; and[1234]
2. any effects on water quality, river morphology and dynamics (including erosion or deposition), taonga species, and aquatic and riverine ecosystems and habitat; and
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 the carrying out of the activity, is a permitted activity provided the following conditions are met:

(i) the activity ~~shall be~~ is[1235] 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[1236] purposes at that location; and[1237]

(ii) the activity ~~shall be~~ is[1238] restricted to the removal of aquatic weeds and plants ~~and/~~or[1239] sediment deposits for drainage maintenance~~/~~ or restoration[1240] purposes; and

(iii) any incidental bed disturbance and removal of gravel shall be only to the extent that it is necessary to undertake the activity and ~~shall be kept to the absolute minimum~~ and shall not result in lowering of the bed below previously modified levels[1241]; and[1242]

(iv) upon completion of the activity, fish passage ~~shall~~ is not be impeded as a result of the activity; and[1243]

(v) the operator ~~shall~~ must[1244] take all reasonable steps to return any fish captured or stranded by the activity to water immediately; and[1245]

(vi) between the beginning of June and the end of October, there ~~shall be~~ is no disturbance of the spawning habitat of trout; and[1246]

(vii) between the beginning of November and the end of May, there shall be no disturbance of banks within the tidal river habitat that floods at spring tide; and[1247]

(viii) no fuel storage or machinery refuelling shall occur on any area of the bed; and[1248]

(ix) no contaminants, other than sediment released from the bed, shall be discharged to water during the activity unless allowed by a relevant permitted activity rule or a resource consent; and[1249]

[1234] Clause 16(2) amendment
[1235] Clause 16(2) amendment
[1236] Clause 16(2) amendment
[1237] Clause 16(2) amendment
[1238] Clause 16(2) amendment
[1239] Clause 16(2) amendment
[1240] Clause 16(2) amendment
[1241] 108.107 J Bythell; 752.171 Fish and Game
[1242] Clause 16(2) amendment
[1243] Clause 16(2) amendment
[1244] Clause 16(2) amendment
[1245] Clause 16(2) amendment
[1246] Clause 16(2) amendment
[1247] Clause 16(2) amendment
[1248] Clause 16(2) amendment
[1249] Clause 16(2) amendment

~~(x) there are no known archaeological sites or wāhi tapu in the bed, at the site of the activity. In the event of the discovery of a site of potential historical or cultural importance (for example, archaeological site or wāhi tapu), the activity shall cease and Environment Southland's Director of Policy, Planning and Regulatory Services shall be informed immediately. The activity may not recommence without the permission of the Director of Policy, Planning and Regulatory Services;~~[1250]

(xi) before any equipment, machinery, or operating plant is moved to a new activity site from any other area it shall be effectively cleaned to prevent the spread of "pest" or "unwanted organisms" as defined in the Biosecurity Act, 1993; and[1251]

(xii) all equipment, machinery, operating plant and debris associated with the bed disturbance activity shall be removed from the site on completion of the activity; and[1252]

(xiii) where the modified watercourse is spring-fed, removal of aquatic weeds and plants shall be only to the extent that is necessary to undertake the activity and shall be 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 is set out in Appendix T.*[1253]

(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 the above conditions is a discretionary activity.

Rule 79 – High country burning

~~(a) The use of land for the burning of vegetation in Zone C of the Fire Hazard Zones (Map Series 6) is a permitted activity.~~[1254]

(a~~b~~) The use of land for the burning of vegetation in Zone B of the Fire Hazard Zones (Map Series 6) between 1 May and 30 September in any one year is a permitted activity.

(b~~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,[1255] of the Fire Hazard Zones (Map Series 6) is a restricted discretionary[1256] ~~controlled~~ activity provided the following conditions are ~~is~~[1257] met:

(i) one of the following has been obtained, which covers the proposed burning of vegetation on land:

~~(1) a permit for burning within 1 kilometre of land administered by the Department of Conservation;~~[1258]

(1~~2~~) a permit for burning in the hill and high country from the ~~Rural Fire Authority~~ Fire and Emergency New Zealand;[1259] or

(2~~3~~) a consent from the Commissioner of Crown Lands for burning on Crown pastoral leasehold land; or

(3~~4~~) a resource consent or permit for burning from the relevant territorial local authority as determined by their district plans and/or bylaws.

[1250] 449.40 Kiwirail
[1251] Clause 16(2) amendment
[1252] Clause 16(2) amendment
[1253] Consequential amendment relating to 449.38 KiwiRail
[1254] 749.77 SCB
[1255] 746.1 SRFA
[1256] 752.172 Fish and Game; 279.110 Forest and Bird; and 101.108 J Bythell
[1257] Clause 16(2) amendment
[1258] 746.1 SRFA
[1259] 612.6 NZFS

(ii) the burning does not occur above 800 metres above mean sea level.[1260]

Environment Southland will restrict the exercise of its ~~control over~~ discretion[1261] to the following matters:

~~(i)~~(1) Soil conservation and sediment control practices to be undertaken.

~~(ii)~~(2) Adverse effects on areas of significant indigenous vegetation and habitat that is in proximity to wetlands, and lakes and rivers and their margins[1262]

(c~~d~~) The use of land for the burning of vegetation within Zones A~~,~~ or B ~~or C~~ of the Fire Hazard Zones that does not comply with Rule 79(b~~c~~)[1263] is a discretionary activity.

[1260] 101.108 J Bythell; 705.4 R Sallis
[1261] 101.108 J Bythell
[1262] 752.172 Fish and Game
[1263] Consequential amendment to 749.77 SCB

Financial Contributions

Introduction[1264]

Where Environment Southland 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 Maori 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 Environment Southland 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 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 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.

River and lake beds
A financial contribution may be imposed as a condition of consent for any type of activity that is likely to have adverse effects on river and lake beds 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 river and lake beds 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.

[1264] 247.26 Environment Southland

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.

Historic heritage, 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, cultural values and historic heritage values.

The purpose of the financial contribution would be to offset the adverse effects by providing for the protection, restoration or enhancement of historic heritage, 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 Environment Southland 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 river and lake beds, aquatic ecosystems and habitats, historic heritage, 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

Environment Southland 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) Environment Southland does not intend that adverse effects must be fully offset or compensated in every case by way of a financial contribution.

~~Introduction~~

~~Where Environment Southland 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.~~

~~Environment Southland's responsibilities under the Act are:~~

> ~~*"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 effect); and*~~
> ~~*(b) the level of contribution is determined in the manner described in the Plan or proposed plan." (Section 108(10) RMA)"*~~

~~Financial contributions may be required for the purposes specified in Section 2.4.2 of the Plan.~~

~~All monies collected under the financial contributions regime of the Plan are collected by Environment Southland for use in reasonable accordance with the purposes for which the money was received. When deciding how those contributions should be levied, consideration will be given to matters contained in public submissions on a resource consent application.~~

~~The provisions which follow reflect the requirements of the Act and set out:~~

~~(a) the circumstances when such contributions may be imposed;~~
~~(b) the purposes for which such contributions may be required and used;~~
~~(c) the manner in which the amount of the contribution will be determined; and~~
~~(d) matters which Environment Southland will have regard to when deciding whether to impose a financial contribution, the type or types of contribution, and the amount of any contribution, and the general provisions that would apply.~~

~~Circumstances, purpose and amount~~

~~Financial contributions may, in certain instances, be imposed on a resource consent in the circumstances and for the purposes set out below. Contributions of money to Environment Southland must be used in reasonable accordance with the purposes for which the contribution was taken.~~

~~The following provisions set out circumstances and purposes for which financial contributions may be imposed and used, and the manner in which the amount of the contribution will be determined is also set out. The determination of amount provides criteria to assist in deciding the actual quantum of the financial contribution to be required, rather than any arbitrary dollar amount or percentage of project value, neither of which may reasonably relate to the degree of adverse effects or the potential significance of the project.~~

- ~~***Maintenance or improvement of public access to and along rivers and lakes***~~

  ~~**Circumstances –** Where public access to or along rivers or lakes will be limited or prevented by the activity for which consent is granted.~~

  (a) ~~**Purposes** – To offset such effects by providing for public access to or along rivers or lakes through or around the area to which the consent applies.~~
  ~~**Determination of amount** – The amount of contribution will be determined by calculating the fair and reasonable costs inherent in the acquisition and vesting of land, or an interest in land, to give effect to alternative public access to a reasonably equivalent standard necessary to compensate for access that will be lost or reduced due to the proposed activity, or shall comprise the vesting of sufficient land, or the vesting or creation of a sufficient interest in land, to compensate for access that will be lost or reduced due to the proposed activity.~~

  (b) ~~**Purposes –** To offset or compensate for reduction or loss of access by contributing to the costs of, or providing, sufficient land, or a sufficient interest in land, for new or enhanced access to or along another part of the river or lake within the same general locality, or serving the same general community, to compensate for access that will be lost or reduced due to the proposed activity.~~
  ~~**Determination of amount –** The amount of contribution will be determined by calculating the fair and reasonable costs inherent in the acquisition and vesting of land to give effect to alternative public access to a reasonably equivalent standard necessary to compensate for access that will be lost or reduced, or shall comprise the vesting of sufficient land, or the vesting or creation of a sufficient interest in land, to compensate for access that will be lost or reduced due to the proposed activity.~~

- ~~***Protection, restoration or enhancement of river and lake beds***~~

  ~~**Circumstances** – Where the activity for which consent is granted is likely to cause or contribute to adverse effects on river and lake beds.~~

  (c) ~~**Purposes –** To offset the adverse effects of the activity by providing land, or an interest in land, for the purposes of protecting, restoring or enhancing river and lake beds or contributing to the cost of protecting, restoring or enhancing river and lake beds, including (without limitation) maintenance and planting of vegetation, sediment replenishment, erosion protection works, and fencing, and including contribution to such measures elsewhere in the same general locality.~~
  ~~**Determination of amount –** The amount of contribution will be determined by calculating the fair and reasonable contribution to the costs of maintenance and planting of vegetation, sediment replenishment, erosion protection works, fencing and/or river and lake bed protection appropriate to compensate for the adverse effects of the proposed activity on river and lake beds taking into account any positive effects of the proposed activity on the protection, restoration or enhancement of river and lake beds.~~

- ~~***Protection, maintenance or restoration of heritage values and of places, areas, or features of importance to Tāngata whenua***~~

  ~~**Circumstances –** Where the activity for which consent is granted will adversely affect places, areas, buildings or features of special historical, archaeological, architectural, scientific, ecological or intrinsic value (including trees or areas of vegetation with such values) and places, areas or features of importance to tāngata whenua for spiritual, cultural or historical reasons.~~

  (d) ~~**Purposes** – To offset such effects by protecting, maintaining or restoring the place, area, building or feature and/or to offset such effects by contributing to protection, maintenance or restoration of some alternative place, area, building or feature elsewhere in the same general locality.~~
  ~~**Determination of amount –** The amount of contribution will be determined by calculating the fair and reasonable costs of protecting or restoring such place, area, building or feature and/or contributing to the costs of protecting or restoring some alternative place, area, building or feature in the same general locality with the same or similar values to an extent appropriate to compensate for the adverse effects caused by the proposed activity.~~

- ~~***Landscaping or planting***~~

  ~~**Circumstances –** Where the activity for which consent is granted is likely to cause or contribute to adverse effects on visual amenities and/or involves land clearance or disturbance.~~

  (e) ~~**Purposes –** To offset the adverse effects of land clearance, land disturbance and structures by landscaping or replanting in the general locality of the site in question.~~
  ~~**Determination of amount –** The amount of contribution will be determined by calculating the fair and reasonable costs of carrying out landscaping or replanting on land in the general locality of the site in question to an extent appropriate to compensate for the adverse effects on visual amenities arising due to clearance or disturbance of land or the erection of new structures~~

- ~~***Fencing or screening***~~

  ~~**Circumstances –** Where the activity for which consent is granted is likely to contribute to adverse effects on visual amenities, or conservation areas.~~

  (f) ~~**Purposes** – To offset adverse visual effects by fencing or screening to protect and/or separate conservation areas; areas where vegetation has been removed; and areas on land or within lake and riverbeds used privately or publicly for recreational or residential purposes.~~
  ~~**Determination of amount –** The amount of contribution will be determined by calculating a fair and reasonable contribution to the costs of fencing or screening the visual amenities or conservation areas to compensate for the adverse visual effects on them caused by the proposed activity.~~

- ~~***General – mitigation works***~~

Circumstances – Where the activity for which consent is granted will cause or contribute to adverse effects on the environment which will not be adequately offset by any of the types of contribution described elsewhere in this section.

(g) **Purposes –** To offset the adverse effects of the activity, including protection, and/or restoration of natural or physical resources.
Determination of amount – The amount of contribution will be determined by calculating a fair and reasonable level of contribution to the costs of undertaking works which are reasonably necessary to avoid, remedy or mitigate the adverse effects of the activity on the environment, including where appropriate works to protect, and /or restore natural or physical resources.

- ***General – environmental compensation***

Circumstances – Where the activity for which consent is granted will have adverse effects which will not be adequately avoided, remedied or mitigated and those effects can be offset by positive effects elsewhere.

(h) **Purposes –** To provide positive effects to offset adverse effects of the activity on the environment by protecting, restoring and/or enhancing natural and physical resources and/or amenity values.
Determination of amount – The amount of contribution will be determined by calculating a fair and reasonable level of contribution to the costs of undertaking works to protect, restore and/or enhance natural and physical resources and/or amenity values which would have positive effects that would appropriately offset the adverse effects of the activity on the environment.

Matters to be Considered

In deciding whether or not to impose financial contributions or the types of contribution or the amount of any contribution, Environment Southland will have particular regard to the following matters:

(a) the purpose of the financial contribution is to offset or compensate the community or environment for adverse effects caused or contributed to by the activity and not otherwise avoided, remedied or mitigated by the consent holder;
(b) whether adverse effects are likely to occur notwithstanding any avoidance, remedy or mitigation undertaken;
(c) whether the adverse effects for which a contribution is imposed cannot be avoided, remedied or mitigated directly by project design or, in the case of a discharge, adoption of the best practicable option for preventing or minimising the effects;
(d) whether the adverse effects are of such significance that to allow the activity (with or without a financial contribution) would be contrary to the purpose of the Act;
(e) the circumstances and extent of financial contributions previously imposed in relation to the activity, either by this Council Environment Southland[1265] or any other consenting authority;
(f) whether granting a resource consent and requiring a financial contribution would be more effective in achieving the purpose of the Act (including recognition of the economic and social benefits of the activity) and the objectives and policies of this Plan than declining consent or granting a consent without a condition requiring a financial contribution;

[1265] Clause 16(2) amendment

(g) financial contributions shall relate to the effects of the activity for which consent is granted and be in reasonable proportion to the significance of any adverse effects caused or contributed to by the activity;
(h) financial contributions may not be appropriate in every case, even where there are adverse effects;
(i) Environment Southland does not intend that adverse environmental effects must be fully mitigated or fully compensated in every case by way of financial contributions.

General Provisions

In imposing a financial contribution, the following general provisions will apply:

(a) all financial contributions shall be GST inclusive;

(b) where the financial contribution is, or includes, a contribution of land, it must be land, or an interest in land, that is owned by the applicant and which the applicant can transfer without requiring the consent or agreement of a third party. The applicant is not required to enter into third party access agreements in order to provide the financial contribution;

(c) where the financial contribution is, or includes, a payment of money, Environment Southland may specify in the condition:
  (i) the amount to be paid by the consent holder;
  (ii) how payment is to be made, including whether payment is to be made by instalments;
  (iii) when payment shall be made;
  (iv) whether the amount of the payment is to bear interest and, if so, the rate of interest; and
  (v) if the amount of the payment is to be adjusted to take account of inflation and, if so, how the amount is to be adjusted;

(d) where the financial contribution is, or includes, land, the value of the land shall be determined by a valuation undertaken by a registered valuer unless Environment Southland and the parties otherwise agree;

(e) where the financial contribution is, or includes, land Environment Southland may specify:
  (i) the location and the area of the land; and
  (ii) when and how the land is to be transferred to, or vested in, Environment Southland.

Glossary

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

Abstraction

Removing groundwater or removing water from a ~~surface waterbody~~ lake, river, modified watercourse, natural wetland, coastal lagoon or artificial watercourse[1266] or artificial watercourse.

Agrichemical ~~(from NZS 8409 Management of Agrichemicals)~~

Any substance, whether inorganic or organic, man-made or naturally occurring, modified or in its original state, that is used ~~in any agriculture, horticulture or related activity~~, 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.[1267]

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),[1268] 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[1269] ephemeral watercourses.

Bed of a wetland

The land within a wetland boundary.[1270]

Bed of an artificial watercourse

The space of land which the waters of the watercourse cover at its fullest flow without overtopping its banks.[1271]

[1266] 247.41 Environment Southland – definition of surface waterbody
[1267] 247.38 Environment Southland
[1268] 47.30 Balfour, Wendonside & Waikaia Group
[1269] 390.41 Hort NZ
[1270] 247.43 Environment Southland
[1271] 247.43 Environment Southland

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~~, or which intercepts groundwater~~.[1272]

Catchment

The land area that contributes to the river's ~~or stream's~~[1273] 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 ~~three sites~~ which is ~~are~~ predominantly from[1274] 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

[1272] 614.40 NZTA
[1273] Clause 16(2) amendment
[1274] 330.18 GDC, ICC and SDC

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.

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.[1275]

Conspicuous change in clarity

Means more than a 20% reduction in clarity in all rivers, lakes, and wetlands, except for Lowland Soft Bed rivers, where a maximum of 33% reduction in clarity applies.[1276]

Critical Source Area

~~Areas of enriched nutrient or sediment sources and hydrological activity that occur in small parts of a catchment or farm, but contribute a disproportionately large amount of nutrient or sediment to the environment (e.g. steep hills, gullies or swales).~~

(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 rivers, lakes and artificial waterways), ephemeral watercourses, and 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.[1277]

Cultivation

Preparing land for growing pasture or a crop by mechanical tillage, direct drilling, ~~or~~ herbicide spraying, or herbicide spraying followed by over-sowing for pasture or forage crops (colloquially referred to as 'spray and pray'), but ~~(~~excluding ~~spot the~~ any spraying undertaken solely for the control of plant pest species~~)~~.[1278]

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.[1279]

Dairy platform

[1275] Consequential change to insertion of infrastructure objective and policy, copied from SRPS.
[1276] 752.323 Fish and Game
[1277] 62.17 Beef and Lamb
[1278] 390.42 Hort NZ
[1279] 277.65 Fonterra, 265.118 Federated Farmers, HBG AgriLtd

An area of a landholding where dairy cows being milked on a daily basis are kept during the milking season.[1280]

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~~, but excluding commercial laundry and commercial kitchen wastes~~.[1281]

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[1282] 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.[1283]

Effluent

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

(a) on-site wastewater systems, composting toilet systems[1284] and mobile toilets;
(b) community sewerage schemes;
(c) agricultural activities;
(d) an industrial or trade process;
(e) but excludes solid waste.

Ephemeral watercourses~~bodies~~

Watercourses~~bodies~~ which ~~typically~~ only contain flowing and/or standing water following ~~significant~~ rainfall events or extended periods of above average rainfall.[1285]

[1280] 277.66 Fonterra
[1281] 658.2 Ralph Moir & Associates and 750.25 SDC
[1282] 247.3 Environment Southland
[1283] United Nations Convention on Biological Diversity, 1992
[1284] 247.39 Environment Southland
[1285] Clause 16(2) amendment

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 and/or loafing of cattle or deer to avoid damage to pasture when soils are saturated, and can be located either indoors or outdoors. It includes 'sacrifice paddocks', stand-off pads, calving pads, loafing pads, and self-feed silage stacks (other than when being fed to deer).[1286]

Fertiliser

Means a substance or biological compound or mix of substances or biological compounds~~Any substance (whether in solid or fluid form)~~[1287] 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. [1288]

Field Capacity

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

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

The practices set out in the various Good Management Practices Factsheets Water and Land 2020 & Beyond available on the Environment Southland webpage.[1289]

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.

[1286] 25.42 Ardel Dairies; 47.37 Balfour, Wedonside and Waikaia Group; and 828.10 Twin Farm
[1287] 803.50 FANZ
[1288] 661.47 Ravensdown
[1289] 189.56 DHL

Habitat

~~The place or type of place where an organism or population naturally lives.~~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.[1290]

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. [1291]

Interference effects

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

Intermittent watercourses~~bodies~~

~~Waterbodies which contain flowing and/or standing water for a majority of the year but which may occasionally dry out due to natural interaction with surrounding groundwater resources.~~ Watercourses with a bed which does not contain permanaently flowing and/or standing water and where the bed is predominantly devoid of terrestrial vegetation and comprises sand, gravel, boulders, or similar material or aquatic vegetation.[1292]

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) For land subject to the Land Transfer Act 1952, land in:~~

~~(i) a single certificate of title; or~~

~~(ii) two or more adjoining certificates of title, with a common occupier.~~

~~(b) For land not subject to the Land Transfer Act 1952, all contiguous land last acquired under one instrument of conveyance and occupied by a common occupier.~~

(a) Any area of land, including land separated by a road or river, 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[1293]

(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. [1294]

[1290] Clause 16(2) amendment
[1291] 258.32 Eyre Creek Ltd, 190.24 Dairy NZ
[1292] 277.63 Fonterra
[1293] 583.29 R Moseby, 894.5 R Young
[1294] Consequential amendments

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, and/or beneficiaries of that family trust, and/or a related group of companies, and/or an estate, and/or partner, and/or individual/s or a combination of); or

(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.

~~**Light Fuel**~~

~~Means Number 2, 3 or 4 Fuel Oil or diesel.~~[1295]

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

~~Areas from which food resources are gathered and/or propagated.~~

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.[1296]

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[1297] alter its dimensions.

Mauri

Essential life force or principle; a metaphorical ~~metaphysical~~[1298] 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).[1299]

Mean Seasonal High Groundwater

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

[1295] Consequential change – no longer used.
[1296] Ngāi Tahu supplementary evidence (para 16)
[1297] 664.28 Real Journeys
[1298] Ngāi Tahu supplementary evidence (para 25)
[1299] 464.18 Landpro

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.

Minimise

To reduce (an adverse effect) to the least practicable degree or amount.[1300]

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 water courses.[1301]

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.[1302]

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[1303] divided by the duration of the record.

[1300] Consequential amendment relating to 277.40 Fonterra

[1301] Consequential amendment relating to 277.63 Fonterra

[1302] Consequential change to insertion of infrastructure objective and policy, copied from SRPS.

[1303] 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".

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, Manapouri and Monowai (these waterbodies are excluded due to their modified flow and level regimes resulting from the Manapouri and Monowai Power Schemes) and groundwater within the Tiwai groundwater zone (this 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. Based on mātauranga Maori (Maori based knowledge systems) the indicators link long term aspirations for Paptipu 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)[1304].

Non-consumptive take

Any take of fresh water where the associated use and/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.[1305]

Non-point source discharges

[1304] Tipa G and Teirney L. 2006. A Cultural Health Index for streams and waterways: A tool for nationwide use. April 2006. A report prepared or the Ministry for the Environment. Publication number ME710. http://www.mfe.govt.nz/publications/cultural-health-index-streams-and-waterways-tech-report-apr06 .

[1305] 277.69 Fonterra

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 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 outouts from the activity.[1306]

On-site Wastewater System

The collection, treatment and disposal/reuse of wastewater from ~~an individual home~~ or commercial facilities~~facility~~ on the same ~~property~~ landholding[1307] as it is generated. ~~For the purposes of this definition, wastewater is limited to toilet wastes and wash water from kitchens, bathrooms and laundries.~~

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-vasular 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.

[1306] 661.53 Ravensdown
[1307] 330.20 GDC, ICC and SDC

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 as depicted on Map Series 4: Physiographic Zones.~~[1308]

The zones ~~as~~ are depicted on Map Series 4: Physiographic Zones and individually described in the Plan, Part A, pages 18 – 21.

Place of assembly

Any building or land used for public and/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.[1309]

Q95

T~~his is t~~he naturalised[1310] 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

[1308] 661.49 Ravensdown; 803.54 Fertiliser Association NZ
[1309] 277.59 Fonterra
[1310] 210.102 DOC; 752.282 Fish and Game

~~When determining the size of the zone of reasonable mixing, minimise the size of the area where the relevant water quality standards are breached. The~~ A zone within which relevant water quality standards may be exceeded but which[1311] shall not be larger than:

(a) for river and artificial 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 and artificial 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 250 metres upstream of a drinking water supply site~~,~~ sourced from surface water, [1312] 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.[1313]

Receiving waters

Bodies of water that receive run-off or wastewater discharges, such as rivers, ~~streams,~~[1314] lakes, estuaries, and groundwater.

Reconstruction

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

Recorded historic heritage sites

Sites recorded on the New Zealand Heritage List/Rārangi Kōrero ~~or on the New Zealand Archaeological Association (NZAA) Site Recording Scheme,~~ or a historic heritage site, tree or building listed in an operative or proposed district or regional plan.[1315]

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.[1316]

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 river or lake.

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.

[1311] 895.61 Oil Companies
[1312] 895.61 Oil Companies
[1313] 330.21 GDC, ICC, SDC
[1314] Clause 16(2) amendment
[1315] 372.36 HNZ
[1316] Consequential change to insertion of infrastructure objective and policy, copied from SRPS.

Sediment Trap

A localised widening and deepening of the channel of a watercourse that is designed and installed for the primary purpose of slowing waterflow to allow sediments to drop from the water column.[1317]

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 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".

Significant de-vegetation

Means any farming activity that results in the exposure of bare ground and/or pugging of the soil on the bed or banks of a waterbody.[1318]

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 ~~surface waterbody~~ lake, river, modified watercourse, natural wetland, or coastal lagoon[1319] that are classed as spring-fed on Map Series 1: Water Quality, a ~~surface waterbody~~ lake, river, modified watercourse, natural wetland, or coastal lagoon[1320]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

[1317] Consequential amendment relating to 737.29 Smithhill Ltd; 114.9 Callahan, P

[1318] 803.56 FANZ

[1319] 247.41 Environment Southland – definition of surface waterbody

[1320] 247.41 Environment Southland – definition of surface waterbody

(c) meets one or more of the following conditions as measured by Environment Southland:
   (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.

Stand-off pad

Refer to feed pad/lot.[1321]

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 ~~or stream~~.[1322] 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 ~~foul water drainage systems~~ on-site wastewater systems [1323] are not included in this definition.

Suitably Qualified Person (SQP)

A person that has been assessed and approved by Environment Southland as being appropriately qualified, experienced and competent in the relevant field of expertise.[1324]

~~**Surface waterbody**~~

~~Freshwater or geothermal water in a river, lake, stream, pond, or wetland or any part thereof that is not located within the coastal marine area but excludes water in an artificial watercourse.~~[1325]

Taāngata [1326]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

[1321] Clause 16(2) amendment
[1322] Clause 16(2) amendment
[1323] Clause 16(2) amendment
[1324] 451.10 Knockinnon Farm Trust
[1325] 247.41 Environment Southland – definition of surface waterbody
[1326] Clause 16(2) amendment

additional water proposed to be taken by the consent applicant. It excludes non-consumptive takes and[1327] the stream depletion effect of each groundwater take greater than 2 litres per second with a ~~direct,~~ ~~h~~High or ~~m~~Moderate degree of hydraulic connection in accordance with Policy 23 "Stream Depletion Effects".

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 effect of each groundwater take greater than 5 litres per second with a ~~direct,~~ ~~h~~High or ~~m~~Moderate degree of hydraulic connection in accordance with Policy 23 "Stream Depletion Effects".

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.

Waa~~a~~hi[1328] taonga ~~(Wāhi taonga)~~[1329]

Treasured resources.

Waa~~a~~hi[1330] tapu ~~(Wāhi tapu)~~[1331]

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;

[1327] 895.64 Oil Companies
[1328] Te Rūnanga o Ngāi Tahu supplementary evidence
[1329] Clause 16(2) amendment
[1330] Te Rūnanga o Ngāi Tahu supplementary evidence
[1331] Clause 16(2) amendment

(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 met 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[1332] 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"].

Wetland Boundary

The point in the transition from wetland to dryland where wetland plant species occur at more than four times their ungrazed height apart. Wetland edge has a similar meaning.

Whitebait Stand

Any structure used in association with whitebaiting.

Wintering pad

[1332] 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.

Refer to feed pad/lot.[1333]

[1333] Clause 16(2) amendment

Appendix A - Regionally Significant Wetlands and Sensitive Waterbodies [1334]in Southland

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

[1334] Consequential amendment to deletion of Appendix Q-see 210.101 DOC; 279.126 Forest and Bird; and 752.193 Fish and Game.

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 Estaury

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

Lower Waiau River Arm of Lake Manapouri

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

Toitoi 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

Waiau River Lake Manapouri to Mararoa Weir

Note: This appendix only identifies wetlands 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.[1335]

[1335] Clause 16(2) amendment

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?

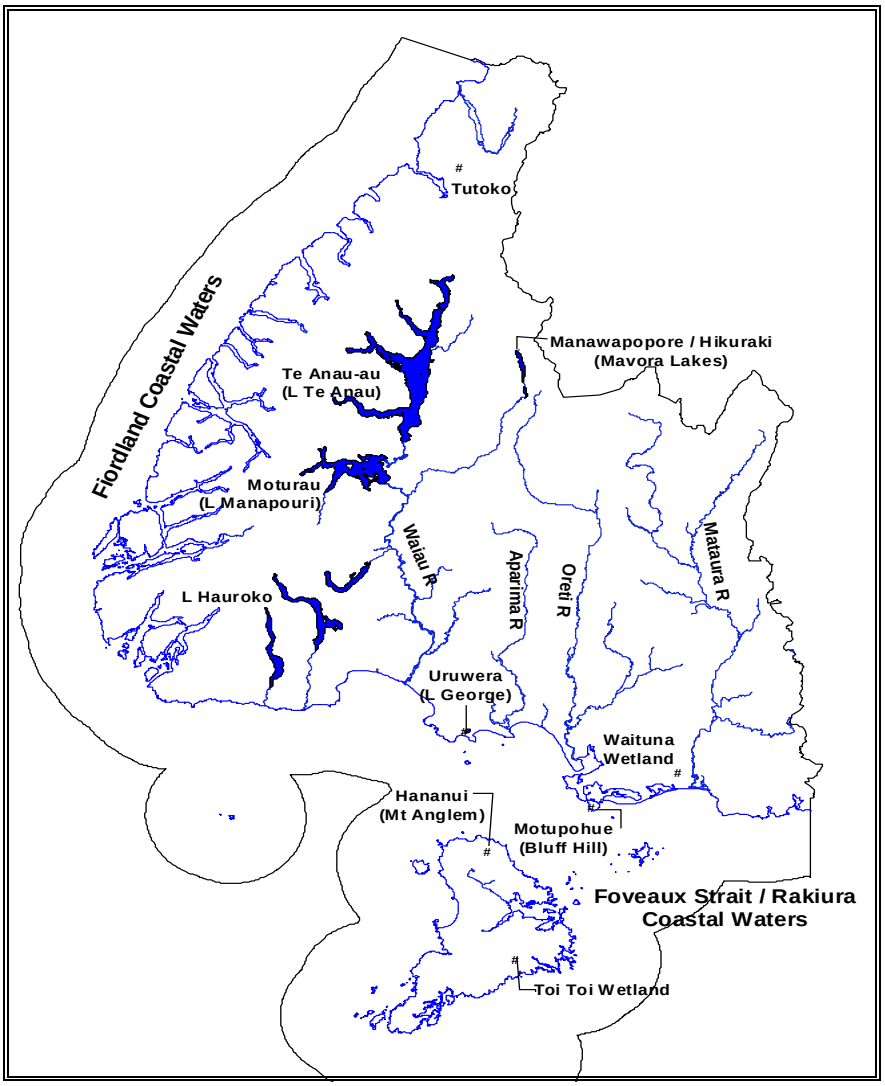
If you are applying for a resource consent for an activity within, adjacent to, or impacting directly upon a statutory area:

- 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.


Tutoko
Fiordland Coastal Waters
Manawapopore / Hikuraki
(Mavora Lakes)
Te Anau-au
(L Te Anau)
Moturau
(L Manapouri)
Waiau R
Aparima R
Oreti R
Mataura R
L Hauroko
Uruwera
(L George)
Waituna
Wetland
Hananui
(Mt Anglem)
Motupohue
(Bluff Hill)
Foveaux Strait / Rakiura
Coastal Waters
Toi Toi Wetland

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 Rakiamoa 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 whanau 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 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 tītīro 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 wahi ~~wāhi~~ [1336]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 wahi ~~wāhi~~ [1337]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

[1336] Clause 16(2) amendment
[1337] 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)~~ [1338]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 onAllocation 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

[1338] 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 Anau'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 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 frequency 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 wahi ~~wāhi~~ [1339]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)~~[1340] 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

[1339] Clause 16(2) amendment

[1340] 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 a 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 waāhi[1341] tapu and waāhi[1342] taonga all along its shores. It is also possible that particular sections of the wetland were used for waiwhakaheketūpāpāku (water burial).

Urupā and waāhi[1343] 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 frequency 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).

[1341] Clause 16(2) amendment
[1342] Clause 16(2) amendment
[1343] 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 ~~T~~taonga[1344] 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)~~[1345]

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, Eglington 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).

[1344] Clause 16(2) amendment
[1345] 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	Waiau River - 1 hectare, approximately, (No 1) being Part Section 10 and Part Waiau Riverbed, Block I, Alton Survey District (SO 2840) Subject to survey, as shown on Allocation Plan MN 90(SO 12236).
52	Waiau River and Lagoon	Waiau 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 tītīro 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[a]

These guidelines apply to the sediment after reasonable mixing.

Contaminant	**ISQG-Low**
Metals (mg/kg dry wt.)	
Antimony	2
Cadmium	1.5
Chromium	80
Copper	65
Lead	50
Mercury	0.15
Nickel	21
Silver	1
Zinc	200
Metalloids (mg/kg dry wt.)	
Arsenic	20
Organometallics (µSn/kg dry wt.)	
Tributyltin	5
Organics (µg/kg dry wt.) [b]	
Acenapthene	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 [c]	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 D – Good Spray Management Practices~~

~~Introduction~~

~~This appendix has been developed from various sources of information, including information sheets from MPI, and regional plans developed by other regional councils. The material relating to spray management is based on information contained in New Zealand Standard 8409 (Management of Agrichemicals) developed by the New Zealand Agrichemical Education Trust.~~

~~This appendix has been included in the Plan in a simple and convenient form of general public information and education purposes. The information contained in this appendix also provides general guidance on the best practicable option for preventing or minimising adverse effects on the environment from the application of agrichemicals. It provides a general indication of the nature of the conditions that might be attached to a resource consent for the application of agrichemicals.~~

~~Any person discharging agrichemicals:~~

- ~~should use only agrichemicals with label claims for use in or over bodies of water;~~
- ~~for spraying of emergent plants should not submerge treated plants;~~
- ~~should always proceed upstream while spraying surface water, to avoid any buildup of agrichemical concentration in the water;~~
- ~~should notify landowners whose stock have access to surface water, or who use the surface water for potable water;~~
- ~~should apply agrichemicals to parts of the waterbody at intervals of at least 10 days and not simultaneously over the whole area. Fish then have an opportunity to move to untreated areas if the dissolved oxygen content drops significantly;~~
- ~~water that has been treated with agrichemicals should not be used for the following purposes, until the times specified have elapsed after treatment:~~
  - ~~standing water: bathing, human consumption, fish farming, and livestock watering (24 hours); overhead irrigation (10 days);~~
  - ~~flowing water should not be used for the above purposes for 24 hours. Though it is difficult to determine the distance downstream from the treated stretch that the limitation should apply in, the general criteria are:~~
    - ~~near-static water (flowing not more than 1 km in 24 hours): the limitation should apply to the treated section and 1 km downstream;~~
    - ~~faster flowing water: the limitation should apply over the treated stretch and the distance treated water would move in 24 hours, or up to the point of discharge into the main body of receiving water.~~

~~Any person application discharging agrichemicals by spray application:~~

- ~~should undertake an accredited or recognised course in the use of agrichemical sprays or act under the supervision of a registered agrichemical applicator;~~
- ~~should not spray if the windspeed over the area to be sprayed is more than one metre per second;~~
- ~~should have particular regard to windspeed and direction during the application of spray;~~
- ~~should discharge sprays during periods of positive air movement away from sensitive receiving environments (including surface water, places of public assembly, and public amenity areas);~~
- ~~should have particular regard to selection of nozzle size and pressure of spray units, to prevent or minimise the potential for spray drift.~~
- ~~should dilute spray solutions to the proper concentration for application;~~
- ~~should dispose of surplus spray solution and spray containers according to recommendations~~

of the manufacturer or supplier, as stated in the directions on the product container label;

- should keep specific records of the type of each spray applied, the volume of spray used, the volume of product concentrate used, the date, and the locality;
- should use only those agrichemicals currently licensed for use within New Zealand under the Hazardous Substances and New Organisms Act 1996;
- should apply sprays strictly in accordance with the manufacturer's instructions, as stated on the product container label;
- should preferably use sprays of low volatility or low toxicity;
- should use equipment generating a droplet size greater than 50 microns in diameter, and preferably greater than 250 microns.

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Appendix G - Spray Drift Hazard and Weather Conditions
(Informative)

G1 Introduction
Application of agrichemicals in particulate form, whether as solids or liquids (droplets) inevitably means some losses occur in transferring the agrichemical to the target. The law requires any such losses to be minimised.

The Hazardous Substances (Classes 6, 8 and 9) Regulations specify the setting of tolerable exposure limits for toxic substances (Class 6) and environmental exposure limits for ecotoxic substances (Class 9). It is an offence to exceed these limits when applying agrichemicals.

G2 Off-target Movement
Off-target movement of spray i.e. spray drift, occurs in two main ways:

(a) primary drift – the movement of spray as droplets;
(b) secondary drift – the movement of spray contaminated dust, soil or sand particles and movement of spray as a vapour (gaseous phase). This also applies to the off-site movement of fumigants.

There are a number of factors that can affect both forms of drift, including droplet size, spray release height (relative to the ground or inversions) and wind speed. Vapour pressure (volatility) of the agrichemical can affect secondary drift where it occurs by volatilization from the target surface after deposition. In view of the two types of drift, an internationally accepted definition of drift has been developed.

Drift (of agrichemical) means the physical movement of agrichemical through the air at the time of application or soon thereafter to any off-target site. The movement of agrichemical caused by erosion, migration, volatility, or windblown soil particles to off-target sites that occurs after the application is not included in the definition unless specifically addressed on the product label, with respect to drift control requirements.

The applicator is responsible for primary drift because it occurs at the time of spraying and the means of minimizing primary drift are within the control of the applicator. Factors related to the application equipment (e.g. droplet size, height of release of the spray) can be adjusted by the applicator that can also make judgements about the weather (e.g. wind speed, wind direction).

Physical movement of agrichemical can also occur as vapour at the time of spraying so can be considered primary drift. The applicator can demonstrate responsibility by selecting agrichemicals that are known to have low volatility (product label information) and choosing weather conditions that are not conducive to volatilization of the agrichemical at the time of application.

Research shows that vapour drift occurs mostly as secondary drift.

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The applicator has little or no control over secondary drift apart from selection of non-volatile agrichemicals and prediction of the weather condition in the period following the agrichemical application (see Appendix D and G7 for further comment on vapour drift).

G3 Drift Hazard

The hazard from spray drift depends on two main factors: the extent of drift (how much spray is drifting and how far it is likely to travel), and what is put at risk from spray drift. In many cases, the extent of crop injury from drift is dependent on the factors of concentration of the agrichemical and the time available for uptake. This means that even low concentrations in time can produce injury. This explains the recognition of high hazard under apparently calm conditions.

Some guidance for operators is required, and table G1 sets out the important factors. Users should note that additional factors such as adequate notification to those who may be at risk, so that they can take precautionary action, effectively reduces drift hazard.

G4 Sensitive Areas

There can be cases where there is considerable spray drift, but no drift hazard because there is nothing that is at risk from the spray drift, i.e. no sensitive areas. Assessing drift hazard is partly a function of the existence of any sensitive areas, and therefore before spraying, users should identify and record any sensitive areas located near the target area. Responsible agrichemical application means being able to demonstrate, by production of a map, sketch, field notes or other documentation that this requirement has been met. The following are examples of sensitive areas, (except where the area involved is the intended spray target). Check with the regional authority however as there may be sensitive areas specified in the regional plan.

Sensitive areas include:

(a) residential buildings;
(b) school buildings;
(c) public places and amenity areas where people congregate;
(d) public water supply catchments and intakes;
(e) waterbodies and associated riparian vegetation;
(f) sensitive crops or farming systems (e.g. organic farms, greenhouses);
(g) wetlands, indigenous vegetation habitat areas and reserves;
(h) public roads.

Table G1 summarises the main factors affecting any hazard associated with spray drift.

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Table G1 – Drift hazard guidance chart

Potential Drift Hazard Scale			
Factor	**High hazard**	**Low hazard**	**Comment**
Wind speed	Zero/very low (less than 1 m/s) or greater than 6 m/s	Steady (1 – 3 m/s)	Measure or estimate using smoke
Wind direction	Unpredictable	Predictable, and away from sensitive areas	Use smoke to indicate
Humidity	Low (delta T > 8oC)	High (delta < 4 °C)	Measure, using whirling psychrometer
Atmospheric stability	Inversion layer present	No inversion layer	Use cold smoke to indicate
Maximum height of release of agrichemical	>1.5 m above the target	< 0.5 m above the target	Application technique See 5.3.4.2
Particle (droplet) size	< 50 microns diameter	> 250 microns diameter	See Q1
Volatility of agrichemical	High (vapour pressure > 10 mPa)	Low (vapour pressure < 0.1 mPa)	Check product label, SDS, or PSC
Sensitive area	Close (< 100 m) away	None, or more than 1 km distant	Identify on property protocol (see M4)
Buffer zone	None	Yes (> 100 m)	Guideline only
Shelter belts	No shelter	Live shelter, > 3 m high and 1 m thick	Not for herbicides
Toxicity	Class 6.1A, B, C, D	Class 6.1E	Check label

Note –

(1) The potential drift hazard scale is given as high or low, and intermediate situations should be

rated accordingly. For example, a droplet size of 150 microns diameter would represent a moderate drift hazard.

(2) Some factors can be changed to reduce the hazard rating, e.g. use lower volatility chemical, larger droplet size.

(3) All of the weather related factors are to be assessed at the application site.

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(1) Toxicity of the agrichemical has been included on the chart, but use of a schedule heading is only one indicator of toxicity and is not always sufficient. In all cases, users should select the least toxic agrichemical that is suitable for the specific application. Check the label and product information.

(2) 1 m/sec = 3.6 km/h; 6 m/sec = 20 km/h (approx.).

G5 Weather Conditions

The important weather conditions at the application site are as follows.

G5.1 Wind direction

Spray can be moved away from the application site (target area) by any wind. The wind direction is also important with respect to the application technique; all applications should be made with a cross-wind, starting at the downwind edge. Smoke generators, or other reliable indicators of wind speed and direction should be used at the application site where conditions dictate.

Note – Heat producing smoke generators can produce thermal lift, which may mask the presence of an inversion.

G5.2 Wind speed

Very low wind speeds usually mean the wind direction is unpredictable. Higher wind speeds mean a stable wind direction, and may also give better spray penetration into some crops, by turbulent mixing. Spraying should not be carried out in high winds (see table G1).

G5.3 Inversions

G5.3.1 *Condition favouring inversions*

An inversion condition develops when a band of warmer air develops at some height above the ground. It most commonly forms when air close to the ground cools rapidly as a result of heat loss by radiation to a cloudless sky. The presence of an inversion can be detected by measuring air temperatures and wind speeds at various heights, but for practical purposes, the easiest method is to use smoke. Smoke, rising vertically, cannot pass through the inversion layer, but travels horizontally usually just below the layer of warm air.

Note – Do not rely on smoky fires to generate the smoke as the thermal up-draught from the fire may allow the smoke to penetrate the inversion layer, and thereby hide its presence, or overcome a light wind movement.

G5.3.2 *Spraying advice*

Spraying under inversion conditions means the final destination of the chemical cannot be predicted with any certainty, and should only be carried out if the spray droplets are non-evaporative, are discharged below the inversion layer, and are greater than 250 microns in diameter.

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G5.4 Katabatic winds

Katabatic winds flow downhill and are caused by cold air sinking down a slope. This usually occurs early in the morning. Winds of up to 6 knots (3 m/sec or 10 km/h) may flow out of valley systems some considerable distance across flat country.

G5.5 Anabatic winds

Anabatic winds flow uphill, and are caused by warm air rising up the slope as the sun warms them. Anabatic winds usually follow Katabatic winds in the morning. When wind speeds are low (less than 2-3 km/h), wind direction can be unpredictable.

The rule should always be – do not apply agrichemical sprays or dusts unless the wind direction and speed are known, or the agrichemical is non-volatile and applied as particles or droplets greater than 250 microns diameter.

G5.6 Temperature and relative humidity (RH)

G5.6.1 *Temperature*

High air temperatures mean rapid evaporation of spray droplets. The rate of evaporation is also affected by relative humidity. A droplet evaporates faster at an RH of say 50 % in warmer air than in cold air at the same RH.

G5.6.2 *Relative humidity*

RH can easily be measured using a whirling psychrometer, which has 2 thermometers. The bulb of one thermometer is covered with a moist wick, which dries in the air, lowering the temperature of the bulb. The difference between the dry bulb and wet bulb is called the wet bulb depression or delta T. The greater delta T, the greater the evaporation potential for spray droplets.

Generally, spraying of water-based agrichemicals should not be carried out when delta T is greater than 8 °C. For low and ultra-low volume applications (less than 10 L/ha) delta T should be less than 4 C.

G6 Buffer Zones and Shelter Belts

Off-target movement of spray is affected by a large number of interrelated factors including weather conditions, spray characteristics and application technique. A buffer zone between the application site, and a sensitive area may reduce the hazard to that sensitive area. The buffer zone works by allowing the agrichemical to disperse to concentrations low enough not to present a risk (i.e.not exceed any Environmental Exposure Limit (EEL) set). The use of shelter belts to intercept and retain the agrichemical may effectively reduce the width of the buffer zone required. However for herbicides, particularly those used for total vegetation control, live shelter will also be affected by the spray so it will not be useful in those situations.

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Other factors that affect the width of a buffer zone include:

(a) application technique (e.g. projecting spray into the air);
(b) the agrichemical used (e.g. volatility);
(c) the physical nature of the shelter belt.

G6.1 Buffer zone guidelines

It is vital that the guidelines given below are regarded as that – guidelines, which represent the best estimate for three typical application types. Buffer zones, with or without shelter belts, merely provide an opportunity for concentrations of agrichemical to fall sufficiently so that the risk to sensitive areas beyond the buffer zone becomes acceptable (i.e. environmental exposure levels are not exceeded). Depending on the particular circumstances however, there is no guarantee that this can be achieved. Therefore buffer zones are only one of many methods to manage and reduce drift hazard.

Table G2 gives suggested minimum distances between the downwind edge of the target area and the sensitive area. These are for guidance. There are spray droplet drift models that can be used to give more detailed information for specific situations.

Note – For examples of spray drift models, i.e. Spray Drift Task Force, see www.agdrift.com and SpraySafe Manager, NZ Forest Research Institute, www.forestresearch.co.nz

Table G2 – Buffer zones

Application method	**Distance (metres)**	
	With shelter	**Without shelter**
Boom sprayer	2	10
Air blast sprayer	10	30
Aerial application	100	300

Note –
These distances are subject to:
(a) the equipment used (boom, air blast, aircraft) being calibrated and operated correctly;
(b) all other appropriate strategies being observed to reduce spray drift hazard (table G1);
(c) shelter being completed and without gaps at the base.

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~~G6.2 Shelter belt characteristics~~

~~Shelter belts will not eliminate spray drift, but can have a significant effect in reducing the amount of spray moving off target. The physical structure of the shelter belt is important with respect to its effectiveness. The general conclusions are:~~

~~(a) natural (live) shelter is much more effective than artificial shelter;~~
~~(b) the porosity and density of the shelter is important – a minimum thickness of 1 m and a porosity of about 50 % is recommended;~~
~~(c) porosity and density are a function of the thickness of the shelter;~~
~~(d) for effective reductions in wind speed (and hence drift reduction) the width to height ratio of shelter is critical. A width to height ratio of about 3.5 is recommended (i.e. a shelter 1 m wide (thick) should be 3.5 m–4 m high);~~
~~(e) any spray released at or above shelter height will not be contained by the shelter.~~

~~G7 Vapour Drift~~

~~As a general rule, spraying of agrichemicals that are volatile should take place in conditions where the temperature following application is likely to decrease rather than increase. That will help manage the risk of secondary drift, i.e. chemical volatilizing from the target plants some time after spraying has ended.~~

~~G7.1~~

~~The two main factors controlling the rate of volatilisation are:~~

~~(a) the vapour pressure of the agrichemical (high vapour pressure, high volatilisation);~~
~~(b) the moisture status of the soil or plant surface (high moisture content, high volatilisation).~~

~~There are many other factors that also affect the rate of volatilization of an agrichemical from a target surface. These include airflow (up to 10 times the rate in still air), temperature (0.5% per °C), rate of penetration into the target surface, formulation, presence of any adjuvant and chemical/air interfacial area. The major factors in vapour movement are wind velocity and turbulence.~~

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~~G7.2~~

~~Research indicates that the hazard from vapour drift and volatilization is mostly due to the volatilisation of agrichemical from the target surface following application (secondary drift) and not from evaporation from spray droplets during application (primary drift); although both can and do occur. There are a number of ways in which an operator can minimize the vapour drift hazard.~~

The following points should be noted:

(a) use spray quality as coarse as possible (i.e. large droplets), consistent with getting adequate coverage at the selected application rate;
(b) ensure that soil applied products are incorporated into the soil immediately following application;
(c) minimise the distance between the target plant and the discharge point of the spray to reduce the opportunity for primary drift;
(d) use low volatility formulations;
(e) conditions where the wind direction is unstable and likely to change in the period following application (up to 12 hours) increases the hazard where more volatile agrichemicals are used. Also, increases in air temperature following application will increase volatility and increase the downwind drift hazard distance;
(f) do not spray where the conditions are considered too uncertain to be sure about managing any vapour drift hazard.

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Appendix M - Notification and Signage for Application of Agrichemicals
(Normative)

M1 Introduction
This Appendix applies to both ground and aerial application. Users shall check with the appropriate local authority for any specific notification requirements for agrichemical use.

M2 Notification
Note — Notification does not prevent spray drift and does not lessen a user's responsibilities regarding the identification and recording of sensitive areas adjacent to the site of any agrichemical application.

M2.1 Application of agrichemicals including fumigants
Notification of the intention to spray is intended to inform people who could be affected, and provide the opportunity for them to take action to avoid or minimize potential exposure of themselves, their children, or their property to specific applications of agrichemicals.

Notification to satisfy the requirements of this Standard for different use situations is set out below. In each case however, check and comply with appropriate local authority requirements.

M2.2 Application on private property
Any person who is likely to be directly affected by the application of agrichemicals has a right to information about the operation. The owner or occupier of the property on which the spraying is to take place shall inform, at intervals of no more than once a year, any person who is likely to be directly affected by the application, that a spray plan (see M4) has been prepared and is available on request. More or less frequent information may be provided where mutually acceptable arrangements have been agreed to, and recorded on the spray plan. Notification shall also be in accordance with any regulatory requirements of the local authority.

M2.3 Contract application
Contract use of agrichemicals implies that the application is not on the applicator's own property.

This makes the proper identification of affected parties difficult. In these cases contractors shall ensure that appropriate notification has been given by the client to the affected parties. The notification requirements shall be documented using a written spray plan or protocol. This shall comply with local authority requirements and shall be made available on request to those who may be affected (see M4).

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M2.4 Application in public places and amenity areas

Notification shall be by way of notices in local newspapers, or other recognized methods such as "information drops". Notification shall be given not less than one week prior to application and shall be in accordance with local authority requirements. Information shall include:

(a) the district, street or location to be treated;
(b) the period of use;
(c) the reason for use (e.g. vegetation control). In addition the notice shall indicate where or how further information can be obtained;
(d) door-to-door notification may also be appropriate;
(e) vehicles or equipment used for applying agrichemicals shall have an appropriate sign, e.g. "Agrichemical Application in Progress, (Herbicide/Insecticide/Fungicide)". The name of the local authority or contractor shall be displayed;
(f) appropriate temporary hazard warning signs shall be used where spray vehicles are likely to be a hazard to motorists. Such signs must comply with requirements of the Traffic Regulations – check with the Land Transport Safety Authority;
(g) other temporary signs shall be appropriately placed so that any people approaching the target area see them.

M3 Signage

Signs can be used at the application site to advise that agrichemical application is being, or has been carried out. To satisfy the requirements of this Standard the sign shall clearly indicate the type of agrichemical used e.g. herbicide, insecticide.

M3.1 Specific requirements

Put signs on all normal lines of approach to an area treated with agrichemicals in the following situations:

(a) public places, for any agrichemical use;
(b) other areas that may be accessible to the public.

Signs shall be there during agrichemical use, and shall remain in place for a period equivalent to the contact re-entry time for the agrichemical used (refer to product information or supplier).

Users shall check with the appropriate local authority for any specific information to be included on signs.

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~~M4 Spray Plans/Protocols~~

~~The development of a spray plan or protocol will assist in addressing the potential off-target application of agrichemicals and identify the measures adopted to avoid or mitigate adverse effects associated with them.~~

~~Note~~ ~~- Local authorities may also have specific requirements for spray plans or protocols.~~

~~To satisfy the requirements of this Standard the plan must be available on request and include:~~

~~(a) a plan or map detailing the location of any sensitive areas including but not limited to houses, schools, and roads, especially those used by school children and crops sensitive to the chemical being used, (see also Appendix G4);~~

~~(b) the crops to be sprayed, the types of chemical (insecticide, herbicide, fungicide etc.) that are likely to be used during the year and the times of the year that spraying is likely to occur;~~

~~(c) strategies employed to avoid contamination of sensitive areas (for example specific application techniques such as large droplet sizes, hand application, not spraying outside rows, turning machinery off when turning, having no-spray buffer zone areas, only spraying when the wind is in the specified direction, having personnel monitoring boundaries during the application, lists of people (and their contact phone number) who want to get a phone call just prior to any spraying, any other mutually agreed strategies to manage any risk);~~
~~***Note*** - It is desirable to consult with potentially affected neighbours to establish mutually acceptable measures to avoid or manage effects of drift.~~

~~(d) the identity of the person likely to be carrying out agrichemical application and confirmation of their current qualifications;~~
~~***Note*** – For example – GROWSAFE® certification.~~

~~(e) particular weather conditions which may increase potential drift hazard;~~

~~(f) indication of agrichemicals to be used that may present a specific hazard (e.g. bee toxicity).~~[1346]

[1346] 189.46 Dairy Holdings Ltd

Appendix E - Water Quality Standards

These standards apply 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 ~~surface waterbody~~ lake, river, modified watercourse, natural wetland, coastal lagoon or artificial watercourse[1347] where:~~,~~

(a) due to natural causes, that parameter ~~falls outside the range given in~~[1348] cannot meet the standard~~.~~;or

(b) due to the effects of the operaton of authorized critical infrastructure that was existing at the date this Plan became operative and that alters natural flows, that parameter cannot meet the standard.[1349]

Plan users should contact Environment Southland 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 monitoring~~[1350] and analyses to be carried out by a laboratory with International Accreditation New Zealand (IANZ) registration or equivalent.

[1347] 247.41 Environment Southland – definition of surface waterbody
[1348] Clause 16(2) amendment
[1349] 562.26 Meridian
[1350] Clause 16(2) amendment

Table 1 Region-Wide Water Quality Standards[1351]

Water Quality Class	Natural	Lowland Soft bed	Lowland Hard bed	Hill	Mountain	Lake-fed	Spring-fed	Lowland/Coastal Lakes and Wetlands	Hill Lakes and Wetlands	Mountain Lakes and Wetlands
Temperature	The natural quality of the water shall not be altered									
Maximum temperature (˚C)		23			21			23		21
Temperature change (˚C) *(Existing temperature is 16˚C or less)*[1]		3								
Temperature change (˚C) *(Existing temperature is above 16˚C)* [2]		1								
Maximum temperature (˚C) *(In Trout Spawning Areas May to September)*		N/A	11					N/A		
pH range (no units) *(shall be between)*		6.5 to 9			7.2 to 8			6.5 to 9		
pH	The natural quality of the water shall not be altered	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.								
Dissolved oxygen saturation (%)		80			99			80		99
Bacterial/fungal slime		There shall be no bacterial or fungal slime growths visible to the naked eye as obvious plumose growths or mats. Note that this standard applies to within the zone of reasonable mixing for a discharge.								
Visual Clarity (m)*(where flow is below the median flow)*		1.3	1.6[3]	1.6	3			N/A	N/A	N/A
Visual Clarity (m)*(When lake inflows are below median values)*[4]		N/A						1.5[3]	5	10
Sediment cover (%)*(change in cover)*[1352]		10								
Total Ammonia (mg/L)		*See Table 3 below*			0.32			*See Table 3 below*		0.32
Faecal Coliform (cfu/100ml)[5]		1000			N/A		1000		N/A	

[1351] Clause 16(2) amendment
[1352] 752.180 Fish and Game

Faecal Coliforms Bathing sites (E.*coli*/100ml)		130			N/A		130		N/A		
E.*coli* (E.*coli*/100ml)		N/A			130		N/A				
Macroinvertebrate Community Index		80	90	100	120	90		N/A			
Semi-Quantitative Macroinvertebrate Community Index		3.5	4.5	5.5	7	4.5		N/A			
Fish		Fish shall not be rendered unsuitable for human consumption by the presence of contaminants.									
Periphyton											
Filamentous Algae >2cm length (% cover)		N/A	30[6]	30		N/A					
Diatoms and cyanobacteria mats >0.3cm thick (% cover)		N/A	60[6]	60		N/A					
Biomass (g/m²) *(Filamentous algae, diatoms and cyanobacteria)*[1353]		N/A	35	N/A							
Biomass (g/m²) *(Filamentous algae)*	The natural quality of the water shall not be altered	N/A		35		N/A		35	N/A		
Chlorophyll a (mg/m²) *(Filamentous algae)*			120		50	N/A					
Chlorophyll a (mg/m²) *(Diatoms and cyanobacteria)*	The natural quality of the water shall not be altered		200	N/A							
Chlorophyll a (mg/m²) *(Maximum: filamentous algae or diatoms and cyanobacteria)*		N/A			50	N/A					
Chlorophyll a (mg/m²) *(Monthly mean: filamentous algae or diatoms and cyanobacteria)*		N/A			15	N/A					

1: The daily ambient temperature increase when the natural or existing water temperature is 16˚C or less
2: The daily ambient temperature increase when the natural or existing water temperature is above 16˚C
3: 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.
4: Measured using a Secchi disc
5: Except for popular bathing sites, defined in Appendix G "Popular Bathing Sites" and within 1 km immediately upstream of these sites.
6: Only for the period of 1 November through to 30 April.

[1353] Clause 16(2) amendment

Table 2 Mataura Catchment Water Quality Standards[1354]

Water Quality Class	Mataura 1[1]	Mataura 2[2]	Mataura 3[3]
Suspended Solids, grease and oil	Any discharge is to be substantially free from suspended solids, grease and oil		
Temperature change (˚C) *(Existing temperature is 16˚C or less)*[1]	3		
Temperature change (˚C) *(Existing temperature is above 16˚C)* [2]	1		
pH range (shall be between) (no units)[4]	6 to 8.5	6 to 8.3	6 to 9
Consumption of water	The water 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.		
Bacterial/fungal slime	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 within the zone of reasonable mixing for a discharge.		
Aquatic toxicity	There must be no destruction of natural aquatic life by reason of a concentration of toxic substances.		
Colour/clarity	The natural colour and clarity of the waters must not be changed to conspicuous extent.		
Sediment cover (%)*(change in cover)*[1355]	10		
Oxygen concentration (mg/L)	6		5
Faecal coliform (cfu/100ml) *(Median based on >5 samples over <30-day period)*	2000	200	N/A
Total coliforms (cfu/100ml) *(Median)*	10,000	N/A	N/A
Faecal coliforms (cfu/100ml) [5]	N/A		1,000
Faecal Coliforms Bathing sites (E.*coli*/100ml)	N/A		130
Fish	Fish shall not be rendered unsuitable for human consumption by the presence of contaminants.		

[1354] Clause 16(2) amendment
[1355] 752.180 Fish and Game

1: The Protected Waters[1356] between map references NZMS 260 F45:967-503[1357] to F45:963-508[1358] (Mataura River).
2: The Protected Waters between map references NZMS 260 F45:894-581[1359] to F45:885-584[1360] (Mataura River) and NZMS 260 F46:917-391[1361] to F46:924-396[1362] (Mataura River).
3: The Protected Waters other than those parts classified as Mataura 1 and Mataura 2.
4: Except when due to natural causes
5: Except for popular bathing sites, defined in Appendix G "Popular Bathing Sites" and within 1 km immediately upstream of these sites.

~~**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 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.~~[1363]

~~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~~

[1356] Protected Waters means:
(a) the Mataura River from its source (approximate map reference NZMS 260 E42:502-333(NZ Topo50 CD10:402-715; NZTM2000 1240229 mE, 4971457 mN)) to its confluence with the sea (approximate map reference NZMS 260 F47:877-946(NZ Topo50 CG12:780-327; NZTM2000 1278019 mE, 4832667 mN)); 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(NZ Topo50 CF12:783-963; NZTM2000 1278286 mE, 4896328 mN)); and
(c) the Mimihau Stream and the Mokoreta River and each of their tributaries.
[1357] NZ Topo50 CF12:869-884; NZTM2000 1286908 mE, 4888437 mN
[1358] NZ Topo50 CF12:865-889; NZTM2000 1286507 mE, 4888936 mN
[1359] NZ Topo50 CF12:796-962; NZTM2000 1279587 mE, 4896230 mN
[1360] NZ Topo50 CF12:787-965; NZTM2000 1278686 mE, 4896529 mN
[1361] NZ Topo50 CF12:819-772; NZTM2000 1281925 mE, 4877217 mN
[1362] NZ Topo50 CF12:826-777; NZTM2000 1282625 mE, 4877719 mN
[1363] Visual clarity is assessed using the black disc method or other comparable method employed by Environment Southland

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.[1364]

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 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.[1365]

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.[1366]

Biomass shall not exceed 35 grams per square metre for either filamentous algae or diatoms and cyanobacteria.[1367]

[1364] 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)

[1365] Visual clarity is assessed using the black disc method or other comparable method employed by Environment Southland

[1366] Applies to the part of the bed that can be seen from the bank during summer low flows or walked on

[1367] 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

~~Chlorophyll a shall not exceed 120 milligrams per square metre for filamentous algae and 200 milligrams per square metre for diatoms and cyanobacteria.~~[1368]

~~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 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.~~[1369]

~~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.~~

~~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.~~

[1368] 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

[1369] Visual clarity is assessed using the black disc method or other comparable method employed by Environment Southland.

~~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 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 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.~~[1370]

~~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.~~[1371]

~~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 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.~~[1372]

~~The concentration of total ammonia shall not exceed 0.32 milligrams per litre.~~

[1370] Visual clarity is assessed using the black disc method or other comparable method employed by Environment Southland

[1371] 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

[1372] 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.~~

~~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.~~[1373]

~~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 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.~~[1374]

~~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.~~[1375]

~~Fish shall not be rendered unsuitable for human consumption by the presence of contaminants.~~

~~Surface waterbodies classified as "Hill Lakes and Wetlands"~~

[1373] 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~~.
[1374] Visual clarity in lakes to be measured as Secchi depth.
[1375] Determination of lake chlorophyll concentration to be follow the protocols in Burns et al. (2000).

~~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 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 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 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[1376] 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.~~

~~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 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).~~

[1376] 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.

~~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 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 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 3~~1~~ "Ammonia standards for Lowland and Hill surface waterbodies"

Total Ammoniacal Nitrogen in mg/m^3 at different pH	
pH	**NH_4+-N + NH_3-N mg/m^3**
6.0	2570
6.1	2555
6.2	2540
6.3	2520
6.4	2490
6.5	2460
6.6	2430
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

Total Ammoniacal Nitrogen in mg/m^3 at different pH	
pH	**NH_4+-N + NH_3-N mg/m^3**
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., Maxted, 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)

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 Mimihau 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 Feautures	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)

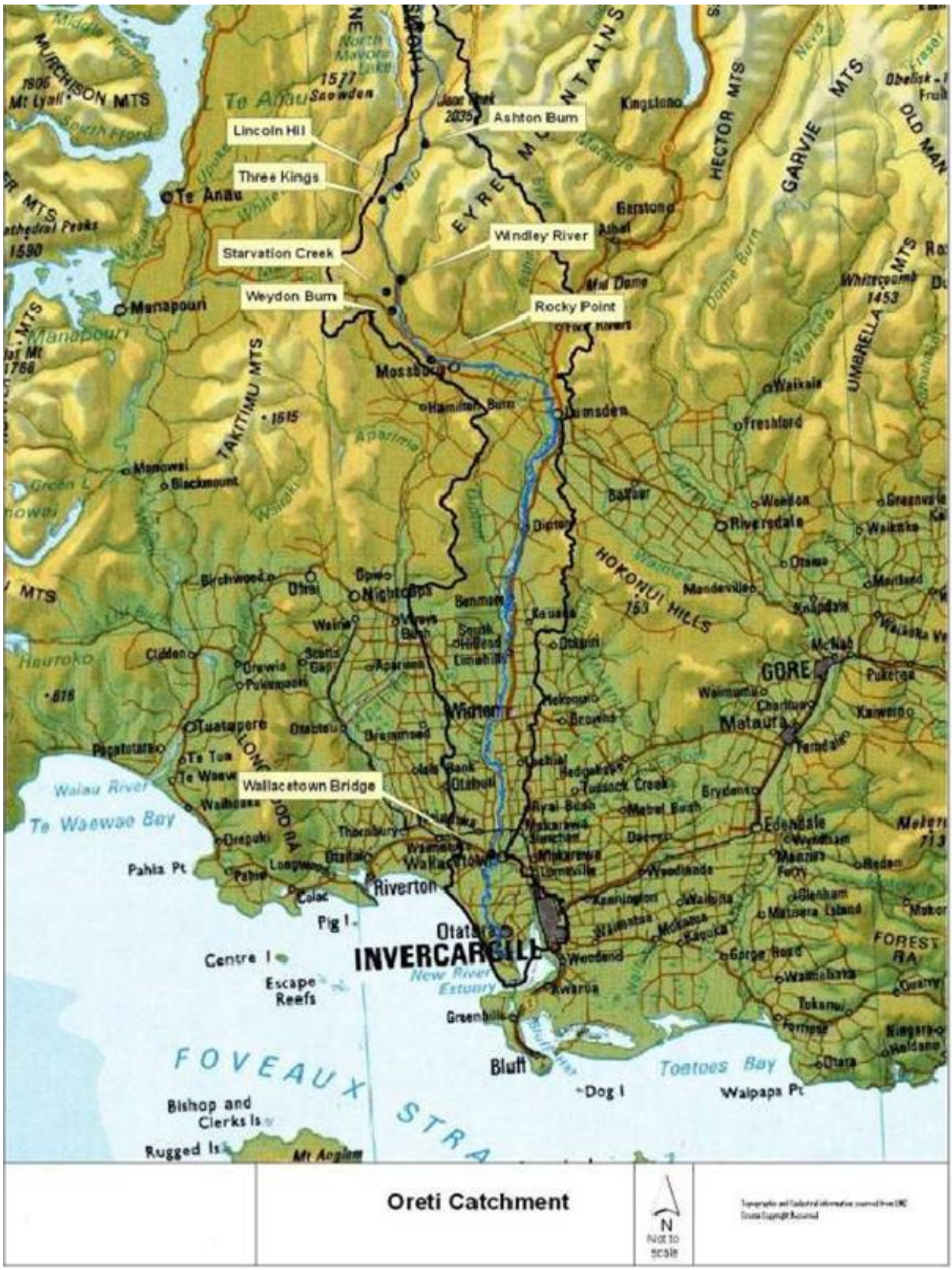
Schedule 2
Clauses 6 and 8
Waters to be protected for their contribution to outstanding features

Item	Waters	Outstanding Characteristics or Feautures	Conditions to Apply
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.


Lincoln Hill
Ashton Burn
Three Kings
Windley River
Starvation Creek
Weydon Burn
Rocky Point
Wallacetown Bridge
Te Anau
Manapouri
Mossburn
Lumsden
Riverton
INVERCARGILL
Bluff
GORE
Oreti Catchment
N
Not to scale

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[1377]
- Ōreti River at Branxholme Rail Bridge[1378]
- Mataura River at Woolwich Street Reserve[1379]

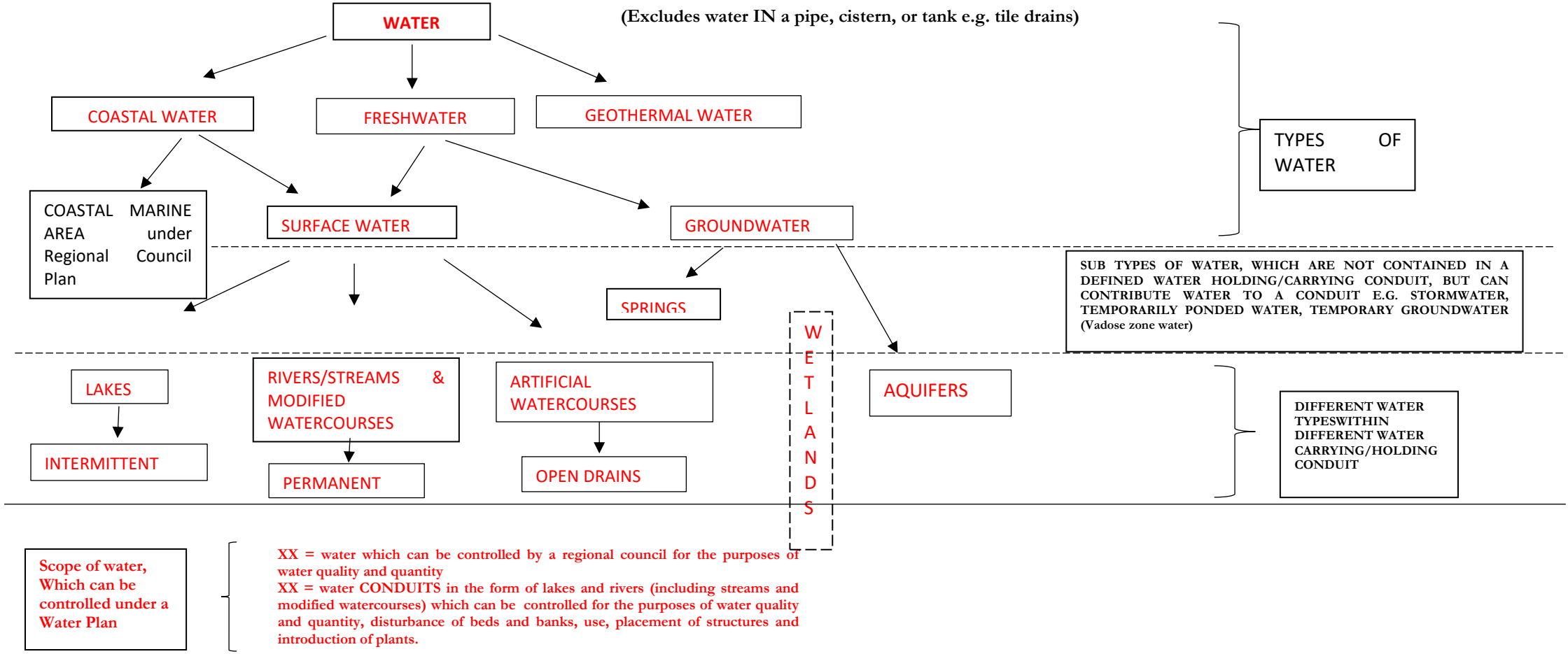
The following sites listed are considered indicative of popular bathing sites although they are not found within Southland's lowland, hill and spring-fed waterbodies. These sites are monitored each month for contact recreation standards:

- Waikaia River at Piano Flat – classified under the Mataura classification
- Mararoa River at Mavora Lake – classified as mountain

[1377] 752.182 Fish and Game
[1378] 381.28 T & W Holder
[1379] 329.1 GDC

Appendix H - Water Terminology Framework

Unchanged from Water Plan



NOTE

The framework or "genealogy" above provides the basis for the terms used in the Regional Water Plan for Southland. The framework has been developed to ensure plan users can be confident that when a term is used in the plan they can understand what types of water, and in what conduits, are being controlled.

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 Mataura 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	
Mccolgan Fhf	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

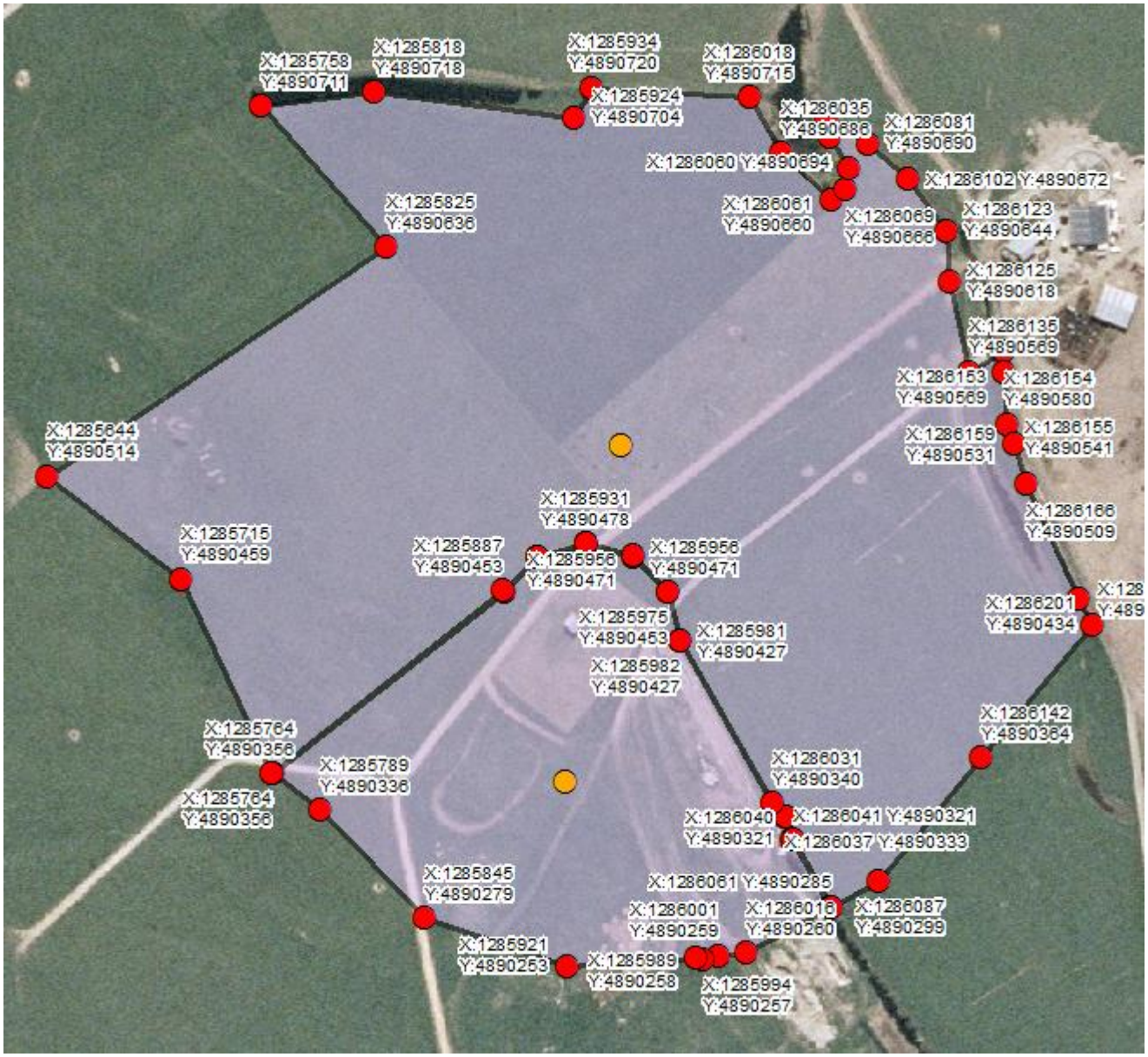
Appendix J – Drinking Water Protection Zones

Operator	Catchment	Groundwater Zone	Source	Northing[1380]	Easting[1381]	Popln
Alliance Group Ltd	Oreti River		River	~~5420300~~1236114	~~2145900~~4858300	>501
Alliance Group Ltd	Makarewa River		River	~~5419200~~1238519	~~2148300~~4857204	>501
Gore District Council	Mataura River	Knapdale	River/Bore	~~5452168~~1285995	~~2195791~~4890305	>501
Gore District Council	Mataura River	Knapdale	River/Bore	~~5452297~~1285928	~~2195724~~4890434	>501
Gore District Council	Mataura River	Knapdale	River/Bore	~~5450400~~1286408	~~2196200~~4888536	>501
Gore District Council	Mataura River	Knapdale	River/Bore	~~5450300~~1286408	~~2196200~~4888436	>501
Gore District Council	Mataura River		River	~~5450576~~1286553	~~2196346~~4888712	>501
Gore District Council	Mataura River		River	~~5451948~~1285399	~~2195195~~4890083	>501
Invercargill City Council	Oreti River		River	~~5424489~~1237097	~~2146891~~4862497	>501
Southland District Coucil		Lintley Aquifer	Bore	~~5487633~~1244564	~~2154466~~4925736	>501
Gore District Council	Waikana Stream		River	~~5437798~~1282755	~~2192526~~4875915	>501
Gore District Council	Pluera Stream		River	~~5437465~~1286578	~~2196345~~4875590	>501
Gore District Council	Mataura River		River	~~5439186~~1282177	~~2191951~~4877303	>501
NZAS		Tiwai	Bore	~~5392000~~1249296	~~2159000~~4829996	>501
NZAS		Tiwai	Bore	~~5391406~~1251688	~~2161388~~4829407	>501
NZAS		Tiwai	Bore	~~5391327~~1250182	2~~1598834~~829324	>501
NZAS		Tiwai	Bore	~~5391632~~1250919	~~2160620~~4829631	>501
NZAS		Tiwai	Bore	~~5391361~~1252451	~~2162150~~4829364	>501
NZAS		Tiwai	Bore	~~5391266~~1253998	~~2163695~~4829272	>501
Southland District Council	Morley Creek		River	~~5464271~~1210668	~~2120579~~4902284	>501
Southland District Council	Aparima River	Lower Aparima	River/Bore	~~5440980~~1213438	~~2123300~~4878962	>501
Southland District Council	Aparima River	Lower Aparima	River/Bore	~~5421665~~1217611	~~2127426~~4859627	>501
Southland District Council[1382]		Lower Aparima	River/Bore	1215783	4859557	>501
Southland District Council	Upukerora River	Te Anau	River/Bore	~~5519900~~1188566	~~2098600~~4957972	>501
Southland District Council	Lake Te Anau	Te Anau	Lake/Bore	~~5520370~~1185870	~~2095910~~4958439	>501
Southland District Council	Lake Te Anau	Te Anau	Lake/Bore	~~5520330~~1185840	~~2095880~~4958399	>501
Southland District	Lake Te Anau	Te Anau	Lake/Bore	~~5520178~~1185766	~~2095805~~4958246	>501

[1380] 247.27 Environment Southland
[1381] 247.27 Environment Southland
[1382] 247.27 Environment Southland

Council						
Southland District Council		Lower Waiau	Bore	~~5440150~~1189060	~~2098960~~4878081	>501
Southland District Council		Lower Waiau	Bore	~~5439911~~1189273	~~2099172~~4877842	>501
Southland District Council		Lower Oreti	Bore	~~5442527~~1237485	~~2147316~~4880559	>501
Southland District Council		Lower Oreti	Bore	~~5442600~~1237669	~~2147500~~4880633	>501
Southland District Council	Bowen River		River	~~5603700~~1198112	~~2108200~~5041740	>501

Gore District – Coopers Wells - Microbial Health Protection Zone[1383]



[1383] Clause 16(2) amendment

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 ~~surface waterbody~~ a lake, river, modified watercourse, natural wetland, coastal lagoon or artificial watercourse[1384] where flow is lost to groundwater along the length of the ~~surface waterbody~~ lake, river, modified watercourse, natural wetland, coastal lagoon or artificial watercourse[1385], the most flow sensitive point downstream.

~~The Southland Regional Council~~ Environment Southland[1386] will determine the location of the above. Minimum flows are to be developed through gauging of river flows correlated with ~~Southland Regional Council~~ Environment Southland[1387] approved water level monitoring sites, rated flow recording sites, or hydrologic modelling.

Minimum Flows[1388]

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[1389] 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[1390] 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[1391]

Primary allocation regimes will be determined by:
(i) for ~~all surface waterbody~~ any lake, river, modified watercourse, natural wetland, coastal lagoon or artificial watercourse[1392] 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 ~~at any downstream point in the catchment~~ as determined by ~~the~~

[1384] 247.41 Environment Southland – definition of surface waterbody
[1385] 247.41 Environment Southland – definition of surface waterbody
[1386] Clause 16(2) amendment
[1387] Clause 16(2) amendment
[1388] 247.28 Environment Southland
[1389] 247.28 Environment Southland
[1390] 247.28 Environment Southland
[1391] 247.28 Environment Southland
[1392] 247.41 Environment Southland – definition of surface waterbody

~~Southland Regional Council~~ Environment Southland[1393] following the methodology established in Appendix K, at any downstream point in the catchment[1394]; 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 ~~all surface waterbodies~~ any lake, river, modified watercourse, natural wetland or coastal lagoon[1395]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 ~~all surface waterbodies~~ any lake, river, modified watercourse, natural wetland, coastal lagoon or artificial watercourse[1396]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 ~~surface waterbody~~ lake, river, modified watercourse, natural wetland, coastal lagoon or artificial watercourse[1397] at the time of take; and

(2) the flow at that location is at or above the natural[1398] 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 ~~surface waterbodies~~ any lake, river, modified watercourse, natural wetland, coastal lagoon or artificial watercourse[1399]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.

~~***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 within this Appendix.~~

~~In situations where surface water and groundwater interact, a minimum groundwater level may also be set to maintain instream values.~~

~~For all allocation regimes:~~

[1393] Clause 16(2) amendment
[1394] 464.31 Landpro
[1395] 247.41 Environment Southland – definition of surface waterbody
[1396] 247.41 Environment Southland – definition of surface waterbody
[1397] 247.41 Environment Southland – definition of surface waterbody
[1398] 247.28 Environment Southland
[1399] 247.41 Environment Southland – definition of surface waterbody

~~Except for surface waterbodies subject to an environmental flow and level regime established under any Water Conservation Order, establish environmental flow and level regimes for surface waterbodies taking into account the following matters where appropriate:~~

~~(i) mauri and healthy ecosystems of indigenous species, including mahinga kai species;~~
~~(ii) wāhi[1400] tapu sites or areas, and wāhi[1401] taonga;~~
~~(iii) natural character, landscape, and visual amenity;~~
~~(iv) indigenous vegetation within and adjacent to the waterbody;~~
~~(v) habitats including spawning and nesting areas for invertebrates, birds and fish;~~
~~(vi) fish passage, including facilitating the passage of native and salmonid fish where appropriate, and limiting the introduction of undesirable species and the spread of non native species into areas where they are not normally found;~~
~~(vii) undesirable periphyton and sediment accumulation;~~
~~(viii) maintenance of groundwater flows;~~
~~(ix) the potential for establishment of invading exotic vegetation;~~
~~(x) bedload and sediment transport processes;~~
~~(xi) shoreline or bank erosion;~~
~~(xii) functioning of the river mouth;~~
~~(xiii) recreation opportunities;~~
~~(xiv) accessibility to waterbodies and their margins;~~
~~(xv) existing flow and level regimes, physical resources and activities;~~
~~(xvi) the positive effects resulting from the use and development of the water resources; and~~

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 ~~at any downstream point in the catchment~~ as determined by ~~the Southland Regional Council~~ Environment Southland[1402] following the methodology established above, at any downstream point in the catchment,[1403] 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, ~~at any downstream point in the catchment~~ as determined by ~~the Southland Regional Council~~ Environment Southland[1404] following the methodology established above, at any downstream point in the catchment,[1405] 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:

[1400] Clause 16(2) amendment
[1401] Clause 16(2) amendment
[1402] Clause 16(2) amendment
[1403] 464.31 Landpro
[1404] Clause 16(2) amendment
[1405] 464.31 Landpro

- **Step 1**: Determine the relevant surface water management unit and flow range using Environment Southland 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 excluded	Trout spawning/juvenile rearing or non-diadromous galaxiid if trout excluded Large adult trout
0.75 – 2.5 m^3/s	Trout spawning/juvenile rearing* Large adult trout	Trout spawning/juvenile rearing Large adult trout	Trout spawning/juvenile rearing
2.5 – 5 m^3/s	Trout spawning/juvenile rearing*	Large adult trout	Large adult trout
> 5 m^3/s	Large adult trout	Large adult trout	Large adult trout

- **Step 3**: Determine the level of habitat at the Q95~~mean annual low flow~~[1406] 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~~at the Q95~~[1407] 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^3/s, Net Rate of Energy Intake modelling will be used to determine/revise allocation policy for that catchment.

[1406] 247.28 Environment Southland
[1407] 247.28 Environment Southland

- **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 ~~at Q95 or a proportion of the maximum habitat if it occurs at a flow less than the Q95. The flow that corresponds to this habitat maintenance level~~[1408] will be used to determine the impact of the cumulative abstraction on the water_body[1409] and assist in determining if consent should be granted and if so, the appropriate minimum flow[1410].

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~~retention~~[1411] 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 fishery	Low	3	70
Diadromous galaxiid	Low	3	70
Trout spawning/juvenile rearing	Low	5	60
Redfin/common bully	-	5	60

[1408] 247.28 Environment Southland
[1409] Clause 16(2) amendment
[1410] 247.28 Environment Southland
[1411] 247.28 Environment Southland

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 quantities that have been occurring with no adverse effects of a more than minor scale,[1412] are outlined in Table L.1[1413]~~Y.1~~ below.

Table L.1~~Y.1~~: Minimum aquifer test requirements

Size of take (m^3/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	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. 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%.
>750	***Confined Aquifers*** 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. 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%. ***Unconfined Aquifers*** 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. 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

[1412] 277.59 Fonterra

[1413] 247.29 Environment Southland

	observation bores within the area of localised drawdown. The pump rate should be kept constant within +/- 5%.

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~~Y.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 SD1 + SD2 <0.9Q, stream depletion will be managed on the basis of the calculated depletion in each stream;

    - if SD1 + SD2 >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~~[1414] 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~~[1415] or high hydraulic

[1414] Clause 16(2) amendment
[1415] Clause 16(2) amendment

connection will be determined following the methodology outlined in Appendix K[1416] ~~Policy 16 Environmental flow and level regimes~~.[1417]

Table ~~¥~~ L.2: Classification and management of ~~stream~~ surface water depletion effects

Hydraulic Connection	Classification	Management Approach
Riparian	The groundwater take is located within 5 metres of a lake, river, modified watercourse, natural wetland, coastal lagoon or artificial watercourse. [A]	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 lake, river, modified watercourse, natural wetland, coastal lagoon or artificial watercourse. [A]
High	The surface water depletion effect is assessed as: (i) 60% or greater of the average groundwater pumping rate[B] after 7 days of pumping; or (ii) 60% or greater of the average groundwater pumping rate[C] after 90 or 150 days of pumping; and (iii) greater than 2 L/s.	The calculated loss of surface water is included in the surface water allocation regime determined in accordance with Appendix K with the remainder of the allocation included in the allocation volume for the relevant groundwater zone. The groundwater take ceases when the surface water minimum flow determined in accordance with Appendix K is reached.
Moderate	The surface water depletion effect is assessed as: (i) 30% or greater and less than 60% of the average groundwater pumping rate[C] after 90 or 150 days of pumping; or (ii) greater than 5 L/s.	The calculated loss of surface water is included in the surface water allocation regime determined in accordance with Appendix K with the remainder of the allocation included in the allocation volume for the relevant groundwater zone. No surface water minimum flow restrictions are imposed on the groundwater take.
Low	The ground water take is not classified as Riparian or as having a High or Moderate hydraulic connection.	The calculated loss of surface water is not included in the surface water allocation regime. No surface water minimum flow restrictions are imposed on the groundwater take.[1418]

A Includes, rivers, streams, lakes and wetlands.

B The average groundwater pumping rate is based on the lesser of the daily rate assuming pumping occurs for 24 hours per day or the 7 day volume averaged over 7 days and assuming pumping occurs for 24 hours per day.

C The average groundwater pumping rate is based on the seasonal volume averaged over 90 days for seasonal takes (i.e. irrigation), assuming pumping occurs for 24 hours per day for a period of 90 days. For takes which operate for the full year (i.e. industrial or municipal supply), the average groundwater pumping rate is calculated on the basis of the annual volume

[1416] 247.29 Environment Southland
[1417] 752.187 Fish and Game, 247.29 Environment Southland
[1418] Clause 16(2) amendment

averaged over 365 days), assuming pumping occurs for 24 hours per day for a period of 150 days.

Note: The assessment of stream depletion effects will take into account any non-consumptive component of the groundwater take.[1419]

Note: In circumstances where groundwater has a moderate, high 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.[1420]

~~Hydraulic Connection~~	~~Classification~~	~~Management Approach~~
~~Riparian~~	~~Any groundwater take within 5 metres of a surface waterbody[a]~~	~~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 waterbody[a]~~
~~Direct~~	~~Where the calculated effect on an adjacent surface waterbody after 7 days abstraction at the maximum authorised rate is 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 and flow sharing regime.~~
~~High~~	~~Where the calculated effect on an adjacent surface waterbody[a] 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 waterbody[a] after pumping at the maximum authorised rate for either:~~ ~~• the maximum period allowed by the seasonal volume[b], or~~ ~~• a continuous period of 90 days is 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 waterbody[a] after pumping at the maximum authorised rate for either:~~ ~~the maximum period allowed by the seasonal volume or~~ ~~a continuous period of 90 days~~	~~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 the remainder of the allocation included in the allocation volume for the~~

[1419] 277.59 Fonterra
[1420] 562.16 Meridian

	~~is less between 30 and 60 percent of the assessed pumping rate or has a magnitude greater than 5 litres per second~~	~~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.~~

~~***Note***~~

~~[a] Includes rivers, streams, lakes and wetlands.~~
~~[b] In situations where the seasonal volume limits maximum rate abstraction to a period of less than 90 days.~~

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[1421]:

(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,[1422] 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,[1423] 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 intereference 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 ~~this policy~~.[1424]

(c) Adequacy of bore construction and the available drawdown will be calculated following the methodology outlined in Appendix L.3~~. An increased volume or increased pumping rate for any lawfully established groundwater abstraction will be considered a new groundwater abstraction under this policy~~.[1425]

(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.[1426]

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.

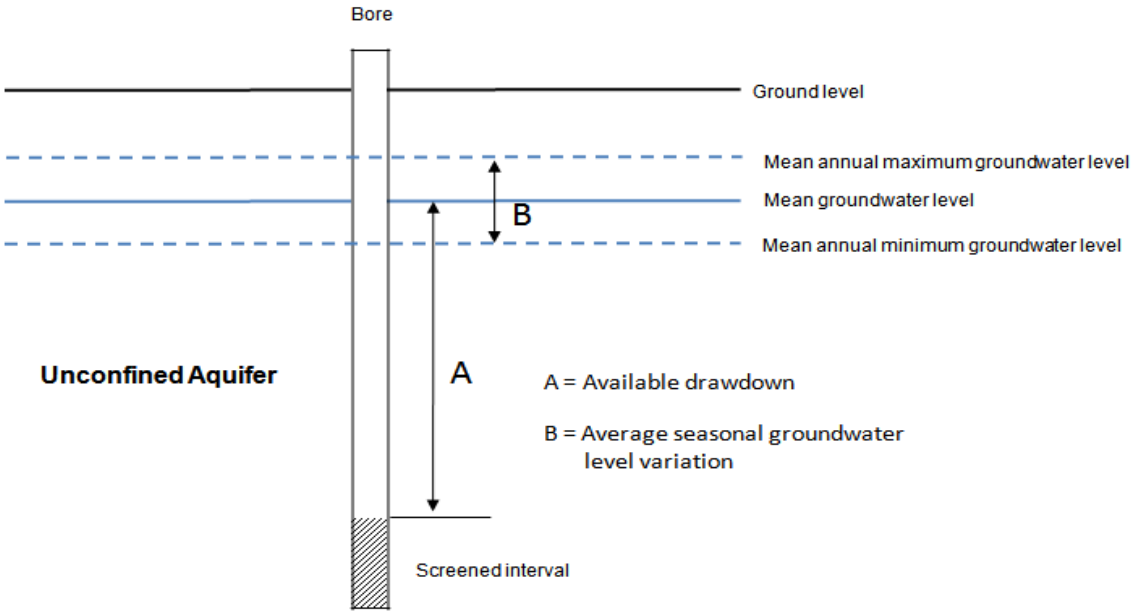
[1421] 277.59 Fonterra
[1422] 247.29 Environment Southland
[1423] 247.29 Environment Southland
[1424] 247.29 Environment Southland
[1425] 247.29 Environment Southland
[1426] 277.59 Fonterra

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 x B).

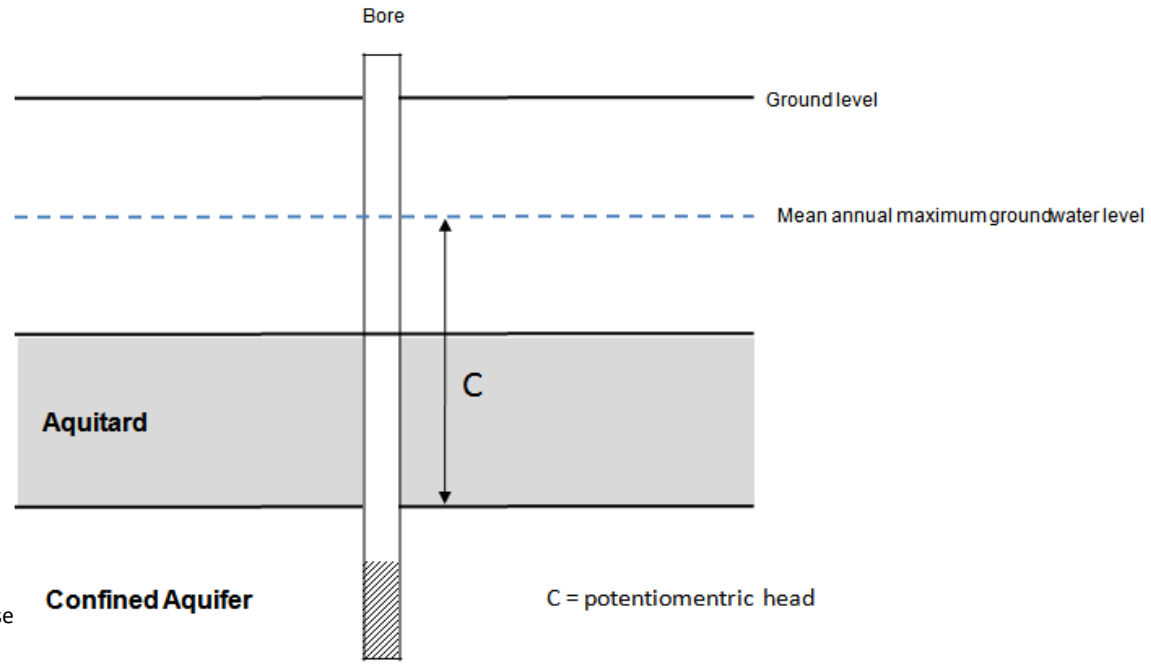
The available drawdown in an adequately penetrating bore screened in an unconfined aquifer is defined as the distance between the mean groundwater level and the top of the screened interval.

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.



Propose

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 ~~cumulative allocation volumes~~[1427] under Rule 49 and Rule 5~~2~~4[1428], and for calculating 'reasonable use' of water where relevant,[1429] will be established on the following basis.

Stock water and dairy use

Peak daily demand and annual allocation for surface water and[1430] 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 ~~Y.3~~L.3.

Table L.3~~Y.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:

Seasonal Abstraction Rate = (Peak daily water use x 0.75) x 365 days

[1427] 247.29 Environment Southland
[1428] 247.29 Environment Southland
[1429] 189.49 DHL
[1430] 759.26 Springlands Group

Appendix L.5 Groundwater Allocation

~~Y~~L.5.1 Unconfined Aquifers

The primary allocation for groundwater management zones defined on Map Series 3: Groundwater Management are listed in Table Y.4.

Table L.4~~Y.4~~ Primary groundwater allocation limits

Groundwater Zone	Primary Allocation (m^3 x 10^6/year)
Awarua	~~32.29~~45.81
Blackmount	~~15.46~~21.12
Castlerock	~~4.00~~6.12
Cattle Flat	~~1.65~~2.39
Central Plains	~~20.99~~31.29
Centre Hill	~~5.29~~6.07
Croydon	~~2.05~~2.56
Dipton	~~6.32~~9.52
Edendale	~~9.31~~11.71
Five Rivers	~~12.23~~17.05
Knapdale	~~2.22~~2.74
Longridge	~~3.47~~4.67
Lower Aparima	~~23.51~~32.41
Lower Mataura	~~24.97~~34.98
Lower Oreti	~~13.49~~19.31
Makarewa	~~44.65~~62.67
Orepuki	~~8.00~~10.54
Oreti	~~1.99~~2.73
Riversdale	~~5.02~~6.53
Te Anau	~~88.94~~118.25
Te Waewae	~~13.83~~18.94
Tiwai	~~1.98~~2.57
Upper Aparima	~~41.06~~56.93
Upper Mataura	~~27.84~~10.40
Waihopai	~~32.08~~44.50
Waimatuku	~~15.66~~22.27
Waimea Plains	~~9.30~~12.41
Waipounamu	1.16
Wendon	~~3.83~~5.22
Wendonside	~~7.07~~9.56[1431]

Note: In circumstances where groundwater has a moderate, high 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.[1432]

[1431] 247.29 Environment Southland
[1432] 562.16 Meridian

~~Y~~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 Y.5.

Table L.5~~Y.5~~ Lumsden Aquifer allocation and minimum groundwater level cut-offs

~~Annual~~ Primary[1433] Allocation (m^3 x 10^6/year)	Monitoring bore	Initial level trigger		Minimum level cut-off	
		m asl	% reduction in maximum daily abstraction rate (m^3/day)	m asl	% reduction in maximum daily abstraction rate (m^3/day)[1434]
5.76	E44/0300	202.5	50	201.5	100

~~***Garvie Aquifer***~~

~~Groundwater abstraction from the Garvie aquifer will be managed in accordance with the allocation volume and minimum water level cut-offs outlined in Table Y.6.~~

~~**Table Y.6 Garvie Aquifer allocation and minimum groundwater level cut-offs**~~

~~Annual Allocation (m^3 x 10^6/year)~~	~~Monitoring bore~~	~~Initial level trigger~~		~~Minimum level cut-off~~	
		~~m asl~~	~~% reduction in abstraction~~	~~m asl~~	~~% reduction in abstraction~~
~~8.38~~	~~F44/0301~~	~~147.0~~	~~50~~	~~146.0~~	~~100~~[1435]

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 Y.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 Y.8.

Table L.7~~Y.7~~ North Range Aquifer minimum groundwater level cut-off

~~Annual~~ Primary[1436] Allocation (m^3 x 10^6/year)	Monitoring bore	Minimum level cut-off	
		m asl	% reduction in maximum daily abstraction rate (m^3/day)[1437]
1.83	E44/0196	~~201.5~~ 245.0	100

[1433] Clause 16(2) amendment to align with rest of Appendix L
[1434] 247.29 Environment Southland
[1435] 247.29 Environment Southland; 464.32 Landpro; 868.34 Wilkins Farming; and others
[1436] Clause 16(2) amendment to align with rest of Appendix L
[1437] 247.29 Environment Southland

Table L.8~~Y.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 Y.5 to Table Y.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 Environment Southland 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 Environment Southland 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:

  Annual allocation = 0.75(T x *i* x 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	*Megadyptes antipodes*
Kāhu	Australasian harrier	*Circus approximans*
Kākā	South Island kākā	*Nestor meridionalis meridionalis*
Kākāpō	Kākāpō	*Strigops habroptilus*
Kākāriki	New Zealand parakeet	*Cyanoramphus* spp
Kakaruai	South Island robin	*Petroica australis australis*
Kakī	Black stilt	*Himantopus novaezelandiae*
Kāmana	Crested grebe	*Podiceps cristatus*
Kārearea	New Zealand falcon	*Falco novaeseelandiae*
Karoro	Black-backed gull	*Larus dominicanus*
Kea	Kea	*Nestor notabilis*
Kōau	Black shag	*Phalacrocorax carbo*
	Pied shag	*Phalacrocorax varius varius*
	Little shag	*Phalacrocorax melanoleucos brevirostris*
Koekoeā	Long-tailed cuckoo	*Eudynamys taitensis*
Kōparapara *or* Korimako	Bellbird	*Anthornis melanura melanura*
Kororā	Blue penguin	*Eudyptula minor*
Kōtare	Kingfisher	*Halcyon sancta*
Kōtuku	White heron	*Egretta alba*
Kōwhiowhio	Blue duck	*Hymenolaimus malacorhynchos*
Kūaka	Bar-tailed godwit	*Limosa lapponica*
Kūkupa/Kererū	New Zealand wood pigeon	*Hemiphaga novaeseelandiae*
Kuruwhengu/Kuruwhengi	New Zealand shoveller	*Anas rhynchotis*
Mātā	Fernbird	*Bowdleria punctata punctata* and *Bowdleria punctata stewartiana* and *Bowdleria punctata wilsoni* and *Bowdleria punctata candata*
Matuku moana	Reef heron	*Egretta sacra*
Miromiro	South Island tomtit	*Petroica macrocephala macrocephala*
Miromiro	Snares Island tomtit	*Petroica macrocephala dannefaerdi*
Mohua	Yellowhead	*Mohoua ochrocephala*
Pākura/Pūkeko	Swamp hen/Pūkeko	*Porphyrio porphyrio*
Pārera	Grey duck	*Anas superciliosa*
Pateke	Brown teal	*Anas aucklandica*
Pīhoihoi	New Zealand pipit	*Anthus novaeseelandiae*
Pīpīwharauroa	Shining cuckoo	*Chrysococcyx lucidus*
Pīwakawaka	South Island fantail	*Rhipidura fuliginosa fuliginosa*
Poaka	Pied stilt	*Himantopus himantopus*
Pokotiwha	Snares crested penguin	*Eudyptes robustus*

Name in Māori	Name in English	Scientific name
Pūtakitaki	Paradise shelduck	*Tadorna variegata*
Riroriro	Grey warbler	*Gerygone igata*
Roroa	Great spotted kiwi	*Apteryx haastii*
Rowi	Ōkārito brown kiwi	*Apteryx mantelli*
Ruru koukou	Morepork	*Ninox novaeseelandiae*
Takahē	Takahē	*Porphyrio mantelli*
Tara	Terns	*Sterna* spp
Tawaki	Fiordland crested penguin	*Eudyptes pachyrhynchus*
Tete	Grey teal	*Anas gracilis*
Tīeke	South Island saddleback	*Philesturnus carunculatus carunculatus*
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	*Puffinus griseus* and *Puffinus huttoni* and *Pelecanoides urinatrix* and *Pelecanoides georgicus* and *Procellaria westlandica* and *Pachyptila turtur* and *Pachyptila vittata* and *Pelagodroma marina* and *Pterodroma cookii* and *Pterodroma inexpectata*
Tītitipounamu	South Island rifleman	*Acanthisitta chloris chloris*
Tokoeka	South Island brown kiwi	*Apteryx australis*
Toroa	Albatrosses and Mollymawks	*Diomedea* spp
Toutouwai	Stewart Island robin	*Petroica australis rakiura*
Tūī	Tūī	*Prosthemadera novaeseelandiae*
Tutukiwi	Snares Island snipe	*Coenocorypha aucklandica huegeli*
Weka	Western weka	*Gallirallus australis australis*
Weka	Stewart Island weka	*Gallirallus australis scotti*
Weka	Buff weka	*Gallirallus australis hectori*

Plants

Name in Māori	Name in English	Scientific name
Akatorotoro	White rata	*Metrosideros perforata*
Aruhe	Fernroot (bracken)	*Pteridium aquilinum* var *esculentum*
Harakeke	Flax	*Phormium tenax*
Horoeka	Lancewood	*Pseudopanax crassifolius*
Houhi	Mountain ribbonwood	*Hoheria lyalli* and *H. glabata*
Kahikatea	Kahikatea/White pine	*Dacrycarpus dacrydioides*
Kāmahi	Kāmahi	*Weinmannia racemosa*
Kānuka	Kānuka	*Kunzia ericoides*
Kāpuka	Broadleaf	*Griselinia littoralis*
Karaeopirita	Supplejack	*Ripogonum scandens*
Karaka	New Zealand	*Corynocarpus laevigata*

Name in Māori	Name in English	Scientific name
	laurel/Karaka	
Karamū	Coprosma	*Coprosma robusta, coprosma lucida, coprosma foetidissima*
Kātote	Tree fern	*Cyathea smithii*
Kiekie	Kiekie	*Freycinetia baueriana* subsp *banksii*
Kōhia	NZ Passionfruit	*Passiflora tetranda*
Korokio	Korokio Wire-netting bush	*Corokia cotoneaster*
Koromiko/Kōkōmuka	Koromiko	*Hebe salicfolia*
Kōtukutuku	Tree fuchsia	*Fuchsia excorticata*
Kōwahi Kōhai	Kōwhai	*Sophora microphylla*
Mamaku	Tree fern	*Cyathea medullaris*
Mānia	Sedge	*Carex flagellifera*
Mānuka Kahikātoa	Tea-tree	*Leptospermum scoparium*
Māpou	Red matipo	*Myrsine australis*
Mataī	Mataī/Black pine	*Prumnopitys taxifolia*
Miro	Miro/Brown pine	*Podocarpus ferrugineus*
Ngaio	Ngaio	*Myoporum laetum*
Nīkau	New Zealand palm	*Rhopalostylis sapida*
Pānako	(Species of fern)	*Asplenium obtusatum*
Pānako	(Species of fern)	*Botrychium australe* and *B. biforme*
Pātōtara	Dwarf mingimingi	*Leucopogon fraseri*
Pīngao	Pīngao	*Desmoschoenus spiralis*
Pōkākā	Pōkākā	*Elaeocarpus hookerianus*
Ponga/Poka	Tree fern	*Cyathea dealbata*
Rātā	Southern rātā	*Metrosideros umbellata*
Raupō	Bulrush	*Typha angustifolia*
Rautāwhiri/Kōhūhū	Black matipo/Māpou	*Pittosporum tenuifolium*
Rimu	Rimu/Red pine	*Dacrydium cypressinum*
Rimurapa	Bull kelp	*Durvillaea antarctica*
Taramea	Speargrass, spaniard	*Aciphylla* spp
Tarata	Lemonwood	*Pittosporum eugenioides*
Tawai	Beech	*Nothofagus* spp
Tētēaweka	Muttonbird scrub	*Olearia angustifolia*
Tī rākau/Tī Kōuka	Cabbage tree	*Cordyline australis*
Tīkumu	Mountain daisy	*Celmisia spectabilis* and *C. semicordata*
Tītoki	New Zealand ash	*Alectryon excelsus*
Toatoa	Mountain Toatoa, Celery pine	*Phyllocladus alpinus*
Toetoe	Toetoe	*Cortaderia richardii*
Tōtara	Tōtara	*Podocarpus totara*
Tutu	Tutu	*Coriaria* spp
Whararíki	Mountain flax	*Phormium cookianum*
Whīnau	Hīnau	*Elaeocarpus dentatus*
Wī	Silver tussock	*Poa cita*
Wīwī	Rushes	*Juncus* all indigenous *Juncus* spp and *J. maritimus*

Freshwater Fish and Shellfish

Name in Māori	Name in English	Scientific name
Inanga	(whitebait species)	*Galaxias maculatus*
	Banded kokopu	*Galaxias fasciatus*
Koaro	(whitebait species)	*Galaxias brevipinnis*
	Shortjaw kokopu	*Galaxias postvectis*
Taiwharu	Giant kokopu	*Galaxias argenteus*
	Upland bully	*Gobiomorphus breviceps*
	Bluegill bully	*Gobiomorphus hubbsi*
Kokopu/hawai	Giant bully	*Gobiomorphus gobioides*
	Common bully	*Gobiomorphus cotidianus*
	Redfin bully	*Gobiomorphus huttoni*
Tuna	Longfin eel	*Anguilla dieffenbachii*
Tuna	Shortfin eel	*Anguilla australis*
Kanakana	lamprey	*Geotria australis*
	Alpine galaxias	*Galaxias paucispondylus*
	Gollum galaxias	*Galaxias gollumoides*
	Southern flathead galaxias	*Galaxias depressiceps*
Piripiripohatu	Torrentfish	*Cheimarrichthys fosteri*
Paraki/ngaiore	Common smelt	*Retropinna retropinna*
	Black flounder	*Rhombosolea retiaria*
Koura/kewai	Freshwater crayfish	*Paranephrops planifrons, Paranephrops zealandicus*
Kakahi	Freshwater mussels	*Echyridella menziesi*
Pipi/Kākahi	Pipi	*Paphies australe*
Tuaki	Cockle	*Austrovenus stutchburgi*
Tuaki/Hākiari, Kuhakuha/Pūrimu	Surfclam	*Dosinia anus, Paphies donacina, Mactra discor, Mactra murchsoni, Spisula aequilateralis, Basina yatei, or Dosinia subrosa*
Tuatua	Tuatua	*Paphies subtriangulata, Paphies donacina*
Waikaka/Pūpū	Mudsnail	*Amphibola crenata, Turbo smaragdus, Zedilom spp*

Appendix N – Management Plan Requirements

~~The following definitions are relevant to Appendix N.~~

~~Critical Source Area means: Areas of enriched nutrient or sediment sources and hydrological activity that occur in small parts of a catchment or farm, but contribute a disproportionately large amount of nutrient or sediment to the environment (e.g. steep hills, gullies or swales).~~

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 ~~Management Plan~~ 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 if a resource consent is required or the landholding includes a dairy platform, or Part C below in all other cases. ~~that:~~

   ~~(a) includes the material set out in Part B below, contains a methodology that will enable development of a plan that will identify actual and potential environmental effects and risks specific to the property, addresses those effects and risks and has a high likelihood of appropriately avoiding, remedying or mitigating those effects, includes objective performance measures; and~~

   ~~(b) has been approved as meeting the criteria in (a) and being acceptable to the Southland Regional Council by the Chief Executive of the Southland Regional Council~~

Part B – Farm Environmental Management Plan Content when a Resource Consent is required and for Dairy Platforms

1. A written FEMP ~~Management Plan~~ that is:
   (a) prepared and retained, identifying the matters set out in clauses 2 to 5 ~~numbers 2-10~~ below;
   (b) reviewed ~~updated~~ at least once every 12 months by the farmer 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 ~~following property details are recorded~~:
   (a) physical address;
   (b) description of the landholding ownership and the owner's contact details ~~name of a contact person~~;
   (c) legal description(s) of the landholding ~~of the land and farm name~~; and
   (d) a list ~~details~~ of all resource consents held for the landholding and their expiry dates~~, including a copy of each consent~~.

3. ~~A~~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;
   (b) the physiographic zones (and variants where applicable) and soil types (or Topoclimate South soil maps);
   (c) all perennial rivers and streams, lakes, ponds, modified watercourses, artificial watercourses, regionally significant wetlands, and natural wetlands;
   (d) all existing and proposed riparian vegetation and fences (or other stock exclusion methods) adjacent to waterbodies;
   (e) places where stock access or cross water bodies (including bridges, culverts and fords);
   (f) all known subsurface drainage system(s) and the locations of ~~the~~ drain outlets;

(g) all land that may be cultivated and land to be cultivated over the next 12-month period;
(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;
(i) for land to be cultivated or intensively winter grazed:
(i) critical source areas;
(ii) intended setbacks from any lake, river, modified watercourse, natural wetland, coastal lagoon or artificial watercourse;
(iii) land with a slope greater than 20 degrees.

~~• the boundaries of the property;~~
~~• the location of significant farm infrastructure;~~
~~• the location of any critical source areas;~~
~~• the physiographic unit(s) in which the land is located;~~
~~• the location of permanent or intermittent rivers, streams, lakes, drains, ponds or wetlands;~~
~~• where known, the of any subsurface drainage system(s) and relative depth and position , including the outlet(s) of any such systems;~~
~~• the location of riparian vegetation and fences adjacent to waterbodies;~~
~~• the location on all water ways where stock access or crossing occurs;~~
~~• the location of any known and recorded heritage site;~~
~~• the location of any areas within or adjoining the property that are identified in a District Plan as "significant indigenous biodiversity".~~

4. Nutrient Budget

For all landholdings over 20ha, the FEMP contains a nutrient budget (which includes nutrient losses to the environment) calculated ~~A nutrient budget based on soil nutrient tests has been prepared,~~ 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) ~~or an equivalent model approved by the Chief Executive of Southland Regional Council~~, and 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) ~~(being a change exceeding that resulting from normal crop rotations or variations in climatic or market conditions)~~ the nutrient budget shall be redone ~~prepared~~ at the end of the year in which the change occurs, and also every three years after the change occurs;
(b) each time the nutrient budget is redone 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.

~~(ii) where a material change in the land use associated with the farming activity does not occur, the nutrient budget shall be prepared once every three years;~~
~~(iii) an annual review of the input data used to prepare the nutrient budget shall be carried out by or on behalf of the landowner for the purposes of ensuring the nutrient budget accurately reflects the farming system. A record of the review shall be kept by the landowner.~~

5. Good Management Practices

The FEMP contains a ~~A~~ good management practices section which identifies:

(a) the good management practices implemented or expanded on, since 3 June 2016; and
(b) the range of general 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 23);
(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[1438] titled "Industry-agreed Good Management Practices relating to water quality, Version 2, 18 September 2015".

~~(i) the general good management practices which will be undertaken on farm over the coming 1 June to 31 May period. Examples of general good management practices are provided on the Southland Regional Council website.~~
~~(ii) the physiographic zones, and variants (where applicable) within the property;~~
~~(iii) the key transport pathways and contaminants (where applicable) for each of the physiographic zones within the property, from Table 1 below;~~
~~(iv) the good management practices for any relevant key transport pathways which will be undertaken on farm over the coming 1 June to 31 May period. A list of example actions to consider for each of the mitigations is provided on the Southland Regional Council website;~~
~~(v) upon 12 monthly review, the good management practices that were undertaken in the previous 1 June to 31 May period and the good management practices to be implemented over the coming 1 June to 31 May period;~~
~~(vi) a range of good management practices will be implemented each year.~~

Part C – Farm Environmental Management Plan Content – permitted activity farming

1. A written FEMP that is:
   (a) prepared and retained, identifying the matters set out in clauses 2 and 3 below;
   (b) reviewed at least once every 12 months by the farmer and the outcome of the review documented; and
   (c) provided to the Southland Regional Council upon request.
2. 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;
   (b) all perennial rivers and streams, lakes, ponds, modified watercourses, artificial watercourses, regionally significant wetlands, and natural wetlands;
   (c) all existing and proposed riparian vegetation and fences (or other stock exclusion methods) adjacent to waterbodies;
   (d) all known subsurface drainage system(s) and the locations of ~~the~~ drain outlets;
   (e) for land to be cultivated or intensively winter grazed:
      (i) critical source areas;

[1438] Released by FAR, New Zealand Pork, Dairy NZ, beef + lamb New Zealand, Horticulture New Zealand and Deer Industry New Zealand.

(ii) intended setbacks from any lake, river, modified watercourse, natural wetland, coastal lagoon or artificial watercourse;

(iii) land with a slope greater than 20 degrees.

3. Good Management Practices

The FEMP contains a good management practices section which identifies:

(a) the good management practices implemented or expanded on, since 3 June 2016; and

(b) the range of general 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 23);

(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[1439] titled "Industry-agreed Good Management Practices relating to water quality, Version 2, 18 September 2015".

~~**Table 1: Key transport pathways and contaminants for each physiographic zone**~~

~~Physiographic zone~~	~~Key transport pathways (✓)~~		
	~~Overland flow[1]~~	~~Deep drainage (leaching to groundwater)[2]~~	~~Artificial Drainage[1]~~
~~Alpine~~	~~✓~~	-	-
~~Bedrock/Hill Country~~	~~✓(o)~~	-	~~✓(a)~~
~~Central Plains~~	-	~~✓~~	~~✓~~
~~Gleyed~~	~~✓(o)~~	-	~~✓~~
~~Lignite-Marine Terraces~~	~~✓(o)~~	-	~~✓(a)~~
~~Old Mataura~~	-	~~✓~~	
~~Oxidising~~	~~✓(o)~~	~~✓~~	~~✓(a)~~
~~Peat Wetlands~~	-	~~✓*~~	~~✓~~
~~Riverine~~	~~✓(o)~~	~~✓~~	-

~~**NOTE:**~~

~~[1]Overland flow and artificial drainage transport nitrogen, phosphorus, microbes and sediment~~

~~[2]Deep drainage transports nitrogen, except in Peat Wetlands, see * below~~

~~*Deep drainage transports phosphorus rather than nitrogen, and lateral drainage of phosphorus and microbes through the soil is also a key pathway in the Peat Wetlands (mitigations are the same as for deep drainage)~~

~~✓(o) denotes that overland flow is only a key transport pathway in the parts of the steeper parts of the physiographic zone, referred to as the (o), or overland flow variant (refer to physiographic zones map)~~

[1439] Released by FAR, New Zealand Pork, Dairy NZ, beef + lamb New Zealand, Horticulture New Zealand and Deer Industry New Zealand.

✓(a) denotes that artificial drainage is only a key transport pathway in parts of the physiographic zone where there is artificial drainage, referred to as the (a), or artificial drainage variant (refer to physiographic zones map)

6. Riparian Management Plan

(a) A Riparian Management Plan is prepared and implemented, and records in written and/or map form:

(i) methods to exclude stock, where required, from waterbodies, critical source areas and riparian areas;

(ii) in relation to sheep, the mitigation measures to manage critical source areas to ensure contaminant losses, particularly associated with overland flow, are minimised.

(iii) the mitigation options to minimise overland flow including areas where stock will be excluded and areas where vegetation will be planted;

(iii) the type of vegetation to be planted and how it will be maintained;

(iv) the grazing of appropriately fenced riparian margins for weed control purposes;

(v) the access to waterways for maintenance purposes, and in particular the waterways maintained by the Southland Regional Council in accordance with the Southland Flood Control Management Bylaw 2010.

(b) **An up-to-date copy of the Riparian Management Plan is kept and provided to the Southland Regional Council upon request.**

7. Cultivation

(a) A cultivation map showing:

(i) waterbodies;

(ii) buffer strips along those waterbodies as follows:

(1) 3 m buffer where slopes are 4 degrees or less

(2) 10 m buffer where slopes are greater than 4 degrees and up to 16 degrees

(3) 20 m buffer where slopes are greater than 16 degrees

(4) as specified in resource consent conditions where the slopes are greater than 20 degrees;

(iii) land where cultivation is planned over the next period 1 June to 30 May;

(iv) any proposed good management practices for cultivation, such as contour ploughing, strip cultivation or minimum tillage.

8. Intensive winter grazing

Where intensive winter grazing is undertaken, an intensive winter grazing section which contains:

(a) Good management practices:

(i) to minimise the discharge of nitrogen, phosphorus, sediment and microbiological contaminants to water from the use of land for intensive winter grazing;

(ii) to avoid the conspicuous discolouration or sedimentation of any adjacent waterbodies;

(b) an intensive winter grazing map showing the total extent of land that may be intensively winter grazed on the property which includes the following details in respect to that land:

(i) the extent of land to be intensively winter grazed for the next period 1 May to 30 September;

(ii) critical source areas;

(iii) waterbodies;

(iv) slope classes;
(v) buffer strips;
(vi) location of sub-surface drains their outlet position and relative height.

9. Collected Agricultural Effluent

(a) The animal effluent disposal system application separation distances, depth, uniformity and intensity are self-checked annually in accordance with Section 4 "Land Application" in the guideline "A Farmer's Guide to Managing Farm Dairy Effluent - A Good Practice Guide for Land Application Systems" [2013].

(b) Records of the application, separation distances, depth, uniformity and intensity of dairy effluent disposal, in accordance with (e)(ii) above, are kept and provided to the Southland Regional Council.

(c) The application of collected agricultural effluent is avoided when the soil temperature is less than 5ºC.

10. Irrigation Management (applies to farming activities that irrigate):

(a) All irrigation systems installed or replaced after 1 October 2015 meet the Irrigation New Zealand Piped Irrigation Systems Design Code of Practice 2013, Irrigation New Zealand Piped Irrigation Systems Design Standards 2013 and the Irrigation New Zealand Piped Irrigation Systems Installation Code of Practice 2013.

(b) The irrigation system application depth and uniformity are self-checked annually in accordance with the relevant Irrigation NZ Pre-Season Checklist28 and IRRIG8Quick Irrigation Quick tests29 for any irrigation system operating on the property.

(c) Irrigation applications are undertaken in accordance with property specific soil moisture monitoring, or a soil water budget, or an irrigation scheduling calculator. Soil monitoring means monitoring soil moisture using either volumetric or tension based methodology.

(d) Records of irrigation system application depth and uniformity checklists, irrigation applications, soil moisture monitoring or soil water budget or irrigation scheduling calculator results and rainfall are kept and provided to the Southland Regional Council upon request.[1440]

[1440] 62.15 Beef and Lamb; 247.32 Environment Southland; 265.109 Federated Farmers

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^3/ha/year will be established by use of a field-validated daily time-step[1441] irrigation demand model to calculate the annual irrigation volume ~~to achieve 80 percent (4 in 5 year)~~ 90 percent (9 in 10 year)[1442] 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%[1443].

(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 volume of water utilised in previous irrigation seasons;
- any proposed changes to the operation of the irrigation system or farming system[1444].

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[1445] 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.

[1441] 414.14 INZ
[1442] 390.39 Hot NZ; 414.14 INZ
[1443] 414.14 INZ
[1444] 390.39 Hort NZ
[1445] 189.51 DHL

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 not more than~~ 0.8 mm or less[1446].
- Continuous readings are to be taken over the entire test period at not more than 10 second intervals.
- ~~Data analysis is undertaken by a party independent of equipment installer.~~[1447]
- 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 ~~at no time shall the~~ wind speed shall be at ~~exceed~~ 10 metres per second or less for at least 24 hours during the test[1448].

  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:

Maximum Depth of Pond (m) excluding freeboard	Maximum Allowable Pond Level Drop (mm per 24 hours)
<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[1449]

[1446] 247.33 Environment Southland
[1447] 191.15 JM and KB Dale
[1448] 25.36 Ardel Dairies
[1449] Clause 16(2) amendment

~~Appendix Q – Sensitive Waterbodies~~[1450]

~~Sensitive waterbodies include all waterbodies referred to in Appendix A: Regionally and Significant Wetlands and those listed below:~~

- ~~Lake Te Anau;~~
- ~~Lake Manapouri;~~
- ~~Mavora Lakes;~~
- ~~Lake Murihiku;~~
- ~~Lakes on Stewart Island;~~
- ~~Lakes in Milford Sound;~~
- ~~The Reservoir (lake);~~
- ~~Waituna Lagoon;~~
- ~~New River Estuary;~~
- ~~Waimatuku Estuary.~~

[1450] 210.101 DOC; 279.126 Forest and Bird; and 752.193 Fish and Game

Appendix *R – Fish Screen Standards and Guidelines*

(1) 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:

(a) 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

(b) 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 are 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:

Area = $2\pi r (r + h) \times z$

Where: π =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.

(2) 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:

(a) 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;

(b) 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);

(c) 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;

(d) 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;

(e) 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

(f) 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.

(3) 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. [1451]

[1451] 279.95 Forest and Bird, 752.142 Fish and Game

Appendix T - Archaeological Requirements

This appendix sets out information to alert the public to their responsibilities regarding archaeological sites. This is relevant with regards to:

(1) Demolition/destruction of any structure associated with human activity prior to 1900, whether or not it is scheduled in a district or regional plan.
(2) 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 (1) or (2) 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:
(i) immediately cease operations;
(ii) inform the relevant iwi authority;
(iii) inform Heritage New Zealand and apply for the appropriate authority, if required;
(iv) inform the Council and apply for the appropriate resource consent, if required;

(v) take appropriate action, after discussing with Heritage New Zealand, Council and relevant iwi authority to remedy damage and/or restore the site.[1452]

[1452] Heritage NZ evidence (para 4.7.1)