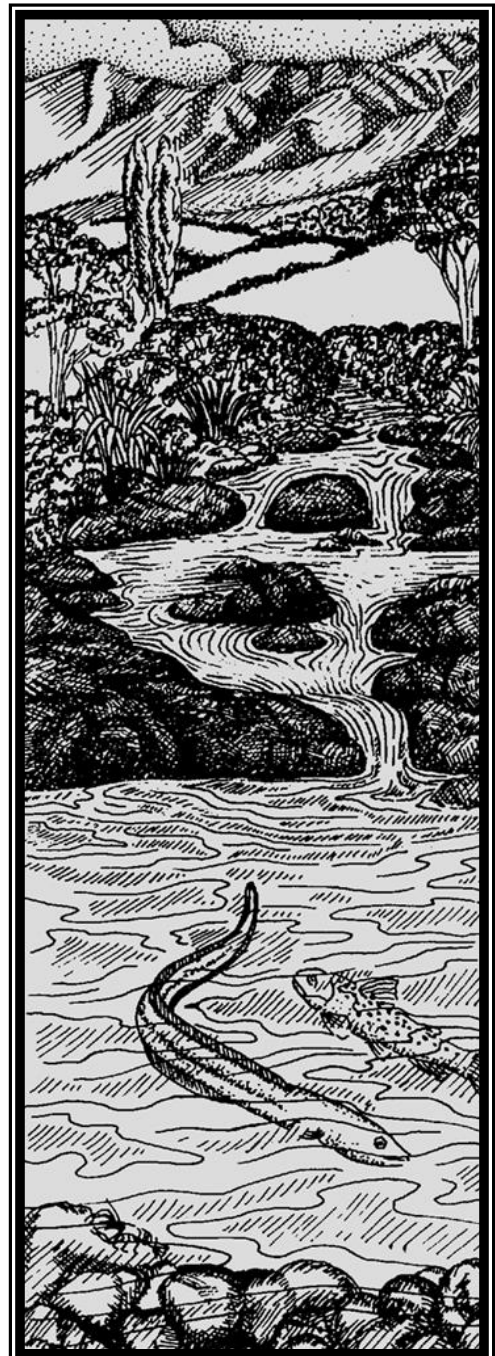


Chapter 7
Water Quality

7

Water Quality



7.1 Introduction

The provisions in this chapter are in addition to those in Chapter 5, which seek to maintain or enhance the natural and human use values supported by lakes, and rivers and wetlands; and those included in Chapter 9, which contain policies on groundwater quality.

7.2 Issues in general *[Repealed – 1 May 2014]*

7.3 Issues related to point source discharges to water *[Repealed – 1 May 2014]*

7.4 Issues related to non-point source discharges to water *[Repealed – 1 May 2014]*

7.5 Objective *[Repealed – 1 May 2014]*

7.A Objectives

7.A.1 To maintain water quality in Otago lakes, rivers, wetlands, and groundwater, but enhance water quality where it is degraded.

7.A.2 To enable the discharge of water or contaminants to water or land, in a way that maintains water quality and supports natural and human use values, including Kāi Tahu values.

7.A.3 To have individuals and communities manage their discharges to reduce adverse effects, including cumulative effects, on water quality.

7.B Policies general

7.B.1 Manage the quality of water in Otago lakes, rivers, wetlands and groundwater by:

- (a) Describing, in Table 15.1 of Schedule 15, characteristics indicative of good quality water; and**
- (b) Setting, in Table 15.2 of Schedule 15, receiving water numerical limits and targets for achieving good quality water; and**
- (c) Maintaining, from the dates specified in Schedule 15, good quality water; and**
- (d) Enhancing water quality where it does not meet Schedule 15 limits, to meet those limits by the date specified in the Schedule; and**
- (e) Recognising the differences in the effects and management of point and non-point source discharges; and**
- (f) Recognising discharge effects on groundwater; and**

- (g) **Promoting the discharge of contaminants to land in preference to water.**

- 7.B.2 Avoid objectionable discharges of water or contaminants to maintain the natural and human use values, including Kāi Tahu values, of Otago lakes, rivers, wetlands, groundwater and open drains and water races that join them.**

- 7.B.3 Allow discharges of water or contaminants to Otago lakes, rivers, wetlands and groundwater that have minor effects or that are short-term discharges with short-term adverse effects.**

- 7.B.4 When considering any discharge of water or contaminants to land, have regard to:**
 - (a) **The ability of the land to assimilate the water or contaminants; and**
 - (b) **Any potential soil contamination; and**
 - (c) **Any potential land instability; and**
 - (d) **Any potential adverse effects on water quality; and**
 - (e) **Any potential adverse effects on use of any proximate coastal marine area for contact recreation and seafood gathering.**

- 7.B.5 When considering any discharge of water from one catchment to water in another catchment, have regard to:**
 - (a) **Kāi Tahu values; and**
 - (b) **The adverse effects of introducing species that are new to the receiving catchment.**

- 7.B.6 When assessing any consent to discharge contaminants to water, consider the need for and the extent of any zone for physical mixing, within which water will not meet the characteristics and limits described in Schedule 15, by taking account of:**
 - (a) **The sensitivity of the receiving environment; and**
 - (b) **The natural and human use values, including Kāi Tahu values; and**
 - (c) **The natural character of the water body; and**
 - (d) **The amenity values supported by the water body; and**
 - (e) **The physical processes acting on the area of discharge; and**
 - (f) **The particular discharge, including contaminant type, concentration and volume; and**
 - (g) **The provision of cost-effective community infrastructure; and**
 - (h) **Good quality water as described in Schedule 15.**

- 7.B.7 Encourage land management practices that reduce the adverse effects of water or contaminants discharged into water.**

7.B.8 Encourage adaptive management and innovation that reduces the level of contaminants in discharges.

7.C Policies for discharges of human sewage, hazardous substances, hazardous wastes, specified contaminants, and stormwater; and discharges from industrial or trade premises and consented dams

7.C.1 When considering applications for resource consents to discharge contaminants to water, to have regard to opportunities to enhance the existing water quality of the receiving water body at any location for which the existing water quality can be considered degraded in terms of its capacity to support its natural and human use values.

Explanation

There is the opportunity, particularly with new resource consents for existing discharges, to achieve an enhancement in water quality. This can occur when the consent holder re-examines the discharge activity and makes use of technological advances in the reduction, reuse, recycling, or treatment of contaminants. The Otago Regional Council will have regard to these opportunities when considering resource consents to discharge contaminants to water.

This policy applies to any location for which the existing water quality can be considered degraded in terms of its capacity to support its natural and human use values.

Principal reasons for adopting

This policy is adopted to ensure that opportunities are taken to achieve improved water quality in Otago’s lakes and rivers. The policy reflects the importance of enhancing water quality to the region’s people and communities.

Rules: 12.A.2.1, 12.B.2.1, 12.B.3.1.

7.C.2 When considering applications for resource consents to discharge contaminants to water, or onto or into land in circumstances which may result in any contaminant entering water, to have regard to:

- (a) The nature of the discharge and the sensitivity of the receiving environment to adverse effects;**
- (b) The financial implications, and the effects on the environment of the proposed method of discharge when compared with alternative means; and**
- (c) The current state of technical knowledge and the likelihood that the proposed method of discharge can be successfully applied.**

Explanation

When considering the avoidance, remedy or mitigation of the adverse effects of the discharge of contaminants to land or water under a resource consent, the Otago Regional Council will consider matters identified in (a) to (c) in the policy. This ensures the recognition of any financial or technical constraint upon the

adoption of alternative treatment or discharge methods, given the sensitivity of the receiving environment to the discharge.

Principal reasons for adopting

This policy is adopted to ensure that consideration is given to appropriate means for avoiding, remedying or mitigating the adverse effects of contaminants on water or land, to enable the most environmentally sound means to be adopted.

Rules: 12.A.2.1, 12.B.2.1, 12.B.3.1.

7.C.3 When considering any resource consent to discharge a contaminant to water, to have regard to any relevant standards and guidelines in imposing conditions on the discharge consent.

Explanation

The primary concern for the Otago Regional Council, in considering resource consents, is protecting the natural and human use values supported by water bodies. Guidelines applicable to Otago may assist in this task in terms of the development of resource consent conditions controlling the effects of any particular contaminant in the receiving waters.

This Plan does not set generic numerical standards for particular contaminants. Instead the Plan identifies specific natural and human use values and, prior to granting a discharge consent, Council must be satisfied that those values will not be compromised. Guidelines will be used when applicable to the type of discharge and the nature of the receiving environment. These will be considered on a case by case basis.

Principal reasons for adopting

This policy is adopted to signal that standards and guidelines will be used as appropriate in imposing conditions on discharge consents in order to achieve the Plan's objectives. The application of standards will provide certainty to the person proposing to undertake the discharge as to the requirements for avoiding, remedying or mitigating adverse effects on the natural and human use values supported by the receiving water body.

Rules: 12.A.2.1, 12.B.2.1, 12.B.3.1.

7.C.4 The duration of any new resource consent for an existing discharge of contaminants will take account of the anticipated adverse effects of the discharge on any natural and human use value supported by an affected water body, and:

- (a) **Will be up to 35 years where the discharge will meet the water quality standard required to support that value for the duration of the resource consent;**
- (b) **Will be no more than 15 years where the discharge does not meet the water quality standard required to support that value but will progressively meet that standard within the duration of the resource consent;**

- (c) **Will be no more than 5 years where the discharge does not meet the water quality standard required to support that value; and**
- (d) **No resource consent, subsequent to one issued under (c), will be issued if the discharge still does not meet the water quality standard required to support that value.**

Explanation

Resource consents to discharge contaminants may be issued for up to 35 years under the Resource Management Act. The duration of new resource consents for existing discharges under this Plan will be set having regard to the effect of the discharge on the natural and human use values supported by any affected water body, in accordance with (a) to (d) of this policy.

The maximum duration of any resource consent will be 35 years. Where the discharge is adversely affecting any natural and human use value that the water body supports, the duration will be less. This encourages the resource consent holder to investigate alternatives, that will improve the discharge, in order to meet the standards required to support the natural and human use value.

In recognition of financial and technical constraints on those proposing to undertake the discharge, a short duration resource consent, which does not exceed 5 years, may be granted in accordance with (c), in which time they must comply with the relevant water quality standards. Discharges that do not comply by the time the resource consent has expired will not be granted a further resource consent for the discharge. Another option is to make a commitment to meet the water quality standard required to support the affected value progressively within the duration of the resource consent. The duration of such resource consents would not exceed 15 years, in accordance with (b).

Principal reasons for adopting

This policy is adopted to give guidance for determining the appropriate duration of any resource consent to continue discharging contaminants. It will enable proper consideration of changes over time in the receiving environment, and to encourage, within technical and financial constraints, a reduction in the adverse effects of point source discharges on Otago’s water bodies. This will assist in achieving the maintenance or enhancement of existing water quality.

Rules: 12.A.2.1, 12.B.2.1, 12.B.3.1.

7.C5

Part A:
Discharge
policies

Minimise the adverse environmental effects of discharges ~~With respect to discharges~~ from any new stormwater reticulation system, or any extension to an existing stormwater reticulation system, ~~to require:~~ by requiring:

- (a) **The separation of sewage and stormwater; and**
- (b) **Measures to prevent contamination of the receiving environment by industrial or trade waste; and**
- (c) **The use of techniques to trap debris, sediments and nutrients present in runoff.**

Explanation

In terms of the Plan's rules for permitted and discretionary activities for new discharges, or extensions to the catchment area of existing discharges from reticulated stormwater systems, the requirements of (a) to (c) will apply, as required.

Principal reasons for adopting

This policy is adopted to reduce the potential for contaminants to be present in new stormwater discharges. This is intended to mitigate the impact on the water quality of receiving water bodies in urbanised areas or other areas served by a stormwater reticulation system.

Rules: 12.B.3.1

Other methods: 15.2.5.1, 15.4.2.1, 15.4.2.2.

7.C.6 Reduce the adverse environmental effects from existing stormwater reticulation systems by:

Part A:
Discharge
policies

- (a) Requiring the progressive upgrade of stormwater reticulation systems to minimise the volume of sewage entering the system and the frequency and volume of sewage overflows; and
- (b) ~~To promote~~ Promoting the progressive upgrading of the quality of water discharged from existing stormwater reticulation systems, including through:
 - (i) The separation of sewage and stormwater; and
 - (ii) Measures to prevent contamination of the receiving environment by industrial or trade waste; and
 - (iii) The use of techniques to trap debris, sediments and nutrients present in runoff.

Explanation

The Otago Regional Council will ~~encourage~~ require the operator of any existing stormwater reticulation system to improve the quality of stormwater discharged from the system. ~~Measures that can be taken to achieve this improvement include:~~

- ~~(a) The separation of sewage and stormwater;~~
- ~~(b) Measures to prevent contamination of the receiving environment by industrial or trade waste; and~~
- ~~(c) The use of techniques to trap debris, sediments and nutrients present in runoff.~~

Priority will be given to improving discharges to those water bodies where natural and human use values are adversely affected. Such measures may not be necessary where an existing discharge is having no more than a minor adverse effect on any natural or human use value supported by an affected water body.

Principal reasons for adopting

This policy is adopted to reduce the level of contaminants present in existing stormwater discharges. This is intended to mitigate the impact on the water

quality of receiving water bodies in urbanised areas or other areas served by a stormwater reticulation system.

Rules: 12.B.3.1

Other methods: 15.2.5.1, 15.4.2.1, 15.4.2.2.

- 7.C.7 To require that all practical alternative locations for the storage of hazardous substances have been considered before such storage occurs in close proximity to any lake or river or to mean high water springs; and, if it is not practical to locate elsewhere, to require that appropriate risk management contingencies are put in place.**

Explanation

Although the use of hazardous substances may provide benefits to the community, the storage of such substances close to surface water also represents a risk of contamination through spillage or leakage. Any person intending to store hazardous substances in close proximity to any lake or river, or to mean high water springs, will require land use consent from the relevant city or district council. The district plan rules of those councils will specify the land to which the above requirements will apply.

When considering the location of new facilities for the storage of hazardous substances in close proximity to any lake, river or mean high water springs, the applicant should demonstrate that there are no other, more suitable, less sensitive locations available. If a less sensitive location is not practical, then appropriate design, construction and management practices must be established to minimise the risk of any hazardous substance entering water. For existing facilities where it would be unreasonable to require relocation, appropriate spill containment measures must be established to ensure the lake, river or coastal environment is safeguarded.

Principal reasons for adopting

This policy is adopted to avoid the discharge into water where hazardous substances are inappropriately stored. There is an increased likelihood of such contamination where the storage occurs in close proximity to surface water bodies. Such discharges will adversely affect water quality and the ability of the water body to support natural and human use values.

Other methods: 15.2.7.1, 15.4.2.2

- 7.C.8 To promote the use of contingency plans for the prevention, containment and recovery of the accidental spill of any hazardous substance which may adversely affect water quality.**

Explanation

In the development or modification of any industrial, commercial or agricultural facility where there is potential for the spillage of substances which could contaminate water, the Otago Regional Council will promote the adoption of a spills contingency plan. Such plans will involve four key elements:

- (a) Appropriate handling procedures will be encouraged to avoid accidental spills;
- (b) Mechanisms, such as bunding, will be encouraged to contain spills;
- (c) Appropriate clean-up and dispersal actions will be identified to remedy the effects where containment is not achieved; and
- (d) Proactive education.

The use of contingency plans will be promoted to city and district councils, industry groups, and the developers or owners of the identified facilities.

Principal reasons for adopting

This policy is adopted to reduce the incidence and severity of accidental spills of contaminants into, upstream of, or adjacent to, any water. This is important as such spills may undermine all previous efforts to maintain or enhance water quality.

Other methods: 15.2.4.1, 15.2.7.1, 15.3.4.1, 15.4.2.2, 15.5.1.1.

7.C.9 To support the coordination of measures to remedy or mitigate the adverse effects associated with accidental spills which could potentially contaminate water.

Explanation

The accidental spill of any contaminant that may adversely affect water quality will be remedied or mitigated by the clean-up and dispersal of the spilled contaminant. City and district councils, the Fire Service and others may be involved in spill clean-up operations. The Otago Regional Council will support the coordination of the appropriate response to any accidental spill through the provision of advice on possible disposal or treatment options.

Principal reasons for adopting

This policy is adopted to ensure the appropriate agencies become involved in clean-up operations in the event of a spill of contaminants and that the clean-up operations themselves do not lead to the contamination of water.

Other methods: 15.2.4.1, 15.2.7.1, 15.3.4.1, 15.4.2.2, 15.5.1.1.

7.C.10 Except in the case of a dam constructed to store contaminants, to avoid the damming or diversion of water over contaminated land where it would result in contamination of water or, where avoidance is not practicable, to require the removal or treatment of the contaminated land.

Explanation

There is the potential for adverse effects on water quality where land contaminated by hazardous substances comes into contact with water. Such effects may occur:

- (a) Within a reservoir created by the damming of a water body;
- (b) Within diverted water where the water passes over contaminated land; or
- (c) Downstream of that reservoir or diverted water.

When considering any resource consent for new proposals for damming or diversion of water, the Otago Regional Council must be satisfied that the activity would not result in water being contaminated by its coming into contact with contaminated land. The Council maintains a register of contaminated sites in Otago.

One practical method of managing potential adverse effects from contaminants in a dam constructed to store contaminants, such as a mine tailings dam, is to immerse the contaminants beneath water in a controlled environment. This policy therefore does not apply and Policy 7.C.11 provides for such activities.

Principal reasons for adopting

This policy is adopted to prevent degradation of water quality caused by contaminated land coming into contact with water as a result of the damming or diversion of water. Mining tailings dams are exempt from this policy because that activity sometimes needs to immerse contaminants under water as one practicable method of managing potential adverse effects.

Rules: 12.3.4.1

7.C.11 To require the holder of any consent for a dam constructed for the storage of contaminants to completely remedy any adverse effect of the failure or overtopping of the dam structure, either during or after its construction.

Explanation

Where a resource consent is required for either:

- (a) the damming of water; or
- (b) the storage of hazardous substances,

for the purpose of establishing a tailings dam, the consent authority will require the person erecting the dam to plan for and provide measures, including bonds under Section 108 of the Resource Management Act, for the complete remediation of any loss or damage caused by the uncontrolled release of contaminants. There is a risk of such releases where the tailings dam constructed to store the contaminants fails or is overtopped, either during or after its construction.

Principal reasons for adopting

This policy is adopted to provide for the complete remediation of adverse effects arising from the failure or overtopping of a tailings dam.

Rules: 13.2.3.1, 13.3.2.1

Other methods: 15.2.4.1, 15.2.7.1, 15.3.4.1, 15.4.2.2, 15.5.1.1.

7.C.12 Reduce the adverse effects of discharges of human sewage from reticulated wastewater systems by:

Part A:
Discharge
policies

- (a) Requiring reticulated wastewater systems to be designed, operated, maintained and monitored in accordance with recognised industry standards; and**

- (b) Requiring the implementation of measures to:**
 - (i) Progressively reduce the frequency and volume of wet weather overflows; and**
 - (ii) Minimise the likelihood of dry weather overflows occurring; and**
- (c) Preferring discharges to land over discharges to water, unless adverse effects associated with a discharge to land are greater than a discharge to water; and**
- (d) Having particular regard to any adverse effects on cultural values.**

7.D Policies for discharges of water and contaminants, excluding those discharges provided for in 7.C

7.D.1 Encourage innovation in management practices and the sharing of information, including by:

- (a) Council:**
 - (i) Providing and facilitating the sharing of information on water management and plan implementation including through fora, field days and brochures; and**
 - (ii) Supporting landholders in measuring or assessing contaminants in discharges; and**
 - (iii) Supporting the development of means to measure or assess contaminants in discharges; and**
 - (iv) Monitoring progress towards achievement of water quality objectives and Schedule 15 limits and targets, and making this information available on the Council website.**
- (b) Landholders:**
 - (i) Implementing practices that reduce the level of contaminants in discharges; and**
 - (ii) Providing relevant information to support the catchment or aquifer studies undertaken by Council; and**
 - (iii) Working as a group to achieve good quality water.**

7.D.2 Schedule 16 discharge thresholds apply to permitted activities, from 1 April 2026, at or below the reference flows set in Schedule 16B based on median flows.

7.D.3 Prohibit objectionable discharges of water or contaminants that degrade the natural and human use values, including Kāi Tahu values, of Otago lakes, rivers, wetlands and groundwater.

7.D.4 Provide for the restricted discretionary consenting of any discharge under section 12.C:

- (a) Where changes to land management practices or infrastructure have not been sufficient to meet permitted activity rules; or
- (b) As part of the development of technology or innovative practices associated with improving water quality; or
- (c) From a short-term activity with short-term adverse effects; and the duration will not exceed:
 - (1) Two years for discharges from a short-term activity with short-term adverse effects; or
 - (2) Five years for all other discharges where the contaminants in the discharge result from the activities of the applicant.

7D5 When considering any discharge under section 12.C, have regard to:

Part A:
Discharge
policies

- (a) The effects, including cumulative effects, of the discharge on water quality, ecosystem health and natural and human use values, including Kāi Tahu cultural and spiritual beliefs, values and uses; and
- (b) The physical characteristics of the land and the sensitivity of the receiving water; and
- (c) The quality and performance of the discharge management system to be used, and in particular,
 - (i) options to be employed to reduce any adverse environmental effects of the discharge; and
 - (ii) monitoring of the performance of the discharge management system; and
- (d) Any staged timeframe and any environmental management plan to achieve:
 - (i) Compliance with the permitted activity rules and Schedule 16 discharge thresholds for the duration of the consent; or
 - (ii) The demonstrable reduction of adverse environmental effects of the discharge over the duration of the consent; and
- (e) Trends in the quality of the receiving water relative to the Schedule 15 freshwater characteristics, limits, and targets and relative to any national bottom lines specified in Appendix 2A and 2B of the NPS-FM; and
- (f) The extent to which potentially significant, adverse effects arising from the discharge are avoided; and
- (g) The value of the existing investment in infrastructure; and

- (h) The current state of technical knowledge and the use of industry best practice for managing environmental effects; and
- (i) The extent to which co-ordinating the discharges across multiple landholdings enables water quality objectives to be more effectively met; and
- (j) The social, cultural and economic value of the use of land and water that gives rise to the discharge.

7.D.6

Part A:
Discharge
policies

When considering applications for resource consent for discharges of nitrogen onto or into land in circumstances where it may enter water under Rule 12.C.3.2:

- (a) Restrict the duration of resource consents to a term of no more than 10 years; and
- (b) Have particular regard to:
 - (i) The water quality of the receiving water body; and
 - (ii) Any adverse effects on the natural or human use values of the receiving water body as set out in Schedule 1; and
 - (iii) Any adverse effects on Kāi Tahu cultural and spiritual beliefs, values and uses; and
 - (iv) Any measures proposed to reduce nitrogen discharged over the term of the resource consent, including any changes to land management practices or infrastructure; and
 - (iv) The benefits of aligning the expiry date with other resource consents for the same activity in the surrounding area or catchment.

7.D.7

Part B:
Animal waste
storage and
discharge

Ensure the appropriate management and operation of animal effluent systems and management of the application of animal effluent to land by:

- (a) Requiring animal effluent systems to be designed, constructed and located appropriately and in accordance with good management practice; and
- (b) Ensuring that all animal effluent systems:
 - (i) Have sufficient storage capacity to ensure that the disposal of effluent to land does not occur under conditions that will result in contaminants entering into water; and
 - (ii) Include contingency measures to prevent discharges of effluent to a water body, an artificial watercourse, or the coastal marine area, either directly or indirectly, in the case of equipment or system failure; and
 - (ii) Are operated in accordance with a management plan for the system that is based on good management practice and are inspected regularly; and
- (c) Avoiding the discharge of liquid and solid animal effluent to:

- (i) water bodies, artificial watercourses, bores and soak holes, and the coastal marine area; and
 - (ii) land in a manner that results in ponding or overland flow to water; and
 - (iii) land when the soil moisture exceeds field capacity; and
- (d) Requiring effluent application to be in accordance with good management practice.

7.D.8 Provide for the upgrading of existing animal effluent storage facilities that do not meet the standards in Rule 14.7.1.1 by:

Part B:
Animal waste
storage and
discharge

- (a) Granting resource consents only where consent applications contain a timebound action plan for upgrading the existing animal effluent storage facility so that it meets the standards in Rule 14.7.1.1 as soon as possible; and
- (b) Staging implementation of performance standards based on risk in accordance with Rule 14.7.1.2 and Schedule 19.

7.D.9 Enable farming activities while reducing their adverse environmental effects by:

Part C:
Good farming
practices

- (a) Promoting the implementation of good management practices (or better) to reduce sediment and contaminant loss to water bodies; and
- (b) Managing the risk of sediment and contaminants in run off entering water as a result of farming activities by:
 - (i) Implementing setbacks from rivers, lakes, drains (excluding sub-surface drains), natural wetlands or the coastal marine area and establishing or maintaining riparian vegetation,
 - (ii) Limiting areas and duration of exposed soil,
 - (iii) Managing stock access to water bodies to avoid significant adverse effect on water quality, bed and bank integrity and stability, Kai Tahu cultural and spiritual beliefs, values and uses, and river and riparian ecosystems and habitats,
 - (iv) Setting interim minimum standards for intensive winter grazing; and
 - (v) Managing critical source areas.

7.D.10 The loss or discharge of sediment from earthworks is avoided or, where avoidance is not achievable, best practice guidelines for minimising sediment loss are implemented.

Part G:
Sediment from
earthworks for
residential
development

7.6 Policies for the enhancement of water quality *[Repealed – 1 May 2014]***7.7 Policies for point source discharges** *[Repealed – 1 May 2014]*

7.7.1 *[Repealed – 1 May 2014]*

7.7.2 *[Amended to 7.B.4 – 1 May 2014]*

7.7.3 *[Renumbered as 7.C.1 – 1 May 2014]*

7.7.4 *[Renumbered as 7.C.2 – 1 May 2014]*

7.7.5 *[Repealed – 1 May 2014]*

7.7.6 *[Amended to 7.B.6 – 1 May 2014]*

7.7.7 *[Renumbered as 7.C.3 – 1 May 2014]*

7.7.8 *[Repealed – 1 May 2014]*

7.7.9 *[Renumbered as 7.C.4 – 1 May 2014]*

7.7.10 *[Renumbered as 7.C.5 – 1 May 2014]*

7.7.11 *[Renumbered as 7.C.6 – 1 May 2014]*

7.8 Policies for non-point source discharges *[Repealed – 1 May 2014]*

7.8.1 *[Repealed – 1 May 2014]*

7.8.2 *[Renumbered as 7.C.7 – 1 May 2014]*

7.8.3 *[Renumbered as 7.C.8 – 1 May 2014]*

7.8.4 *[Renumbered as 7.C.9 – 1 May 2014]*

7.8.5 *[Renumbered as 7.C.10 – 1 May 2014]*

7.8.6 *[Renumbered as 7.C.11 – 1 May 2014]*

7.9 Anticipated environmental results *[Repealed – 1 May 2014]*

W A T E R Q U A L I T Y

Chapter 12
Rules: Water Take, Use and Management

12

Rules: Water Take, Use and Management



12.0 Applications for taking water

12.0.1 Prohibited activity: No resource consent will be granted

12.0.1.1 An application to take water within primary allocation in a catchment where Policy 6.4.2(b) applies, by a person who does not hold the existing consent to take that water, is a *prohibited* activity.

12.0.1.2 An application to take water as primary allocation where that take would cause the primary allocation of a catchment to exceed the relevant limit in Policy 6.4.2, is a *prohibited* activity.

12.0.1.3 The application to take groundwater for a consumptive use by a person who does not hold the existing resource consent to take that water, from an aquifer identified in Schedule 4A, where the assessed maximum annual take:

- (i) Exceeds the aquifer's maximum allocation limit; or
- (ii) Would exceed the aquifer's maximum allocation limit as a result of this take,

is a *prohibited* activity, unless all of the water taken:

- (1) Is allocated as surface water under Policy 6.4.1A; or
- (2) Is taken for temporary dewatering at a site for construction or repair of a structure.

The Otago Regional Council will use its website www.orc.govt.nz to notify an up-to-date allocation status for aquifers, showing how current allocation compares to the scheduled or default maximum allocation limit (MAL) and will, upon request, advise the applicant of the aquifer's current allocation status before any application is made.

12.0.1.4 *[Repealed – 1 September 2015]*

12.1 The taking and use of surface water

12.1.1 Prohibited activities: No resource consent will be granted

12.1.1.1 The taking and use of surface water from Lake Tuakitoto when the level of the lake is below 100.77 metres above datum, during the period beginning 30 September in any year and ending 16 May in any following year, is a *prohibited* activity for which no resource consent will be granted.

12.1.1.2 The taking and use of surface water for nuclear power generation or nuclear weapon manufacturing is a *prohibited* activity for which no resource consent will be granted.

12.1.1A Non-complying activities: Resource consent required

12.1.1A.1 The taking and use of surface water within any Regionally Significant Wetland is a *non-complying* activity unless:

- (i) It is prohibited by Rules 12.1.1.1 or 12.1.1.2; or
- (ii) It is permitted by Rules 12.1.2.1, 12.1.2.3, or 12.1.2.6.

An application involving wind energy infrastructure, which because of specific locational constraints affects a Regionally Significant Wetland, will not be bundled with other activities which do not affect a Regionally Significant Wetland.

12.1.1A.2 Except as provided for by Rules 12.1.1.2 to 12.1.5.1 and 12.1.1A.3, the taking and use of surface water in the Waitaki catchment when, by itself or in combination with any other take, use, dam or diversions, the sum of the annual volumes authorised by resource consent, exceeds the allocations to activities set out in Rules 12.1.4.5 to 12.1.4.7 is a *non-complying* activity.

In considering an application to which this rule applies the consent authority will have regard, among other matter to Policies 6.6A.1 to 6.6A.5.

12.1.1A.3 Except as provided for by Rules 12.1.1.2 and 12.1.1A.1, the taking and use of surface water from Welcome Creek is a *non-complying* activity when:

- (i) By itself or in combination with any other take, use, dam or diversions, the sum of the annual volumes authorised by resource consent, exceeds the allocations to activities set out in Rule 12.1.4.2; and
- (ii) The take does not comply with the minimum flow specified in Schedule 2A.

In considering an application to which this rule applies the consent authority will have regard, among other matters, to Policies 6.6A.1 to 6.6A.6.

12.1.2 Permitted activities: No resource consent required

12.1.2.0 The use of surface water for the purpose specified under an existing resource consent to take surface water, granted before 10 April 2010, is a *permitted* activity until the existing resource consent to take surface water:

- (a) Lapses, is surrendered or expires; or
- (b) Is replaced; or
- (c) Is varied under Section 127 of the Act; or
- (d) Is transferred under Section 136 (2)(b)(ii) of the Act.

12.1.2.1 The taking and use of surface water for domestic needs or the needs of animals for drinking water is a *permitted* activity providing:

- (a) No take is for a volume greater than 25,000 litres per day; and
 - (b) No take is at a rate greater than 0.5 litres per second in the North Otago, Maniototo or Central Otago subregions (as identified on Maps A1-A8), or greater than 1 litre per second elsewhere in Otago; and
 - (c) The taking or use does not have an adverse effect on the environment.
- 12.1.2.2 Except as provided for by Rules 12.1.1A.1 and 12.1.1.2, the taking and use of surface water from the main stem of the Clutha/Mata-Au or Kawarau Rivers, or Lakes Wanaka, Hawea, Wakatipu, Dunstan or Roxburgh, is a *permitted* activity, providing:
- (a) The take does not exceed 100 litres per second, nor 1,000,000 litres per day; and
 - (b) No more than one such take occurs per landholding; and
 - (c) No back-flow of any contaminated water occurs to the water body; and
 - (d) Fish are prevented from entering the intake structure.
- 12.1.2.3 Except as provided for by Rule 12.1.1.2, the taking and use of surface water from any artificial lake is a *permitted* activity providing:
- (a) The artificial lake was created under Rule 12.3.2.1 or under the Transitional Regional Plan rule constituted by General Authorisation 13, prior to 28 February 1998; and
 - (b) The water is taken by the owner of the dam structure, or the take is authorised by that owner.
- 12.1.2.4 Except as provided for by Rules 12.1.1.1 to 12.1.2.3, the taking and use of surface water for no more than 3 days in any one month, is a *permitted* activity, providing:
- (a) The water is not used for irrigation; and
 - (b) There is no change to the water level range or hydrological function of any Regionally Significant Wetland; and
 - (c) There is no damage to fauna, or New Zealand native flora, in or on any Regionally Significant Wetland; and
 - (d) No lawful take of water is adversely affected as a result of the taking; and
 - (e) No take is for a volume greater than 100,000 litres per day; and
 - (f) No take is at a rate greater than 10 litres per second; and
 - (g) No back-flow of any contaminated water occurs to the water body; and
 - (h) Fish are prevented from entering the intake structure; and

- (i) The taking of surface water is not suspended.

The Otago Regional Council may, by public notice, suspend the taking of water under this rule if the taking of water as primary allocation, under a resource consent has had to cease in accordance with Rule 12.1.4.9, for the catchment or river, or part of the catchment or river, at which the taking of water under this rule is occurring.

12.1.2.5 Except as provided for by Rules 12.1.1.1 to 12.1.2.4, the taking and use of surface water is a *permitted* activity, providing:

- (a) There is no change to the water level range or hydrological function of any Regionally Significant Wetland; and
- (b) There is no damage to fauna, or New Zealand native flora, in or on any Regionally Significant Wetland; and
- (c) No lawful take of water is adversely affected as a result of the taking; and
- (d) No take is for a volume greater than 25,000 litres per day at any landholding; and
- (e) No take is at a rate greater than 0.5 litres per second in the North Otago, Maniototo or Central Otago subregions (as identified on Maps A1-A8), or greater than 1 litre per second elsewhere in Otago; and
- (f) No back-flow of any contaminated water occurs to the water body; and
- (g) Fish are prevented from entering the intake structure; and
- (h) The taking of surface water is not suspended.

The Otago Regional Council may, by public notice, suspend the taking of water under this rule if the taking of water as primary allocation, under a resource consent has had to cease in accordance with Rule 12.1.4.9, for the catchment or river, or part of the catchment or river, at which the taking of water under this rule is occurring.

12.1.2.6 Unless prohibited by Rules 12.1.1.1 or 12.1.1.2, the taking of surface water for the purpose of land drainage is a *permitted* activity, providing:

- (a) Any taking within a Regionally Significant Wetland was lawfully established prior to 2 July 2011; and
- (b) There is no change to the water level range or hydrological function of any Regionally Significant Wetland; and
- (c) There is no damage to fauna, or New Zealand native flora, in or on any Regionally Significant Wetland; and
- (d) The taking does not result in the lowering of the level of water in any lake or river; and

- (e) The taking does not cause flooding of any other person's property, erosion, land instability, sedimentation or property damage.

12.1.3 Controlled activity: Consent required but always granted

- 12.1.3.1 Unless covered by Rule 12.1.1A.1, the taking and use of surface water for community water supply, up to any volume or rate authorised as at 28 February 1998, by any take identified in Schedule 1B is a *controlled* activity.

In granting any resource consent for the taking and use of surface water in terms of this rule, the Otago Regional Council will restrict the exercise of its control to the following:

- (a) Any need for a residual flow at the point of take; and
- (b) Any need to prevent fish entering the intake; and
- (c) The rate, volume, timing and frequency of the water to be taken and used; and
- (d) The quantity of water required to meet the needs of the community; and
- (e) The proposed method of take and delivery of the water taken; and
- (f) The duration of the resource consent; and
- (g) The information and monitoring requirements; and
- (h) Any bond; and
- (i) The review of conditions of the resource consent; and
- (j) Any effect on any Regionally Significant Wetland or on any regionally significant wetland value.

The Consent Authority is precluded from giving public notification of an application for a resource consent under this rule.

12.1.4 Restricted discretionary activities: Resource consent required

- 12.1.4.1 Except as provided for by Rule 12.1.2.3, the taking and use of surface water from any lake or river which has already been delivered to that lake or river for the purpose of this subsequent taking is a *restricted discretionary* activity.

In considering any resource consent for the taking and use of water in terms of this rule, the Otago Regional Council will restrict the exercise of its discretion to the following:

- (a) The amount of water which can be taken, having regard to the amount delivered to the lake or river and any losses that may have occurred between the point of augmentation and the take; and
- (b) Any need to prevent fish entering the intake; and

- (c) The duration of the resource consent; and
- (d) The information and monitoring requirements; and
- (e) Any bond; and
- (f) The review of conditions of the resource consent.

Applications may be considered without notification under Section 93 and without service under Section 94(1) of the Resource Management Act on persons who, in the opinion of the consent authority, may be adversely affected by the activity.

Note:

Rules 12.1.4.2 to 12.1.4.7 below do not apply to the taking of surface water prohibited by rules in 12.0, or provided for by permitted and controlled activity rules in 12.1.2 and 12.1.3 above.

For taking water:

1. *From Lakes Dunstan, Hawea, Roxburgh, Wanaka, Wakatipu or the main stem of the Clutha/Mata-Au or Kawarau Rivers; or*
2. *Where all of the surface water or connected groundwater taken is immediately returned to the source water body; or*
3. *Where all of the water has been delivered to the source water body for the purpose of that subsequent take:*

Any take which does not meet the permitted activity standards is considered under Rules 12.1.4.1, 12.1.5.1 or in Section 12.1.1A, as it is exempt from primary allocation in accordance with Policy 6.4.1.

12.1.4.2 Taking and use of surface water as primary allocation in the following Schedule 2A catchment areas, shown on the B-series maps:

Kakanui,
 Lake Hayes,
 Lake Tuakitoto,
 Pomahaka,
 Shag,
 Taieri Catchment upstream of Paerau,
 Taieri Catchment Sutton to Outram,
 Trotters,
 Waianakarua,
 Waitahuna,
 Waiwera,
 Water of Leith, and
 Welcome Creek:

- (i) This rule applies to the taking of surface water, as primary allocation, in the above catchment areas, and subject to the minimum flows specified in Schedule 2A.

- (ii) Unless covered by Rule 12.1.1A.1, the taking and use of surface water to which this rule applies is a **restricted discretionary** activity, provided that, in the case of Welcome Creek, by itself or in combination with any other take, use, dam, or diversion, the sum of the annual volumes authorised by resource consent, does not exceed the allocation to activities set out in Table 12.1.4.2.
- (iii) The matters to which the Otago Regional Council has restricted the exercise of its discretion are set out in Rule 12.1.4.8.
- (iv) The conditions of all existing consents will be reviewed by the Otago Regional Council under Sections 128 to 132 of the Act to enable the minimum flows specified in Schedule 2A to be met, the volume and rate of take to be measured in accordance with Policy 6.4.16 and the taking to be subject to Rule 12.1.4.9, as soon as practicable after the Plan becomes operative.

Table 12.1.4.2

Annual allocation to activities

Note: units = millions of m³ per year

	Town and Community water supply	Industrial and commercial activities (outside municipal or town supply areas)	Tourism and recreational facilities	Agricultural and horticultural activities	Any other activities*	Hydro-electricity generation*
Downstream of Waitaki Dam but downstream of Black Point	19	8.5	4.3	1100	144	All other flows except the flows that must remain in the rivers, pursuant to the environmental flow and level regimes

* Water taken or diverted and returned to the same water body in the vicinity of the take or diversion point, in the same condition and quality as taken, for fisheries and wildlife or micro hydro-electricity generation, does not need to be accounted for in the annual allocation to activities in Table 12.1.4.2.

12.1.4.3 Taking and use of surface water as supplementary allocation specified in Schedule 2B:

- (i) This rule applies to the taking of surface water as supplementary allocation as specified in Schedule 2B, subject to the minimum flows specified in Schedule 2B.
- (ii) Unless covered by Rule 12.1.1A.1, the taking and use of surface water to which this rule applies is a **restricted discretionary** activity. The matters to which the Otago Regional Council has restricted the exercise of its discretion are set out in Rule 12.1.4.8.

- (iii) Unless covered by Rule 12.1.1A.1, the taking and use of surface water in the Waitaki catchment to which this rule applies is a **restricted discretionary** activity provided that by itself or in combination with any other take, use, dam, or diversion, the sum of the annual volumes authorised by resource consent, does not exceed the allocation to activities set out in Table 12.1.4.2 and is subject to Rule 12.1.4.9. The matters to which the Otago Regional Council has restricted the exercise of its discretion are set out in Rule 12.1.4.8.
- (iv) The conditions of all existing consents will be reviewed by the Otago Regional Council under Sections 128 to 132 of the Act to enable the minimum flows set in Schedule 2A or Schedule 2B to be met, the volume and rate of take to be measured in accordance with Policy 6.4.16 and the taking to be subject to Rule 12.1.4.9, as soon as practicable after the Plan becomes operative.

12.1.4.4 Taking and use of surface water as primary allocation applied for prior to 28 February 1998 in the following Schedule 2A catchments, shown on the B-series maps:

- Luggate Catchment,
 Manuherikia Catchment Upstream of Ophir,
 Taieri Catchment Paerau to Waipiata,
 Taieri Catchment Waipiata to Tiroiti, and
 Taieri Catchment Tiroiti to Sutton:
- (i) This rule applies to the taking of surface water, as primary allocation, in the above catchment areas, if the taking was the subject of a resource consent or other authority:
 - (a) Granted before 28 February 1998; or
 - (b) Granted after 28 February 1998, but was applied for prior to 28 February 1998; or
 - (c) Granted to replace a resource consent or authority of the kind referred to in paragraph (a) or (b).
 - (ii) Unless covered by Rule 12.1.1A.1, the taking and use of surface water to which this rule applies is a **restricted discretionary** activity. The matters to which the Otago Regional Council has restricted the exercise of its discretion are set out in Rule 12.1.4.8.
 - (iii) The minimum flows set out in Schedule 2A of this Plan for the above catchments shall affect the exercise of every resource consent or other authority, of the kind referred to in paragraph (i) of this rule, in the Luggate catchment area, Manuherikia catchment area (upstream of Ophir) and Taieri catchment areas Paerau to Waipiata, Waipiata to Tiroiti and Tiroiti to Sutton, upon review of consent conditions.
 - (iv) The conditions of all such consents will be reviewed by the Otago Regional Council under Sections 128 to 132 of the Act

to enable the minimum flows set by Schedule 2A to be met, the volume and rate of take to be measured in accordance with Policy 6.4.16 and the taking to be subject to Rule 12.1.4.9.

- (v) The minimum flows set in Schedule 2A for the Luggate catchment area, Manuherikia catchment area (upstream of Ophir) and Taieri catchment areas Paerau to Waipiata, Waipiata to Tiroiti and Tiroiti to Sutton, shall not apply to any consents referred to in clause (i), paragraphs (a) to (c) of this rule until the review of consent conditions set out in clause (iv) of this rule occurs.

12.1.4.4A *[Repealed – 1 March 2012]*

12.1.4.5 Taking and use of surface water as primary allocation applied for prior to 28 February 1998 in catchments not listed in Schedule 2A:

- (i) This rule applies to the taking of surface water, as primary allocation, in catchment areas not listed in Schedule 2A, if the taking was the subject of a resource consent or other authority:
 - (a) Granted before 28 February 1998; or
 - (b) Granted after 28 February 1998, but was applied for prior to 28 February 1998; or.
 - (c) Granted to replace a resource consent or authority of the kind referred to in paragraph (a) or (b).
- (ii) Unless covered by Rule 12.1.1A.1, the taking and use of surface water to which this rule applies is a **restricted discretionary** activity. The matters to which the Otago Regional Council has restricted the exercise of its discretion are set out in Rule 12.1.4.8.
- (iii) Unless covered by Rule 12.1.1A.1, the taking and use of surface water in the Waitaki catchment to which this rule applies is a **restricted discretionary** activity provided that by itself or in combination with any other take, use, dam, or diversions, the sum of the annual volumes authorised by resource consent, does not exceed the allocation to activities set out in Table 12.1.4.2. The matters to which the Otago Regional Council has restricted the exercise of its discretion are set out in Rule 12.1.4.8.
- (iv) Takes to which this rule applies will not be subject to a minimum flow condition until the minimum flow has been determined by investigation and added to Schedule 2A by a plan change.

Note: If a minimum flow has been determined for a catchment previously not listed in Schedule 2A, and that minimum flow

has been set by a plan change, the catchment will then be listed in Schedule 2A and Rule 12.1.4.2 or Rule 12.1.4.4 will apply.

12.1.4.6 Taking and use of surface water as a new primary allocation take in catchment areas not listed in Schedule 2A:

- (i) This rule applies to the taking of surface water as primary allocation in catchment areas not listed in Schedule 2A, and not subject to Rule 12.1.4.5.
- (ii) Unless covered by Rule 12.1.1A.1, the taking and use of surface water to which this rule applies is a **restricted discretionary** activity. The matters to which the Otago Regional Council has restricted the exercise of its discretion are set out in Rule 12.1.4.8.
- (iii) Unless covered by Rule 12.1.1A.1, the taking and use of surface water in the Waitaki catchment to which this rule applies is a **restricted discretionary** activity provided that by itself or in combination with any other take, use, dam, or diversions, the sum of the annual volumes authorised by resource consent, does not exceed the allocation to activities set out in Table 12.1.4.2. The matters to which the Otago Regional Council has restricted the exercise of its discretion are set out in Rule 12.1.4.8.
- (iv) Minimum flows for catchments not listed in Schedule 2A will be set on a case-by-case basis such that any minimum flow set will allow the taking of water, while providing for the aquatic ecosystems and natural character of the catchment water bodies and the taking to be subject to Rule 12.1.4.9.
- (v) The minimum flows set on a case-by-case basis will continue to apply until investigations have established the appropriate minimum flow. The new minimum flow will be added to Schedule 2A by a plan change and Rule 12.1.4.2 or Rule 12.1.4.4 will then apply.

12.1.4.7 Taking and use of surface water as supplementary allocation in any catchment other than a Schedule 2B catchment:

- (i) This rule applies to the taking of surface water as supplementary allocation for any catchment area, except for any Schedule 2B catchment as set out in clause (ii) below, subject to the minimum flows set in paragraph (iii) below.
- (ii) This rule does not apply to the taking of any surface water that is in addition to the first supplementary allocation provided for by Schedule 2B, for any catchment area in Rule 12.1.4.3.
- (iii) The taking of surface water as supplementary allocation for any catchment is subject to a minimum flow which is not less than either:
 - (a) 50% of the natural flow at the point of take, or, if a

resource consent so provides, not less than 50% of the natural flow at a point specified in the resource consent;
or

- (b) The natural mean flow at the point of take, or, if a resource consent so provides, not less than the natural mean flow at a point specified in the resource consent, as the Otago Regional Council determines in granting a resource consent.
- (iv) Unless covered by Rule 12.1.1A.1, the taking and use of surface water to which this rule applies is a **restricted discretionary** activity, and is subject to Rule 12.1.4.9. The matters to which the Otago Regional Council has restricted the exercise of its discretion are set out in Rule 12.1.4.8.
- (v) Unless covered by Rule 12.1.1A.1, the taking and use of surface water in the Waitaki catchment to which this rule applies is a **restricted discretionary** activity provided that by itself or in combination with any other take, use, dam, or diversions, the sum of the annual volumes authorised by resource consent, does not exceed the allocation to activities set out in Table 12.1.4.2 and is subject to Rule 12.1.4.9. The matters to which the Otago Regional Council has restricted the exercise of its discretion are set out in Rule 12.1.4.8.
- (vi) This rule shall affect the exercise of any resource consent which was either:
 - (a) Granted before 28 February 1998; or
 - (b) Granted after 28 February 1998 but was applied for prior to 28 February 1998,

for the taking of surface water where a condition on the consent requires the take to be suspended at a minimum flow higher than that which would be set by Schedule 2A.
- (vii) The conditions of all such resource consents will be reviewed under Sections 128 to 132 of the Act to enable the minimum flows in paragraph (iii)(a) or (iii)(b) of this rule to be met, the volume and rate of take to be measured in accordance with Policy 6.4.16 and the taking to be subject to Rule 12.1.4.9, as soon as practicable after the Plan becomes operative.

12.1.4.8 Restricted discretionary activity considerations

In considering any resource consent for the taking and use of water in terms of Rules 12.1.4.2 to 12.1.4.7 and 12.2.3.1A, the Otago Regional Council will restrict the exercise of its discretion to the following:

- (i) The primary and supplementary allocation limits for the catchment; and
- (ii) Whether the proposed take is primary or supplementary allocation for the catchment; and

- (iii) The rate, volume, timing and frequency of water to be taken and used; and
- (iv) The proposed methods of take, delivery and application of the water taken; and
- (v) The source of water available to be taken; and
- (vi) The location of the use of the water, when it will be taken out of a local catchment; and
- (vii) Competing lawful local demand for that water; and
- (viii) The minimum flow to be applied to the take of water, if consent is granted; and
- (ix) Where the minimum flow is to be measured, if consent is granted; and
- (x) The consent being exercised or suspended in accordance with any Council approved rationing regime; and
- (xi) Any need for a residual flow at the point of take; and
- (xii) Any need to prevent fish entering the intake and to locate new points of take to avoid adverse effects on fish spawning sites; and
- (xiii) Any effect on any Regionally Significant Wetland or on any regionally significant wetland value; and
- (xiv) Any financial contribution for regionally significant wetland values or Regionally Significant Wetlands that are adversely affected; and
- (xv) Any actual or potential effects on any groundwater body; and
- (xvi) Any adverse effect on any lawful take of water, if consent is granted, including potential bore interference; and
- (xvii) Whether the taking of water under a water permit should be restricted to allow the exercise of another water permit; and
- (xviii) Any arrangement for cooperation with other takers or users; and
- (xix) Any water storage facility available for the water taken, and its capacity; and
- (xx) The duration of the resource consent; and
- (xxi) The information, monitoring and metering requirements; and
- (xxii) Any bond; and
- (xxiii) The review of conditions of the resource consent; and
- (xxiv) For resource consents in the Waitaki catchment the matters in (i) to (xxiii) above, as well as matters in Policies 6.6A.1 to 6.6A.6.

Notification and written approvals

- (a) For applications for resource consent to which this Rule applies, to take and use water from a river, the Consent Authority is precluded from giving public notification, if the application is to take and use water from:
 - (i) A river for which a minimum flow has been set by or under this Plan; or
 - (ii) A river for which it is not necessary for the Council to consider whether, if consent is granted, the taking should be subject to a condition requiring a residual flow to remain in the river at the point of take, or a condition requiring other provision for native fish, other than a condition requiring fish screening.

Other applications for resource consent to take and use water from a river may be considered without notification as allowed by the Resource Management Act.

- (b) For applications for resource consent to which this rule applies, to take and use water from a water body other than a river, the Consent Authority is precluded from giving public notification.

12.1.4.9 The suspension of takes

It is a term of any taking of surface water under Rules 12.1.1A.1, 12.1.2.4, 12.1.2.5 and 12.1.4.2 to 12.1.4.7 that, when the flow is equal to or less than a minimum flow applied by or under these rules, the Council may, by public notice, suspend all taking to enable the minimum flow to be met.

For catchments that have access to flow information via the “Water Info” telephone service, the taking of water under those consents shall cease automatically (without notification by Council) when the flow is at or below the minimum set in Schedule 2A or 2B until the flow again exceeds the minimum flow specified in Schedule 2A or 2B.

For catchments or parts of catchments where there is no access to flow information via the “Water Info” telephone service, the Council will notify the consent holders in those catchments that the taking of water shall cease. The Otago Regional Council will suspend takes in these catchments, or parts of catchments, by public notification through public media (newspaper, radio, television) until further notice that taking can recommence.

12.1.5 Discretionary activities: Resource consent required

12.1.5.1 Except as provided for by Rules 12.1.1.1 to 12.1.4.7, the taking and use of surface water is a *discretionary* activity.

12.1.6 *[Moved to 12.1.1A – 1 October 2013]*

Principal reasons for adopting

The taking and use of water can only occur if it is expressly allowed by a rule in a regional plan, or in any relevant proposed regional plan, or by a resource consent (Section 14(3) of the Resource Management Act).

Rule 12.1.1.1 is adopted to prohibit takes of water from Lake Tuakitoto when the minimum level established by this Plan is in force. This rule continues the minimum lake level already established to protect the lake’s recreational and wildlife features by The Local Water Conservation (Lake Tuakitoto) Notice, 1991.

Rule 12.1.1.2 is adopted to provide for and be fully consistent with Policy 12.5.1 of the Regional Policy Statement for Otago. The rule prohibits all taking of surface water for use in nuclear power generation plants and in nuclear weapons manufacturing.

Rule 12.1.2.0 is adopted to permit the use of surface water taken under a resource consent granted prior to 10 April 2010.

The taking and use of surface water under Rules 12.1.2.1 to 12.1.2.6 will have no more than minor adverse effects on the natural and human use values supported by water bodies, or on any other person taking water. These rules are adopted to enable access to resources while providing protection for those values and uses.

The taking and use of surface water for existing community water supply identified in Schedule 1B is a controlled activity in order that the needs of Otago’s communities can continue to be met.

Where surface water that is to be taken and used has been specifically supplied from an augmentation scheme, the Council only needs to consider what portion of that water is still available to be taken, and the quantity of water required for the intended purpose of use. Therefore the taking and use of water, delivered for the purpose of that subsequent taking, is a restricted discretionary activity.

The taking of surface water within the primary and supplementary allocation limits identified in this Plan will be subject to minimum flows which will protect aquatic ecosystems and natural character. As such, the Council has restricted the exercise of its discretion when considering applications for resource consents under Rules 12.1.4.1 and 12.1.4.2 to 12.1.4.7, to take and use water. Any other activity involving the taking and use of surface water is either a discretionary activity or a non-complying activity in order that any adverse effects can be assessed. Non-complying activity rules 12.1.1A.2 and 12.1.1A.3 were added to this Plan by the Waitaki Catchment Water Allocation Regional Plan.

12.2 The taking and use of groundwater

Note: The construction or alteration of any bore for taking groundwater requires a resource consent under Rule 14.1.1.

12.2.1 Prohibited activities: No resource consent will be granted

12.2.1.1 The taking and use of groundwater for nuclear power generation or nuclear weapon manufacturing is a *prohibited* activity for which no resource consent will be granted.

12.2.1.2 The taking and use of groundwater from within 100 metres of Lake Tuakitoto when the level of the lake is below 100.77 metres above datum, during the period beginning 30 September in any year and ending 16 May in any following year, is a *prohibited* activity for which no resource consent will be granted.

12.2.1A Non-complying activities: Resource consent required

12.2.1A.1 The taking of groundwater within any Regionally Significant Wetland is a *non-complying* activity unless:

- (i) It is prohibited by Rules 12.2.1.1. or 12.2.1.2; or
- (ii) It is permitted by Rules 12.2.2.1 or 12.2.2.3.

An application involving wind energy infrastructure, which because of specific locational constraints affects a Regionally Significant Wetland, will not be bundled with other activities which do not affect a Regionally Significant Wetland.

12.2.1A.2 Except as provided for by Rules 12.2.1.1 and 12.2.1A.1, the taking and use of groundwater in the Waitaki catchment when, by itself or in combination with any other take, use, dam or diversions, the sum of the annual volumes authorised by resource consent, exceeds the allocations to activities set out in Rule 12.2.4.1 is a *non-complying* activity.

In considering an application to which this rule applies the consent authority will have regard, among other matters, to Policies 6.6A.1 to 6.6A.6.

12.2.1A.3 The taking of groundwater for a consumptive use by a person who does not hold the existing resource consent to take that water, from an aquifer not identified in Schedule 4A, where the assessed maximum annual take:

- (i) Exceeds the aquifer's maximum allocation limit; or
- (ii) Would exceed the aquifer's maximum allocation limit as a result of this take,

is a *non-complying* activity, unless all of the water taken:

- (1) Is allocated as surface water under Policy 6.4.1A; or

- (2) Is taken for temporary dewatering at a site for construction or repair of a structure; or
- (3) Is taken from a rock formation having an average hydraulic conductivity of less than 1×10^{-5} metres per second, which is not an aquifer mapped in the C-series of this Plan, and is taken in connection with mineral extraction activities.

The Otago Regional Council will use its website www.orc.govt.nz to notify an up-to-date allocation status for aquifers, showing how current allocation compares to the scheduled or default maximum allocation limit (MAL) and will, upon request, advise the applicant of the aquifer's current allocation status before any application is made.

12.2.2 Permitted activities: No resource consent required

- 12.2.2.0 The use of groundwater for the purpose specified under an existing resource consent to take groundwater, granted before 10 April 2010, is a **permitted** activity until the existing resource consent to take groundwater:
 - (a) Lapses, is surrendered or expires; or
 - (b) Is replaced; or
 - (c) Is varied under Section 127 of the Act; or
 - (d) Is transferred under Section 136 (2)(b)(ii) of the Act.

- 12.2.2.1 The taking and use of groundwater for domestic needs or the needs of animals for drinking water is a **permitted** activity providing:
 - (a) No take is for a volume greater than 25,000 litres per day; and
 - (b) The taking or use does not have an adverse effect on the environment.

- 12.2.2.2 Except as provided for by Rules 12.2.1.1 to 12.2.2.1, the taking and use of groundwater is a **permitted** activity, providing:
 - (a) No lawful take of water is adversely affected as a result of the taking; and
 - (b) The water is not taken from any aquifer identified in Schedule 2C; and
 - (c) The water is not taken from within 100 metres of any wetland, lake or river; and
 - (d) *[Repealed – 1 March 2012]*
 - (e) *[Repealed – 1 March 2012]*
 - (f) The take is for a volume no greater than 50,000 litres per day, at any landholding, from the following aquifers:
 - (i) Lower Waitaki Plains Groundwater Protection Zone A (as identified on Maps C15 and C16); and

- (ii) Inch Clutha Gravel (as identified on Maps C26 and C27); and
- (g) Except as provided by Condition (f) above, the take is for a volume no greater than 25,000 litres per day, at any landholding, elsewhere in Otago; and
- (h) No back-flow of any contaminated water occurs to the aquifer; and
- (i) The taking of groundwater is not suspended.

The Otago Regional Council may, by public notice, suspend the taking of water under this rule if the taking of water, under a resource consent has had to cease in accordance with Rule 12.2.3.5, for the aquifer from which the taking of water under this rule is occurring.

12.2.2.3 The taking of groundwater for the purpose of down-hole pump testing is a *permitted* activity, providing:

- (a) The take does not exceed 2,000,000 litres per day and is carried out for a period of no longer than three consecutive days; and
- (b) No lawful take of water is adversely affected as a result of the taking.

12.2.2.4 Except as provided for by Rule 12.2.1.1, the taking and use of groundwater from within 100 metres of the main stem of the Clutha/Mata-Au or Kawarau Rivers, or from within 100 metres of Lakes Wanaka, Hawea, Wakatipu, Dunstan or Roxburgh, is a *permitted* activity, providing:

- (a) The take does not exceed 100 litres per second, nor 1,000,000 litres per day; and
- (b) No more than one such take occurs per landholding; and
- (c) No back-flow of any contaminated water occurs to the water body; and
- (d) The take is not within 100 metres of any wetland or other lake or river; and
- (e) No lawful take of water, and no wetland or other lake or river, is adversely affected as a result of the taking.

12.2.2.5 Except as provided for by Rules 12.2.1.1 to 12.2.2.4, the taking and use of groundwater from:

- (i) Any aquifer listed in Schedule 2C; or
- (ii) Within 100 metres of any wetland, lake or river, for no more than 3 days in any one month, is a *permitted* activity, providing:
 - (a) The water is not used for irrigation; and
 - (b) There is no change to the water level range or hydrological function of any Regionally Significant Wetland; and

- (c) There is no damage to fauna, or New Zealand native flora, in or on any Regionally Significant Wetland; and
- (d) No lawful take of water is adversely affected as a result of the taking; and
- (e) No take is for a volume greater than 100,000 litres per day; and
- (f) No take is at a rate greater than 10 litres per second; and
- (g) No back-flow of any contaminated water occurs to the water body; and
- (h) The taking of surface water is not suspended.

The Otago Regional Council may, by public notice, suspend the taking of water under this rule if the taking of water as primary allocation, under a resource consent has had to cease in accordance with Rule 12.2.3.5, for the catchment or river, or part of the catchment or river, at which the taking of water under this rule is occurring.

12.2.2.6 Except as provided for by Rules 12.2.1.1 to 12.2.2.5, the taking and use of groundwater from:

- (i) Any aquifer listed in Schedule 2C; or
- (ii) Within 100 metres of any wetland, lake or river, is a *permitted* activity, providing:
 - (a) There is no change to the water level range or hydrological function of any Regionally Significant Wetland; and
 - (b) There is no damage to fauna, or New Zealand native flora, in or on any Regionally Significant Wetland; and
 - (c) No lawful take of water is adversely affected as a result of the taking; and
 - (d) No take is for a volume greater than 25,000 litres per day at any landholding; and
 - (e) No take is at a rate greater than 0.5 litres per second in the North Otago, Maniototo or Central Otago subregions (as identified on Maps A1–A8), or greater than 1 litre per second elsewhere in Otago; and
 - (f) No back-flow of contaminated water occurs to the water body; and
 - (g) The taking of surface water is not suspended.

The Otago Regional Council may, by public notice, suspend the taking of water under this rule if the taking of water as primary allocation, under a resource consent has had to cease in accordance with Rule 12.2.3.5, for the catchment or river, or part of the catchment or river, at which the taking of water under this rule is occurring.

12.2.2.A Controlled activity: Consent required but always granted

12.2.2A.1 Unless covered by Rule 12.2.1A.1, the taking and use of groundwater for community water supply, by any take identified in Schedule 3B, up to any volume or rate listed in Schedule 3B, is a **controlled** activity.

In granting any resource consent for the taking and use of groundwater in terms of this rule, the Otago Regional Council will restrict the exercise of its control to the following:

- (a) The need to observe a restriction level, and
- (b) The need for a residual flow at the point of take; and
- (c) The rate, volume, timing and frequency of the water to be taken and used; and
- (d) The quantity of water required to meet the needs of the community; and
- (e) The proposed methods of take and delivery of the water taken; and
- (f) The duration of the resource consent; and
- (g) The information and monitoring requirements; and
- (h) Any bond; and
- (i) The review of conditions of the resource consent; and
- (j) Any effect on any Regionally Significant Wetland or on any regionally significant wetland value.

The Consent Authority is precluded from giving public notification of an application for a resource consent under this rule.

12.2.3 Restricted discretionary activities: Resource consent required

12.2.3.1 *[Repealed – 1 March 2012]*

12.2.3.1A Unless covered by Rule 12.2.1A.1, the taking of groundwater from any Schedule 2C aquifer or from within 100 metres of any connected perennial surface water body, and the use of that groundwater, is a **restricted discretionary** activity, if all the standards and terms set out under Rules 12.1.4.1 to 12.1.4.7 that apply to the proposed taking and use are met, as if the take is surface water, except that any date should be read as 10 April 2010.

The matters to which the Otago Regional Council has restricted the exercise of its discretion are set out in Rule 12.1.4.8.

12.2.3.2 *[Repealed – 1 March 2012]*

12.2.3.2A Except as provided for by 12.0.1.3, 12.2.1A.3 and 12.2.3.1A, the taking and use of groundwater is a **restricted discretionary** activity, if:

- (a) The volume sought is within:
 - (i) The maximum allocation limit identified in Schedule

- 4A; or
- (ii) 50% of the mean annual recharge calculated under Schedule 4D, for any aquifer not identified in Schedule 4A; or
- (iii) That volume specified in an existing resource consent where the assessed maximum annual take of the aquifer exceeds its maximum allocation limit; and
- (b) It is subject to any aquifer restriction identified in Schedule 4B; and
- (c) Where the rate of surface water depletion is greater than 5 l/s, as calculated using Schedule 5A:
 - (i) Primary surface water allocation is available; and
 - (ii) For the Waitaki catchment, allocation to activities set out in Table 12.1.4.2 is available.

The matters to which the Otago Regional Council has restricted the exercise of its discretion are set out in Rule 12.2.3.4.

12.2.3.3 *[Repealed – 1 March 2012]*

12.2.3.4 Restricted discretionary activity considerations

In considering any resource consent for the taking and use of groundwater in terms of Rule 12.2.3.2A, the Otago Regional Council will restrict the exercise of its discretion to the following:

- (i) The maximum allocation limit for the aquifer; and
- (iA) The assessed maximum annual take for the aquifer; and
- (ii) The mean annual recharge of the aquifer; and
- (iii) The effect of the take on the hydrodynamic properties of the aquifer and the vulnerability of the aquifer to compaction; and
- (iv) Whether any part of the take would constitute allocation from any connected perennial surface water body, and the availability of that allocation; and
- (v) The rate, volume, timing and frequency of groundwater to be taken and used; and
- (vi) The proposed methods of take, delivery and application of the groundwater taken; and
- (vii) The source of groundwater available to be taken; and
- (viii) The location of the use of the groundwater, when it will be taken out of a local catchment; and
- (ix) In the case of takes from an aquifer identified in Schedule 4B, the restrictions for the aquifer (as identified in that schedule) to be applied to the take of groundwater, if consent is granted; and

- (x) The consent being exercised or suspended in accordance with any Council approved rationing regime; and
- (xi) Any adverse effect on the existing quality of groundwater in the aquifer; and
- (xii) Any irreversible or long term degradation of soils arising from the use of water for irrigation; and
- (xiii) Any actual or potential effects on any surface water body; and
- (xiv) Any adverse effect on the habitat of any indigenous freshwater fish species that are listed in Schedule 1AA; and
- (xv) Any effect on any Regionally Significant Wetland or on a regionally significant wetland value; and
- (xvi) Any financial contribution for regionally significant wetland values or Regionally Significant Wetlands that are adversely affected; and
- (xvii) Any adverse effect on any lawful take of water, if consent is granted, including potential bore interference; and
- (xviii) Whether the taking of water under a water permit should be restricted to allow the exercise of another water permit; and
- (xix) Any arrangement for cooperation with other takers or users; and
- (xx) Any water storage facility available for the groundwater taken, and its capacity; and
- (xxi) The duration of the resource consent; and
- (xxii) The information, monitoring and metering requirements; and
- (xxiii) Any bond; and
- (xxiv) The review of conditions of the resource consent; and
- (xxv) For resource consents in the Waitaki catchment the matters in (i) to (xxi) above, as well as matters in Policies 6.6A.1 to 6.6A.6.

Notification and written approvals

The Consent Authority is precluded from giving public notification of an application for a resource consent under this rule.

12.2.3.5 The suspension of takes

- (i) It is a term of any taking of groundwater under Rules 12.2.1A.1, 12.2.2.5, 12.2.2.6 and 12.2.3.1A that, when the flow in the catchment in which the take occurs is equal to or less than a minimum flow set by or under these rules, the Council may, by public notice, suspend all taking to enable the minimum flow to be met.

These catchments have access to flow information via the “Water Info” telephone service, and the taking of water under those consents shall cease automatically (without notification by Council) when the flow is at or below the minimum set in

Schedule 2A until the flow again exceeds the minimum flow specified in Schedule 2A.

- (ii) It is a term of any taking of groundwater under Rule 12.2.2.2 that, when the aquifer levels are equal to or less than those set by those rules, the Otago Regional Council may, by public notice, suspend the taking of groundwater to enable the restrictions to be met.
- (iii) Any notice given under paragraph (i) or (ii) of this rule comes into force on the date specified in the notice and continues in force until revoked by public notice. Any notice may relate to one or more catchments or aquifers.

12.2.4 Discretionary activities: Resource consent required

- 12.2.4.1
- (i) Except as provided for by Rules 12.2.1.1 to 12.2.3.5 the taking and use of groundwater is a *discretionary* activity.
 - (ii) Unless covered by Rule 12.2.1A.1, the taking and use of groundwater in the Waitaki catchment to which this rule applies is a *discretionary* activity provided that by itself or in combination with any other take, use, dam or diversions, the sum of the annual volumes authorised by resource consent, does not exceed the allocation to activities set out in Table 12.1.4.2. In considering an application to which this rule applies, the consent authority will have regard, among other matters, to Policies 6.6A.1 to 6.6A.6.

12.2.5 *[Moved to 12.2.1A – 1 October 2013]*

Principal reasons for adopting

The taking and use of groundwater can only occur if they are expressly allowed by a rule in a regional plan, or in any relevant proposed regional plan, or by a resource consent (Section 14(3) of the Resource Management Act).

Rule 12.2.1.1 is adopted to provide for and be fully consistent with Policy 12.5.1 of the Regional Policy Statement for Otago. The rule prohibits all taking of groundwater for use in nuclear power generation plants and in nuclear weapons manufacturing.

Rule 12.2.1.2 is adopted to prohibit takes of water from Lake Tuakitoto when the minimum level established by this plan is in force. This rule continues the minimum lake level already established to protect the lake's recreational and wildlife features by The Local Water Conservation (Lake Tuakitoto) Notice, 1991.

Rule 12.2.2.0 is adopted to permit the use of groundwater take under a resource consent granted prior to 10 April 2010.

The taking and use of groundwater under Rules 12.2.2.1 to 12.2.2.6 will have no more than minor adverse effects on the aquifer from which the water is taken,

any wetland, lake or river, or on any other person taking water. These rules are adopted to enable access to resources while providing protection for the existing consumptive uses of the groundwater.

The taking and use of groundwater under Rule 12.2.2A.1 for existing community water supply takes identified in Schedule 3B is a controlled activity in order that the needs of Otago's communities can continue to be met.

The taking of groundwater under Rule 12.2.3.1A is treated as surface water taking, subject to the standards and terms in the specified surface water rules, which include the minimum flows that apply in the relevant catchments. This will maintain surface water levels and the groundwater volume of the aquifers, protect aquifer ecosystems and natural character, while ensuring recognised uses can continue.

The taking of groundwater under Rule 12.2.3.2A, is treated as the taking of groundwater and part surface water, where surface water depletion is greater than 5 l/s. This will maintain the levels identified for the specified aquifers and the groundwater volume of the aquifers, while ensuring the aquifers' recognised uses can continue. This will also ensure that the effect of the take on the surface water body is recognised.

The Council has restricted the exercise of its discretion when considering applications for resource consents under Rules 12.2.3.1A and 12.2.3.2A.

Any other activity involving the taking of groundwater is either a discretionary activity or a non-complying activity in order that any adverse effects can be assessed. Non-complying activity Rule 12.2.1A.2 was added to this Plan by the Waitaki Catchment Water Allocation Regional Plan.

12.3 The damming or diversion of water

Note: The erection of a dam in the bed of a lake or river is covered by Rules 13.2.1.3 and 13.2.3.1.

12.3.1 Prohibited activities: No resource consent will be granted

12.3.1.1 The damming of the following rivers is a *prohibited* activity for which no resource consent will be granted:

- (a) Kawarau River main stem from Scrubby Stream to the Lake Wakatipu control gates (F41:035680 to F41:738667);
- (b) Shotover River main stem at or about F41:765680 to E40:662173);
- (c) Dart River/Te Awa Whakatipu main stem from Lake Wakatipu to confluence with Beans Burn (at or about E41:438853 to E40:375077);
- (d) Rees River main stem from Lake Wakatipu to confluence with Hunter Creek (at or about E41:448852 to E40:499117); and

- (e) Diamond Lake, Diamond Creek and Lake Reid (at or about E40:435975; E40:444963 to E40:450918).
- 12.3.1.2 The damming of Lake Wanaka and of the Upper Clutha River/Mata-Au between F40:050089 to F40:088067, other than for the duration of an emergency as declared by the Guardians of Lake Wanaka under the Lake Wanaka Preservation Act 1973, is a **prohibited** activity for which no resource consent will be granted.
- 12.3.1.3 The damming of the following rivers, other than for stockwater supply purposes, is a **prohibited** activity for which no resource consent will be granted:
- (a) Pomahaka River, including its tributaries, from its sources to its confluence (G45:447454) with the Clutha River/Mata-Au;
 - (b) Waipahi River from its source to its confluence (G45:194520) with the Pomahaka River; and
 - (c) Lower Clutha River/Mata-Au from its confluence (G45:447454) with the Pomahaka River to the sea at the mouths of the Matau and Koau Branches.
- 12.3.1.4 The diversion of surface water from Lake Tuakitoto when the level of the lake is below 100.77 metres above datum, during the period beginning 30 September in any year and ending 16 May in any following year, is a **prohibited** activity for which no resource consent will be granted.

12.3.1A Non-complying activities: Resource consent required

- 12.3.1A.1 The damming or diversion of water within any Regionally Significant Wetland is a **non-complying** activity unless:
- (i) It is prohibited by Rules 12.3.1.1 to 12.3.1.4; or
 - (ii) It is permitted by Rules 12.3.2.1 to 12.3.2.3; or
 - (iii) It is provided for by Rule 12.3.3.1.

An application involving wind energy infrastructure, which because of specific locational constraints affects a Regionally Significant Wetland, will not be bundled with other activities which do not affect a Regionally Significant Wetland.

- 12.3.1A.2 Except as provided for in Rules 12.3.1A.1 and 12.3.1A.3, the damming or diversion of water in the Waitaki catchment when, by itself or in combination with any other take, use, dam, or diversions, the sum of the annual volumes authorised by resource consent, exceeds the allocations to activities set out in Rules 12.3.3.1 and 12.3.4.1 is a **non-complying** activity.

In considering an application to which this rule applies the consent authority will have regard, among other matters, to Policies 6.6A.1 to 6.6A.5.

12.3.1A.3 Unless covered by Rule 12.3.1A.1, the damming or diversion of water from Welcome Creek is a *non-complying* activity.

In considering an application to which this rule applies the consent authority will have regard, among other matters, to Policies 6.6A.1 to 6.6A.6.

12.3.2 Permitted activities: No resource consent required

12.3.2.1 Unless prohibited by Rules 12.3.1.1 to 12.3.1.4, the damming or diversion of water is a *permitted* activity, providing:

- (a) The size of the catchment upstream of the dam, weir or diversion is no more than 50 hectares in area; and
- (b) In the case of damming, the water immediately upstream of the dam is no more than 3 metres deep, and the volume of water stored by the dam is no more than 20,000 cubic metres; and
- (c) In the case of diversion, the water is conveyed from one part of any lake or river, or its tributary, to another part of the same lake, river or tributary; and
- (d) No lawful take of water is adversely affected as a result of the damming or diversion; and
- (e) Any damming or diversion within a Regionally Significant Wetland was lawfully established prior to 2 July 2011; and
- (f) There is no change to the water level range or hydrological function of any Regionally Significant Wetland; and
- (g) There is no damage to fauna, or New Zealand native flora, in or on any Regionally Significant Wetland; and
- (h) The damming or diversion does not cause flooding of any other person's property, erosion, land instability, sedimentation or property damage; and
- (i) The damming or diversion is not within the Waitaki catchment.

12.3.2.2 The diversion of water, for the purpose of land drainage, is a *permitted* activity, providing:

- (a) Any diversion within a Regionally Significant Wetland was lawfully established prior to 2 July 2011; and
- (b) There is no change to the water level range or hydrological function of any Regionally Significant Wetland; and
- (c) There is no damage to fauna, or New Zealand native flora, in or on any Regionally Significant Wetland; and
- (d) The diversion does not result in the lowering of the level of water in any lake or river; and
- (e) The diversion does not cause flooding of any other person's property, erosion, land instability, sedimentation or property damage.

- 12.3.2.3 Unless prohibited by Rules 12.3.1.1 to 12.3.1.4, the diversion of water carried out for the purposes of allowing the erection, placement, repair or maintenance of a lawful structure, is a *permitted* activity, providing:
- (a) The course of the water always remains within the bed of the lake or river; and
 - (b) The course of the water is returned to its normal course following the completion of the repair or maintenance, and no more than one month after the diversion occurs; and
 - (c) No lawful take of water is adversely affected as a result of the diversion; and
 - (d) Any structure within a Regionally Significant Wetland was lawfully established prior to 2 July 2011; and
 - (e) There is no change to the water level range or hydrological function of any Regionally Significant Wetland; and
 - (f) There is no damage to fauna, or New Zealand native flora, in or on any Regionally Significant Wetland; and
 - (g) The diversion does not cause any erosion, land instability, sedimentation or property damage.

12.3.3 **Restricted discretionary activities: Resource consent required**

- 12.3.3.1 (i) The damming of water, which has been previously carried out under a resource consent or other lawful authority, is a *restricted discretionary* activity, unless:
- (a) It is prohibited by Rules 12.3.1.1 to 12.3.1.4; or
 - (b) It is permitted by Rule 12.3.2.1; or
 - (c) It is in Welcome Creek.
- (ii) Unless covered by Rule 12.3.1A.1, the damming of water in the Waitaki catchment, except in Welcome Creek, to which this rule applies is a *restricted discretionary* activity provided that by itself or in combination with any other take, use, dam, or diversions, the sum of the annual volumes authorised by resource consent, does not exceed the allocation to activities set out in Table 12.1.4.2.
- (iii) The damming of water within a wetland for the purpose of wetland restoration or enhancement is a *restricted discretionary* activity, unless;
- (a) It is prohibited by Rules 12.3.1.1 to 12.3.1.4; or
 - (b) It is permitted by Rules 12.3.2.1 to 12.3.2.3.

In considering any resource consent for the damming of water in terms of this rule, the Otago Regional Council will restrict the exercise of its discretion to the following matters:

- (a) Any adverse effects of continuing or discontinuing the damming of water on:
 - (i) Any natural or human use value identified in Schedule 1 for any affected water body including the impoundment itself;
 - (ii) The natural character of any affected water body including the impoundment itself;
 - (iii) Any amenity value supported by any affected water body including the impoundment itself;
 - (iv) Any heritage value associated with any affected water body including the impoundment itself; and
 - (v) Any existing lawfully established take or damming of water; and
- (b) Any effect on any Regionally Significant Wetland, or on any regionally significant wetland value; and
- (c) In the case of an application under Rule 12.3.3.1(iii):
 - (i) Any adverse effects on any existing lawfully established take, use, diversion or damming of water; and
 - (ii) Any effect on any wetland or any wetland value; and
- (d) Any maximum or minimum level or flow of water, and the range, or rate of change, of levels or flows of water; and
- (e) Flooding, erosion, land instability, sedimentation or property damage resulting from the damming or from the discontinuation of the damming; and
- (f) Any restoration of exposed lake bed resulting from any reduction in authorised lake level; and
- (g) The purpose of the existing dam or lake level control; and
- (h) The duration of the resource consent; and
- (i) The information and monitoring requirements; and
- (j) Any financial contribution, including for regionally significant wetland values or Regionally Significant Wetlands that are adversely affected; and
- (k) Any bond; and
- (l) Any insurance or other appropriate means of remedying the effects of failure; and
- (m) Any adverse effect on any lawful priority attached to any resource consent or deemed permit; and
- (n) Whether the damming of water under a water permit should be restricted to allow the damming or taking of water under any other permit; and
- (o) The review of conditions of the resource consent; and

- (p) For resource consents in the Waitaki catchment, matters in (a) to (o) above as well as matters in Policies 6.6A.1 to 6.6A.5.

12.3.4 Discretionary activities: Resource consent required

- 12.3.4.1 (i) Except as provided for by Rules 12.3.1.1 to 12.3.3.1 and except in the Waitaki catchment, the damming or diversion of water is a *discretionary* activity.
- (ii) Unless covered by Rule 12.3.1A.1, the damming or diversion of water in the Waitaki catchment, except in Welcome Creek to which this rule applies is a *discretionary* activity provided that by itself or in combination with any other take, use, dam, or diversions, the sum of the annual volumes authorised by resource consent, does not exceed the allocation to activities set out in Table 12.1.4.2. In considering an application to which this rule applies the consent authority will have regard, among other matters, to Policies 6.6A.1 to 6.6A.5.

12.3.5 [Moved to 12.3.1A – 1 October 2013]

Principal reasons for adopting

The damming or diversion of water can only occur if it is expressly allowed by a rule in a regional plan or any proposed regional plan, or by a resource consent (Section 14(3) of the Resource Management Act).

The Water Conservation (Kawarau) Order and the Lake Wanaka Preservation Act prohibit the damming of water. The Pomahaka River and Tributaries and Lower Clutha River Local Water Conservation Notice, deleted by this Plan, also prohibited the damming of water. It is therefore appropriate to prohibit the damming of the same waters within this Plan, as provided for by Rules 12.3.1.1 to 12.3.1.3.

Rule 12.3.1.4 is adopted to prohibit the diversion of water from Lake Tuakitoto when the minimum level established by this Plan is in force. This rule continues the minimum lake level already established to protect the lake's recreational and wildlife features by The Local Water Conservation (Lake Tuakitoto) Notice, 1991.

The damming or diversion of water under Rules 12.3.2.1 to 12.3.2.3, will have no more than minor adverse effects on the natural and human use values supported by water bodies, or on any other person. These rules are adopted to enable small dams or diversions while providing protection for those values and the interests of those people. Any other activity involving the damming or diversion of water is either a restricted discretionary activity, a discretionary activity or a non-complying activity in order that any adverse effects can be assessed. Non-complying activity Rules 12.3.1A.2 and 12.3.1A.3 were added to this Plan by the Waitaki Catchment Water Allocation Regional Plan.

12.4 Discharge of stormwater [Repealed – 1 May 2014]

12.4.1 *[Repealed – 1 May 2014]*

12.4.1.1 *[Renumbered as 12.B.1.8 – 1 May 2014]*

12.4.1.2 *[Renumbered as 12.B.1.9 – 1 May 2014]*

12.4.2 *[Repealed – 1 May 2014]*

12.4.2.1 *[Renumbered as 12.B.3.1 – 1 May 2014]*

12.5 Discharge of drainage water *[Repealed – 1 May 2014]*

12.5.1 *[Repealed – 1 May 2014]*

12.5.1.1 *[Repealed – 1 May 2014]*

12.5.2 *[Repealed – 1 May 2014]*

12.5.2.1 *[Repealed – 1 May 2014]*

12.6 Discharge of human sewage *[Renumbered as 12.A – 1 May 2014]*

12.6.1 *[Renumbered as 12.A.1 – 1 May 2014]*

12.6.1.1 *[Renumbered as 12.A.1.1 – 1 May 2014]*

12.6.1.2 *[Renumbered as 12.A.1.2 – 1 May 2014]*

12.6.1.3 *[Renumbered as 12.A.1.3 – 1 May 2014]*

12.6.1.4 *[Renumbered as 12.A.1.4 – 1 May 2014]*

12.6.2 *[Renumbered as 12.A.2 – 1 May 2014]*

12.6.2.1 *[Renumbered as 12.A.2.1 – 1 May 2014]*

12.7 Discharge of pesticides *[Repealed – 1 May 2014]*

12.7.1 *[Amended to 12.B.1 – 1 May 2014]*

12.7.1.1 *[Amended to 12.B.1.1 – 1 May 2014]*

12.7.1.2 *[Amended to 12.B.1.2 – 1 May 2014]*

12.7.1.3 *[Renumbered as 12.B.1.3 – 1 May 2014]*

12.7.1.4 *[Amended to 12.B.1.4 – 1 May 2014]*

12.7.2 *[Repealed – 1 May 2014]*

12.7.2.1 *[Repealed – 1 May 2014]*

12.A Discharge of human sewage

12.A.A General Rules for section 12.A

12.A.A.1 The discharge rules in section 12.A apply where a discharge contains human sewage.

Note: The approval of particular technologies for the on-site treatment of human sewage under particular land conditions will usually require the involvement of the relevant city or district council, under the Building Act 2004 or the Health Act 1956. This Plan deals only with the effect of the discharge on the environment, and does not promote any particular technology or treatment method.

12.A.1 Permitted activities: No resource consent required

12.A.1.1 The discharge of human sewage into land from an existing long-drop toilet is a *permitted* activity, providing:

- (a) The discharge was lawfully carried out without resource consent prior to 28 February 1998; and
- (b) There is no direct discharge of human sewage, or effluent derived from it, to water in any water body, drain, water race, or the coastal marine area.

12.A.1.2 The discharge of human sewage into land from any long-drop toilet constructed after 28 February 1998 is a *permitted* activity, providing:

- (a) The toilet is sited more than 50 metres from any surface water body or mean high water springs; and
- (b) The toilet is sited more than 50 metres from any bore which:
 - (i) Existed before the commencement of the discharge associated with the long-drop toilet; and
 - (ii) Is used to supply water for domestic needs or drinking water for livestock; and
- (c) The discharge does not occur within any Groundwater Protection Zone, as identified on the C-series maps, nor in the area of the Lake Hayes catchment as identified on Map B6; and;
- (d) There is no direct discharge of human sewage, or effluent derived from it, to water in any drain or water race, or to groundwater; and
- (e) The toilet is constructed so that no runoff enters the hole.

12.A.1.3 The discharge of human sewage through any existing on-site waste water treatment system onto or into land is a *permitted* activity, providing:

- (a) The discharge was lawfully carried out without resource consent prior to 28 February 1998; and

- (b) There is no direct discharge of human sewage, or effluent derived from it, to water in any water body, drain, water race, or the coastal marine area; and
- (c) Effluent from the system does not run off to any other person's property; and
- (d) The discharge does not cause flooding of any other person's property, erosion, land instability, sedimentation or property damage.

12.A.1.4 The discharge of human sewage through any on-site waste water treatment system, installed after 28 February 1998, onto or into land is a **permitted** activity, providing:

- (a) The discharge does not exceed 2000 litres per day (calculated as a weekly average); and
- (b) The discharge does not occur within the A zone of any Groundwater Protection Zone, as identified on the C-series maps, nor in the area of the Lake Hayes catchment, as identified on Map B6; and
- (c) The system's disposal field is sited more than 50 metres from any surface water body or mean high water springs; and
- (d) The system's disposal field is sited more than 50 metres from any bore which:
 - (i) Existed before the commencement of the discharge activity; and
 - (ii) Is used to supply water for domestic needs or drinking water for livestock; and
- (e) There is no direct discharge of human sewage, or effluent derived from it, to water in any drain or water race, or to groundwater; and
- (f) Effluent from the system does not run off to any other person's property; and
- (g) The discharge does not cause flooding of any other person's property, erosion, land instability, sedimentation or property damage.

12.A.2 Discretionary activities: Resource consent required

12.A.2.1 Except as provided for by Rules 12.A.1.1 to 12.A.1.4, the discharge of human sewage to water, or onto or into land in circumstances where it may enter water, is a **discretionary** activity.

Principal reasons for adopting

The discharge of human sewage to water can only occur if it is expressly allowed by a rule in a regional plan or any proposed regional plan, by a resource consent, or by regulation (Section 15(1) of the Resource Management Act). The discharge of human sewage to land (under conditions that ensure it does not enter water)

cannot be carried out in a manner that contravenes a rule in a regional plan or proposed regional plan (Section 15(2) of the Resource Management Act).

The discharge of human sewage to land under Rules 12.A.1.1 to 12.A.1.4, will have no more than minor adverse effects on the natural and human use values supported by water bodies, or on any other person, because contaminants are unlikely to reach water bodies. These rules are adopted to enable human sewage to be discharged while providing protection for those values and the interests of those people. Any other activity involving the discharge of human sewage, is a discretionary activity in order that any adverse effects can be assessed.

12.B Discharge of hazardous substances, hazardous wastes, specified contaminants, and stormwater; and discharges from industrial or trade premises and consented dams

12.B.A General Rules for section 12.B

12.B.A.1 The discharge rules in section 12.B apply where a discharge:

- (a) Contains a contaminant provided for in section 12.B; or
- (b) Is from an industrial or trade premises or consented dam.

12.B.A.2 The discharge rules in section 12.A apply in addition to 12.B where a discharge contains human sewage.

12.B.1 Permitted activities: No resource consent required

12.B.1.1 The discharge of any herbicide to water for the control of aquatic plants is a *permitted* activity, providing:

- (a) The herbicide and any associated additive are authorised for aquatic use in New Zealand, and are used in accordance with the authorisation; and
- (b) The discharge is carried out in accordance with any manufacturers' directions and is carried out by a person who holds a GROWSAFE Registered Chemical Applicator certificate; and
- (c) The herbicide is applied in the form of a gel; and
- (d) The discharge is for the purpose of controlling aquatic plants and does not exceed the quantity, concentration or rate required for that purpose; and
- (e) No lawful take of water is adversely affected as a result of the discharge; and
- (f) The discharger notifies, at least one week before commencing the discharge:
 - (i) Every person taking water for domestic supply, and every holder of a resource consent or deemed permit for the taking of water within one kilometre downstream of the proposed discharge in any river or

water race, or within one kilometre of the proposed discharge in any lake; and

- (ii) The community through Public Notice, where the discharge will occur directly into a lake, river or any Regionally Significant Wetland.

12.B.1.2 Except as provided for by Rule 12.B.1.1, the land-based discharge of any pesticide onto land is a *permitted* activity, providing:

- (a) The pesticide is authorised for use in New Zealand and is used in accordance with the authorisation; and
- (b) The discharge is carried out in accordance with any manufacturers' directions; and
- (c) The discharge is for the purpose of controlling animals, plants or other organisms and does not exceed the quantity, concentration or rate required for that purpose; and
- (d) There is no direct discharge of the pesticide to water in any water body, drain, water race or the coastal marine area; and
- (e) There is no damage to fauna, or New Zealand native flora, in or on any Regionally Significant Wetland.

12.B.1.3 The discharge of herbicide to air or land in circumstances where it will enter water, is a *permitted* activity, providing:

- (a) The herbicide and any associated additive are authorised for use in or over water in New Zealand and are used in accordance with the authorisation; and
- (b) The use is carried out in accordance with any manufacturers' directions; and
- (c) The discharge is for the purpose of controlling plants and does not exceed the quantity, concentration or rate required for that purpose; and
- (d) All reasonable measures are taken to minimise any direct discharge of the herbicide to water in any water body, drain, water race, or to the coastal marine area; and
- (e) No lawful take of water is adversely affected as a result of the discharge; and
- (f) The discharger notifies, at least one week before commencing the discharge:
 - (i) Every person taking water for domestic supply, and every holder of a resource consent or deemed permit for the taking of water within one kilometre downstream of the proposed discharge alongside any river or water race, or within one kilometre of the proposed discharge alongside any lake; and
 - (ii) The community through Public Notice, where the

discharge will occur directly into any lake, river or any Regionally Significant Wetland; and

- (g) There is no damage to fauna, or New Zealand native flora, in or on any Regionally Significant Wetland.

12.B.1.4 Except as provided for by Rule 12.B.1.3, the aerial discharge of any pesticide onto land in circumstances where it, or any contaminant associated with its breakdown, may enter water, is a *permitted* activity, providing:

- (a) The pesticide is authorised for use in New Zealand and is used in accordance with the authorisation; and
- (b) The discharge is carried out in accordance with any manufacturers' directions, by a person who holds a GROWSAFE Pilots Chemical Rating certificate; and
- (c) The discharge is for the purpose of controlling animals, plants or other organisms and does not exceed the quantity, concentration or rate required for that purpose; and
- (d) All reasonable measures are taken to prevent any discharge of the pesticide within 20 metres of water in any water body, drain or water race, or of the coastal marine area; and
- (e) There is no damage to fauna, or New Zealand native flora, in or on any Regionally Significant Wetland.

12.B.1.5 The discharge of fertiliser onto production land, in circumstances where it may enter water, is a *permitted* activity, providing:

- (a) All reasonable measures are taken to minimise any discharge of the fertiliser to water in any water body, drain or water race, or to the coastal marine area; and
- (b) The discharge is carried out in accordance with the manufacturer's directions; and
- (c) There is no damage to fauna or New Zealand native flora, in or on any Regionally Significant Wetland.

12.B.1.6 The discharge of sullage, cooling water or water from any drinking-water supply reservoir, water supply pipeline or swimming pool to water, or onto or into land in circumstances where it may enter water, is a *permitted* activity, providing:

- (a) The discharge does not contain:
 - (i) A greater concentration of faecal coliforms than that of the receiving water, or a concentration that could cause the faecal coliform concentration of the receiving water, after reasonable mixing, to exceed 150 CFU per 100 mls; or
 - (ii) Any disinfectant, antiseptic or pesticide; or

- (iii) Any residual flocculant, except for aluminium at acid-soluble aluminium concentrations less than 0.1 grams per cubic metre; or
- (iv) Any free or residual chlorine at the point where the discharge enters water in any surface water body or mean high water springs; or
- (v) Human sewage; or
- (vi) Any hazardous substance; and
- (b) The discharge does not increase the natural temperature of the receiving water, after reasonable mixing, by more than 3° Celsius, and does not cause the temperature of the receiving water, after reasonable mixing, to rise above 25° Celsius; and
- (c) The discharge does not increase the suspended solids levels in the receiving water, after reasonable mixing, by more than 10 grams per cubic metre; and
- (d) The discharge does not change the pH of the receiving water, after reasonable mixing, by more than 0.5 pH units; and
- (e) The discharge does not, after reasonable mixing, give rise to any significant adverse effect on aquatic life; and
- (f) The discharge does not cause flooding of any other person's property, erosion, land instability, sedimentation or property damage; and
- (g) There is no change to the water level range or hydrological function of any Regionally Significant Wetland; and
- (h) There is no damage to fauna, or New Zealand native flora, in or on any Regionally Significant Wetland.

12.B.1.7 The discharge of water which has been used for the purpose of holding live organisms to water, or onto or into land in circumstances where it may enter water, is a *permitted* activity, providing:

- (a) There is no change to the water level range or hydrological function of any Regionally Significant Wetland; and
- (b) There is no damage to fauna, or New Zealand native flora, in or on any Regionally Significant Wetland; and
- (c) No contaminant has been added that is toxic to the aquatic life of the receiving water body; and
- (d) The discharge contains no pest plant material (as identified in the Pest Management Strategy for Otago 2001); and
- (e) The discharge does not increase the natural temperature of the receiving waters, after reasonable mixing, by more than 3° Celsius, and does not cause the temperature of the receiving water, after reasonable mixing, to rise above 25° Celsius; and

- (f) The discharge does not increase the suspended solids levels in the receiving water, after reasonable mixing, by more than 10 grams per cubic metre; and
- (g) The discharge does not, after reasonable mixing, give rise to any significant adverse effect on aquatic life; and
- (h) The discharge does not cause flooding of any other person's property, erosion, land instability, sedimentation or property damage.

12.B.1.8 The discharge of stormwater from a reticulated stormwater system to water, or onto or into land in circumstances where it may enter water, is a *permitted* activity, providing:

- (a) Where the system is lawfully installed, or extended, after 28 February 1998:
 - (i) The discharge is not to any Regionally Significant Wetland; and
 - (ii) Provision is made for the interception and removal of any contaminant which would give rise to the effects identified in Condition (d) of this rule; and
- (b) The discharge does not contain any human sewage; and
- (c) The discharge does not cause flooding of any other person's property, erosion, land instability, sedimentation or property damage; and
- (d) The stormwater discharged, after reasonable mixing, does not give rise to all or 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
 - (ii) Any conspicuous change in the colour or visual clarity; or
 - (iii) Any emission of objectionable odour; or
 - (iv) The rendering of fresh water unsuitable for consumption by farm animals; or
 - (v) Any significant adverse effects on aquatic life.

12.B.1.9 The discharge of stormwater from any road not connected to a reticulated stormwater system to water, or onto or into land, is a *permitted* activity, providing:

- (a) The discharge does not cause flooding of any other person's property, erosion, land instability, sedimentation or property damage; and
- (b) Where the road is subject to works, provision is made for the interception of any contaminant to avoid, after reasonable mixing, 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
- (ii) Any conspicuous change in the colour or visual clarity; or
- (iii) Any emission of objectionable odour; or
- (iv) The rendering of fresh water unsuitable for consumption by farm animals; or
- (v) Any significant adverse effects on aquatic life.

12.B.1.10 The discharge of any contaminant, excluding settled sediment, present in water impounded by a dam that is not permitted by Rule 13.2.1.3, to water in a lake or river, is a *permitted* activity, providing:

- (a) The purpose of the dam is not for the storage of contaminants; and
- (b) The dam operator has not caused the contaminant to be discharged into the dam from which it is discharged; and
- (c) The discharge, after reasonable mixing does not give rise to all or any of the following effects:
 - (i) The production of any conspicuous oil or grease films, scum or foams, or floatable or suspended materials; or
 - (ii) Any conspicuous change in colour or visual clarity; or
 - (iii) Any emission of objectionable odour; or
 - (iv) The rendering of fresh water unsuitable for consumption by farm animals; or
 - (v) Any significant adverse effect on aquatic life; and
- (d) The discharge ceases when an enforcement officer of the Otago Regional Council requires the discharge to cease to provide for clean-up operations and prevent adverse effects on the environment.

12.B.1.11 Except as provided for by Rule 12.B.1.10, the discharge of a trace amount of any contaminant, originating from within a hydro-electric power structure, into water, is a *permitted* activity.

12.B.2 Controlled activities: Resource consent required but always granted

12.B.2.1 The discharge of tracer dye to water is a *controlled* activity, providing it is chemically inert, non-radioactive, and non-toxic.

In granting any resource consent for the discharge of tracer dye in terms of this rule, the Otago Regional Council will restrict the exercise of its control to the following:

- (a) Any adverse effects of the discharge on:
 - (i) Any natural and human use value identified in Schedule

- 1 for any affected water body;
- (ii) The natural character of any affected water body; and
- (iii) Any amenity value supported by any affected water body; and
- (b) Any adverse effect on an existing lawful take of water; and
- (c) The location and timing of the discharge; and
- (d) The nature of the dye; and
- (e) The duration of the resource consent; and
- (f) The information and monitoring requirements; and
- (g) Any bond; and
- (h) The review of conditions of the resource consent.

Applications may be considered without notification under Section 93 and without service under Section 94(1) of the Resource Management Act on persons who, in the opinion of the consent authority, may be adversely affected by the activity.

12.B.3 Restricted discretionary activities: Resource consent required

- 12.B.3.1 Except as provided for by Rules 12.B.1.8 and 12.B.1.9, the discharge of stormwater to water, or onto or into land in circumstances where it may enter water, is a *restricted discretionary* activity.

In considering any resource consent for the discharge of stormwater in terms of this rule, the Otago Regional Council will restrict the exercise of its discretion to the following:

- (a) Any adverse effects of the discharge on:
 - (i) Any natural and human use value identified in Schedule 1 for any affected water body;
 - (ii) The natural character of any affected water body;
 - (iii) Any amenity value supported by any affected water body; and
 - (iv) Any heritage value associated with any affected water body; and
- (b) Any effect on any Regionally Significant Wetland or on any regionally significant wetland value; and
- (c) Any financial contribution for regionally significant wetland values or Regionally Significant Wetlands that are adversely affected; and
- (d) The volume, rate and method of the discharge; and
- (e) The nature of the discharge; and
- (f) Treatment options; and

- (g) The location of the discharge point or area, and alternative receiving environments; and
- (h) The likelihood of erosion, land instability, sedimentation or property damage resulting from the discharge of stormwater; and
- (i) The potential for soil contamination; and
- (j) The duration of the resource consent; and
- (k) The information and monitoring requirements; and
- (l) Any bond; and
- (m) Any existing lawful activity associated with any affected water body; and
- (n) The review of conditions of the resource consent.

12.B.4 Discretionary activities: Resource consent required

- 12.B.4.1 The discharge of water (excluding stormwater) or any contaminant from an industrial or trade premises or a consented dam to water or to land is a *discretionary* activity, unless it is permitted by Rule 12.B.1.6, 12.B.1.7, 12.B.1.10 or 12.B.1.11.
- 12.B.4.2 The discharge of any hazardous substance to water or onto or into land in circumstances which may result in that substance entering water is a *discretionary* activity, unless it is:
 - (a) Permitted by a rule in 12.B.1; or
 - (b) Provided for by a rule in 12.B.2 or 12.B.3.
- 12.B.4.3 The discharge of water or any contaminant covered in section 12.B.1 or 12.B.2, to water or onto or into land in circumstances which may result in that water or contaminant entering water, is a *discretionary* activity, unless it is:
 - (a) Permitted by a rule in 12.B.1; or
 - (b) Provided for by a rule in 12.B.2, 12.B.3, 12.B.4.1 or 12.B.4.2.

12.8 Discharge of agricultural waste and fertiliser [Repealed – 1 May 2014]

12.8.1 [Repealed – 1 May 2014]

12.8.1.1 [Repealed – 1 May 2014]

12.8.1.2 [Repealed – 1 May 2014]

12.8.1.3 [Repealed – 1 May 2014]

12.8.1.4 [Repealed – 1 May 2014]

12.8.1.5 [Renumbered as 12.B.1.5 – 1 May 2014]

12.8.2 *[Repealed – 1 May 2014]*

12.8.2.1 *[Repealed – 1 May 2014]*

12.8.3 *[Repealed – 1 May 2014]*

12.8.3.1 *[Repealed – 1 May 2014]*

12.9 Discharges from drilling and bore testing *[Repealed – 1 May 2014]*

12.9.1 *[Repealed – 1 May 2014]*

12.9.1.1 *[Repealed – 1 May 2014]*

12.9.1.2 *[Repealed – 1 May 2014]*

12.9.2 *[Repealed – 1 May 2014]*

12.9.2.1 *[Repealed – 1 May 2014]*

12.10 Discharges from vessels *[Repealed – 1 May 2014]*

12.10.1 *[Repealed – 1 May 2014]*

12.10.1.1 *[Repealed – 1 May 2014]*

12.10.2 *[Repealed – 1 May 2014]*

12.10.2.1 *[Repealed – 1 May 2014]*

12.11 Discharge of water or tracer dye *[Repealed – 1 May 2014]*

12.11.1 *[Repealed – 1 May 2014]*

12.11.1.1 *[Repealed – 1 May 2014]*

12.11.2 *[Repealed – 1 May 2014]*

12.11.2.1 *[Renumbered as 12.B.1.6 – 1 May 2014]*

12.11.2.2 *[Renumbered as 12.B.1.7 – 1 May 2014]*

12.11.2.3 *[Repealed – 1 May 2014]*

12.11.3 *[Repealed – 1 May 2014]*

12.11.3.1 *[Renumbered as 12.B.2.1]*

12.12 Discharges from dams and reservoirs *[Repealed – 1 May 2014]*

12.12.1 *[Repealed – 1 May 2014]*

12.12.1.1 *[Renumbered as 12.B.1.10 – 1 May 2014]*

12.12.1.2 *[Renumbered as 12.B.1.11 – 1 May 2014]*

12.13 Other discharges *[Repealed – 1 May 2014]*

12.13.1 *[Repealed – 1 May 2014]*

12.13.1.1 *[Repealed – 1 May 2014]*

12.C Other discharges

12.C.A.1 Discharge rules in section 12.C apply to any discharge not provided for in sections 12.A, 12.B or 13.5.

12.C.A.2 Within section 12.C, prohibited activity rules prevail over any permitted, controlled, restricted discretionary and discretionary activity rules.

Note: Rules applying to plantation forestry:

- Refer to the Resource Management (National Environmental Standards for Plantation Forestry) Regulations 2017:
<http://www.legislation.govt.nz/regulation/public/2017/0174/latest/whole.html>
- Refer to Schedule 17: Rules applying to plantation forestry in Otago.
- Rules that apply: 12.C.1.1 (d) (e) (f), excluding (iii); 12.C.2.1; 12.C.2.2; 12.C.2.4; 12.C.3.2.

Note: Resource consent may also be required under the Resource Management (National Environmental Standards for Freshwater) Regulations 2020 which contains additional restrictions in relation to activities within, or within a 100m setback of, a natural wetland.

12.C.0 Prohibited activities: No resource consent will be granted

12.C.0.1 The discharge of any contaminant to water, that produces an objectionable odour, or a conspicuous oil or grease film, scum, or foam in any:

- (i) Lake, river or Regionally Significant Wetland; or
- (ii) Drain or water race that flows to a lake, river, Regionally Significant Wetland or coastal marine area; or

(iii) Bore or soak hole,

is a *prohibited* activity.

12.C.0.2 The discharge of any contaminant from silage storage or a composting process:

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storage and
Application

- (i) To any lake, river or Regionally Significant Wetland; or
- (ii) To any drain or water race that goes to a lake, river, Regionally Significant Wetland or coastal marine area; or
- (iii) To the bed of any lake, river or Regionally Significant Wetland; or

(iv) To any bore or soak hole; or

(v) To land in a manner that results in overland flow entering any:

(a) Lake, river, Regionally Significant Wetland or coastal marine area that is not permitted under Rule 12.C.1.1 or 12.C.1.1A; or

(b) Drain or water race that goes to any lake, river, Regionally Significant Wetland or coastal marine area that is not permitted under Rule 12.C.1.1 or 12.C.1.1A; or

(vi) To land within 50 metres of:

(a) Any lake, river or Regionally Significant Wetland; or

(b) Any bore or soak hole; or

- (vii) To saturated land; or
 - (viii) That results in ponding,
- is a *prohibited* activity.

- 12.C.0.3 Any discharge of sediment from disturbed land to water in any:
- (i) Lake, river or Regionally Significant Wetland; or
 - (ii) Drain or water race that flows to a lake, river, Regionally Significant Wetland or coastal marine area,
- where no measure is taken to mitigate sediment runoff, is a *prohibited* activity.

- 12.C.0.4 The discharge of liquid animal effluent from an animal effluent system:

Part B
Animal waste
storage and
Application

- (i) To any lake, river or Regionally Significant Wetland; or
 - (ii) To any drain or water race that goes to a lake, river, Regionally Significant Wetland or coastal marine area; or
 - (iii) To the bed of any lake, river or Regionally Significant Wetland; or
 - (iv) To any bore or soak hole; or
 - (v) To land within 50 metres of:
 - (a) Any lake, river or Regionally Significant Wetland; or
 - (b) Any bore or soak hole; or
 - (vi) To land in a manner that results in ponding or overland flow to water; or
 - (vii) To land when the soil moisture exceeds field capacity; or
 - (viii) Where liquid animal effluent is distributed through the same infrastructure as water from a bore with no back flow prevention installed,
- is a *prohibited* activity.

Note: Rules 12.C.0.4, 12.C.1.4A, 12.C.1.4 and 12.C.2.5 manage discharges of animal effluent to land. They do not regulate the land use for the construction, use and maintenance of animal effluent system. The construction, use and maintenance of animal effluent systems is managed by Rules 14.7.1.1A, 14.7.1.1, 14.7.1.2, 14.7.2.1 and 14.7.3.1.

12.C.1 Permitted activities: No resource consent required

- 12.C.1.1 The discharge of water or any contaminant to water, or onto or into land in circumstances which may result in a contaminant entering water, is a *permitted* activity, providing:
- (a) The discharge does not result in flooding, erosion, land instability or property damage; and

- (b) There is no discharge of water from one catchment to water in another catchment; and
- (c) The discharge does not change the water level range or hydrological function of any Regionally Significant Wetland; and
- (d) When the discharge, including any discharge from a drain or water race, enters water in any lake, river, wetland or the coastal marine area; the discharge:
 - (i) Does not result in:
 - (1) A conspicuous change in colour or visual clarity; or
 - (2) A noticeable increase in local sedimentation, in the receiving water (*refer to Figure 5*); and
 - (ii) Does not have floatable or suspended organic materials; and
 - (iii) Does not have an odour, oil or grease film, scum or foam; and
- (e) When the discharge enters water in any drain¹ that goes to a lake, river, wetland, or the coastal marine area, the discharge:
 - (i) Does not result in:
 - (1) A conspicuous change in colour or visual clarity; or
 - (2) A noticeable increase in local sedimentation, in the lake, river, wetland or the coastal marine area (*refer to Figure 6*); and
 - (ii) Does not result in the production of conspicuous floatable or suspended organic materials in the drain at the first of:
 - (1) The downstream boundary of the landholding where the discharge occurs; or
 - (2) Immediately before the drain enters a river, lake, wetland or the coastal marine area; and
 - (iii) Does not have an odour, oil or grease film, scum or foam; and
- (f) When the discharge enters water in any water race² that goes to a lake, river, wetland, or the coastal marine area, the discharge:
 - (i) Does not result in:

¹ In Rules 12.C.1.1 and 12.C.1.1A, ‘drain’ includes any system of drains that goes to a lake, river, wetland or the coastal marine area.

² In Rules 12.C.1.1 and 12.C.1.1A, ‘water race’ includes any system of water races that goes to a lake, river, wetland or the coastal marine area.

- (1) A conspicuous change in colour or visual clarity; or
- (2) A noticeable increase in local sedimentation, in the water race (*refer to Figure 7*); and
- (ii) Does not result in the production of conspicuous floatable or suspended organic materials in the race at the first of:
 - (1) The downstream boundary of the landholding where the discharge occurs; or
 - (2) Immediately before the race enters a river, lake, wetland or the coastal marine area; and
- (iii) Does not have an odour, oil or grease film, scum or foam; and
- (g) From 1 April 2026, the discharge also complies with 12.C.1.1A.

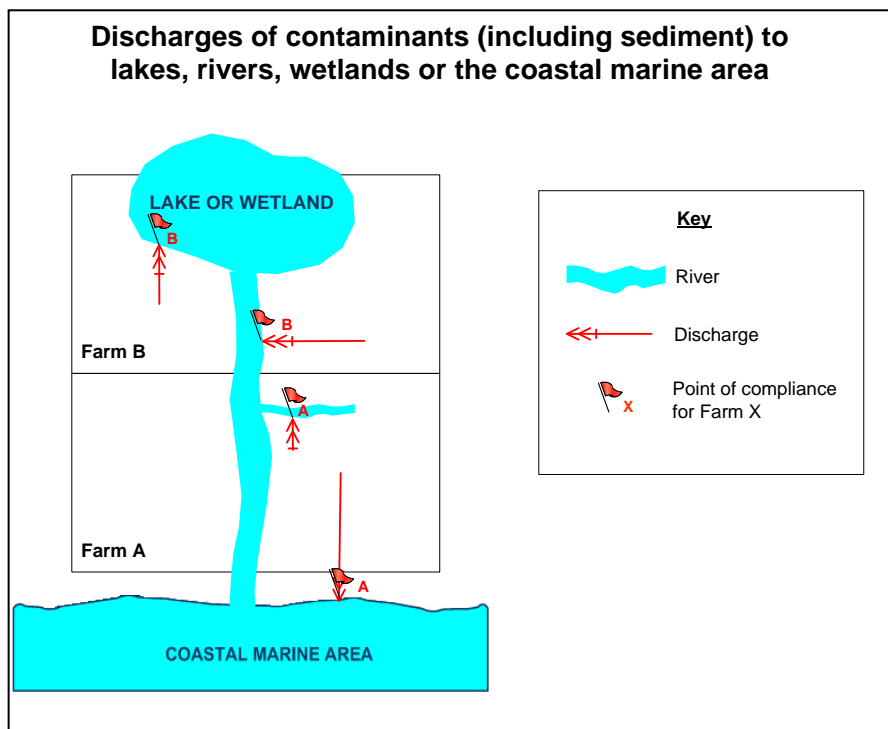


Figure 5: Implementation of Rule 12.C.1.1(d)(i)

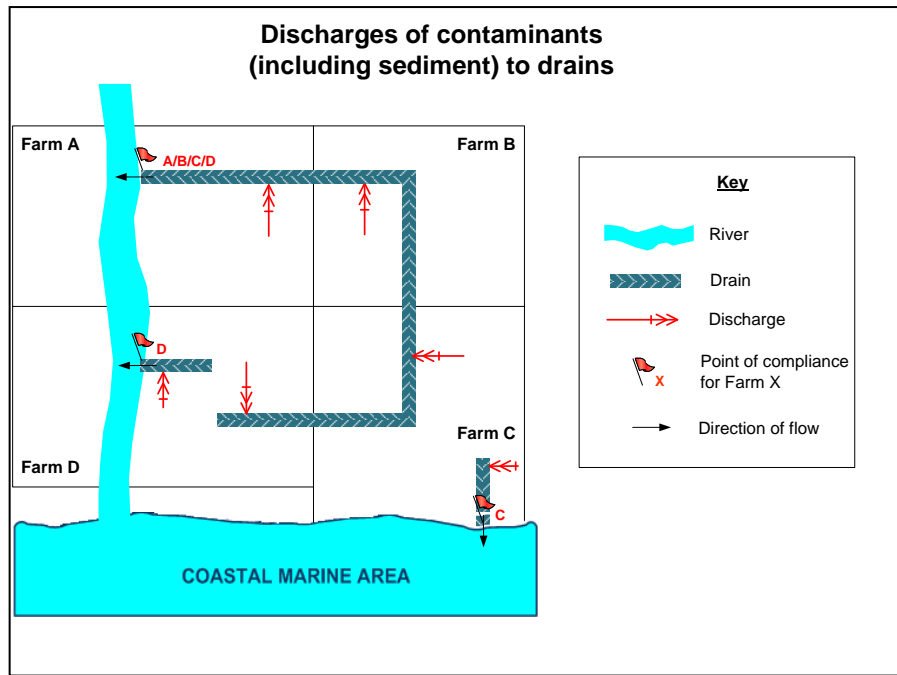


Figure 6: Implementation of Rule 12.C.1.1(e)(i)

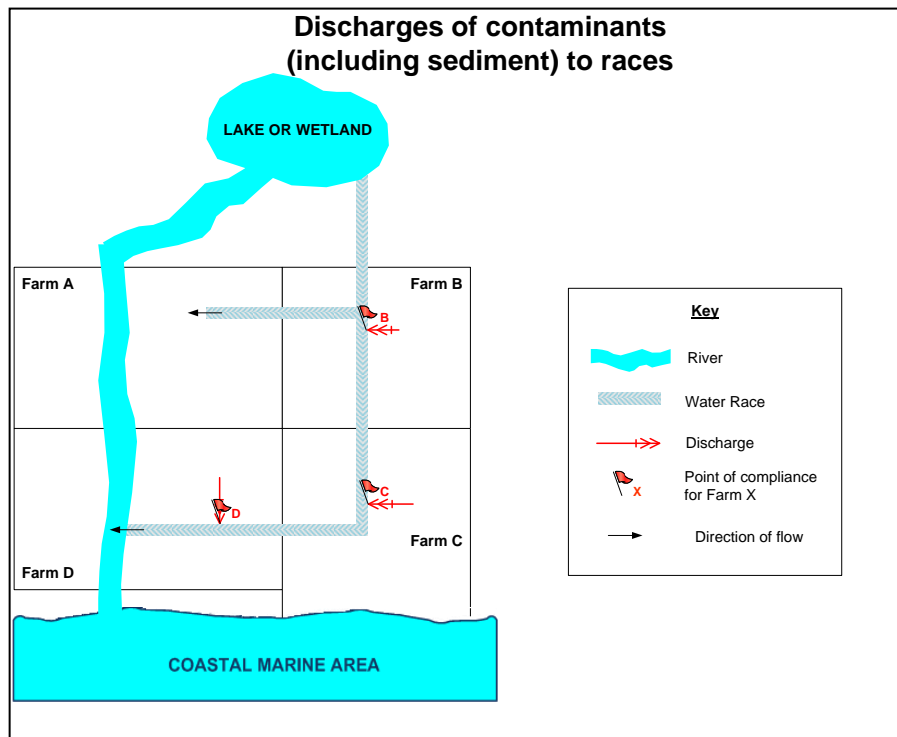


Figure 7: Implementation of Rule 12.C.1.1(f)(i)

12.C.1.1A From 1 April 2026, in addition to Rule 12.C.1.1, when the water flow at the relevant representative flow monitoring site is at or below the reference flow in Schedule 16B, the following conditions apply:

- (a) (i) If the discharge causes contaminants to first enter water in any lake, river, wetland, or the coastal marine area, the discharge does not exceed any of the thresholds in Schedule 16A immediately before entering a river, lake, wetland or the coastal marine area (*refer to Figure 8*),

except:

- (ii) If the discharge causes contaminants to first enter water in a river which originates in the landholding where the discharge occurs and which conveys irrigation run-off, then the discharge does not result in the exceedance of any of the thresholds in Schedule 16A at the first of:
 - (1) The downstream boundary of the landholding where the discharge occurs; or
 - (2) Immediately before the river joins another river, lake, wetland or the coastal marine area (*refer to Figure 9*); or

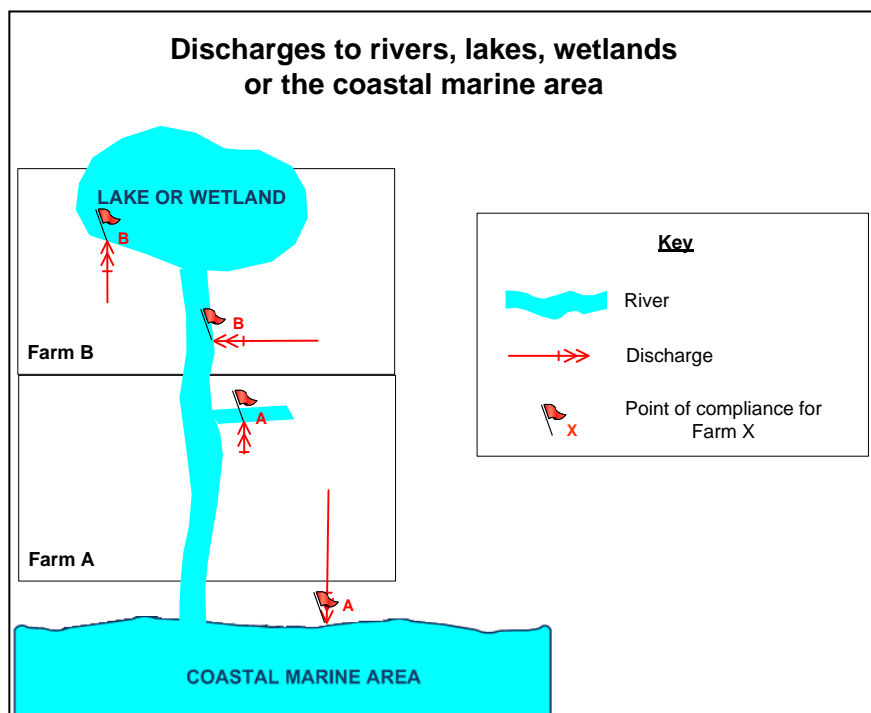


Figure 8: Implementation of Rule 12.C.1.1A(a)(i)

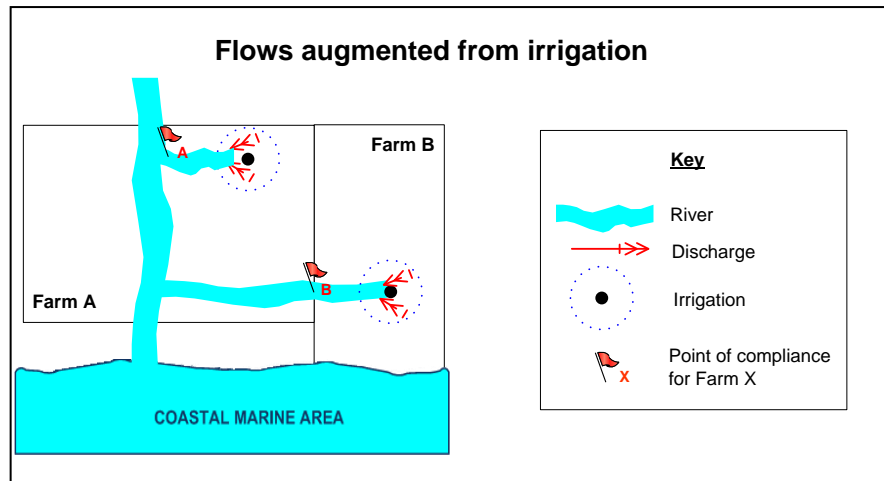


Figure 9: Implementation of Rule 12.C.1.1A(a)(ii)

- (b) If the discharge causes contaminants to first enter water in a drain that goes to a lake, river, wetland or the coastal marine area, then:
- (i) The discharge does not result in the exceedance³ of any of the thresholds in Schedule 16A within the drain at the first of:
 - (1) The downstream boundary of the landholding where the discharge occurs; or
 - (2) Immediately before the drain enters a river, lake, wetland or the coastal marine area (*refer to Figure 10*),
 except:
 - (ii) If all of the dischargers to the drain have advised the Council in writing that they share responsibility for discharges from that drain, contaminants in the drain do not exceed any of the thresholds in Schedule 16A immediately before the drain enters a lake, river, wetland or the coastal marine area (*refer to Figure 11*); or

³ In determining whether the discharge results in the exceedance of any of the thresholds in Schedule 16A, the concentration of contaminants at the upstream boundary of the landholding where the discharge occurred shall be excluded.

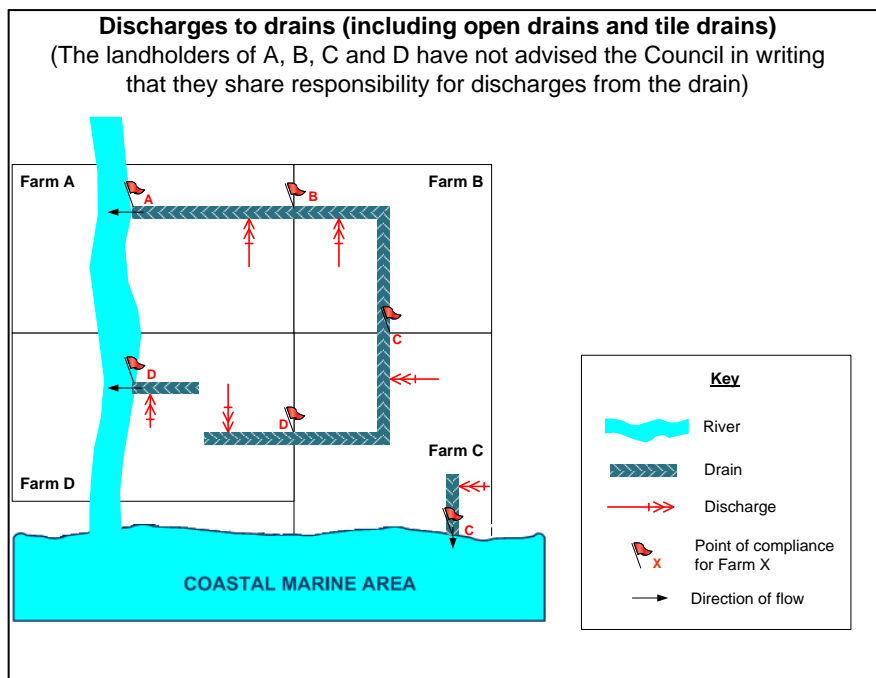


Figure 10: Implementation of Rule 12.C.1.1A(b)(i)

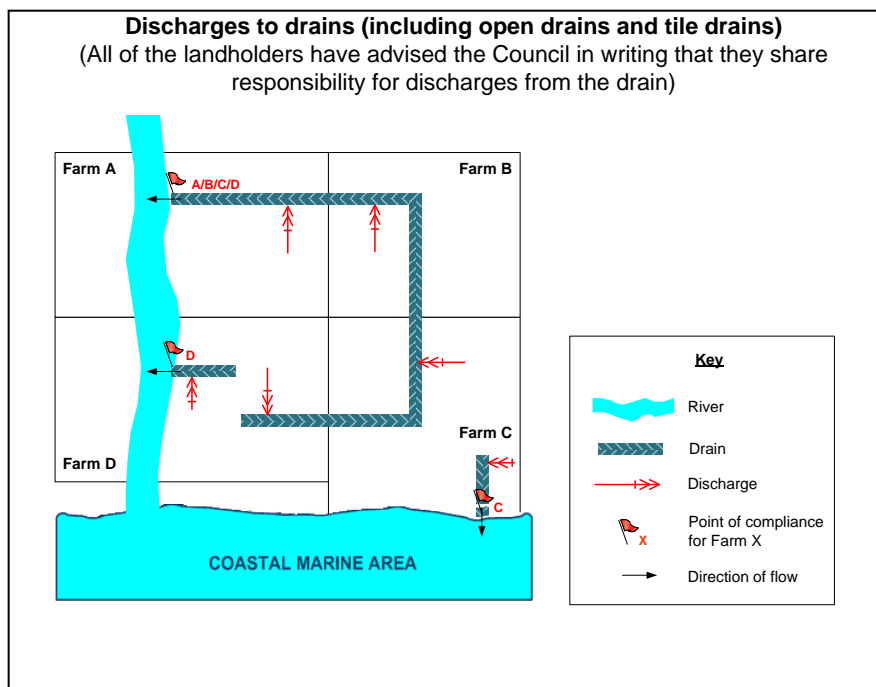


Figure 11: Implementation of Rule 12.C.1.1A(b)(ii)

- (c) If the discharge causes contaminants to first enter water in a water race that goes to a lake, river, wetland or the coastal marine area then:
- (i) (1) Any measurable discharge does not exceed any of the thresholds in Schedule 16A immediately before entering the water race; and
 - (2) The cumulative contaminant discharge into the water race between the upstream boundary of the landholding where the discharge occurs and the first of:
 - (a) The downstream boundary of the same landholding; or
 - (b) Immediately before the water race enters a river, lake, wetland or the coastal marine area (*refer to Figure 12*),does not exceed any of the thresholds in Schedule 16A,

except:

- (ii) If the race operator has advised the Council in writing that it takes responsibility for discharges to the race from specified landholdings:
 - (1) Paragraph (i) does not apply to discharges from those specified landholdings; and
 - (2) Contaminants in the water race do not exceed any of the thresholds in Schedule 16A immediately before the race enters a lake, river, wetland or the coastal marine area (*refer to Figure 13*).

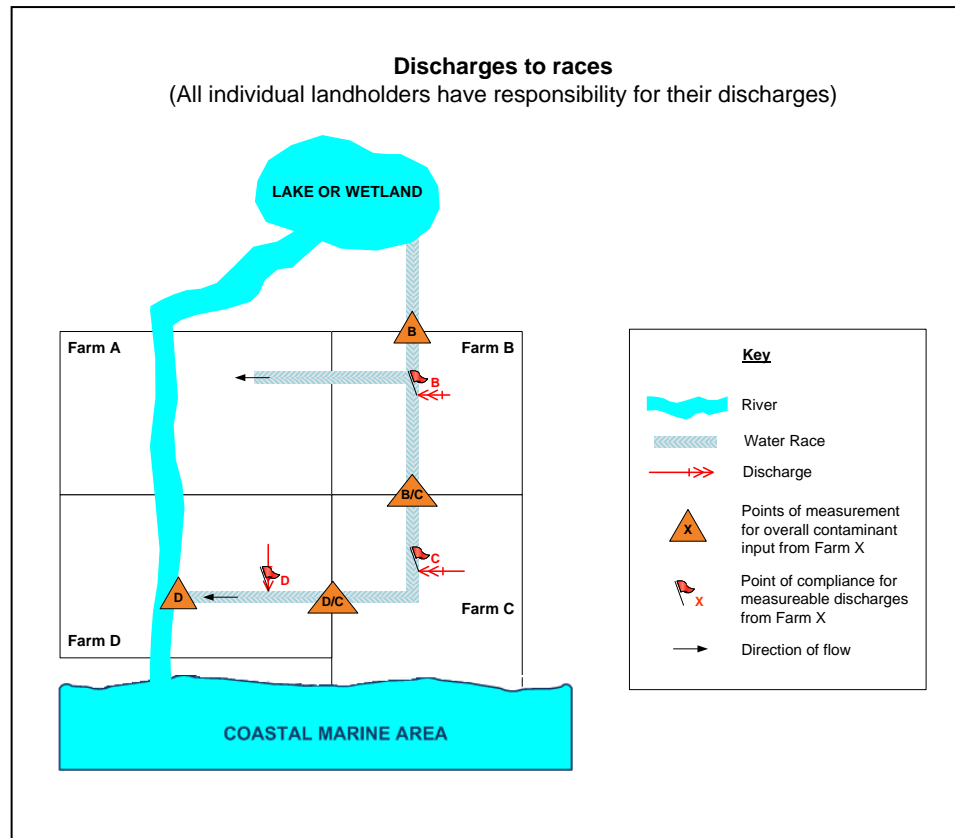


Figure 12: Implementation of Rule 12.C.1.1A(c)(i)

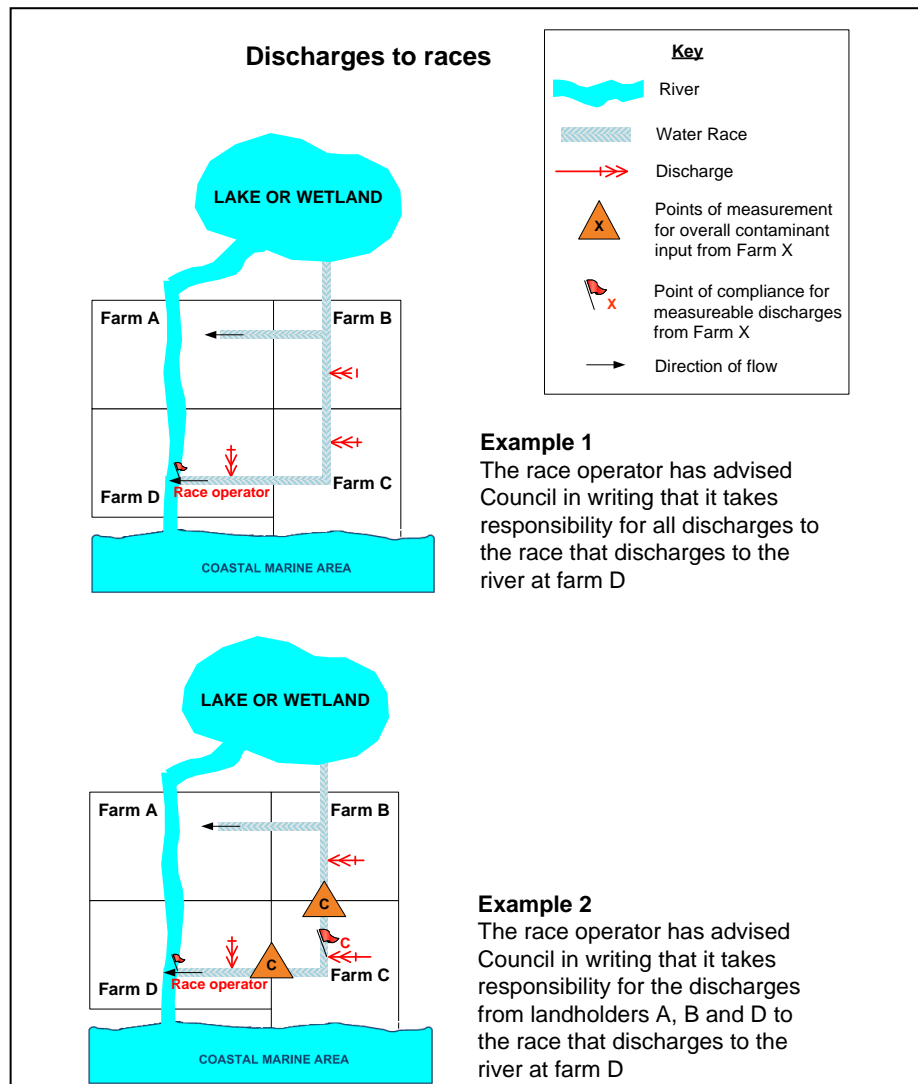


Figure 13: Implementation of Rule 12.C.1.1A(c)(ii)

12.C.1.2 Notwithstanding Rule 12.C.1.1, the discharge of water or any contaminant from the source water body through:

- (i) A water race; or
 - (ii) A dam:
 - (1) Permitted under Rule 13.2.1.3; and
 - (2) Not for the purpose of the storage of contaminants,
- to any lake, river, wetland, or any water race or drain that flows to a lake, river or wetland, is a *permitted* activity, providing:
- (a) The race or dam operator has not caused any contaminant to be discharged into the race or dam from which it is discharged; and
 - (b) There is no discharge of water from one catchment to water in another catchment; and
 - (c) There is no change to the water level range or hydrological function of any Regionally Significant Wetland; and
 - (d) The discharge does not:
 - (1) Result in flooding, erosion, land instability or property damage; or
 - (2) Result in a conspicuous change in colour or visual clarity; or
 - (3) Have floatable or suspended materials.

12.C.1.3 The discharge of nitrogen⁴ onto or into land in circumstances which may result in nitrogen entering groundwater, is a *permitted* activity, providing:

- (a) From 1 April 2026, the nitrogen leaching rate does not exceed:
 - (i) 15 kgN/ha/year for the total area of land managed by a landholder that is located over the relevant Nitrogen Sensitive Zone identified in Maps H5 and H6; and
 - (ii) 20 kgN/ha/year for the total area of land managed by a landholder that is located over the relevant Nitrogen Sensitive Zone identified in Maps H1 to H4; and
 - (iii) 30 kgN/ha/year for the total area of land managed by a landholder that is located outside any Nitrogen Sensitive Zone identified in Maps H1 to H6,
- as calculated using OVERSEER[®] version 6 by a Certified Nutrient Management Advisor in accordance with OVERSEER[®] Best Practice Data Input Standards; and

⁴ For the purpose of Rule 12.C.1.3, nitrogen comprises of organic nitrogen, ammoniacal nitrogen, nitrite nitrogen and nitrate nitrogen forms.

- (b) (i) From 1 May 2014 to 31 March 2026, the landholder for outdoor pork, fruit (excluding grapes), berry and rotational vegetable production will keep a record of all inputs into the farm system and evidence that practices complied with the relevant industry good management practices and provide Council upon request with that information. From 1 April 2026, 12.C.1.3(b)(ii) will apply; and
- (ii) From 1 May 2014, in all other cases, the landholder will:
 - (1) Maintain a record of all necessary data to run OVERSEER[®] version 6; and
 - (2) Provide Council upon request with:
 - (a) All necessary data to run OVERSEER[®] version 6; or
 - (b) Any available OVERSEER[®] version 6 output and input parameter report prepared by a Certified Nutrient Management Advisor in accordance with OVERSEER[®] Best Practice Data Input Standards.

12.C.1.4A The discharge or solid animal effluent (excluding any discharge directly from an animal to land), or vegetative material containing solid or liquid animal effluent, into or onto land including in circumstances where a contaminant may enter water is a permitted activity provided:

- (a) the material does not contain any hazardous substance or hazardous waste,
- (b) 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 effluent, or vegetative material containing liquid or solid animal effluent, from a previous application is still visible on the land surface; or
 - (iii) onto land when the soil moisture exceeds field capacity; or
 - (iv) within 20 metres of the bed of a lake, river, the coastal marine area, Regionally Significant Wetland, water supply used for human consumption, bore, soak hole, or a landholding boundary.

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12.C.1.4 Notwithstanding any other rule in this Plan, the discharge of liquid animal effluent or water containing liquid animal effluent, from an animal effluent system onto or into land is a *permitted* activity providing:

- (a) The animal effluent storage facility is permitted under Rule 14.7.1.2; and
- (b) The discharge is not prohibited under Rule 12.C.0.4; and
- (c) The discharge does not occur within 20 metres of the boundary of the landholding on which the liquid animal effluent is being discharged, or beyond that boundary; and
- (d) There is no discharge to land when the soil moisture exceeds field capacity.

Note: Rules 12.C.0.4, 12.C.1.4A, 12.C.1.4, and 12.C.2.5 manage discharges of animal effluent to land. They do not regulate the land use for the construction, use and maintenance of an animal effluent system. The construction, use and maintenance of animal effluent systems is managed by Rules 14.7.1.1A, 14.7.1.1, 14.7.1.2, 14.7.2.1, and 14.7.3.1.

12.C.2 Restricted discretionary activities: Resource consent required

12.C.2.1 The discharge of water or any contaminant:

- (i) To water; or
- (ii) Onto or into land in circumstances which may result in a contaminant entering water,

for a period up to five years, is a *restricted discretionary* activity, unless the discharge:

- (a) Is prohibited by a rule in 12.C.0; or
- (b) Is permitted by Rules 12.C.1.1, 12.C.1.1A or 12.C.1.2; or
- (c) Will result in flooding, erosion, land instability or property damage; or
- (d) Is of water from one catchment to water in another catchment; or
- (e) Will change the water level range or hydrological function of any Regionally Significant Wetland; or
- (f) Has previously been authorised by resource consent granted under this rule.

The matters to which the Council has restricted the exercise of its discretion are set out in Rule 12.C.2.4.

The Consent Authority is precluded from giving public notification of an application for a resource consent under this rule.

12.C.2.2 The discharge of water or any contaminant:

- (i) To water; or
- (ii) Onto or into land in circumstances which may result in a contaminant entering water,

for a period up to two years, from a short-term activity with a short-term effect, is a *restricted discretionary* activity, unless the discharge:

- (a) Is prohibited by a rule in 12.C.0; or
- (b) Is permitted by Rules 12.C.1.1, 12.C.1.1A or 12.C.1.2; or
- (c) Will result in flooding, erosion, land instability or property damage; or
- (d) Is of water from one catchment to water in another catchment; or
- (e) Will change the water level range or hydrological function of any Regionally Significant Wetland.

The matters to which the Council has restricted the exercise of its discretion are set out in Rule 12.C.2.4.

The Consent Authority is precluded from giving public notification of an application for a resource consent under this rule.

12.C.2.3 The discharge of nitrogen⁵ onto or into land in circumstances which may result in nitrogen entering groundwater for a period up to five years is a *restricted discretionary* activity, unless the discharge:

- (a) Is prohibited by a rule in 12.C.0; or
- (b) Is permitted by Rule 12.C.1.3, or
- (c) Has previously been authorised by a resource consent granted under this rule.

The matters to which the Council has restricted the exercise of its discretion are set out in Rule 12.C.2.4.

The Consent Authority is precluded from giving public notification of an application for a resource consent under this rule.

12.C.2.4 Restricted discretionary activity discretions

In considering any resource consent in terms of Rules 12.C.2.1 to 12.C.2.3, the Council will restrict the exercise of its discretion to:

- (a) The nature, type, volume, frequency and location of the discharge; and

⁵ For the purpose of Rule 12.C.2.3, nitrogen comprises of organic nitrogen, ammoniacal nitrogen, nitrite nitrogen and nitrate nitrogen forms.

- (b) The concentration and loading of contaminants in the discharge; and
- (c) In the case of an application under Rules 12.C.2.1 and 12.C.2.3, the staged timeframe for achieving the permitted activity conditions in Rules 12.C.1.1, 12.C.1.1A or 12.C.1.3; and
- (d) In the case of an application under 12.C.2.2, the staged timeframe to address adverse effects on water quality; and
- (e) In the case of an application previously consented under Rule 12.C.2.2, compliance with conditions of the previous resource consent; and
- (f) Any change to infrastructure and the staging of implementation of those changes; and
- (g) Any adverse effect on water quality, including cumulative effects, and consideration of trends in the quality of the receiving water; and
- (h) Any adverse effect of the discharge on any natural or human use value, including Kāi Tahu values and use of the coastal marine area for contact recreation and seafood gathering; and
- (i) The need for and extent of any mixing zone; and
- (j) Any co-ordination of discharges across multiple landholdings; and
- (k) The extent to which the contaminant results from the activities of the applicant; and
- (l) Any effect on any Regionally Significant Wetland or on any regionally significant wetland value; and
- (m) Any erosion, land instability, sedimentation or property damage resulting from the discharge; and
- (n) Any financial contribution for any Regionally Significant Wetland or on any regionally significant wetland value; and
- (o) The information and monitoring requirements; and
- (p) The duration of the resource consent; and
- (q) The review of conditions of the resource consent.

12.C.2.5 The discharge of liquid animal effluent, or water containing liquid animal effluent from an animal effluent system onto or into land is a ***restricted discretionary*** activity provided:

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- (a) The discharge is not prohibited under Rule 12.C.0.4; and
- (b) The discharge is not permitted under Rule 12.C.1.4;

In considering any resource consent under this rule, the Otago Regional Council will restrict the exercise of its discretion to the following:

- (i) The extent to which the application depth and rate is consistent with industry agreed good management practice;
- (ii) Size and location of the disposal area, including separation distances from lakes, rivers, natural wetlands, bores, soak holes, the coastal marine area, water supply for human consumption and dwellings;
- (iii) Adverse effects on water quality, taking into account the nature and sensitivity of the receiving environment, and any measures to avoid, remedy or mitigate these adverse effects;
- (iv) Adverse effects on Kāi Tahu cultural and spiritual beliefs, values and uses, and any measures to avoid, remedy or mitigate these adverse effects;
- (v) Duration of consent and any review conditions;
- (vi) Quality and content of, and compliance with, a management plan for the purpose of preventing the unauthorised discharge of liquid or solid animal effluent to water that is prepared in accordance with Schedule 21;
- (vii) Any information and monitoring requirements; and
- (viii) The value of existing investment in the animal effluent system.

Note: Rules 12.C.0.4, 12.C.1.4A, 12.C.1.4, and 12.C.2.5 manage discharges of animal effluent to land. They do not regulate the land use for the construction, use and maintenance of an animal effluent system. The construction, use and maintenance of animal effluent systems is managed by Rules 14.7.1.1A, 14.7.1.1, 14.7.1.2, 14.7.2.1, and 14.7.3.1.

12.C.3 Discretionary activities: Resource consent required

12.C.3.1 The discharge of water from one catchment to water in another catchment is a *discretionary* activity.

12.C.3.2 The discharge of water or any contaminant:

- (i) To water; or
- (ii) Onto or into land in circumstances which may result in a contaminant entering water

is a *discretionary* activity, unless it is:

- (a) Prohibited by a rule in 12.C.0; or
- (b) Permitted by a rule in 12.C.1; or
- (c) Provided for by a rule in 12.C.2.

R U L E S : W A T E R T A K E , U S E A N D M A N A G E M E N T

Chapter 13

Rules: Land Use on Lake or River Beds or Regionally Significant Wetlands

And

Chapter 14

Rules: Land Use Other than in Lakes or River Beds

13

Rules: Land Use on Lake or River Beds or Regionally Significant Wetlands



- Note: 1. Where the rules in this chapter provide for any activity in the bed of a lake or river, or in any Regionally Significant Wetland, a resource consent may also be required for activities associated with it, such as discharges to water, takes of water, damming or diversion of water, bed disturbance or structures.
2. A wetland may include open water which is part of a lake.

13.1 The use of a structure

13.1.1 Permitted activities: No resource consent required

13.1.1.1 The use of any structure that is fixed in, on, under, or over the bed of any lake or river, or any Regionally Significant Wetland, is a *permitted* activity, providing:

- (a) The structure is lawfully established; and
- (b) In the case of a change in use, the effects of the new use of the structure are the same or similar in character, intensity and scale as the preceding use; and
- (c) Measures are taken to avoid animal waste entering the lake, river or Regionally Significant Wetland; and
- (d) The structure is maintained in good repair.

13.1.2 Restricted discretionary activities: Resource consent required

13.1.2.1 Except as provided for by Rule 13.1.1.1, the use of a structure that is fixed in, on under or over the bed of any lake or river, or any Regionally Significant Wetland, is a *restricted discretionary* activity.

In considering any resource consent for the use of any structure in terms of this rule, the Otago Regional Council will restrict the exercise of its discretion to the following:

- (a) Any adverse effect on the function or structural integrity of the structure; and
- (b) Any measures to avoid animal waste entering the lake, river, or Regionally Significant Wetland; and
- (c) The duration of the resource consent; and
- (d) The information and monitoring requirements; and
- (e) Any insurance or other appropriate means of remedying the effects of failure; and
- (f) Any bond; and
- (g) The review of conditions of the resource consent.

The Consent Authority is precluded from giving public notification of an application for a resource consent under this rule.

Principal reasons for adopting

The use of a structure that is fixed in, on, under, or over the bed of any lake or river can only occur if it is expressly allowed by a rule in a regional plan or any proposed regional plan, or by a resource consent (Section 13(1) of the Resource Management Act).

The use of any structure under Rule 13.1.1.1 is likely to have less adverse effect than the structure itself. This rule is adopted to enable the use of structures while ensuring that any change in use does not result in new or increased effects. Any other activity involving the use of a structure that is fixed in, on, under, or over the bed of any lake or river is a restricted discretionary activity in order that any adverse effects can be assessed.

13.2 The erection or placement of a structure

13.2.1 Permitted activities: No resource consent required

Note: Any alteration of the bed of a lake or river, or of any Regionally Significant Wetland, in association with the following activities must also comply with Rules under 13.5 in order to be classified as a permitted activity.

- 13.2.1.1 The erection or placement of any fence, pipe, line or cable over the bed of a lake or river, or a Regionally Significant Wetland, is a *permitted* activity, providing:
- (a) The fence, pipe, line or cable does not cross a lake or river identified in Schedule 1A as being an “Outstanding natural feature or landscape” unless it is attached to an existing lawfully established support structure; and
 - (b) No part of the fence, pipe, line or cable is fixed to the bed of the lake or river unless it is attached to an existing lawfully established support structure; and
 - (c) No part of any pipe, line or cable is less than two metres above the 1 percent probability flood level, unless it is attached to an existing lawful structure; and
 - (d) Where it is attached to an existing lawful structure, no part of any pipe, line or cable extends below the underside of the existing structure; and
 - (e) Any fence over the bed of a lake or river, or a wetland, does not impede the flow of flood water or debris, or is installed and maintained so it results in no flooding or erosion of the bed or banks of the lake or river, or of a wetland; and
 - (f) The fence, pipe, line or cable does not interfere with navigation; and
 - (g) For existing overhead network utility services over the bed of a lake or river, there is no reduction in the height of clearance above the waterway; and

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(h) The fence, pipe, line or cable is maintained in good repair.

13.2.1.2 The placement of any pipe, line, or cable on or under the bed of a lake or river, or any Regionally Significant Wetland, is a *permitted* activity, providing:

- (a) The pipe, line, or cable does not impede the flow of water or debris, or is installed and maintained so it results in no flooding, erosion or sedimentation; and
- (b) The location of the pipe, line, or cable is identified by markers on the banks of the river or lake; and
- (c) The pipe, line, or cable is maintained in good repair.

13.2.1.3 The erection or placement of any structure for the damming of water that is fixed in or on the bed of any lake or river is a *permitted* activity, providing:

- (a) The conditions of Rule 12.3.2.1 are met; and
- (b) The Otago Regional Council is notified of the location and nature of the dam, at least seven working days prior to commencing the erection or placement; and
- (c) The structure is maintained in good repair; and
- (d) The site is left tidy following the erection or placement.

Note: The erection of a dam structure is a different activity to the damming of water. The damming of water is covered by rules under 12.3 of this Plan.
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13.2.1.4 The erection or placement of any flow or level recording device, outfall or intake structure or navigational aid structure, that is fixed in, on or under the bed of any lake or river, or any Regionally Significant Wetland, is a *permitted* activity, providing:

- (a) The structure does not exceed 2 square metres in area provided that in respect of any flow or level recording device any catwalk to the nearest bank shall be excluded from the area calculation; and
- (b) The structure, or its erection or placement, does not cause any flooding or erosion; and
- (c) The Otago Regional Council is notified of the location and nature of the structure, at least seven working days prior to commencing the erection or placement; and
- (d) Except in the case of a navigational aid, or the sight board of any gauge, any visible part of the structure is of a neutral colour to blend in with the surroundings; and
- (e) The structure is maintained in good repair; and
- (f) The site is left tidy following the erection or placement.

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- 13.2.1.5 The erection or placement of any maimai that is fixed in, on or under the bed of any lake or river, or any Regionally Significant Wetland, is a *permitted* activity, providing:
- (a) The structure does not exceed 10 square metres in area; and
 - (b) The structure is open piled; and
 - (c) The structure is at least 90 metres from any adjacent maimai; and
 - (d) The site is left tidy following the erection or placement.
- 13.2.1.6 The erection or placement of any whitebait stand or eel trap that is fixed in, on or under the bed of any lake or river, or any Regionally Significant Wetland, is a *permitted* activity, providing:
- (a) The structure is open piled; and
 - (b) The structure does not exceed three square metres in area; and
 - (c) The dimension of the structure perpendicular to the flow of water is no more than 10 percent of the width of the bed of the lake or river, or no more than three metres, whichever is the lesser; and
 - (d) The structure is at least 20 metres from any neighbouring structure, flood gate, confluence or culvert located within the bed of a lake or river; and
 - (e) In the case of a whitebait stand, the structure is erected or placed in or on the bed of the Clutha River/Mata-Au, or its branches; and
 - (f) The site is left tidy following the erection or placement.
- 13.2.1.7 The erection or placement of any single span bridge including for pipes over the bed of a lake or river, or any Regionally Significant Wetland, is a *permitted* activity, providing:
- (a) The bridge or its erection or placement, does not cause any flooding, nor cause any erosion of the bed or banks of the lake or river, or Regionally Significant Wetland, or property damage; and
 - (b) No more than 20 metres of bridge occurs on any 250 metre stretch of any lake or river; and
 - (c) There is no reduction in the flood conveyance of the lake, river or Regionally Significant Wetland; and
 - (d) The bridge soffit is no lower than the top of the higher river bank; and
 - (e) The bridge and its abutments are secured against bed erosion, flood water and debris loading; and

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- (f) Where the bridge is intended for use by stock, measures are taken to avoid animal waste entering the lake, river or Regionally Significant Wetland; and
- (g) If the bridge is situated over or on public land, then public access over the public land is maintained.

13.2.1.7A The erection or placement of any boardwalk in, on or over a Regionally Significant Wetland, is a *permitted* activity, providing the erection or placement, or the boardwalk, does not cause any flooding, nor any erosion.

13.2.1.7B Unless covered by Rule 13.2.1.7 or 13.2.1.7A, the erection or placement of any crossing in or on the bed of a lake or river, or any Regionally Significant Wetland, is a *permitted* activity, providing:

- (a) The crossing, or its erection or placement, does not cause any flooding, nor cause erosion of the bed or banks of the lake, river or Regionally Significant Wetland, or property damage; and
- (b) The top of the crossing is no higher than:
 - (i) 2 metres above the lowest part of the bed where it is located; or
 - (ii) 3.5 metres above the lowest part of the bed where it is located, if the catchment upstream of the crossing is 50 hectares or less in area and there is a culvert with a minimum diameter of 1.2 metres (or equivalent cross-sectional area); and
- (c) No more than 24 metres of crossing occurs on any 250 metre stretch of any lake or river, with a minimum separation distance between any two crossings in or on the same lake or river of 12 metres; and
- (d) There is no reduction in the flood conveyance of the lake, river or Regionally Significant Wetland; and
- (e) The crossing and any ancillary structures are stable under flood conditions, and secured against bed erosion and debris loading; and
- (f) Fish passage is retained; and
- (g) Movement of bed material is not impeded; and
- (h) Where the crossing is intended for use by stock, measures are taken to avoid animal waste entering the lake, river or Regionally Significant Wetland; and
- (i) If the crossing is situated over or on public land, then public access over the public land is maintained.

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13.2.1.8 The placement of a floating boom in, on or over the bed of a lake, or any Regionally Significant Wetland, is a *permitted* activity, providing that for the bed of any lake:

- (a) The boom is securely fixed to the bed or margins of the lake; and
- (b) The boom is not more than 850 metres upstream of a lawfully established hydro-electric dam or control structure or within 200 metres of any other lawfully established dam or control structure; and
- (c) The boom is maintained at all times in a safe condition, good repair and substantially free of debris; and
- (d) The boom and all associated equipment are clearly visible.

13.2.2 Restricted discretionary activities: Resource consent required

13.2.2.1 Except as provided for by Rules 13.2.1.1, 13.2.1.2 and 13.2.1.5 to 13.2.1.7B, the erection or placement of any fence, pipe, line, cable, whitebait stand, eel trap, maimai, jetty, single span bridge or crossing in, on, under, or over the bed of any lake or river, or the erection or placement of any fence, pipe, line, cable, jetty, bridge, crossing or boardwalk in, on, under or over any Regionally Significant Wetland, is a *restricted discretionary* activity.

In considering any resource consent for the erection or placement of any fence, pipe, line, cable, whitebait stand, eel trap, maimai, jetty, single span bridge or crossing in terms of this rule, the Otago Regional Council will restrict the exercise of its discretion to the following:

- (a) Any adverse effects of the activity on:
 - (i) Any natural and human use value identified in Schedule 1 for any affected water body; and
 - (ii) The natural character of any affected water body; and
 - (iii) Any amenity value supported by any affected water body; and
 - (iv) Any heritage value associated with any affected water body; and
- (b) Any effect on any Regionally Significant Wetland or on any regionally significant wetland value; and
- (c) Flow and sediment processes; and
- (d) Any adverse effect on a defence against water; and
- (e) Any adverse effect on existing public access; and
- (f) Fish passage; and
- (g) The method of construction; and

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- (h) Any measures to avoid animal waste entering the lake, river, or Regionally Significant Wetland; and
- (i) The duration of the resource consent; and
- (j) The information and monitoring requirements; and
- (k) Any existing lawful activity associated with any affected water body; and
- (l) Any bond; and
- (m) The review of conditions of the resource consent; and
- (n) Any financial contribution for regionally significant wetland values or Regionally Significant Wetlands that are adversely affected.

The Consent Authority is precluded from giving public notification of an application for a resource consent under this rule.

13.2.3 Discretionary activities: Resource consent required

13.2.3.1 Except as provided for by Rules 13.2.1.1 to 13.2.2.1, the erection or placement of any structure fixed in, on, under, or over the bed of any lake or river, or any Regionally Significant Wetland, is a *discretionary* activity.

Principal reasons for adopting

The erection or placement of a structure that is fixed in, on, under, or over the bed of any lake, river or Regionally Significant Wetland can only occur if it is expressly allowed by a rule in a regional plan or any proposed regional plan, or by a resource consent (Section 13(1) of the Resource Management Act).

The erection or placement of structures under Rules 13.2.1.1 to 13.2.1.7B will have no more than minor adverse effects on the natural and human use values supported by water bodies, or on any other person, since the structures are suspended clear of the lake or river, or are small or open piled. These rules are adopted to enable such structures to be erected or placed while providing protection for those values and the interests of those people. Any other activity involving the erection or placement of any structure, that is fixed in, on, under, or over the bed of any lake or river is either a restricted discretionary or a discretionary activity in order that any adverse effects can be assessed.

13.3 The repair, maintenance, extension, alteration, replacement or reconstruction of a structure

13.3.1 Permitted activities: No resource consent required

Note: Any alteration of the bed of a lake or river, or of any Regionally Significant Wetland, in association with the following activities must

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also comply with Rules under 13.5 in order to be classified as a permitted activity.

- 13.3.1.1 The repair or maintenance of any lawful structure in, on, under or over the bed of a lake or river, or any Regionally Significant Wetland, is a *permitted* activity providing:
- (a) There is no permanent change to the scale, nature or functions of the structure.
- 13.3.1.2 The extension, alteration, replacement or reconstruction of any lawful structure in, on, under or over the bed of a lake or river, or any Regionally Significant Wetland, is a *permitted* activity providing:
- (a) In the case of a replacement or reconstruction, the structure is replaced or reconstructed in the same location as the original structure; and
- (b) There is no permanent change to the scale, nature or functions of the structure, except where a rule under 13.2.1 applies to that structure and the conditions of that rule are met.

13.3.2 Restricted discretionary activities: Resource consent required

- 13.3.2.1 Except as provided for by Rules 13.3.1.1 and 13.3.1.2, the extension, alteration, replacement or reconstruction of any structure, fixed in, on, under or over the bed of any lake or river, or any Regionally Significant Wetland, is a *restricted discretionary* activity.

In considering any resource consent for the extension, alteration, replacement or reconstruction of any structure in terms of this rule, the Otago Regional Council will restrict the exercise of its discretion to the following:

- (a) Any adverse effects of the activity on:
- (i) Any natural and human use value identified in Schedule 1 for any affected water body; and
- (ii) The natural character of any affected water body; and
- (iii) Any amenity value supported by any affected water body; and
- (iv) Any heritage value associated with any affected water body; and
- (b) Any effect on any Regionally Significant Wetland or on any regionally significant wetland value; and
- (c) Flow and sediment processes; and
- (d) Any adverse effect on a defence against water; and
- (e) Any adverse effect on existing public access; and
- (f) The method of construction; and
- (g) The duration of the resource consent; and

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- (h) The information and monitoring requirements; and
- (i) Any existing lawful activity associated with any affected water body; and
- (j) Any insurance or other appropriate means of remedying the effects of failure; and
- (k) Any bond; and
- (l) A financial contribution if the structure is a dam, or for regionally significant wetland values or Regionally Significant Wetlands that are adversely affected; and
- (m) The review of conditions of the resource consent; and
- (n) Any measures to avoid animal waste entering the lake, river, or Regionally Significant Wetland.

The Consent Authority is precluded from giving public notification of an application for a resource consent under this rule.

Principal reasons for adopting

The extension, alteration, replacement or reconstruction of a structure that is fixed in, on, under, or over the bed of any lake or river can only occur if it is expressly allowed by a rule in a regional plan or any proposed regional plan, or by a resource consent (Section 13(1) of the Resource Management Act). Repair or maintenance is allowed under Rule 13.3.1.1 provided there is no permanent change to the scale, nature or functions of the structure.

The work able to be carried out on structures under Rules 13.3.1.1 and 13.3.1.2 will have no more than minor adverse effects on the natural and human use values supported by water bodies, or on any other person, since there is no significant change to the structure. These rules are adopted to enable such structures to be repaired, maintained, extended, altered, replaced or reconstructed while providing protection for those values and the interests of those people. Any other activity involving the extension, alteration, replacement or reconstruction of structure, that is fixed in, on, under, or over the bed of any lake or river is a restricted discretionary activity in order that any adverse effects can be assessed.

13.4 Demolition or removal of a structure

13.4.1 Permitted activities: No resource consent required

Note: Any alteration of the bed of a lake or river, or any Regionally Significant Wetland, in association with the following activities must also comply with Rules under 13.5 in order to be classified as a permitted activity.

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- 13.4.1.1 The demolition or removal of any structure or any part of a structure that is fixed in, on, under, or over the bed of any lake or river, or any Regionally Significant Wetland, is a *permitted* activity providing:
- (a) Where any part of the structure remains in situ, nothing remains above the level of the bed; and
 - (b) The structure is not identified as a registered historic place, a building or place identified in any district plan as being of historic value, an archaeological site or a place with interim historic place registration; and
 - (c) The structure is not a sacred place identified by Kai Tahu and located in any area identified as MA3 in Schedule 1D; and
 - (d) There is no use of explosives; and
 - (e) The Otago Regional Council is notified of the demolition or removal, at least seven working days prior to commencing the activity; and
 - (f) The demolition or removal of the structure does not cause any erosion; and
 - (g) The site is left tidy following the demolition or removal; and
 - (h) In the case of any dam structure, the dam is no more than 3 metres high, and the volume of water stored by the dam is no more than 20,000 cubic metres; and
 - (i) There is no change to the water level range or hydrological function of any Regionally Significant Wetland; and
 - (j) There is no damage to fauna, or New Zealand native flora, in or on any Regionally Significant Wetland.

13.4.2 Restricted discretionary activities: Resource consent required

- 13.4.2.1 Except as provided for by Rule 13.4.1.1, the demolition or removal of any structure or any part of a structure that is fixed in, on, under, or over the bed of any lake or river, or any Regionally Significant Wetland, is a *restricted discretionary* activity.

In considering any resource consent for the demolition or removal of any structure in terms of this rule, the Otago Regional Council will restrict the exercise of its discretion to the following:

- (a) Any adverse effects of the activity on:
 - (i) Any natural and human use value identified in Schedule 1 for any affected water body;
 - (ii) The natural character of any affected water body;
 - (iii) Any amenity value supported by any affected water body; and
 - (iv) Any heritage value associated with any affected water body; and

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- (b) Any effect on any Regionally Significant Wetland or on any regionally significant wetland value; and
- (c) Flow and sediment processes; and
- (d) Any adverse effect on a defence against water; and
- (e) Any adverse effect on existing public access; and
- (f) The method of demolition or removal; and
- (g) The duration of the resource consent; and
- (h) The information and monitoring requirements; and
- (i) Any existing lawful activity associated with any affected water body; and
- (j) Any bond; and
- (k) The review of conditions of the resource consent; and
- (l) Any financial contribution for regionally significant wetland values or Regionally Significant Wetlands that are adversely affected.

The Consent Authority is precluded from giving public notification of an application for a resource consent under this rule.

Principal reasons for adopting

The demolition or removal of a structure that is fixed in, on, under, or over the bed of any lake or river can only occur if it is expressly allowed by a rule in a regional plan or any proposed regional plan, or by a resource consent (Section 13(1) of the Resource Management Act).

The demolition or removal of a structure under Rule 13.4.1.1 will have less adverse effect than if the structure remained in the bed. This rule is adopted to enable such demolition or removal to occur while providing protection for the natural and human use values supported by the water body and other persons. Any other activity involving the demolition or removal of a structure, that is fixed in, on, under, or over the bed of any lake or river is a restricted discretionary activity in order that any adverse effects can be assessed.

13.5 Alteration of the bed of a lake or river, or of a Regionally Significant Wetland

13.5.A General rules for section 13.5

- 13.5.A.1 Discharges of bed material resulting from the alteration of the bed of a lake or river, or a Regionally Significant Wetland, are addressed only through rules in section 13.5.

Note: Alteration includes any disturbance, and the associated remobilisation (discharge) and redeposition (deposit) of bed material already present, reclamation or deposition of cleanfill associated with works in the bed.

13.5.1 Permitted activities: No resource consent required

13.5.1.1 The disturbance of the bed of any lake or river, or any Regionally Significant Wetland, and any resulting discharge or deposition of bed material associated with:

- (i) The erection, placement, extension, alteration, replacement, reconstruction, repair, maintenance, demolition or removal, of any structure that is fixed in, on, under or over the bed of any lake or river, or the wetland; or
- (ii) The clearance of debris or alluvium from within, or immediately surrounding, any structure in order to safeguard the function or structural integrity of the structure; or
- (iii) The maintenance or reinstatement of a water intake, in order to enable the exercise of a lawful take of water,

is a *permitted* activity, providing:

- (a) Except in the case of the demolition or removal of a structure, the structure is lawfully established; and
- (b) Except in the case of (i), there is no increase in the scale of the existing structure; and
- (c) If work is undertaken between 1 May and 30 September inclusive, the Department of Conservation and the relevant Fish and Game Council will be notified as soon as reasonably practicable in advance; and
- (d) The bed or wetland disturbance is limited to the extent necessary to undertake the work; and
- (e) The bed or wetland disturbance does not cause any flooding or erosion; and
- (f) The time necessary to carry out and complete the whole of the work within the wetted bed of the lake or river does not exceed 10 hours in duration; and
- (g) All reasonable steps are taken to minimise the release of sediment to the lake or river during the disturbance, and there is no conspicuous change in the colour or visual clarity of the water body beyond a distance of 200 metres downstream of the disturbance; and
- (h) No lawful take of water is adversely affected as a result of the bed or wetland disturbance; and
- (i) The site is left tidy following completion of the activity; and
- (j) Except for activities covered by Rules 13.2.1.5, 13.2.1.6, or 13.2.1.8, there is no change to the water level range or

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hydrological function of any Regionally Significant Wetland;
and

- (k) Except for activities covered by Rules 13.2.1.5, 13.2.1.6, or 13.2.1.8, there is no damage to fauna, or New Zealand native flora, in or on any Regionally Significant Wetland.

13.5.1.2 The disturbance of the bed of any river for the purpose of clearing any material that has accumulated as a result of a storm event, excluding alluvium, in order to maintain the flood carrying capacity of the bed of the river, and any resulting discharge or deposition of bed material, is a *permitted* activity, providing:

- (a) The bed disturbance is limited to the extent necessary to clear the debris; and
- (b) The bed disturbance does not cause any flooding or erosion; and
- (c) The time necessary to carry out and complete the whole of the work within the wetted bed does not exceed 10 hours in duration; and
- (d) All reasonable steps are taken to minimise the release of sediment to the lake or river during the activity, and there is no conspicuous change in the colour or visual clarity of the water body beyond a distance of 200 metres downstream of the disturbance; and
- (e) No lawful take of water is adversely affected as a result of the bed disturbance; and
- (f) The site is left tidy following completion of the activity.

13.5.1.3 The disturbance or reclamation of, or the deposition of any substance in, on or under, either the bed of any lake or river, or any Regionally Significant Wetland, and any resulting discharge of bed material, for the purpose of:

- (i) The erection, placement, extension, alteration, replacement, reconstruction, repair, maintenance, demolition or removal, of any structure carried out under Rules 13.2.1.1 to 13.2.1.7B, 13.3.1.1, 13.3.1.2 or 13.4.1.1; or
- (ii) The repair or maintenance of any defence against water constructed or placed by artificial means,

is a *permitted* activity providing:

- (a) The structure or defence against water is lawfully established; and
- (b) There is no change to the original scale of the structure or defence against water; and

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- (c) The time necessary to carry out and complete the whole of the work within the wetted bed of the lake or river does not exceed 10 hours in duration; and
- (d) All reasonable steps are taken to minimise the release of sediment to the lake, river or wetland during the activity, and there is no conspicuous change in the colour or visual clarity of the water body beyond a distance of 200 metres downstream of the activity; and
- (e) No lawful take of water is adversely affected as a result of the activity; and
- (f) In the case of reclamation or deposition, only cleanfill is used; and
- (g) The site is left tidy following completion of the activity; and
- (h) Except for activities covered by Rules 13.2.1.5, 13.2.1.6, or 13.2.1.8, there is no change to the water level range or hydrological function of any Regionally Significant Wetland; and
- (i) Except for activities covered by Rules 13.2.1.5, 13.2.1.6, or 13.2.1.8, there is no damage to fauna, or New Zealand native flora, in or on any Regionally Significant Wetland.

13.5.1.4 The disturbance or reclamation of, or the deposition of any substance in, on or under, the bed of any lake or river, for the purpose of the reinstatement of any bank of a lake or river which has been eroded by a flood event, and any resulting discharge of bed material, is a *permitted* activity providing:

- (a) There is no change to the scale of the bank existing before the flood event; and
- (b) The activity is carried out within twelve months of the flood event that caused the erosion; and
- (c) The time necessary to carry out and complete the whole of the work within the wetted bed does not exceed 10 hours in duration; and
- (d) All reasonable steps are taken to minimise the release of sediment to the lake or river during the activity, and there is no conspicuous change in the colour or visual clarity of the water body beyond a distance of 200 metres downstream of the activity; and
- (e) No lawful take of water is adversely affected as a result of the repair or maintenance; and
- (f) In the case of reclamation or deposition, only cleanfill is used; and
- (g) The site is left tidy following completion of the activity.

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- 13.5.1.5 The disturbance of the bed of any lake or river associated with the control of aquatic pest plants, and any resulting discharge or deposition of bed material, is a *permitted* activity providing:
- (a) The control is carried out under Rule 13.7.1.1, or under a resource consent; and
 - (b) The bed disturbance is limited to that which is necessary for the removal of the plant material.
- 13.5.1.5A The alteration of any Regionally Significant Wetland, associated with the introduction, planting, removal or clearance of plant material is a *permitted* activity providing:
- (a) The introduction, planting, removal or clearance is carried out under Rule 13.6.2.0 or 13.7.1.2, or
 - (b) The introduction, planting, removal or clearance is carried out under a resource consent.
- 13.5.1.5B The disturbance of any Regionally Significant Wetland, for the purpose of drain maintenance, and any resulting discharge or deposition of bed material, is a *permitted* activity, providing:
- (a) The disturbance is limited to that necessary to address water accumulating on land outside of any Regionally Significant Wetland; and
 - (b) The drain was lawfully constructed on or before 2 July 2011; and
 - (c) The drain has been maintained within the preceding 15 years; and
 - (d) There is no increase in the drain dimensions from the last maintenance; and
 - (e) All reasonable measures are taken to minimise the release of sediment to any water body during the disturbance, and there is no conspicuous change in the colour or visual clarity of any water body beyond a distance of 100 metres downstream of the disturbance; and
 - (f) All reasonable steps are taken to minimise damage to fauna and New Zealand native flora; and
 - (g) At least ten working days prior to commencing the maintenance, the Otago Regional Council is given notice of the location and date of the drain maintenance; and
 - (h) Within ten working days after the drain maintenance is carried out, the Otago Regional Council is provided with:
 - (i) Photographs of:
 - (a) The drain immediately before and after maintenance; and
 - (b) The wetland adjoining the drain being

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maintained, showing vegetation cover; and

- (ii) Dimensions (longitude and cross-section) of the drain immediately before and after maintenance; and
- (iii) A map or line diagram identifying the location and course of the drain.

13.5.1.6 Except as provided for by Rule 13.5.1.1, the extraction of alluvium within the bed of a river is a *permitted* activity, providing:

- (a) No person takes more than 20 cubic metres in any month; and
- (b) The alluvium is not taken from the wet bed of the river and the surface of the remaining alluvium is not left lower than the level of the water in the river; and
- (c) The area from which the material is taken is smoothed over, as far as practicable; and
- (d) The activity is not carried out within 20 metres of any structure which has foundations in the river bed, or any ford or pipeline; and
- (e) No material is taken directly from the bank or from any defence against water.

13.5.1.7 Suction dredge mining within the bed of a river is a *permitted* activity providing:

- (a) The internal diameter of the nozzle does not exceed 150 mm; and
- (b) The mining activity does not occur in those rivers, or parts of rivers, listed in Schedule 7 during any identified time period; and
- (c) The mining activity is not carried out within 20 metres of any structure which has foundations in the river bed, or any ford or pipeline; and
- (d) The activity does not cause any flooding or erosion; and
- (e) No refuelling is carried out while the dredge is within the wet bed of the river unless an effective spill tray has been installed; and
- (f) The area dredged lies within the wet bed of the river, and no material is removed from within or under the banks of the river; and
- (g) No suction dredge is operated within 500 metres of another dredge; and
- (h) No explosives or earthmoving machinery apart from the dredge is used to move material in the river bed; and
- (i) Any rocks moved to allow suction dredging to occur are returned as close as possible to the site from which they were removed; and

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- (j) There is no conspicuous change in the colour or visual clarity of the water body beyond a distance of 100 metres downstream of the point of discharge of the dredge; and
- (k) No lawful take of water is adversely affected as a result of the bed disturbance.

13.5.1.8 *[Repealed – 1 May 2014]*

13.5.1.8A The disturbance of the bed of any lake or river, or any Regionally Significant Wetland by livestock, excluding intentional driving of livestock, and any resulting discharge or deposition of bed material, is a **permitted** activity, providing it does not:

Part E
Stock access
to water

- (a) Involve feeding out on that bed or wetland; or
- (b) Cause or induce noticeable slumping, pugging or erosion; or
- (c) Result in a visual change in colour or clarity of water; or
- (d) Damage fauna, or New Zealand native flora, in or on any Regionally Significant Wetland.

Advice Note: For regulations on stock exclusion from waterways refer to the Resource Management (Stock Exclusion) Regulations 2020.

Advice Note: The proposed Land and Water Regional Plan, when notified in December 2023, may introduce provisions regulating stock exclusion in a Freshwater Management Unit, or any part of a Freshwater Management Unit in addition to Resource Management (Stock Exclusion) Regulations 2020.

13.5.1.8B The disturbance of the bed of any lake or river, or any Regionally Significant Wetland, by livestock where they are being intentionally driven, and any resulting discharge or deposition of bed material, is a **permitted** activity, providing there is no:

- (a) Existing structure available for use; or
- (b) Visual change in colour or clarity of water, after the disturbance ceases; or
- (c) Noticeable slumping, pugging or erosion.

13.5.1.9 The drilling of land on the bed of any lake or river, other than for the purpose of creating a bore, and any disturbance of the bed associated with that drilling, and any resulting discharge or deposition of bed material, is a **permitted** activity providing:

- (a) The bed disturbance is limited to the extent necessary for the drilling; and
- (b) The drill hole is filled or sealed on completion of the work so that contaminants are prevented from entering the hole at any level; and

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- (c) The activity does not occur in the wet bed; and
- (d) The site is left tidy following completion of the activity.

Part F
Sediment
traps

13.5.1.10 The disturbance of the bed of any ephemeral or intermittently flowing river for the purpose of constructing or maintaining a sediment trap and any associated deposition of bed material is a *permitted* activity providing:

- (a) The construction or maintenance of the sediment trap is undertaken solely for sediment control purposes or to maintain the capacity and effective functioning of the sediment trap; and
- (b) The construction or maintenance does not result in destabilisation of any lawfully established structure or cause increased risk of flooding or erosion; and
- (c) No works occur in flowing water; and
- (d) Any build-up of sediment and other debris (including vegetation) within the sediment trap is removed as soon as practicable; and
- (e) All reasonable steps are taken to minimise the release of sediment during the disturbance and there is no conspicuous change in the colour or clarity of the water body beyond a distance of 200 metres downstream of the disturbance; and
- (f) No lawful take of water is adversely affected as a result of the disturbance; and
- (g) There is no change to the water level range or hydrological function of any Regionally Significant Wetland; and
- (h) There is no damage to fauna or New Zealand native flora in or on any Regionally Significant Wetland.

13.5.2 Restricted discretionary activities: Resource consent required

13.5.2.1 Except as provided for by Rules 13.5.1.1 and 13.5.1.6, the extraction of alluvium within the bed of a lake or river, or within any Regionally Significant Wetland, is a *restricted discretionary* activity.

In considering any resource consent for the extraction of alluvium in terms of this rule, the Otago Regional Council will restrict the exercise of its discretion to the following:

- (a) Any adverse effects of the activity on:
 - (i) Any natural and human use value identified in Schedule 1 for any affected water body;
 - (ii) The natural character of any affected water body;
 - (iii) Any amenity value supported by any affected water body; and

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- (iv) Any heritage value associated with any affected water body; and
- (b) Any effect on any Regionally Significant Wetland or on any regionally significant wetland value; and
- (c) Any financial contribution for regionally significant wetland values or Regionally Significant Wetlands that are adversely affected;
- (d) Any adverse effect on a defence against water; and
- (e) The quantity of alluvium to be extracted, and the location and the method of removal; and
- (f) Any adverse effect on existing public access; and
- (g) The duration of the resource consent; and
- (h) The information and monitoring requirements; and
- (i) Any existing lawful activity associated with any affected water body; and
- (j) Any bond; and
- (k) The review of conditions of the resource consent.

Except in the case of extraction from the wet bed of a lake or river, or within a Regionally Significant Wetland, the Consent Authority is precluded from giving public notification of an application for a resource consent under this rule.

13.5.3 Discretionary activities: Resource consent required

- 13.5.3.1 Except as provided for by Rules 13.5.1.1 to 13.5.2.1 the alteration of the bed of any lake or river is a *discretionary* activity.
- 13.5.3.2 Unless covered by Rules 13.5.1.1, 31.5.1.3, 13.5.1.5A, 13.5.1.5B, 13.5.1.8A, 13.5.1.8B or 13.5.2.1, the alteration of any Regionally Significant Wetland, is a *discretionary* activity.

Principal reasons for adopting

The alteration of the bed of a lake or river can only occur if it is expressly allowed by a rule in a regional plan or any proposed regional plan, or by a resource consent (Section 13(1) of the Resource Management Act).

No person may disturb, remove, damage, or destroy any plant or part of any plant (whether exotic or indigenous) or the habitats of any such plants or of animals in, on, or under the bed of any lake or river in a manner that contravenes a rule in a regional plan or proposed regional plan, unless that activity is expressly allowed by a resource consent or is an existing lawful use allowed by Section 20A of the Act (Resource Management Act Section 13(2)(b)).

Rules 13.5.2.1 and 13.5.3.1 provide for the preservation of the natural state of the shoreline of Lake Wanaka, consistent with Section 4 (c) of the Lake Wanaka Preservation Act 1973.

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The alteration of the bed of a lake or river under Rules 13.5.1.1 to 13.5.1.9 will have no more than minor adverse effects on the natural and human use values supported by water bodies, or on any other person, since the activities involve minimal disturbance of the bed. Any other activity involving the alteration of the bed of a lake or river is either a restricted discretionary or a discretionary activity in order that any adverse effects can be assessed.

13.6 The introduction or planting of vegetation

Note: The Otago Regional Council's Pest Management Strategy 2009 addresses the management of pest plants in Otago under the Biosecurity Act 1993. The Biosecurity Act 1993 bans a number of aquatic plants that have been declared unwanted organisms, from sale, distribution and propagation.

13.6.1 Prohibited activities: No resource consent granted

13.6.1.1 The introduction of material of the following species:

- (i) Lagarosiphon *Lagarosiphon major*; or
- (ii) Eel Grass *Vallisneria spiralis*; or
- (iii) Egeria *Egeria densa*; or
- (iv) Hornwort *Ceratophyllum demersum*; or
- (v) Hydrilla *Hydrilla verticillata*; or
- (vi) Sagittaria *Sagittaria graminea ssp platyphylla*; or
- (vii) Spartina *Spartina anglica*; or
- (viii) Salvinia *Salvinia molesta*; or
- (ix) Water Hyacinth *Eichhornia crassipes*; or
- (x) Water Lettuce *Pistia stratiotes*,

to the bed or water of any Otago lake, river, or any Regionally Significant Wetland, is a **prohibited** activity for which no resource consent will be granted.

13.6.2 Permitted activities: No resource consent required

13.6.2.0 The introduction or planting of any New Zealand native plant to any Regionally Significant Wetland, is a **permitted** activity providing:

- (a) All reasonable measures are taken to minimise effects on any Regionally Significant Wetland or on any regionally significant wetland value; and
- (b) The introduction or planting does not cause any flooding or erosion.

13.6.2.1 The introduction or planting of any plant to or on the bed of any lake or river for the purpose of remedying or mitigating the adverse effects of flooding, erosion, or non-point source discharge of contaminants, or to restore or enhance habitat, is a **permitted** activity providing:

R U L E S : L A N D U S E O N L A K E O R R I V E R B E D S O R
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- (a) Crack Willow *Salix fragilis* or Grey Willow *Salix cinerea* is not introduced to an area where it does not currently exist; and
- (b) The plant is not any pest plant listed in the Pest Management Strategy for Otago 2009; and
- (c) All reasonable steps are taken to minimise the release of sediment to the lake or river during the introduction or planting, and there is no conspicuous change in the colour or visual clarity of the water body beyond a distance of 100 metres downstream of the introduction or planting; and
- (d) The introduction or planting does not cause any flooding or erosion; and
- (e) The site is left tidy following the introduction or planting.

13.6.3 Discretionary activities: Resource consent required

13.6.3.1 Except as provided for by Rules 13.6.1.1 to 13.6.2.1, the introduction or planting of vegetation to the bed of any lake or river, or any Regionally Significant Wetland, is a *discretionary* activity.

Principal reasons for adopting

The introduction or planting of any plant, or any part of any plant (whether exotic or indigenous) on the bed of a lake or river can only occur if it is expressly allowed by a rule in a regional plan or any proposed regional plan, or by a resource consent (Section 13(1) of the Resource Management Act).

The distribution of those plants listed in Rule 13.6.1.1 is banned under the Biosecurity Act 1993 as they have been declared unwanted organisms. It is therefore appropriate to prohibit their introduction to the beds or the waters of Otago's lakes or rivers.

The introduction of vegetation under Rule 13.6.2.1 will have positive effects, including remedying or mitigating the adverse effects of flooding, erosion, or non-point source discharge of contaminants, and the restoration of habitat. This rule is adopted to enable such beneficial planting to occur. It excludes Crack and Grey willow, where they are not already present, due to their invasive nature. Any other activity involving the introduction of any plant to the bed of a lake or river is a discretionary activity in order that any adverse effects can be assessed.

13.7 The removal of vegetation

13.7.1 Permitted activities: No resource consent required

13.7.1.1 The physical removal of material of any of the following plants:

- (i) Lagarosiphon *Lagarosiphon major*; or
- (ii) Eel Grass *Vallisneria spiralis*; or
- (iii) Egeria *Egeria densa*; or
- (iv) Hornwort *Ceratophyllum demersum*; or
- (v) Hydrilla *Hydrilla verticillata*; or
- (vi) Sagittaria *Sagittaria graminea ssp platyphylla*; or
- (vii) Spartina *Spartina anglica*; or
- (viii) Salvinia *Salvinia molesta*; or
- (ix) Water Hyacinth *Eichhornia crassipes*; or
- (x) Water Lettuce *Pistia stratiotes*,

from the bed of any lake or river is a *permitted* activity, providing:

- (a) Except in the case of Lagarosiphon *Lagarosiphon major* in Lake Wanaka or Lake Dunstan, containment is utilised to ensure no weed fragments escape; and

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- (b) In the case of Lagarosiphon *Lagarosiphon major* in Lake Wanaka, containment is utilised to ensure no floating mats or rafts of weed fragments are released onto the lake surface; and
- (c) The Otago Regional Council is notified of the location and nature of the removal, at least seven working days prior to commencing the removal; and
- (d) The site is left tidy following the removal.

13.7.1.2 The removal or clearance of plant material exotic to New Zealand from any Regionally Significant Wetland, is a **permitted** activity providing:

- (a) The plant is not Lagarosiphon (*Lagarosiphon major*) in Lake Wanaka or Lake Dunstan; and
- (b) All reasonable measures are taken to minimise effects on any Regionally Significant Wetland or on any regionally significant wetland value.

13.7.2 Controlled Activities: Resource consent required but always granted

13.7.2.1 Except as provided for by Rules 13.7.1.1 and 13.7.1.2, physical removal of material of any of the following plants:

- (i) Lagarosiphon *Lagarosiphon major*; or
- (ii) Eel Grass *Vallisneria spiralis*; or
- (iii) Egeria *Egeria densa*; or
- (iv) Hornwort *Ceratophyllum demersum*; or
- (v) Hydrilla *Hydrilla verticillata*; or
- (vi) Sagittaria *Sagittaria graminea ssp platyphylla*; or
- (vii) Spartina *Spartina anglica*; or
- (viii) Salvinia *Salvinia molesta*; or
- (ix) Water Hyacinth *Eichhornia crassipes*; or
- (x) Water Lettuce *Pistia stratiotes*,

from the bed of any lake or river, or from any Regionally Significant Wetland, is a **controlled** activity.

In granting any resource consent for the removal of material of the above identified plants in terms of this rule, the Otago Regional Council will restrict the exercise of its control to the following:

- (a) The method of removal; and
- (b) The effects on any Regionally Significant Wetland or on any regionally significant wetland value; and
- (c) The duration of the resource consent; and
- (d) The information and monitoring requirements; and

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- (e) Any bond; and
- (f) The review of conditions of the resource consent.

The Consent Authority is precluded from giving public notification of an application for a resource consent under this rule.

13.7.3 Discretionary activities: Resource consent required

- 13.7.3.1 Unless covered by Rules 13.7.1.1 to 13.7.2.1, removal or clearance of plant material from any Regionally Significant Wetland, is a *discretionary* activity.

Principal reasons for adopting

No person may disturb, remove, damage or destroy any plant or any part of any plant (whether exotic or indigenous), or the habitats of any such plants or of animals, in, on, or under the bed of any lake or river in a manner that contravenes a rule in a regional plan or any proposed regional plan, unless it is expressly allowed by a resource consent or is an existing lawful use (Resource Management Act Section 13(2)(b)).

The removal of material of the identified plants under Rule 13.7.2.1 will ensure that any spread of the plants caused by their removal is avoided. Any other removal of material of the identified plants from the bed of any lake or river is a controlled activity so that the Otago Regional Council has the opportunity to control the adverse effects likely to arise from that removal.

RULES: LAND USE ON LAKE OR RIVER BEDS OR
REGIONALLY SIGNIFICANT WETLANDS

14

Rules: Land Use other than in Lake or River Beds



14.1 Bore construction

Note: The construction of a bore is carried out for the purpose of taking groundwater, or which results in groundwater being taken. This is distinct from the activities of:

- The drilling of land carried out for any other purpose which is covered by rules under 14.2;
- The taking of groundwater, which is covered by rules under 12.2 in Chapter 12.

14.1.1 Controlled activities: Resource consent required but always granted

14.1.1.1 The excavation, drilling or other disturbance of land, other than in the bed of any lake or river, for the purpose of creating a bore, is a *controlled* activity.

In granting any resource consent for the excavation, drilling or other disturbance of land in terms of this rule, the Otago Regional Council will restrict the exercise of its control to the following:

- (a) The location of the bore including its relationship to other bores and other activities; and
- (b) The planned depth of the bore; and
- (c) The management of the bore head and maintenance of the bore; and
- (d) The nature of the bore; and
- (e) The method of drilling or excavation; and
- (f) The duration of the resource consent; and
- (g) The information and monitoring requirements; and
- (h) Any bond; and
- (i) The review of conditions of the resource consent.

Applications may be considered without notification under Section 93 and without service under Section 94(1) of the Resource Management Act on persons who, in the opinion of the consent authority, may be adversely affected by the activity.

Principal reasons for adopting

No person may use any land in a manner that contravenes a rule in a regional plan or any proposed regional plan, unless that activity is expressly allowed by a resource consent or is an existing lawful use (Resource Management Act Section 9(3)).

This rule is adopted to ensure that the Otago Regional Council has the opportunity to control the adverse environmental effects that may arise from penetration of an aquifer resulting from bore hole construction.

14.2 Drilling

14.2.1 Permitted activities: No resource consent required

14.2.1.1 The drilling of land, other than for the purpose of creating a bore, and other than on the bed of any lake or river, is a *permitted* activity providing:

- (a) The drilling does not occur on land over an aquifer identified in the C-series maps; and
- (b) The hole is filled or sealed on completion of the work so that contaminants are prevented from entering the hole at any level.

14.2.2 Controlled activities: Resource consent required but always granted

14.2.2.1 The drilling of land over an aquifer identified in the C-series maps, other than for the purpose of creating a bore and other than on the bed of any lake or river, is a *controlled* activity.

In granting any resource consent for the drilling of land in terms of this rule, the Otago Regional Council will restrict the exercise of its control to the following:

- (a) The potential for contamination of groundwater; and
- (b) The location of the drilling; and
- (c) The planned depth of the drilling; and
- (d) The management of the drill hole on completion; and
- (e) The method of drilling; and
- (f) The duration of the resource consent; and
- (g) The information and monitoring requirements; and
- (h) Any bond; and
- (i) The review of conditions of the resource consent.

Applications may be considered without notification under Section 93 and without service under Section 94(1) of the Resource Management Act on persons who, in the opinion of the consent authority, may be adversely affected by the activity.

14.2.3 Restricted discretionary activities: Resource consent required

14.2.3.1 Except as provided by Rules 14.2.1.1 and 14.2.2.1, the drilling of land, other than for the purpose of creating a bore and other than on the bed of any lake or river, is a *restricted discretionary* activity.

In considering any resource consent for the drilling of land in terms of this rule, the Otago Regional Council will restrict the exercise of its discretion to the following:

- (a) The potential for contamination of groundwater; and
- (b) The location of the drilling; and

- (c) The planned depth of the drilling; and
- (d) The management of the drill hole on completion; and
- (e) The method of drilling; and
- (f) The duration of the resource consent; and
- (g) The information and monitoring requirements; and
- (h) Any bond; and
- (i) The review of conditions of the resource consent.

Principal reasons for adopting

No person may use any land in a manner that contravenes a rule in a regional plan or any proposed regional plan, unless that activity is expressly allowed by a resource consent or is an existing lawful use (Resource Management Act Section 9(3)).

Rule 14.2.1.1 is adopted to enable drilling to occur, but in a manner that protects groundwater resources from the entry of contaminants. Rule 14.2.2.1 is adopted to ensure that the Otago Regional Council has the opportunity to control the adverse environmental effects that may arise whenever an identified aquifer is penetrated. Any other drilling is a restricted discretionary activity in order that any adverse effects on groundwater can be assessed.

14.3 The erection, placement, extension, alteration, replacement, reconstruction, demolition or removal of a defence against water other than on the bed of any lake or river

14.3.1 Permitted Activities: No resource consent required

- 14.3.1.1 The alteration or reconstruction of any defence against water, other than on the bed of any lake or river, is a *permitted* activity providing:
- (a) There is no permanent change to the scale, nature or function of the defence against water.

14.3.2 Discretionary Activities: Resource consent required

- 14.3.2.1 Except as provided for in Rule 14.3.1.1, the erection, placement, extension, alteration, replacement, reconstruction, demolition or removal, of any defence against water, other than on the bed of any lake or river, is a *discretionary* activity.

Principal reasons for adopting

No person may use any land in a manner that contravenes a rule in a regional plan or any proposed regional plan, unless that activity is expressly allowed by a resource consent or is an existing lawful use (Resource Management Act Section 9(3)).

The activities under Rule 14.3.1.1 will have no more than minor adverse effects on the environment. This rule is adopted to ensure that the Otago Regional

Council has the opportunity to control defences against water so that they are constructed and maintained in a manner that does not exacerbate flood hazards or cause significant adverse effects on the environment.

14.4 Structures other than defences against water on the margins of lakes and rivers

14.4.1 Permitted Activities: No resource consent required

14.4.1.1 The erection or placement of any structure, other than a defence against water, within 7 metres of the margin of any lake, or within 7 metres of the top of the bank of any river, is a *permitted* activity, providing:

- (a) It does not result in the physical prevention or obstruction of access for works to avoid or mitigate any natural hazard; and
- (b) The Otago Regional Council is notified in writing, of the location and nature of the structure, at least seven working days prior to commencing the erection or placement.

14.4.2 Restricted discretionary activities: Resource consent required

14.4.2.1 Except as provided for by Rule 14.4.1.1, the erection or placement of any structure, other than a defence against water, within 7 metres of the margin of any lake, or within 7 metres of the top of the bank of any river, is a *restricted discretionary* activity.

In considering any resource consent for the erection or placement of a structure in terms of this rule, the Otago Regional Council will restrict the exercise of its discretion to the following matters:

- (a) The potential for physical access along the river or lake, for works to avoid or mitigate any natural hazard, to be prevented or obstructed, and the degree to which such access will be obstructed.

Principal reasons for adopting

No person may use any land in a manner that contravenes a rule in a regional plan or any proposed regional plan, unless that activity is expressly allowed by a resource consent or is an existing lawful use (Resource Management Act Section 9(3)).

Rule 14.4.1.1 is adopted to ensure that no person is restricted by a structure from having ready access along lakes or rivers, with machinery if necessary, in order to carry out works for the purpose of hazard avoidance or mitigation. Any other erection or placement of a structure, other than a defence against water, is a restricted discretionary activity, in order that any adverse effects on physical access for this purpose can be assessed.

14.5 Earthworks for residential development

Note: 1. The rules in Section 14.5 do not apply to earthworks or soil disturbances covered by the Resource Management (National Environmental Standards for Plantation Forestry) Regulations 2017.

2. Discharges resulting from earthworks are addressed only through rules in section 14.5.

14.5.1 Permitted activities: No resource consent required

Part G
Sediment from
earthworks for
residential
development

14.5.1.1 The use of land, and the associated discharge of sediment into water or onto or into land where it may enter water, for earthworks for residential development is a *permitted* activity providing:

- (a) The area of exposed earth is no more than 2,500 m² in any 12-month period per landholding; and
- (b) Earthworks do not occur within 10 metres of a water body, a drain, a water race, or the coastal marine area; and
- (c) Exposed earth is stabilised upon completion of the earthworks to minimise erosion and avoid slope failure; and
- (d) Earthworks do not occur on contaminated or potentially contaminated land; and
- (e) Soil or debris from earthworks is not placed where it can enter a water body, a drain, a race or the coastal marine area; and
- (f) Earthworks do not result in flooding, erosion, land instability, subsidence or property damage at or beyond the boundary of the property where the earthworks occur; and
- (g) The discharge of sediment does not result in any of the following effects in receiving waters, after reasonable mixing:
 - (i) the production of conspicuous oil or grease films, scums or foams, or floatable or suspended materials; or
 - (ii) any conspicuous change in the colour or visual clarity; or
 - (iii) any emission of objectionable odour; or
 - (iv) the rendering of fresh water unsuitable for consumption by farm animals; or
 - (v) any significant adverse effects on aquatic life.

14.5.2 Restricted discretionary activities: Resource consent required

Part G
Sediment from
earthworks for
residential
development

14.5.2.1 Except as provided by Rule 14.5.1.1, the use of land, and the associated discharge of sediment into water or onto or into land where it may enter water, for earthworks for residential development is a *restricted discretionary* activity.

In considering any resource consent under this rule, the Otago Regional Council will restrict the exercise of its discretion to the following:

- (a) Any erosion, land instability, sedimentation or property damage resulting from the activities; and
- (b) Effectiveness of the proposed erosion and sediment control measures in reducing discharges of sediment to water or to land where it may enter water; and
- (c) Compliance with the *Erosion and Sediment Control Guidelines for Land Disturbing Activities in the Auckland Region 2016 (Auckland Council Guideline Document GD2016/005)*; and
- (d) Any adverse effect on water quality, including cumulative effects, and consideration of trends in the quality of the receiving water body; and
- (e) Any adverse effect on any natural or human use value, and on use of the coastal marine area for contact recreation and seafood gathering; and
- (f) Measures to avoid, remedy or mitigate adverse effects on Kāi Tahu cultural and spiritual beliefs, values and uses.

14.6 Rural land uses

14.6.1 Permitted activities: No resource consent required

Part D
Intensive
Grazing

14.6.1.1 Until Regulations 26 and 27 of the Resource Management (National Environmental Standards for Freshwater) Regulations 2020 or equivalent regulations come into force, the use of land for intensive winter grazing is a *permitted* activity providing:

- (a) Land on the farm was used for intensive winter grazing between 1 July 2014 and 30 June 2019 (inclusive); and
- (b) At all times, the area of the farm that is used for intensive winter grazing is no greater than the maximum area of the farm that was used for intensive winter grazing between 1 July 2014 and 30 June 2019 (inclusive); and
- (c) A vegetated strip of at least 5 metres is maintained between the intensively grazed area and any river, lake, wetland or drain (excluding sub-surface drains), and all stock are excluded from this strip during intensive winter grazing; and
- (d) The intensive winter grazing does not occur in a natural wetland; and
- (be) There is no intensive winter grazing in any critical source area unless contaminants are prevented from entering a surface water body.

Advice Note: when regulations 26 and 27 of the Resource Management (National Environmental Standards for Freshwater) Regulations 2020 come into force, for rules applying to the use of land on a farm for intensive winter grazing refer to Subpart 3 of the Resource Management (National Environmental Standards for Freshwater) Regulations 2020.

14.6.2 Discretionary activities: Resource consent required**Part D
Intensive
Grazing**

14.6.2.1 Until Regulations 26 and 27 of the Resource Management (National Environmental Standards for Freshwater) Regulations 2020 or equivalent regulations come into force, except as provided by Rule 14.6.1.1, the use of land for intensive winter grazing is a *discretionary* activity.

Advice Note: when regulations 26 and 27 of the Resource Management (National Environmental Standards for Freshwater) Regulations 2020 come into force, for rules applying to the use of land on a farm for intensive winter grazing refer to Subpart 3 of the Resource Management (National Environmental Standards for Freshwater) Regulations 2020.¹

Advice Note: Resource consent may also be required under Regulation 30 of the Resource Management (National Environmental Standards for Freshwater) Regulations 2020. A resource consent may only be granted under Regulation 30 of the Resource Management (National Environmental Standards for Freshwater) Regulations 2020 if the consent authority is satisfied that granting the consent will not result in an increase in—

- (a) contaminant loads in the catchment, compared with the loads as at the close of 2 September 2020; or
- (b) concentrations of contaminants in freshwater or other receiving environments (including the coastal marine area and geothermal water), compared with the concentrations as at the close of 2 September 2020.

Any resource consent granted under Regulation 30 must be for a term that ends before 1 January 2031.²

¹ Added to clarify how the amendments to Rule 14.6.2.1 would be implemented.

² Added to clarify that the NES-F Requirements will apply.

14.7 Animal Waste Systems

Note: Resource consent may also be required under the Resource Management (National Environmental Standards for Freshwater) Regulations which contains additional restrictions in relation to activities within, or within a 100 metre setback of, a natural wetland.

14.7.1 Permitted activities: No resource consent required

Part B
Animal
waste
storage and
application

14.7.1.1A The use of land for the construction, use and maintenance of a component of an animal effluent system that is not an animal effluent storage facility is a *permitted* activity providing:

- (a) for a component with a volume of less than 35,000 litres, the component does not have any visible cracks, holes or defects that would allow effluent to leak from the component;
- (b) for a component with a volume of 35,000 litres or above, the component is certified by a Suitably Qualified Person, as defined in Schedule 20, within the last five years as having no visible cracks, holes or defects that would allow effluent to leak from the component;
- (c) the component (excluding conveyance pipes) is not located:
 - (i) within 20 metres of any lake, river, Regionally Significant Wetland, water supply used for human consumption, bore or soak hole; or
 - (ii) above subsurface drainage (excluding a leak detection system); and
- (d) where the total volume of the animal effluent system exceeds 35,000 litres, a management plan for the purpose of preventing the unauthorised discharge of liquid or solid animal effluent to water is prepared and implemented in accordance with Schedule 21.

14.7.1.1 The use of land for the use and maintenance of an animal effluent storage facility that was constructed prior to 25 March 2020 is a *permitted* activity providing:

- (a) The animal effluent storage facility is sized in accordance with the 90th percentile as calculated by the Dairy Effluent Storage Calculator, and where relevant using a conversion factor for animals other than dairy cows determined by a Suitably Qualified Person as defined in Schedule 20;

- (b) The animal effluent storage facility is certified by a Suitably Qualified Person as defined in Schedule 20, within the last five years as:
 - (i) having no visible cracks, holes or defects that would allow effluent to leak from the animal effluent storage facility; and
 - (ii) Meeting the relevant pond drop test criteria in Schedule 18 (excluding above-ground tanks, bladders, and solid animal effluent storage facilities); and
- (c) A management plan for the purpose of preventing the unauthorised discharge of liquid or solid animal effluent to water is prepared and implemented in accordance with Schedule 21.
- (d) Any certifications under (a) and (b) are provided to the Otago Regional Council upon written request.

Note Rules 14.7.1.1A, 14.7.1.1, 14.7.1.2, 14.7.2.1 and 14.7.3.1 do not manage discharges of liquid or solid animal effluent to land. Discharges of liquid and solid animal effluent are managed under the following rules: 12.C.0.4, 12.C.1.4A, 12.C.1.4, and 12.C.2.5

Part B
Animal
waste
storage and
application

14.7.1.2 The use of land for the use and maintenance of an animal effluent storage facility that was constructed prior to 25 March 2020 and does not comply with the conditions of Rule 14.7.1.1 is a *permitted* activity until the application date specified in Schedule 19.

14.7.2 Controlled activities: Resource consent required

Part B
Animal
waste
storage and
application

14.7.2.1 The use of land for the construction, use and maintenance of an animal effluent storage facility constructed after 25 March 2020 is a *controlled* activity provided the following conditions are met:

- (a) The animal effluent storage facility is sized in accordance with the 90th percentile as calculated by the Dairy Effluent Storage Calculator, and where relevant using a conversion factor for animals other than dairy cows determined by a Suitable Qualified Person as defined in Schedule 20; and
- (b) The animal effluent storage facility is either:
 - (i) Fully lined with an impermeable synthetic liner and has a leak detection system that underlies the animal effluent storage facility; or
 - (ii) Of concrete construction; or
 - (iii) An above-ground tank; or
 - (iv) Sealed with a clay liner; and

- (c) The design of the animal effluent storage facility, and any leak detection system has been certified by a Chartered Professional Engineer as being in accordance with the relevant parts of IPENZ Practice Note 21³ and IPENZ Practice Note 27;⁴ and
- (d) The animal effluent storage facility is not located:
 - (i) Within 50 metres of any lake, river or Regionally Significant Wetland; or
 - (ii) Within 90 metres of any water supply used for human consumption; or
 - (iii) Within 50 metres of any bore or soak hole; or
 - (iv) Above subsurface drainage (other than a leak detection system); and
- (e) A management plan for the purpose of preventing the unauthorised discharge of liquid or solid animal effluent to water is prepared and implemented in accordance with Schedule 21.

In granting any resource consent under this rule, the Otago Regional Council will restrict the exercise of its control to the following:

- (a) The design and construction of the animal effluent storage facility, including storage capacity, nature of the solid or liquid animal effluent and the anticipated life of the animal effluent storage facility; and
- (b) The height of embankments and the placement and orientation relative to flood flows and stormwater run-off; and
- (c) Methods to protect the animal effluent storage facility from damage by animals and machinery; and
- (d) Quality and content of, and implementation of, the management plan prepared in accordance with Schedule 21; and
- (e) Potential adverse effects of construction, maintenance and use on water bodies, drains, groundwater, bores, drinking water supplies, the coastal marine area, stop banks, dwellings, places of assembly and urban areas; and
- (f) Location of the animal effluent storage facility; and
- (g) Measures to avoid, remedy or mitigate adverse effects on Kāi Tahu cultural and spiritual beliefs, values and uses.

³ Available from <https://www.dairynz.co.nz/publications/environment/ipenz-21-farm-dairy-effluent-pond-design-and-construction/>

⁴ Available from <https://www.dairynz.co.nz/publications/environment/ipenz-practice-note-27-dairy-farm-infrastructure/>

14.7.3 Discretionary activities: Resource consent required

Part B
Animal
waste
storage and
application

- 14.7.3.1 The use of land for the construction, upgrade, use or maintenance of an animal effluent storage facility or a component of an animal effluent system that is not an animal effluent storage facility is a *discretionary* activity provided it is not:
- (a) Permitted under Rules 14.7.1.1A, 14.7.1.1 or 14.7.1.2; or
 - (b) Provided for by Rule 14.7.2.1.

Chapter 20
Schedules

20

Schedules



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1. Schedule of natural and human use values of Otago's surface water bodies

This schedule identifies some of the natural and human use values of Otago's lakes and rivers. These are the characteristics of a water body which are important to, or are an essential part of, ecological communities, or are enjoyed or utilised by people and communities. The values are identified by geographic subregion and by individual water bodies, or groups of water bodies, within each subregion (see Maps A1-A8 for subregions).

The identification of natural and human use values supported by Otago's lakes and rivers provides a mechanism for recognising the existence of values which need to be taken into account and given appropriate protection in managing water use and land use activities (see Policy 5.4.2). The opportunity to provide such protection will arise when preparing or reviewing regional and district plans under the Resource Management Act, and when considering applications for resource consents.

This schedule of natural and human use values is divided into five parts:

- (a) Schedule 1A: Natural values (page 20-6);
- (aa) Schedule 1AA: Otago Resident Native Freshwater Fish – Threat Status (page 20-47)
- (b) Schedule 1B: Water supply values (page 20-48);
- (c) Schedule 1C: Registered historic places (page 20-51);
- (d) Schedule 1D: Spiritual and cultural beliefs, values and uses of significance to Kai Tahu (page 20-53).

The natural values identified in Schedule 1A are specifically related to Part II of the Resource Management Act but are limited to the attributes of the aquatic ecosystem that support indigenous flora and fauna, trout and salmon, and the regionally significant presence of gamebirds. The outstanding features and landscapes relate to those in Part II of the Act or those identified in the Water Conservation (Kawarau) Order, which this Plan recognises.

Natural and human use values are not limited to those characteristics identified in the schedule. The natural character and amenity values of lakes and rivers are also important natural and human use values, which are given particular regard to by Policies 5.4.8 and 5.4.9. The non-listing of values in Schedule 1A is not to be taken as meaning that an area, value or habitat is not important or worthy of protection.

Some water bodies may be wholly or partly wetland, with regionally significant wetland values. These water bodies may be identified in Schedule 9.

This schedule is not intended to represent a comprehensive or exhaustive list of natural and human use values. It contains information available during the preparation process of this Plan. There is now additional information available for many water bodies, however there may still be lakes or rivers for which there is no

SCHEDULE 1: NATURAL AND HUMAN USE VALUES OF
OTAGO'S SURFACE WATER BODIES

or insufficient information. Water bodies not included in the schedule, but in close proximity to those that have values identified, may share similar values.

Conversely, identification of a particular value for a river does not necessarily mean that value occurs at every point throughout that river. Identification does, however, provide a starting point, in identifying what values are expected to occur.

1A Schedule of natural values

The following schedule identifies natural values supported by Otago’s lakes and rivers. These include ecosystem values, outstanding natural features and landscapes, areas of significant indigenous vegetation and significant habitat of indigenous fauna, and areas with a high degree of naturalness.

The areas of significant indigenous vegetation and significant habitat of indigenous fauna are included where they meet criteria under Policy 10.5.2 of the Regional Policy Statement for Otago. Other scheduled values are established to provide certainty and to meet the requirements of the Objectives and Policies in Chapter 6 of the Regional Policy Statement for Otago.

The values are identified by geographic subregion and by individual water bodies, or groups of water bodies, within each subregion (see Maps A1–A8 for subregions).

Note the codes for ecosystem values in Column 2 of Schedule 1A are given in Table 3.

Table 3: Codes for ecosystem values supported by lakes and rivers

Ecosystem Value	Code	Explanation
Physical Characteristics		
Size	Psize	Large water bodies supporting high numbers of particular species, or habitat variety, which can provide for diverse life cycle requirements of a particular species, or a range of species.
Unimpeded access	Ppass	Access within the main stem of a catchment through to the sea or a lake unimpeded by artificial means, such as weirs, and culverts.
Substrata: Macrophyte Boulder Gravel Sand Silt/mud Bedrock	Pplant Pboulder Pgravel Psand Psilt Prock	Refers to the bed composition of importance for resident biota.
Habitat Characteristics		
Spawning areas	Hspawn	Refers to presence of significant fish spawning areas: (t)=trout; (s)=salmon.
Juvenile rearing areas	Hjuve	Refers to presence of significant areas for development of juvenile fish: (t)=trout; (s)=salmon.
Riparian vegetation	Hriparian	Refers to presence of riparian vegetation of significance to aquatic habitats.

SCHEDULE 1A: NATURAL VALUES

Ecosystem Value	Code	Explanation
Freedom from biological nuisances	Exoticfree Weedfree Willowfree	Refers to absence of: exotic species of fish; aquatic pest plants (eg Lagarosiphon) identified in the Pest Management Strategy for Otago 2009; Crack willow.
Species Characteristics		
Exotic game fish: trout, salmon	Trout Rtrout Salmon	Refers to significant presence of trout. Refers to regionally significant presence of trout. Refers to significant presence of salmon.
Fishery values: eels	Eel	Refers to significant presence of eels.
Indigenous fish diversity	Fishdiv	Refers to presence of a significant range of indigenous fish species.
Indigenous fish – rare species	Rarefish	Refers to presence of indigenous fish species threatened with extinction.
Indigenous waterfowl diversity	Birddiv	Refers to presence of a significant range of indigenous waterfowl.
Indigenous waterfowl - rare species	Birdrare	Refers to presence of indigenous waterfowl threatened with extinction.
Indigenous Invertebrates diversity	Invdiv	Refers to presence of a significant range of indigenous invertebrates.
Indigenous Invertebrates - rare species	Invrare	Refers to presence of indigenous invertebrates threatened with extinction.
Indigenous- aquatic vegetation	Sigveg	Refers to presence of significant indigenous aquatic vegetation.
Gamebirds	Gbird	Refers to regionally significant presence of gamebirds.

Note that all map references given in Schedule 1A refer to the NZMS 260 series.

SCHEDULE 1A: NATURAL VALUES

North Otago subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Welcome Creek	Hspawn(t), Weedfree, Trout, Salmon. In divid in headwaters			
Unnamed former tributary of the Pacific Ocean a.k.a. Temby Swamp Stream	Ppass, Pgravel, Hspawn(t), Hjuve(t), Trout			
Waiareka Creek	Weedfree, Hspawn (inanga spawning below J42:435586)			
Kakanui River (note, the Kakanui-Kauru Alluvium Aquifer forms an integral part of the water body)	Psize, Ppass, all substrata, Weedfree, Hspawn(t), (inanga spawning below J42:443574), Hjuve, Trout, Eel, Rarefish, Fishdiv. Willowfree, Hriparian upstream of I41:275733. Invrare (North branch) upstream of I41:110675		<i>Significant habitat for longjaw galaxiid and koaro. Significant habitat for lamprey (uncommon in Otago).</i>	A high degree of naturalness above Clifton Falls.
Kauru River	Pgravel, Weedfree, Rarefish, Fishdiv		<i>Significant habitat for longjaw galaxiid.</i>	
Kurinui Creek a.k.a. Big Kuri Creek	Weedfree. Invrare upstream of J42:334392			
Waianakarua River	Ppass, Pgravel, Hjuve, Hriparian, Weedfree, Hspawn (inanga spawning downstream of J42:403485), Rarefish, Fishdiv, Eel		<i>Significant habitat for koaro.</i>	A high degree of naturalness above afforested areas of the catchment.
South Branch Waianakarua	Ppass, Pgravel, Hjuve, Hriparian, Weedfree, Fishdiv. Invrare upstream of J42:305410			
Shag River (Waihemo) (note, the Shag Alluvium Aquifer forms an integral part of the water body)	Psize, Ppass all substrata, Weedfree, Hspawn (inanga spawning below J43:351233), Trout(t), Eel, Rarefish. In divid in mid reaches		<i>Significant habitat for flathead galaxiid and koaro. Significant habitat for lamprey (uncommon in Otago).</i>	
Siberia Creek	Weedfree, Rarefish		<i>Significant habitat for flathead galaxiid.</i>	

SCHEDULE 1A: NATURAL VALUES

North Otago subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Unnamed tributary of the Shag River (Waihemo) a.k.a. Deem Burn	Weedfree, Rarefish		<i>Significant habitat for koaro upstream of I42:224388.</i>	
Pigroot Creek	Pboulder, Hriparian, Weedfree. Invrare upstream of I42:072530			
Happy Valley Creek	Weedfree, Rarefish		<i>Significant habitat for flathead galaxiid.</i>	
Tipperary Creek	Weedfree, Rarefish		<i>Significant habitat for hybrid galaxiid species.</i>	
Deepdell Creek	Weedfree, Rarefish		<i>Significant habitat for flathead galaxiid.</i>	
Trotters Creek	Weedfree, Hriparian, Hjuve, Fishdiv, Rarefish. Invrare upstream of J42:330322		<i>Significant habitat for giant kokopu and koaro. Significant habitat for lamprey (uncommon in Otago).</i>	
Pigeon Creek	Weedfree, Hriparian, Hjuve, Fishdiv, Rarefish. Invrare upstream of J42:335339		<i>Significant habitat for giant kokopu.</i>	

SCHEDULE 1A: NATURAL VALUES

Maniototo subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Taieri River upstream of Tiroiti	Psize, Pgravel, Ppass, Hspawn(t&s), Hjuve, Weedfree, Eel, Trout downstream of Paerau weir. Hriparian, Trout, Birddiv, Invdiv, Rarefish upstream of Paerau weir. Invrare upstream of H43:544013, Gbird	<p>a) Deep gorge (Taieri Falls) cut into distinct rocky scarp, schistose landscape, in main stem between H43:110567 and Canadian Flat.</p> <p>b) Deep gorge (Paerau Gorge) cut into distinct rocky scarp, schistose landscape, in main stem from Paerau Reservoir to NZMS 260 H42:369727.</p> <p>c) Scroll plain (Serpentine Flat) consisting of a meandering channel pattern and oxbow lakes and wetlands, from confluence with Bonds Creek to Paerau Reservoir.</p> <p>d) Scroll plain consisting of a meandering channel pattern and oxbow lakes and wetlands, from confluence with Linn Burn to confluence with Shepherds Hut Stream.</p>	<p>Significant habitat for flathead galaxiid, including tributaries upstream of Paerau weir.</p> <p>Significant habitat for lamprey (uncommon in Otago).</p>	
Ailsa Creek	Weedfree, Rarefish		Significant habitat for flathead galaxiid.	
Bullocky Creek	Weedfree, Rarefish		Significant habitat for flathead galaxiid.	
Elbow Creek	Weedfree, Rarefish		Significant habitat for flathead galaxiid.	
Unnamed tributary of the Taieri River at H43:600125	Weedfree, Rarefish		Significant habitat for flathead galaxiid.	

SCHEDULE 1A: NATURAL VALUES

Maniototo subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Horse Burn	Weedfree, Rarefish		<i>Significant habitat for flathead galaxiid.</i>	
Rock and Pillar Creek	Weedfree, Hspawn, Hjuve, Hriparian, Exoticfree. Invrare upstream of H43:772290			A high degree of naturalness above 900 metres asl.
Styx Creek	Weedfree, Hspawn(t), Hjuve(t), Hriparian, Exoticfree. Invrare upstream of H43:744254			A high degree of naturalness above 900 metres asl.
Logan Burn	Weedfree, Hspawn, Hjuve, Hriparian, Trout			A high degree of naturalness above 900 metres asl.
Shepherds Hut Creek, McHardies Creek and Loganburn Reservoir	Hriparian, Hspawn(t), Hjuve			
Linn Burn	Pboulder, Weedfree, Rarefish. Invrare upstream of H43:603294		<i>Significant habitat for flathead galaxiid.</i>	A high degree of naturalness above 600 metres asl.
Totara Creek	Weedfree, Trout (lower reaches), Rarefish. Invrare upstream of H42:595338		<i>Significant habitat for unidentified galaxiid species.</i>	A high degree of naturalness above 600 metres asl.
Sow Burn	Weedfree, Hspawn, Hjuve, Hriparian, Salmon, Trout			A high degree of naturalness above 900 metres asl.
Cambridge Creek (tributary of the Sow Burn)	Weedfree, Rarefish		<i>Significant habitat for flathead galaxiid.</i>	A high degree of naturalness above 900 metres asl.
Ewe Burn	Hspawn(t), Weedfree, Rarefish, Trout		<i>Significant habitat for roundhead galaxiid.</i>	
Pig Burn	Hspawn, Hjuve, Trout			
Kye Burn	Psize, Ppass, Weedfree, Hriparian, Hspawn(t), Hjuve, Rarefish, Eel, Trout	Areas of old gold sluicing landscapes.	<i>Significant habitat for flathead galaxiid and roundhead galaxiid.</i>	A high degree of naturalness above 900 metres asl.

SCHEDULE 1A: NATURAL VALUES

Maniototo subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Healy Creek	Weedfree, Rarefish, Fishdiv		<i>Significant habitat for unique community of flathead and roundhead galaxiids. Type locality for flathead galaxiid.</i>	
Little Kye Burn	Weedfree, Hspawn(t), Trout, Rarefish		<i>Significant habitat for roundhead galaxiid.</i>	
Swin Burn	Weedfree, Hspawn(t), Hjuve(t), Hriparian, Rarefish		<i>Significant habitat for roundhead galaxiid.</i>	

SCHEDULE 1A: NATURAL VALUES

Central Otago subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Clutha River/Mata-Au between Alexandra and Lake Wanaka	Psize, Prock, Pgravel, Hspawn(t&s), Hriparian, Hjuve(t&s), Trout, Eel, Salmon, Rarefish, Birddiv		<i>Significant habitat for flathead galaxiid (tributaries).</i>	
Chapmans Gully	Invrare upstream of G42:237420			A high degree of naturalness above 900 metres asl.
Luggate Creek	Weedfree, Rarefish. Invrare upstream of F40:040924		<i>Significant habitat for koaro.</i>	
Princess Burn	Weedfree. Invrare upstream of F40:064925			
Manuherikia River main stem	Pgravel, Hspawn(t), Hjuve, Hriparian, Weedfree, Eel, Trout. Invdiv in mid reaches. Birdrare above Falls Dam		<i>Significant habitat: Areas of importance to internationally uncommon species - black fronted tern - above Falls Dam.</i>	
Rocks Creek	Weedfree. Invrare upstream of H40:620976			
Unnamed tributary of the Manor Burn at G42:435365	Weedfree, Rarefish		<i>Significant habitat for roundhead galaxiid.</i>	
Chatto Creek	Pboulder, Hspawn, Hriparian, Weedfree, Trout, Eel, Rarefish		<i>Significant habitat for roundhead galaxiid.</i>	
Devonshire Creek	Pboulder, Hriparian, Hspawn, Hjuve, Trout			
Ophir Drainage Channel	Weedfree, Rarefish		<i>Significant habitat type locality for roundhead galaxiid.</i>	
Dunstan Creek	Pgravel, Weedfree, Hriparian. Hjuve (t), Hspawn (t), Trout in lower reaches	Old gold sluicing landscapes at Blue Lake.		A high degree of naturalness above 900 metres asl.
Ida Burn and Pool Burn	Hspawn, Hjuve, Trout, Eel			
Donald Stuarts Creek	Pgravel, Weedfree. Exoticfree, Invrare upstream of H41:508840			A high degree of naturalness above 900 metres asl.
Dovedale Creek	Weedfree, Rarefish		<i>Significant habitat for roundhead galaxiid.</i>	

SCHEDULE 1A: NATURAL VALUES

Central Otago subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Earnsclough or Fraser River	Pgravel, Hspawn(t), Hjuve(t). Hriparian (except in lower reaches). Weedfree, Trout, Eel. Exoticfree in headwaters. Invrare upstream of F42:098420			A high degree of naturalness above 900 metres asl.
Bannock Burn	Pgravel, Hjuve, Hspawn, Eel, Trout			
Low Burn	Pboulder, Weedfree, Hspawn(t), Hjuve(t)			A high degree of naturalness above 900 metres asl.
Sheepskin Creek	Weedfree, Rarefish		<i>Significant habitat for flathead galaxiid.</i>	
Schoolhouse Creek	Weedfree, Rarefish		<i>Significant habitat for flathead galaxiid.</i>	
Lindis River	Pgravel, Weedfree, Hspawn(t), Hjuve(t), Eel, Trout			A high degree of naturalness above 900 metres asl.
John Bull Creek	Weedfree, Rarefish		<i>Significant habitat for koaro.</i>	
Amisfield Burn	Weedfree, Rarefish		<i>Significant habitat for koaro.</i>	
Cardrona River	Pboulder, Psand, Pgravel, Hspawn, Hjuve, Weedfree, Trout, Eel, Rarefish. Invrare (mid to upper reaches)		<i>Significant habitat for flathead galaxiid</i>	A high degree of naturalness above 900 metres asl
Spotts Creek	Weedfree, Rarefish		<i>Significant habitat for koaro.</i>	
Timber Creek	Weedfree, Rarefish		<i>Significant habitat for koaro.</i>	
Branch Burn	Weedfree, Rarefish		<i>Significant habitat for koaro.</i>	
Boundary Creek	Weedfree, Rarefish		<i>Significant habitat for koaro.</i>	
Wrights Gully	Weedfree, Rarefish		<i>Significant habitat for koaro.</i>	
Maori Gully	Weedfree, Rarefish		<i>Significant habitat for koaro.</i>	

SCHEDULE 1A: NATURAL VALUES

Lakes subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Kawarau River <i>between Lake Dunstan and Lake Wakatipu</i>	Psize, Pgravel, Prock, Trout, Salmon, Eel, Rarefish. Weedfree upstream of Lake Dunstan	Outstanding: (a) for its wild, scenic characteristics; (b) natural characteristics, in particular the return flow in the upper section when the Shotover River is in flood; (c) for scientific values, in particular the return flow in the upper section when the Shotover is in flood; (d) for recreational purposes, in particular rafting, jet boating and kayaking. Spectacular and rugged river gorge, schistose landscape, fast flowing white water and rapids, old gold sluicing landscape, from confluence with Arrow River to Lake Dunstan.	<i>Significant habitat</i> for koaro including many tributaries.	
Soho Creek	Weedfree. Invrare upstream of F41:866830			
Lake Hayes	Psand, Psilt, Weedfree, Hriparian, Eel, Trout			
Lakes Johnson, Luna, Kirkpatrick and Dispute	Hriparian, Eel, Trout			
Horne Creek	Weedfree. Hspawn(t), Hjuve(t), Ppass, Trout in lower reaches			
Moke Lake	Hriparian, Weedfree (also free of Elodea), Eel, Trout, Sigveg		<i>Significant vegetation:</i> Rare association of aquatic plants.	

SCHEDULE 1A: NATURAL VALUES

Lakes subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Lake Wakatipu	Psize, Pplant, Weedfree, Hjuve(t&s), Hriparian, Eel, Trout, Salmon, Sigveg, Rarefish, Invrare	<p>Outstanding:</p> <p>(a) as a fishery;</p> <p>(b) for its scenic characteristics;</p> <p>(c) for scientific value, in particular water clarity, and bryophyte community;</p> <p>(d) for recreational purposes, in particular boating;</p> <p>(e) for historical purposes;</p> <p>(f) for significance in accordance with tikanga Maori, in particular sites at the head of the lake, and the legend of the lake itself.</p> <p>Scenic values within the wider landscape context of the surrounding mountains, particularly:</p> <ul style="list-style-type: none"> • clear blue colour of the water, • river deltas, and • beaches, particularly uncommon beach features between Rat Point and White Point. 	<p><i>Significant habitat</i> for koaro including many tributaries.</p> <p><i>Significant vegetation:</i> Rare association of aquatic plants.</p>	
Unnamed tributary of Lake Wakatipu at F42:747392	Weedfree, Invrare			
One Mile Creek	Weedfree. Invrare upstream of E41:665659			
Gorge Creek	Weedfree. Invrare upstream of E41:408857			

SCHEDULE 1A: NATURAL VALUES

Lakes subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Wye, Kingston and Staircase Creeks	Pboulder, Hriparian, Weedfree, Rarefish. Ppass in Staircase Creek only. Hspawn in lower reaches		<i>Significant habitat</i> for koaro.	A high degree of naturalness above 900 metres asl.
Streams from west and south of Richardson Mountains	Pboulder, Weedfree, Hjuve, Hspawn, Hriparian			A high degree of naturalness above 900 metres asl.
Buckler Burn, Precipice Creek or Temple Burn, Twelve Mile Creek or Ox Burn	Pboulder, Weedfree, Hspawn(t), Hjuve(t), Hriparian			A high degree of naturalness above 900 metres asl.
Rees River	Psize, Ppass, Hspawn(t), Hjuve(t), Weedfree, Hriparian, Eel, Salmon, Trout, Birddiv, Birdrare	<p>Outstanding:</p> <p>(a) Natural and physical qualities and characteristics that contribute to people's appreciation of pleasantness of waters;</p> <p>(b) Natural and physical qualities and characteristics that contribute to aesthetic coherence;</p> <p>(c) as habitat for wildlife;</p> <p>(d) for its scenic characteristics;</p> <p>(e) for significance in accordance with tikanga Maori, in particular sites at the mouth of the river.</p> <p>High level of naturalness - free from significant interference by human practices, from confluence with Hunter Creek to its source.</p> <p>System of braided gravel river channels, in main stem from Lake Wakatipu</p>	<i>Significant habitat:</i> Areas of importance to internationally uncommon species - black fronted tern, wrybill, banded dotterel - in main stem from Lake Wakatipu to confluence with Hunter Creek.	

SCHEDULE 1A: NATURAL VALUES

Lakes subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
		to confluence with Hunter Creek.		
Earnslaw Burn	Ppass, Hspawn, Hriparian, Hjuve, Trout, Weedfree, Salmon, Birddiv, Birdrare			A high degree of naturalness within Mount Aspiring/Tititea National Park.
Diamond Lake, Diamond Creek and Lake Reid	Ppass, Psand, Hspawn(t&s), Hjuve(t&s), Weedfree, Hriparian, Eel, Trout, Salmon (Quinnat), Birddiv, Rarefish	Outstanding (a) as habitat for wildlife and quinnat salmon; (b) as a fishery.	<i>Significant habitat</i> for koaro.	
Diamond Lake tributary at E40:447978	Weedfree, Rarefish		<i>Significant habitat</i> for koaro.	
Dart River/Te Awa Whakatipu	Psize, Ppass, Weedfree, Hspawn, Hjuve, Hriparian, Eel, Trout, Salmon, Birddiv, Birdrare	Outstanding: (a) Natural and physical qualities and characteristics that contribute to people's appreciation of pleasantness of waters; (b) Natural and physical qualities and characteristics that contribute to aesthetic coherence; (c) Natural and physical qualities and characteristics that contribute to cultural attributes; (d) Biological and genetic diversity of ecosystems; (e) Essential characteristics that determine the ecosystem's integrity, form, functioning and resilience; (f) as habitat for wildlife; (g) for its scenic characteristics; (h) for its natural characteristics, in	<i>Significant habitat:</i> Presence of a breeding population of threatened endemic species - blue duck - above Beans Burn confluence to its source. Areas of importance to internationally uncommon species - black fronted tern, wrybill, banded dotterel - in main stem from Lake Wakatipu to confluence to Beans Burn.	

SCHEDULE 1A: NATURAL VALUES

Lakes subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
		<p>particular natural turbidity;</p> <p>(i) scientific value, in particular natural turbidity;</p> <p>(j) for significance in accordance with tikanga Maori, in particular sites at the mouth of the river.</p> <p>High level of naturalness - free from significant interference by human practices above Beans Burn confluence to its source.</p> <p>System of braided gravel river channels with delta, in main stem from Lake Wakatipu to confluence with Beans Burn.</p>		
Route Burn	Psize, Ppass, Weedfree, Hspawn, Hjuve, Hriparian, Eel, Trout, Birddiv, Birdrare	<p>Outstanding:</p> <p>(a) Natural and physical qualities and characteristics that contribute to people's appreciation of pleasantness of waters;</p> <p>(b) Natural and physical qualities and characteristics that contribute to aesthetic coherence;</p> <p>(c) Natural and physical qualities and characteristics that contribute to cultural attributes;</p> <p>(d) Natural and physical qualities and characteristics that contribute to recreational attributes;</p> <p>(e) Biological and genetic diversity of ecosystems;</p>		A high degree of naturalness within Mount Aspiring/Tititea National Park.

SCHEDULE 1A: NATURAL VALUES

Lakes subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
		<p>(f) Essential characteristics that determine the ecosystem's integrity, form, functioning and resilience.</p> <p>High level of naturalness - free from significant interference by human practices.</p>		
Greenstone River, Caples River	Psize, Ppass, Weedfree, Hspawn(t), Hjuve(t), Hriparian, Eel, Trout, Birdrare	<p>Outstanding:</p> <p>(a) Natural and physical qualities and characteristics that contribute to people's appreciation of pleasantness of waters;</p> <p>(b) natural and physical qualities and characteristics that contribute to recreational attributes;</p> <p>(c) Essential characteristics that determine the ecosystem's integrity, form, functioning and resilience.</p> <p>High level of naturalness - free from significant interference by human practices.</p>		A high degree of naturalness within National Park and DoC estate.
Lochy River	Ppass, Weedfree, Hspawn, Hjuve, Eel, Trout	<p>Outstanding:</p> <p>(a) as a fishery;</p> <p>(b) for recreational purposes, in particular fishing.</p> <p>Wild and scenic characteristics, in main stem from Lake Wakatipu to its source.</p>		A high degree of naturalness above 900 metres asl.
Collins Creek	Hspawn(t), Hjuve(t)			

SCHEDULE 1A: NATURAL VALUES

Lakes subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Streams flowing to Lake Wakatipu between Halfway Bay and Elfin Bay, including Von River	Ppass, Weedfree, Hspawn(t), Hjuve(t), Hriparian, Eel, Trout, Rarefish	Outstanding: (a) as a fishery; (b) for recreational purposes, in particular fishing. Wild and scenic characteristics, in Von main stem from Lake Wakatipu to its source.	<i>Significant habitat</i> for roundhead galaxiid (Von catchment).	A high degree of naturalness above 900 metres asl.
Bullock Creek	Hspawn(t), Hjuve(t), Trout			
Lake Wanaka	Psize, Psand, Eel, Trout, Salmon, Sigveg, Rarefish, Invrare	Scenic values within the wider landscape context of the surrounding mountains, particularly the unmodified lake level, water quality and colour of the water.	<i>Significant vegetation:</i> Rare association of aquatic plants.	
Unnamed tributary of the Motatapu River at F40:825058	Weedfree, Invrare			
Unnamed tributary of the Motatapu River at F40:827055	Weedfree, Invrare			
Matukituki River	Psize, Ppass, Weedfree, Hspawn(t&s), Hjuve(t&s), Hriparian, Eel, Trout, Birddiv, Birdrare, Rarefish	System of braided gravel river channels, in main stem from Lake Wanaka to its source.	<i>Significant habitat:</i> Areas of importance to internationally uncommon species - black fronted tern, wrybill, banded dotterel - in main stem from Lake Wanaka to its source. <i>Significant habitat</i> for koaro including many tributaries.	A high degree of naturalness within Mount Aspiring/Tititea National Park.

SCHEDULE 1A: NATURAL VALUES

Lakes subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Streams flowing off West Wanaka, including Albert Burn	Ppass, Hspawn, Hjuve, Hriparian, Weedfree, Trout			A high degree of naturalness within Mount Aspiring/Tititea National Park. A high degree of naturalness above 900 metres asl.
Wilkin River	Psize, Pgravel, Ppass, Weedfree, Hspawn, Hjuve, Hriparian, Trout, Eel, Birddiv, Birdrare	High level of naturalness - free from significant interference by human practices above Kerin Forks to its source. System of braided, gravel river channels, in main stem from confluence with Makarora River to Kerin Forks	<i>Significant habitat:</i> Presence of a breeding population of threatened endemic species - blue duck - above upper forks to source. Areas of importance to internationally uncommon species - black fronted tern, wrybill, banded dotterel - in main stem from confluence with Makarora River to Kerin Forks.	A high degree of naturalness within Mount Aspiring/Tititea National Park.
Young River	Psize, Ppass, Hriparian, Hspawn, Hjuve, Trout, Eel			A high degree of naturalness within Mount Aspiring/Tititea National Park.
Makarora River	Psize, Ppass, Pgravel, Weedfree, Hspawn, Hjuve, Hriparian, Eel, Trout, Birddiv, Birdrare	System of braided, gravel river channels with delta, in main stem between Lake Wanaka and confluence with Blue River.	<i>Significant habitat:</i> Areas of importance to internationally uncommon species - black fronted tern, wrybill, banded dotterel - in main stem between Lake Wanaka and confluence with Blue River.	A high degree of naturalness within Mount Aspiring/Tititea National Park.
Brady Creek	Weedfree, Rarefish		<i>Significant habitat for</i> koaro.	
Lake Hawea	Psize, Psand, Weedfree, Hjuve(t&s), Eel, Trout, Salmon	Scenic values within the wider landscape context of the surrounding mountains, particularly colour of the water.		

SCHEDULE 1A: NATURAL VALUES

Lakes subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Hunter River	Psize, Pgravel, Ppass, Weedfree, Hspawn(t), Hjuve(t), Hriparian, Eel, Trout, Birddiv, Birdrare	High level of naturalness - free from significant interference by human practices between Long Flat Creek confluence and its source System of braided, gravel river channels, in main stem from Lake Hawea to confluence with Long Flat Creek.	<i>Significant habitat:</i> Presence of a breeding population of threatened endemic species - blue duck - between Long Flat Creek confluence and its source. Areas of importance to internationally uncommon species - black fronted tern, wrybill, banded dotterel - from Lake Hawea to confluence with Long Flat Creek.	A high degree of naturalness within Mount Aspiring/Tititea National Park. A high degree of naturalness above 900 metres asl.
Dingle Burn	Ppass, Weedfree, Hspawn, Hjuve, Hriparian, Eel, Trout, Birdrare			A high degree of naturalness above 900 metres asl.
Timaru River	Ppass, Hspawn, Hjuve, Hriparian, Weedfree, Trout. Invrare between G39:308280 and G39:313294 (incl tributaries)			A high degree of naturalness above 900 metres asl.
Hawea River	Psize, Weedfree, Hspawn, Hjuve, Trout, Salmon, Eel			
Shotover River	Pgravel, Pboulder, Psand, Prock, Psize, Weedfree, Hriparian, Birddiv, Birdrare	Outstanding: (a) for its wild and scenic characteristics; (b) for its natural characteristics, in particular the high natural sediment load and active delta at confluence with Kawarau River; (c) scientific value, in particular the high natural sediment load and active delta at confluence with Kawarau River; (d) for recreational purposes, in particular	Lochnagar and Lake Creek, outstanding: (a) Essential characteristics that determine the ecosystem's integrity, form, functioning and resilience. <i>Significant habitat:</i> Areas of importance to internationally uncommon species - black fronted tern, banded dotterel - in main stem between	A high degree of naturalness above 900 metres asl.

SCHEDULE 1A: NATURAL VALUES

Lakes subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
		<p>rafting, kayaking and jet boating; (e) for historical purposes, in particular gold mining.</p> <p>Spectacular and rugged river gorge, schistose landscape, fast flowing white water and rapids, old gold sluicing landscape, in main stem between confluence with Iron Stone Stream and Arthur Point.</p> <p>Wild and scenic characteristics, from confluence with Iron Stone Stream to its source.</p>	Arthur Point and its source.	
Carmichaels Creek	Weedfree, Rarefish		<i>Significant habitat</i> for koaro.	
Deep Creek	Weedfree, Rarefish		<i>Significant habitat</i> for koaro.	
Skippers Creek	Weedfree, Rarefish		<i>Significant habitat</i> for koaro.	
Mill Creek	Pgravel, Psand, Hspawn, Hjuve, Weedfree, Rarefish		<i>Significant habitat</i> for roundhead galaxiid.	A high degree of naturalness above 900 metres asl.
Arrow River	Psize, Psand, Pgravel, Ppass, Hspawn, Hjuve, Weedfree, Trout			A high degree of naturalness above 900 metres asl.
Roaring Meg	Pboulder, Weedfree, Hriparian. Invrare upstream of F41:026844			A high degree of naturalness above 900 metres asl.
Nevis River	Psize, Ppass, Prock, Pgravel, Psand, Hspawn,, Hjuve, Weedfree, Eel, Trout, Birddiv, Birdrare. Invdiv above Nevis Crossing.	<p>Main stem gorge from Nevis Crossing to Kawarau River confluence: Outstanding (a) for its wild, characteristics; (b) for recreational purposes, in particular fishing and kayaking.</p> <p>Main stem above Nevis Crossing to source:</p>		A high degree of naturalness above 900 metres asl.

SCHEDULE 1A: NATURAL VALUES

Lakes subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
		<p>Outstanding (a) for its scenic, characteristics; (b) for recreational purposes, in particular fishing.</p> <p>High level of naturalness above Nevis Crossing to its source.</p> <p>Spectacular river gorge, white water and rapids, in main stem from Nevis Crossing to confluence with Kawarau River.</p>		
Unnamed tributary of the Nevis River at F43:820261	Hriparian, Weedfree, Rarefish		<i>Significant habitat</i> for roundhead galaxiid.	
Sproules Creek	Weedfree, Rarefish		<i>Significant habitat</i> for koaro.	
Schoolhouse Creek	Weedfree. Invrare upstream of F42:870478			
Unnamed tributary of the Nevis River at F42:921450	Weedfree, Rarefish		<i>Significant habitat</i> for roundhead galaxiid	
Unnamed tributary of the Nevis River at F42:951492	Weedfree. Invrare upstream of F42:003487			
Unnamed tributary of the Nevis River at F42:954541	Weedfree, Rarefish		<i>Significant habitat</i> for roundhead galaxiid.	
Nevis Burn	Weedfree. Invrare upstream of F42:870524			

SCHEDULE 1A: NATURAL VALUES

Lakes subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Unnamed tributary of the Nevis River at F42:959529	Weedfree, Rarefish		Significant habitat for roundhead galaxiid.	
Doolans Creek Left Branch	Weedfree. Invrare upstream of F42:860561			
Rastus Burn	Pboulder, Weedfree, Hspawn, Hriparian, Invrare upstream of F41:806641			A high degree of naturalness above 900 metres asl

SCHEDULE 1A: NATURAL VALUES

Roxburgh subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Clutha River/Mata-Au <i>between Alexandra and Island Block</i>	Psize, Psand, Pgravel, Prock, Hjuve, Eel, Trout, Salmon, Birddiv. Hspawn(s) below Roxburgh dam, Sigveg below Roxburgh dam		<i>Significant habitat for lamprey (uncommon in Otago)</i>	
Obelisk Creek	Weedfree. Invrare upstream of G42:175339			
Elbow Creek	Weedfree, Rarefish		<i>Significant habitat for koaro.</i>	
Coal Creek	Weedfree. Invrare upstream of G42:170321			
Teviot River	Pboulder, Weedfree, Willowfree (in upper reaches), Hjuve(t&s), Hspawn(t&s), Hriparian, Trout			
Lake Onslow	Hriparian, Hjuve(t), Hspawn(t), Trout			
Unnamed tributary of Lake Onslow at G43:458137	Weedfree, Rarefish		<i>Significant habitat for roundhead galaxiid.</i>	
Black Jacks Creek	Weedfree. Invrare upstream of G43:210086			
Benger Burn	Pboulder, Weedfree, Hspawn(t&s), Hriparian, Rarefish		<i>Significant habitat for koaro.</i>	A high degree of naturalness above 900 metres asl.
Tima Burn	Weedfree, Rarefish		<i>Significant habitat for koaro.</i>	
Streams flowing from Old Man Range /Kopuwai	Pboulder, Hspawn(t), Weedfree, Hriparian			A high degree of naturalness above 900 metres asl.

SCHEDULE 1A: NATURAL VALUES

Strath Taieri subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Taieri River between Tiroiti and Pukerangi	Psize, Ppass, Psand, Pgravel, Weedfree, Hspawn(t), Hjuve, Hriparian, Eel, Salmon, Rarefish, Fishdiv, Trout		Significant habitat for flathead galaxiid (including many tributaries). Significant habitat for lamprey (uncommon in Otago) Significant habitat for Lower Taieri galaxiid and koaro in many tributaries below Middlemarch.	
Prices Creek	Weedfree, Rarefish		Significant habitat for roundhead galaxiid.	
Lug Creek	Pboulder, Hriparian, Eel, Weedfree. Invrare upstream of H43:862280			A high degree of naturalness above 900 metres asl.
Cap Burn, Mare Burn, Scrub Burn and Six Mile (upper)	Hriparian, Hspawn(t), Hjuve(t)			
Annetts Creek, Heeney Creek and House Creek	Hriparian, Hspawn(t), Hjuve(t)			
Six Mile Creek (lower)	Pgravel, Prock, Weedfree, Eel, Hriparian, Hspawn(t), Hjuve(t). Invrare upstream of H43:853243			
Last Creek, Nant Creek, Dewar Creek and Kirkland Creek	Pgravel, Hriparian, Hspawn(t), Hjuve(t)			
Nenthorn Stream	Weedfree, Hspawn(t), Hjuve(t), Hriparian, Eel, Trout, Rarefish		Significant habitat for flathead galaxiid.	
Black Rock Stream	Weedfree, Rarefish		Significant habitat for flathead galaxiid.	
Manuka Stream	Weedfree, Rarefish		Significant habitat for flathead galaxiid.	
Washpool Stream	Weedfree, Rarefish		Significant habitat for flathead galaxiid.	
Deighton Creek	Weedfree, Rarefish		Significant habitat for flathead galaxiid.	

SCHEDULE 1A: NATURAL VALUES

Strath Taieri subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Spratts Creek	Weedfree, Rarefish		<i>Significant habitat for roundhead galaxiid.</i>	
Sutton Stream	Pboulder, Weedfree, Hspawn(t), Hriparian, Hjuve, Trout, Eel			A high degree of naturalness above 900 metres asl.
Burgan Stream	Weedfree, Exoticfree, Rarefish		<i>Significant habitat for Lower Taieri galaxiid.</i>	
Stony Creek	Weedfree, Rarefish. Invrare upstream of H44:603910		<i>Significant habitat for Lower Taieri galaxiid.</i>	
Salt Lake (near Sutton)	Weedfree	A rare example of a natural salt lake.		
March Creek	Pboulder, Pgravel, Psand, Psilt, Weedfree			A high degree of naturalness above 900 metres asl.

SCHEDULE 1A: NATURAL VALUES

Waikouaiti/Lammermoor subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Waikouaiti River (excluding South Branch)	Psize, Ppass, Psand, Pgravel, Weedfree, Hspawn (t) (& inanga spawning between I43:240084 and I43:266087), Hjuve, Eel, Trout, Rarefish. Invrare between I43:183242 and I43:093297, and including tributaries between I43:148264 and I43:093297		<i>Significant habitat</i> for flathead galaxiid, hybrid galaxiid, banded kokopu and koaro.	
Unnamed tributary of the Waikouaiti River at I43:097281	Weedfree, Rarefish		<i>Significant habitat</i> for flathead galaxiid.	
Back Creek	Weedfree, Rarefish		<i>Significant habitat</i> for flathead galaxiid.	
Waikouaiti River South Branch	Weedfree, Ppass, Hspawn(t), Hjuve, Hriparian, Trout, Rarefish, Fishdiv		<i>Significant habitat</i> for koaro.	A high degree of naturalness within Scenic Reserve.
Unnamed tributary of the Waikouaiti River a.k.a. Merton Stream at I43:244065	Weedfree, Fishdiv, Rarefish		<i>Significant habitat</i> for lamprey (uncommon in Otago).	
Toll Bar Creek	Weedfree, Rarefish		<i>Significant habitat</i> for koaro.	
Flat Stream	Weedfree. Invrare in lower reaches			
Taieri River between Pukerangi and Outram	Psize, Ppass, Pgravel, Psand, Prock, Weedfree, Hspawn, Hjuve, Hriparian, Trout, Salmon, Eel, Fishdiv, Rarefish	Well defined, deep gorge (Taieri Gorge) cut into distinct rocky scarp, schistose landscape, in main stem between confluence with Ross Stream and Outram.	<i>Significant habitat</i> for Lower Taieri galaxiid (tributaries). <i>Significant habitat</i> for lamprey (uncommon in Otago).	
Traquair Burn	Weedfree, Eel, Fishdiv			
Smugglers Creek	Weedfree, Rarefish		<i>Significant habitat</i> (and type locality) for Lower Taieri galaxiid.	

SCHEDULE 1A: NATURAL VALUES

Waikouaiti/Lammermoor subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Deep Stream	Pgravel, Psize in lower reaches. Weedfree, Hspawn(t), Hjuve(t), Hriparian, Rarefish, Eel, Trout. Invrare upstream of H44:605910		<i>Significant habitat for Lower Taieri galaxiid.</i>	A high degree of naturalness above 900 metres asl.
Clarkes Stream	Weedfree, Rarefish		<i>Significant habitat for Lower Taieri galaxiid at H44:682930.</i>	
Unnamed tributary of Deep Stream at H44:660958	Weedfree, Rarefish		<i>Significant habitat for Lower Taieri galaxiid.</i>	
Unnamed tributary of Deep Stream at H44:678947	Weedfree, Rarefish		<i>Significant habitat for Lower Taieri galaxiid.</i>	
Barbours Stream	Weedfree, Rarefish		<i>Significant habitat for Lower Taieri galaxiid.</i>	
Deep Creek	Pgravel, Weedfree, Hspawn(t), Hjuve, Hriparian, Trout. Invrare upstream of H44:623987			A high degree of naturalness above 900 metres asl.
Three O'clock Stream	Ppass, Weedfree, Hspawn(t), Hjuve, Hriparian, Willowfree, Trout, Rarefish, Fishdiv		<i>Significant habitat for flathead galaxiid and koaro.</i>	
Christmas Creek	Ppass, Pboulder, Weedfree, Hspawn(t), Hjuve(t), Hriparian, Willowfree			A high degree of naturalness within Scenic Reserve.
Lee Stream	Psize, Ppass, Pgravel, Psand, Weedfree, Hspawn(t), Hjuve, Hriparian, Rarefish, Eel, Trout. Invrare upstream of I44:952867, and including tributaries upstream of I44:916868		<i>Significant habitat for Lower Taieri galaxiid.</i>	
Black Rock Stream	Weedfree, Eel, Rarefish		<i>Significant habitat for Lower Taieri galaxiid.</i>	
Broad Stream	Weedfree, Eel, Rarefish		<i>Significant habitat for koaro.</i>	
Canton Creek	Weedfree, Rarefish, Fishdiv		<i>Significant habitat for Lower Taieri galaxiid.</i>	

SCHEDULE 1A: NATURAL VALUES

Waikouaiti/Lammermoor subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Big Stream	Ppass, Pboulder, Hspawn(t), Hjuve(t), Willowfree, Weedfree, Eel, Rarefish, Trout			A high degree of naturalness within Scenic Reserve.

SCHEDULE 1A: NATURAL VALUES

Coastal subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Careys Creek	Pgravel, Weedfree, Hspawn(t), Hjuve(t), Rarefish, Fishdiv, In divid (upper reaches)		<i>Significant habitat</i> for koaro and banded kokopu. <i>Significant habitat</i> for lamprey (uncommon in Otago).	
Waitati River	Ppass, but major abstractions can result in very low flows in lower stretches. Pgravel, Weedfree, Hspawn (t) (&inanga spawning below I44:205925), Hjuve(t). Hriparian in headwaters. Trout, Rarefish, In divid (upper reaches)		<i>Significant habitat</i> for koaro. <i>Significant habitat</i> for lamprey (uncommon in Otago).	A high degree of naturalness within Silverpeaks Scenic Reserve.
Fergusons Creek	Weedfree. Invrare above I44:170896			
Wetherstons Creek	Weedfree			
Orokonui Creek	Weedfree, Hspawn(t), Hjuve(t), Rarefish, Fishdiv		<i>Significant habitat</i> for giant kokopu, koaro and banded kokopu. <i>Significant habitat</i> for lamprey (uncommon in Otago).	
Foote Stream and Mihiwaka Stream	Weedfree, Rarefish		<i>Significant habitat</i> for koaro and banded kokopu.	
Water of Leith	Pgravel, Weedfree, Hspawn(t&s), Hjuve(t&s), Hriparian Rarefish, Salmon, Trout		<i>Significant habitat</i> for giant kokopu and banded kokopu.	
Streams entering Otago Harbour (except Water of Leith)	Weedfree, Hspawn, Rarefish, Fishdiv, Exoticfree		<i>Significant habitat</i> for koaro and banded kokopu.	
Unnamed tributary of Otago Harbour a.k.a. Deborah Bay Stream at I44:252876	Weedfree, Rarefish		<i>Significant habitat</i> for koaro and banded kokopu.	

SCHEDULE 1A: NATURAL VALUES

Coastal subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Unnamed tributary of Latham Bay a.k.a. Latham Bay Stream at I44:280824	Weedfree, Rarefish		<i>Significant habitat for banded kokopu.</i>	
Unnamed tributary of Otago Harbour a.k.a. Macandrew Bay Stream at I44:233793	Weedfree, Rarefish		<i>Significant habitat for banded kokopu.</i>	
Unnamed tributary of Otago Harbour a.k.a. Otakou Stream at J44:318869	Weedfree, Rarefish		<i>Significant habitat for banded kokopu.</i>	
Unnamed tributary of Papanui Inlet at J44:332820	Weedfree, Hspawn, Invrare			
Unnamed tributary of the Pacific Ocean at J44:345808 (Papanui Beach)	Weedfree, Hspawn, Invrare			
Robertsons Creek	Weedfree, Hspawn, Invrare			
Unnamed pond, Jones Creek at I44:115734	Weedfree, Rarefish		<i>Significant habitat for banded kokopu.</i>	
Unnamed tributary of the Pacific Ocean at I44:241763 (Boulder Beach)	Weedfree, Hspawn, Fishdiv			
Tomahawk Lagoon	Psilt, Weedfree, Hriparian, Trout, Eel, Invrare			
Otokia Creek	Weedfree, Ppass, Hspawn, Hjuve, Rarefish		<i>Significant habitat for banded kokopu.</i>	
Fern Stream	Ppass, Weedfree, Hspawn, Hjuve, Hriparian, Fishdiv, Rarefish, Birddiv		<i>Significant habitat for banded kokopu.</i>	

SCHEDULE 1A: NATURAL VALUES

Coastal subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Flax Stream	Ppass, Weedfree, Hspawn, Hjuve, Hriparian, Exoticfree, Fishdiv, Rarefish, Birddiv		<i>Significant habitat for banded kokopu.</i>	
Unnamed tributary of the Taieri River a.k.a. Takitakitoa Stream	Ppass, Psilt, Weedfree, Hspawn, Hjuve, Hriparian, Birddiv, Eel, Rarefish		<i>Significant habitat for giant kokopu and banded kokopu.</i>	
Taieri River between Henley and the sea	Psize, Ppass, Psilt, Psand, Weedfree, Hspawn, Hjuve, Hriparian, Rarefish, Fishdiv, Trout, Salmon, Eel, Gbird	Lower Taieri Gorge	<i>Significant habitat for giant kokopu and banded kokopu.</i>	
Akatore Creek	Hspawn(t), Hjuve(t), Hriparian, Weedfree, Eel, Trout, Fishdiv, Rarefish. Exoticfree upstream of H45:878565		<i>Significant habitat for koaro and banded kokopu.</i>	
Bull Creek	Hspawn, Hjuve, Hriparian, Weedfree, Fishdiv, Rarefish		<i>Significant habitat for koaro.</i>	
Big Creek	Hspawn, Hjuve, Hriparian, Weedfree, Fishdiv, Rarefish		<i>Significant habitat for koaro.</i>	
Lower Tokomairiro River main stem	Psand, Psilt, Pgravel Pplant, Psize, Ppass, Hspawn(t), Hriparian, Hjuve(t), Eel, Trout, Fishdiv			
Wangaloa Creek	Ppass, Weedfree, Hspawn, Hjuve, Hriparian, Exoticfree, Birddiv			
Unnamed tributary of the Pacific Ocean a.k.a. Turnbolls Creek at H46:787366	Ppass, Weedfree, Hspawn, Hjuve, Hriparian, Exoticfree, Rarefish, Birddiv		<i>Significant habitat for banded kokopu.</i>	

SCHEDULE 1A: NATURAL VALUES

Taieri/Clutha Plains subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Taieri River between Outram and Henley	Psize, Psilt, Ppass, Pgravel, Psand, Weedfree, Hjuve, Trout, Salmon, Eel, Birddiv, Fishdiv, Rarefish, Gbird			
Lakes Waipori/Waihola	Psize, Ppass, Psilt, Weedfree, Hspawn, Hjuve, Hriparian, Eel, Trout, Fishdiv, Birddiv, Birdrare, Rarefish		<i>Significant habitat:</i> Presence of variety of waterfowl and native fish, including a breeding population of fernbird and giant kokopu.	
Mary Hill Creek	Weedfree, Rarefish, Fishdiv		<i>Significant habitat</i> for giant kokopu.	
Lee Creek	Ppass, Weedfree, Hspawn(t), Hjuve(t), Eel. Hriparian and Invrare above H44:898800			
Contour Channel and other West Taieri hill streams	Ppass, Weedfree, Hspawn(t), Hjuve(t), Eel. Hriparian in upper stretches			A high degree of naturalness above 900 metres asl
Mill Creek	Weedfree, Eel, Rarefish		<i>Significant habitat</i> for koaro.	
Meggat Burn	Hspawn(t), Hjuve(t), Hriparian, Weedfree, Eel, Rarefish. Invrare upstream of H45:743693		<i>Significant habitat</i> for banded kokopu.	
Waipori River	Ppass in lower stretches. Hspawn(t), Hjuve(t), Hriparian, Weedfree, Fishdiv, Eel, Rarefish, Trout		<i>Significant habitat</i> for koaro upstream of dam.	A high degree of naturalness above 900 metres asl and within Scenic Reserve.
Shepherd Stream	Weedfree, Rarefish		<i>Significant habitat</i> for Lower Taieri galaxiid.	
Tributaries of Waipori River	Weedfree, Rarefish		<i>Significant habitat</i> for dusky galaxiid and koaro. Munro's Dam Stream type locality for dusky galaxiid.	
Lake Mahinerangi	Weedfree, Hriparian, Trout, Rarefish		<i>Significant habitat</i> for koaro.	
Unnamed tributaries of Lake Mahinerangi at H44:709803, H44:714801, and H44:724797	Weedfree, Rarefish		<i>Significant habitat</i> for koaro.	

SCHEDULE 1A: NATURAL VALUES

Taieri/Clutha Plains subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Lammerlaw Stream	Hspawn(t), Hjuve(t), Hriparian, Weedfree, Rarefish		<i>Significant habitat for koaro.</i>	
North West Stream	Hspawn(t), Hjuve(t), Hriparian, Weedfree, Rarefish		<i>Significant habitat for koaro.</i>	
Nardoo Stream	Hspawn(t), Hjuve(t), Hriparian, Weedfree, Rarefish		<i>Significant habitat for koaro.</i>	
Unnamed tributary of Lake Mahinerangi at H44:705754	Weedfree, Rarefish		<i>Significant habitat for Lower Taieri galaxiid.</i>	
Unnamed tributary of Lake Mahinerangi at H44:720766	Weedfree, Rarefish		<i>Significant habitat for Lower Taieri galaxiid.</i>	
Unnamed tributary of Pioneer Stream at H44:703752	Weedfree, Rarefish		<i>Significant habitat for Lower Taieri galaxiid.</i>	
Boundary Creek	Hriparian, Hspawn, Hjuve			
Unnamed tributaries of Lake Mahinerangi at H44:775772, H44:778770, and H44:775770	Weedfree, Rarefish		<i>Significant habitat for Lower Taieri galaxiid.</i>	
Verter Burn	Hspawn(t), Hjuve(t), Hriparian, Weedfree, Rarefish		<i>Significant habitat for koaro.</i>	
Post Office Creek	Hspawn(t), Hjuve(t), Hriparian, Weedfree, Rarefish, Fishdiv		<i>Significant habitat for Lower Taieri galaxiid.</i>	
Silver Stream	Pgravel, Weedfree, Trout, Eel. Hspawn(t), Hjuve(t), Invdiv (midreaches), Hriparian in upper catchment. Invrare upstream of I44:144849. Rarefish		<i>Significant habitat for koaro upstream of I44:114899 and including several tributaries. Significant habitat for lamprey (uncommon in Otago).</i>	A high degree of naturalness above 900 metres asl and within Scenic Reserve and water reserve.
Whare Creek	Weedfree, Eel, Rarefish		<i>Significant habitat for Lower Taieri galaxiid.</i>	
Upper Tokomairiro River main stem (including East and West Branches)	Psize, Ppass, Pgravel, Hspawn(t), Hjuve(t), Trout, Eel, Rarefish. Hriparian in upper catchment		<i>Significant habitat for fernbird. Significant habitat for Lower Taieri galaxiid in tributaries. Significant habitat for lamprey (in East and West Branches).</i>	

SCHEDULE 1A: NATURAL VALUES

Taieri/Clutha Plains subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Unnamed tributary of Fishers Stream at H45:706645	Weedfree, Rarefish		<i>Significant habitat for Lower Taieri galaxiid.</i>	
Unnamed tributary of the Tokomairiro River West Branch at H45:693655	Weedfree, Rarefish		<i>Significant habitat for Lower Taieri galaxiid.</i>	
Unnamed tributary of the Tokomairiro River West Branch a.k.a. Nuggety Gully	Weedfree, Rarefish		<i>Significant habitat for roundhead galaxiid.</i>	
Lovells Stream	Ppass, Hspawn(t), Hjuve(t), Trout, Eel			
Lake Tuakitoto	Ppass, Psilt, Psand, Pplant, Psize, Weedfree, Hspawn, Hjuve(t), Hriparian, Trout, Eel, Birddiv, Birdrare, Rarefish, Fishdiv		<i>Significant habitat for giant kokopu. Also a breeding population of fernbird.</i>	
Lake Kaitangata (and Lake Kaitangata/Lake Tuakitoto Drainage)	Weedfree, Eel, Rarefish, Fishdiv		<i>Significant habitat for giant kokopu.</i>	
Saddle Stream	Weedfree, Eel, Rarefish, Fishdiv		<i>Significant habitat for giant kokopu.</i>	
McCrosties Drain	Weedfree, Eel, Rarefish, Fishdiv		<i>Significant habitat for giant kokopu.</i>	
Clutha River /Mata-Au between Balclutha and the sea	Psize, Ppass, Psand, Pgravel, Hspawn(s), Hjuve(t&s), Trout, Eel, Salmon, Fishdiv, Rarefish, Gbird			
Puerua River	Ppass, Psilt, Weedfree, Rarefish, Fishdiv, Hriparian, Hspawn(t), Hjuve(t), Eel		<i>Significant habitat for giant kokopu (Puerua River deviation)</i>	
Glenomaru Stream	Weedfree, Hriparian, Hspawn(t), Hjuve(t). Invdiv in mid reaches			

SCHEDULE 1A: NATURAL VALUES

Southwest Otago subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Pomahaka River	Psize, Ppass, Pgravel, Psand, Prock, Weedfree, Hspawn(t&s), Hjuve(t&s), Hriparian, Rtrout, Eel, Fishdiv, Invdiv. Invrare between G45416466 and confluence with Clutha River/Mata-Au, Gbird			
Timber Creek	Ppass, Weedfree, Hspawn(t&s), Hjuve(t&s), Trout. Invrare upstream of G43:173032			
Unnamed tributary of Flodden Creek a.k.a. Whisky Gully	Weedfree. Invrare upstream of G45:216674			
Rankle Burn	Weedfree. Invrare upstream of G45:274640			
Back Stream West Branch	Weedfree, Invdiv			
Bullock Creek	Weedfree. Invrare upstream of G43:170093			
Waiwera River	Pgravel, Ppass, Weedfree, Hspawn(t&s), Hriparian, Hjuve(t&s), Trout, Eel, Rarefish, Invdiv		<i>Significant habitat for roundhead galaxiid.</i>	
Kaihiku Stream	Pgravel, Hspawn(t), Hjuve(t), Eel, Trout, Invdiv (mid reaches)			
Clutha River /Mata-Au between Island Block and Balclutha	Psize, Ppass, Psand, Pgravel, Hspawn(t&s), Hjuve, Eel, Trout, Salmon, Sigveg, Birddiv, Rarefish, Fishdiv, Gbird between Balclutha and Tuapeka River mouth	Beaumont and Rongahere Gorge.	<i>Significant habitat:</i> Remnant indigenous ecosystem at Birch Island. <i>Significant vegetation:</i> Rare association of aquatic plants above confluence with Tuapeka.	

SCHEDULE 1A: NATURAL VALUES

Southwest Otago subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Unnamed tributary of the Clutha River/Mata-Au a.k.a. Raes Junction Stream	Rarefish		<i>Significant habitat for koaro.</i>	
Canadian Creek	Rarefish		<i>Significant habitat for koaro. Significant habitat for lamprey (uncommon in Otago).</i>	
Unnamed tributary of the Tuapeka River a.k.a. Konini Creek	Weedfree, Rarefish		<i>Significant habitat for roundhead galaxiid.</i>	
Waitahuna River	Ppass, Weedfree, Hspawn(t&s), Hjuve(t&s), Rarefish, Eel, Trout. Invrare upstream of H44:653760		<i>Significant habitat for Waitahuna dusky galaxiid (in headwaters and upper tributaries), and flathead galaxiid.</i>	
Tuapeka River	Pgravel, Psize, Ppass, Weedfree, Hspawn(t&s), Hjuve(t&s), Eel, Trout. In divid in upper reaches			
Unnamed tributaries of the Tuapeka River upstream of G45:472668	Weedfree, Rarefish		<i>Significant habitat for flathead galaxiid and dusky galaxiid.</i>	
Wetherston Creek	Weedfree, Rarefish		<i>Significant habitat for roundhead galaxiid.</i>	
Corkscrew Road Stream	Weedfree, Rarefish		<i>Significant habitat for roundhead galaxiid.</i>	
Blackcleugh Burn	Weedfree. Invrare upstream of G45:340676			
Kuriwao Stream	Ppass, Hspawn(t), Hjuve(t), Trout, Eel			

SCHEDULE 1A: NATURAL VALUES

Southwest Otago subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Mokoreta River (upper stretches, within Otago region)	Ppass, Hspawn(t), Hjuve(t), Trout, Eel			
Waipahi River (lower stretches, within Otago region)	Pplant, Pgravel, Psize, Ppass, Weedfree, Hspawn(t&s), Hjuve(t&s), Rtrout, Eel			

SCHEDULE 1A: NATURAL VALUES

Catlins subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Catchments between Fleming River and Longbeach Creek (excl Tautuku River)	Weedfree, Ppass, Hspawn, Hjuve, Hriparian, Fishdiv, Birddiv			A high degree of naturalness within bushed catchments.
Tautuku River	Psize, Ppass, Weedfree, Hspawn, Hjuve, Hriparian, Fishdiv, Birddiv, Eel	Scenic values with silver beech margins, from its mouth to its source.		A high degree of naturalness within bushed catchments.
Tautuku Bay Stream	Weedfree, Rarefish		<i>Significant habitat for banded kokopu.</i>	
Tahakopa River	Pgravel, Psize, Weedfree, Rarefish, Ppass, Hspawn(t), Hjuve(t), Hriparian, Trout, Eel, Fishdiv, Birddiv		<i>Significant habitat for flathead galaxiid. Significant habitat for lamprey (uncommon in Otago).</i>	A high degree of naturalness within bushed catchments.
Jumbo Creek	Rarefish		<i>Significant habitat for koaro and banded kokopu.</i>	
Gorge Creek	Rarefish		<i>Significant habitat for flathead galaxiid.</i>	
Unnamed tributary of the Tahakopa River at G47:268063	Weedfree, Rarefish		<i>Significant habitat for flathead galaxiid.</i>	
Maclennan River	Psize, Weedfree, Ppass, Hspawn(t), Hjuve(t), Hriparian, Trout, Eel, Fishdiv, Birddiv, Rarefish	Scenic values with silver beech margins, from confluence with Tahakopa River to its source.	<i>Significant habitat for koaro. Significant habitat for lamprey (uncommon in Otago).</i>	A high degree of naturalness within bushed catchments.
Waitangi Stream	Weedfree, Rarefish		<i>Significant habitat for koaro.</i>	
Matai Stream	Weedfree, Rarefish, Fishdiv		<i>Significant habitat for roundhead galaxiid and banded kokopu.</i>	
Catlins River	Psize, Pgravel, Ppass, Weedfree, Hspawn(t), Hjuve(t), Hriparian, Trout, Eel, Rarefish, Fishdiv, Invdiv	Scenic values with silver beech margins, from its mouth to its source.	<i>Significant habitat for giant kokopu, banded kokopu and roundhead galaxiid. Significant habitat for lamprey (uncommon in Otago).</i>	A high degree of naturalness within bushed catchments.
Purakaunui River	Pboulder, Ppass (below Falls), Weedfree, Eel	Purakaunui Falls.		A high degree of naturalness within bush, apart from viewing structures.

SCHEDULE 1A: NATURAL VALUES

Catlins subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Frank Stream	Weedfree, Rarefish		<i>Significant habitat for roundhead galaxiid.</i>	
Wallis Stream	Weedfree, Rarefish		<i>Significant habitat for roundhead galaxiid.</i>	
Craggy Tor Stream	Weedfree, Rarefish		<i>Significant habitat for roundhead galaxiid.</i>	
Daphne Brook	Weedfree, Rarefish		<i>Significant habitat for flathead galaxiid.</i>	
Tarwood Stream	Weedfree		<i>Significant habitat for roundhead galaxiid.</i>	
Papatupu Stream	Weedfree, Rarefish		<i>Significant habitat for roundhead galaxiid.</i>	
Unnamed tributary of the Catlins River at G46:274228	Weedfree, Rarefish		<i>Significant habitat for roundhead galaxiid.</i>	
McLaren Creek	Weedfree, Rarefish, Fishdiv		<i>Significant habitat for giant kokopu, koaro, roundhead galaxiid and banded kokopu.</i>	
Owaka River	Psize, Pgravel, Ppass, Weedfree, Hriparian, Hspawn(t), Hjuve(t), Fishdiv, Trout, Eel. Invddiv in upper reaches			A high degree of naturalness within bushed catchments.
Unnamed tributary of the Owaka River at H46:504119	Weedfree, Rarefish, Fishdiv		<i>Significant habitat for giant kokopu.</i>	
Waipati (Chaslands) River	Hspawn(t), Hjuve(t), Trout, Eel			

SCHEDULE 1A: NATURAL VALUES

Sources for information contained in Schedule 1A

The outstanding natural features and landscapes, areas of significant indigenous vegetation and significant habitats of indigenous fauna identified in this schedule are derived from the following publications:

Allibone, R.M. (1997) Freshwater Fish of the Otago Region. Department of Conservation. Otago Conservancy Miscellaneous Report Series No. 36. (includes NIWA Freshwater Fish database for Otago rivers).

Biggs, BJ and Shand, BI (1985) Biological Communities and the Potential Effects of Power Developments in the Lower Clutha River - Otago. Report no. WS987, Ministry of Works and Development.

Clayton, J. (1993) Resource Evaluation and Operational Programme For Lakeweed: The Upper Clutha and Kawarau Catchment Areas. Prepared by NIWA Ecosystems for the Otago Regional Council.

Department of Conservation: Special Sites of Wildlife Interest.

Grindell, D.S. and P.A. Guest (eds) (1986) A list of Rivers and Lakes Deserving Inclusion in a Schedule of Protected Waters. Water and Soil Miscellaneous Publication, No. 97. National Water and Soil Conservation Authority, Wellington.

Grindell, D.S. (1984) A National Inventory of Wild and Scenic Rivers. Water and Soil Miscellaneous Publication, No. 68. National Water and Soil Conservation Authority, Wellington.

Kenny, J.A. and B.W. Hayward (eds) (1993) Inventory of Important Geological Sites and Landforms in the Otago region. Geological Society of New Zealand Miscellaneous Publication No. 77. Geological Society of New Zealand, Lower Hutt.

Lake Wanaka Preservation Act 1973.

Local Water Conservation (Lake Tuakitoto) Notice 1991.

Ministry for the Environment (1997) Water Conservation (Kawarau) Order 1997.

Water and Soil Conservation Authority (1982) A Draft for a National Inventory of Wild and Scenic Rivers. Part 1 - Nationally Important Rivers. Water and

SCHEDULE 1A: NATURAL VALUES

Soil Miscellaneous Publication, No. 97. National Water and Soil Conservation Authority, Wellington.

SCHEDULE 1AA: OTAGO RESIDENT NATIVE
FRESHWATER FISH THREAT STATUS

1AA Schedule of Otago Resident Native Freshwater Fish - Threat Status

Common name	Scientific name	Threat Status
Lowland longjaw galaxias	<i>Galaxias cobitinis</i>	Nationally Critical*
Canterbury mudfish (Kōwaro)	<i>Neochanna burrowsius</i>	Nationally Critical
Teviot flathead galaxias	<i>Galaxias</i> 'Teviot'	Nationally Critical*
Dusky galaxias	<i>Galaxias pullus</i>	Nationally Endangered*
Alpine galaxias	<i>Galaxias</i> aff. <i>paucispondylus</i> 'Manuherikia'	Nationally Endangered*
Eldon's galaxias	<i>Galaxias eldoni</i>	Nationally Endangered*
Central Otago roundhead galaxias	<i>Galaxias anomalus</i>	Nationally Vulnerable*
Clutha flathead galaxias	<i>Galaxias</i> sp. D.	Nationally Vulnerable*
Smeagol galaxias	<i>Galaxias</i> aff. <i>gollumoides</i> 'Nevis'	Nationally Vulnerable*
Longfin eel (tuna)	<i>Anguilla dieffenbachii</i>	Declining
Giant kokopu (Taiwharu)	<i>Galaxias argenteus</i>	Declining
<i>Galaxias gollumoides</i>	<i>Galaxias gollumoides</i>	Declining
Lamprey (kanakana)	<i>Geotria australis</i>	Declining
Torrentfish (Piripiripōhatu)	<i>Cheimarrichthys fosteri</i>	Declining
Koaro	<i>Galaxias brevipinnis</i>	Declining
Inanga (inaka)	<i>Galaxias maculatus</i>	Declining
Bluegill bully	<i>Gobiomorphus hubbsi</i>	Declining
Redfin bully	<i>Gobiomorphus huttoni</i>	Declining

*NB: Fish marked with an * are only found in the Otago Region.

1B Schedule of water supply values

This schedule identifies existing water takes from lakes and rivers, where the water taken is used for public water supply purposes. The communities identified in the schedule have come to rely upon these water supplies to provide for their social, economic and cultural well being. Rule 12.1.3.1 provides for replacement consents for these takes as a controlled activity, to provide certainty for these communities. The water takes are identified by geographic subregion and by individual water bodies within each subregion (see Maps A1–A8 for subregions and site locations).

Water is also taken for private water supply throughout Otago, particularly for domestic supply to dwellings such as farm homesteads and associated buildings, usually without treatment. It is also consumed without treatment by musterers, anglers, trampers, cyclists, hunters and other backcountry users. Areas with a high degree of naturalness, identified in Schedule 1A, will often contain water bodies with relatively pristine water quality. Those that utilise the water without treating it take the risk that it may contain giardia or other pathogenic (disease causing) organisms.

North Otago subregion

Water body or Catchment	Site No.	Water Supply Values
Kakanui River (note, the shallow aquifer forms an integral part of the water body)	1	Windsor and Dunrobin Water Supplies at J41:325737
	2	Weston and Enfield Water Supplies at J41:381667
	3	Reidston Water Supply at J42:405595
	4	Kakanui Water Supply at J42:430581
Kauru River	5	Kauru Hill Water Supply at J41:314637
Kurinui Creek a.k.a. Big Kuri Creek	6	Hampden-Moeraki Water Supply at J42:364413
Shag River (Waihemo) (note, the shallow aquifer forms an integral part of the water body)	7	Dunback Water Supply at I43:274279
	8	Palmerston (including Blue Mountain) Water Supply at J43:317237
	9	Goodwood Water Supply at J43:343234
Waianakarua River	10	Herbert-Waianakarua Water Supply at J42:339507

Maniototo subregion

Water body or Catchment	Site No.	Water Supply Values
Sow Burn	11	Patearoa Water Supply at H42:786435
Ewe Burn	12	Ranfurly Water Supply at H41:800689, H41:836770 and H41:794684

Central Otago subregion

Water body or Catchment	Site No.	Water Supply Values
Clutha River/Mata-Au <i>between Alexandra and Lake</i>	13	Clyde Water Supply at G42:199521
	14	Cromwell Water Supply at G41:120670

SCHEDULE 1B: WATER SUPPLY VALUES

Water body or Catchment	Site No.	Water Supply Values
<i>Wanaka (including Lake Dunstan)</i>		
Manuherikia River catchment	15	St Bathans Water Supply at H40:592926 and H40:602938
	16	Omakau and Ophir Water Supplies at G41:427626

Lakes subregion

Water body or Catchment	Site No.	Water Supply Values
Lake Wakatipu	17	Queenstown Water Supply from E41:666653 and F41:719664
Lake Hayes Tributary	18	Lake Hayes Water Supply at F41:794738
Lake Wanaka	19	Wanaka Water Supply at F40:033062 and F40:013057
Lake Hawea	20	Hawea Water Supply at G40:123153

Roxburgh subregion

Water body or Catchment	Site No.	Water Supply Values
Clutha River/Mata-Au <i>between Alexandra and Island Block</i>	21	Roxburgh Hydro Village Water Supply at G43:225194
Benger Burn	22	Ettrick Water Supply at G43:198030

Waikouaiti/Lammermoor subregion

Water body or Catchment	Site No.	Water Supply Values
Deep Stream	23	Dunedin Water Supply at H44:677992
Deep Creek	24	Dunedin Water Supply at H43:665037
Fortification Creek Dam	25	Hindon Water Supply at I44:906923
Waikouaiti River	26	Waikouaiti Water Supply at I43:232079
Waikouaiti River	27	Mt Pleasant-Stoneburn Water Supply at I43:155263

Coastal subregion

Water body or Catchment	Site No.	Water Supply Values
Water of Leith	28	Dunedin Water Supply at I44:152820 (Ross Creek)
	29	I44:153833 (Nicols Creek);
	30	I44:160843 (Lower Morrisons Creek)
	31	I44:153849 (Upper Morrisons Creek); and
	32	I44:164857 (West Branch)
Sullivans Dam	33	Dunedin Water Supply at I44:172863
Rossville Reservoir	34	Port Chalmers Water Supply at I44:233865 (Rossville intake); and
	35	I44:227879 (Cedar Farm intake)

SCHEDULE 1B: WATER SUPPLY VALUES

Waitati River	36	Dunedin Water Supply at I44:158883 (Burns Creek); I44:160873 (Jeffersons Creek); and I44:159870 (Williams Creek)
	37	
	38	
Wetherstons Creek	39	Waitati Water Supply at I44:201882

Taieri/Clutha Plains subregion

Water body or Catchment	Site No.	Water Supply Values
Taieri River <i>between Outram and Henley</i>	40	Outram Water Supply at I44:955804
Mill Creek	41	West Taieri Water Supply at H44:833730
Meggat Burn	42	North Bruce Water Supply at H45:743693
Silver Stream catchment	43	Dunedin Water Supply at I44:096859; I44:105844; I44:105848; and I44:105850
	44	
	45	
	46	
Tokomairiro River East Branch	47	Milton Water Supply at H45:746529
Clutha River/Mata-Au <i>between Balclutha and the sea</i>	48	Bruce Water Supply at H46:619343 Kaitangata and Wangaloa Water Supplies at H46:667308
	49	
Puerua River	50	Richardson Water Supply at H46:510257

Southwest Otago subregion

Water body or Catchment	Site No.	Water Supply Values
Pomahaka River	51	Glenkenich Water Supply at G44:103754 <i>[Repealed – 1 June 2015]</i>
	52	
Waipahi River	63	Waipahi Rural Stock Water Supply at G45:196488
Timber Creek	53	Moa Flat Water Supply at G43:172033
Greens Creek	54	Rural Water Supply at G44:104752
Unnamed tributary of Flodden Creek a.k.a. Whisky Gully	55	Tapanui Water Supply at G45:223660
Back Stream West Branch	56	<i>[Repealed – 1 June 2015]</i>
Clutha River/Mata-Au <i>between Island Block and Balclutha</i>	57	Richardson Water Supply at G45:491435 Balclutha Water Supply at H46:580363
	58	
Waitahuna River	59	Balmoral 1 and 2 and Tuapeka East Water Supplies at H45:523564
Bungtown Creek	60	Lawrence Water Supply at H44:573773
Tuapeka River	61	Tuapeka Water Supply at G44:491742
Bluejacket Gully	62	Lawrence Water Supply at H44:543747

1C Schedule of registered historic places

This schedule identifies registered historic places which occur in, on, under or over the beds or margins of Otago's lakes and rivers. Historic places are an important cultural resource as they provide links with Otago's history and heritage.

There are other sites, buildings, places and areas of heritage value on the beds or margins of Otago rivers or lakes that are not identified in this schedule. The New Zealand Historic Places Trust retains information about important but unregistered historic values.

The registered historic places are identified by geographic subregion and by individual water bodies within each subregion (see Maps A1–A8 for subregions).

North Otago subregion

Water body	Registered Historic Places
Oamaru Creek	Japanese Red Bridge, Oamaru Public Gardens Thames Street Bridge, Thames Street, Oamaru
Kakanui River	Clarks Flourmill, including dam, gate and race, SH 1, Maheno
McCormicks Creek	McCormick's Creek Bridge, SH 85, Dunback
Waianakarua River North Branch	Graves Dam, Breakneck Road, Waianakarua Turnbull Thompson Bridge, SH 1, Waianakarua
Waianakarua River South Branch	Waianakarua Bridge, SH 1, Waianakarua

Maniototo subregion

Water body	Registered Historic Place
Hog Burn	Naseby Historic Area, Naseby – various culverts and crossings in or over the river

Central Otago subregion

Water body	Registered Historic Places
Clutha River/Mata-Au <i>between Alexandra and Lake Wanaka</i>	Bridge Piers, SH8, Alexandra Earnsclough Bridge and Piers, Clyde
Manuherikia River	Shakey Bridge, Alexandra Daniel O'Connell Bridge, Ophir Bridge Road–, Ophir
Lake Dunstan	Old Bannockburn Bridge Foundations (submerged). Cromwell Bridge, Cromwell

SCHEDULE 1C: REGISTERED HISTORIC PLACES

Lakes subregion

Water body	Registered Historic Places
Kawarau River	Kawarau Falls bridge and dam, Frankton, Queenstown Kawarau Gorge Suspension Bridge, SH 6, Gibbston
Luggate Creek	Luggate Flourmill, Luggate
Horne Creek	Horne Creek Bridge, Ballarat Street, Queenstown
Shotover River	Oxenbridge Tunnel, Arthurs Point, Queenstown Edith Cavell Bridge, Arthurs Point, Queenstown
Mill Creek	Wakatipu Flourmill Complex, Speargrass Flat Road. Butel's Flourmill, Millbrook
Murdochs Creek	Bullendale Battery and Dynamo, Skippers catchment
Stony Creek	"Murphy's Creek" suspended pipe over Stony Creek, Skippers catchment

Roxburgh subregion

Water body	Registered Historic Places
Clutha River/Mata-Au <i>between Alexandra and Island Block</i>	Four Span Steel Truss Bridge, Millers Flat Old bridge piers at Roxburgh, adjacent to current bridge

Strath Taieri subregion

Water body	Registered Historic Place
Taieri River <i>between Tiroiti and Pukerangi</i>	Hyde Bridge, SH 87, Hyde

Coastal subregion

Water body	Registered Historic Places
Water of Leith	George Street Bridge, George Street, Dunedin Cast Iron Footbridge, University of Otago, Dunedin Stone Bridge, University of Otago, Dunedin
Ross Creek	Earth Dam, Burma Road, Dunedin Valve Tower and Jetty, Burma Road, Dunedin

Taieri/Clutha Plains subregion

Water body	Registered Historic Places
Clutha River Mata-Au <i>between Balclutha and the sea</i>	Blair Railway Bridge, SH 91, Balclutha Balclutha Bridge, SH 1, Balclutha
Pioneer Stream and Reef Creek	Otago Pioneer Quartz Historic Reserve containing many relics of former mining activity

1D Schedule of spiritual and cultural beliefs, values and uses of significance to Kai Tahu

This schedule identifies the spiritual or cultural beliefs, values or uses associated with water bodies of significance to Kai Tahu. The values are identified by geographic subregion and by individual water bodies, or groups of water bodies, within each subregion (see Maps A1–A8 for subregions). Note that the codes for these values are given in Table 4. Kai Tahu provided the information that appears in this schedule.

Where an activity will require a resource consent, Policy 5.4.2 will apply. This means that where an activity is to occur with respect to any water body for which this schedule identifies a particular spiritual or cultural belief, value or use, it may be necessary for the applicant to consult with Kai Tahu in a manner which is consistent with that set out in the document “Kai Tahu Ki Otago - Natural Resource Management Plan”.

Table 4: Code for Kai Tahu beliefs, values and uses ascribed to water bodies

Code	Mana Interests:
MA1	Kaitiakitanga – the exercise of guardianship by Kai Tahu in accordance with tikanga Maori* in relation to Otago’s natural and physical resources; and includes the ethic of stewardship.
MA2	Mauri – life force; for example the mauri of a river is most recognisable when there is abundance of water flow and the associated ecosystems are healthy and plentiful; a most important element in the relationship that Kai Tahu have with the water bodies of Otago.
MA3	Waahi tapu and/or Waiwhakaheke – sacred places; sites, areas and values associated with water bodies that hold spiritual values of importance to Kai Tahu. (Note: Kai Tahu should be consulted regarding the location of these places, sites areas and values for a river identified as MA3).
MA4	Waahi taoka – treasured resource; values, sites and resources that are valued and reinforce the special relationship Kai Tahu have with Otago’s water resources.

Code	Access/Customary Use Interests:
MB1	Mahika kai – places where food is procured or produced. Examples in the case of waterborne mahika kai include eels, whitebait, kanakana (lamprey), kokopu (galaxiid species), koura (fresh water crayfish), fresh water mussels, indigenous waterfowl, watercress and raupo.
MB2	Kohanga – important nursery/spawning areas for native fisheries and/or breeding grounds for birds.
MB3	Trails – sites and water bodies which formed part of traditional routes, including tauraka waka (landing place for canoes).
MB4	Cultural materials – water bodies that are sources of traditional weaving materials (such as raupo and paru) and rongoa (medicines).
MB5	Waipuna – sources of water highly regarded for their purity, healing and health-giving powers.

* the correct way of doing things, according to custom.

SCHEDULE 1D: KAI TAHU VALUES

North Otago subregion									
Water body	MA1	MA2	MA3	MA4	MB1	MB2	MB3	MB4	MB5
Awamoko Stream			✓	✓	✓		✓	✓	
Landon Creek				✓					
Awamoa Creek				✓				✓	
Waiareka Creek				✓	✓		✓	✓	
Kakanui River	✓	✓	✓	✓	✓	✓	✓	✓	✓
Oamaru Creek				✓	✓			✓	
Kakaho Creek				✓				✓	
Kurinui Creek a.k.a. Big Kuri Creek				✓			✓	✓	
Ngutukaka Creek				✓					
Waiherowhero Creek				✓					
Waimataitai				✓	✓			✓	
Creeks between Waimataitai & Shag Point/Matakaea				✓					
Stony Creek				✓	✓	✓			
Bobbys Head Creek			✓	✓					
Most creeks between Bobbys Head & Pleasant River				✓					
Shag River (Waihemo)	✓	✓	✓	✓	✓	✓	✓	✓	✓
Waianakarua River	✓	✓		✓	✓	✓	✓	✓	✓
Pleasant River			✓	✓	✓	✓	✓	✓	
Trotters Creek	✓	✓		✓	✓	✓	✓	✓	✓

Maniototo subregion									
Water body	MA1	MA2	MA3	MA4	MB1	MB2	MB3	MB4	MB5
Taieri River, upstream of Tiroiti	✓	✓	✓	✓	✓	✓	✓	✓	
Streams on the west-facing slopes of the Rock and Pillar Range, excluding Logan Burn				✓	✓				
Kye Burn	✓	✓	✓	✓	✓	✓	✓	✓	

Central Otago subregion									
Water body	MA1	MA2	MA3	MA4	MB1	MB2	MB3	MB4	MB5
Clutha River/Mata-Au between Alexandra and Lake Wanaka	✓	✓	✓	✓	✓	✓	✓	✓	
Manuherikia River	✓	✓	✓	✓	✓	✓	✓	✓	
Moa Creek				✓					
Other Manuherikia tributaries	✓	✓	✓	✓	✓	✓	✓	✓	
Little Bremner Creek				✓					
Earnsclough or Fraser River				✓					
Bannock Burn				✓					
Lindis River				✓			✓	✓	
Cardrona River	✓	✓	✓	✓	✓	✓	✓	✓	

SCHEDULE 1D: KAI TAHU VALUES

Lakes subregion									
Water body	MA1	MA2	MA3	MA4	MB1	MB2	MB3	MB4	MB5
Kawarau River <i>between Lakes Dunstan and Wakatipu</i>	✓	✓		✓			✓	✓	
Lake Hayes				✓	✓				
Lake Wakatipu	✓	✓	✓	✓	✓	✓	✓	✓	
Diamond Lake, Diamond Creek and Lake Reid				✓					
Dart River/Te Awa Whakatipu	✓	✓	✓	✓	✓	✓	✓	✓	
Route Burn	✓	✓	✓	✓	✓	✓	✓	✓	
Greenstone River, Caples River	✓	✓	✓	✓	✓	✓	✓	✓	
Lochy River				✓					
Streams flowing to Lake Wakatipu between Halfway Bay and Elfin Bay, including Von River				✓					
Lake Wanaka	✓	✓	✓	✓	✓	✓	✓	✓	
Matukituki River	✓	✓	✓	✓	✓	✓	✓	✓	
Streams flowing off West Wanaka, including Albert Burn				✓	✓				
Makarora River	✓	✓		✓	✓	✓	✓	✓	
Lake Hawea	✓	✓	✓	✓	✓	✓	✓	✓	
Hunter River	✓	✓	✓	✓	✓	✓	✓	✓	
Dingle Burn				✓					
Timaru River				✓					
Hawea River	✓	✓		✓	✓	✓	✓	✓	
Shotover River	✓	✓		✓	✓	✓	✓	✓	
Arrow River	✓	✓		✓	✓	✓	✓	✓	
Roaring Meg	✓	✓	✓	✓			✓		
Nevis River	✓	✓	✓	✓			✓		

Roxburgh subregion									
Water body	MA1	MA2	MA3	MA4	MB1	MB2	MB3	MB4	MB5
Clutha River/Mata-Au <i>between Alexandra and Island Block</i>	✓	✓	✓	✓	✓	✓	✓	✓	
Teviot River					✓				
Lake Onslow				✓	✓				
Minzion Burn				✓					

Strath Taieri subregion									
Water body	MA1	MA2	MA3	MA4	MB1	MB2	MB3	MB4	MB5
Great Moss Swamp				✓	✓				
Red Swamp Creek				✓					
Taieri River <i>between Tiroiti and Pukerangi</i>	✓	✓	✓	✓	✓	✓	✓	✓	
Nenthorn Stream	✓	✓	✓	✓	✓	✓	✓	✓	
Deighton Creek				✓					

SCHEDULE 1D: KAI TAHU VALUES

Streams flowing on west side of Taieri Ridge				✓					
Lug Creek, Wandle Creek and other streams flowing on the east side of the Rock and Pillar Range				✓					

Waikouaiti/Lammermoor subregion									
Water body	MA1	MA2	MA3	MA4	MB1	MB2	MB3	MB4	MB5
Taieri River <i>between Pukerangi and Outram</i>	✓	✓	✓	✓	✓	✓		✓	
Three O'clock Stream				✓					
Lee Stream	✓	✓	✓	✓	✓	✓	✓	✓	
Ross Stream				✓					
Deep Stream (and Deep Creek)	✓	✓	✓	✓	✓	✓		✓	
Waikouaiti River (excluding South Branch)	✓	✓	✓	✓	✓	✓	✓	✓	
Waikouaiti River South Branch	✓	✓		✓	✓	✓	✓	✓	
Lower Waikouaiti River (estuary and tidal zone)			✓	✓	✓	✓	✓	✓	
Hawksbury Lagoon			✓	✓	✓	✓		✓	
Streams between Karitane & Yellow Bluff (Te Pa Hawea)				✓					

Coastal subregion									
Water body	MA1	MA2	MA3	MA4	MB1	MB2	MB3	MB4	MB5
Streams between Summer Hill and Brighton, excluding Taieri and Tokomairi River main stems			✓	✓					
Akatore River			✓	✓	✓	✓	✓	✓	
Lower Tokomairi River main stem	✓	✓	✓	✓	✓	✓	✓	✓	
Taieri River <i>between Henley and the sea</i>	✓	✓	✓	✓	✓	✓	✓	✓	
Unnamed tributary of the Taieri River a.k.a. Takitakitoa Stream	✓	✓		✓	✓	✓		✓	
Otokia Creek	✓	✓	✓	✓	✓	✓	✓	✓	
Deep Creek (Omimi)				✓			✓		
Evansdale Creek				✓					
Kaikorai Stream	✓	✓	✓	✓	✓	✓	✓	✓	
Otago Peninsula streams	✓	✓	✓	✓	✓	✓		✓	✓
Water of Leith			✓	✓					
Waitati River				✓					

SCHEDULE 1D: KAI TAHU VALUES

Taieri/Clutha Plains subregion									
Water body	MA1	MA2	MA3	MA4	MB1	MB2	MB3	MB4	MB5
Taieri River <i>between Outram and Henley</i>	✓	✓	✓	✓	✓	✓	✓	✓	
Lakes Waipori and Waihola, Sinclair Wetlands	✓	✓	✓	✓	✓	✓	✓	✓	✓
Contour Channel and other West Taieri hill streams					✓				
Waipori River				✓	✓				
Silver Stream	✓	✓	✓	✓	✓	✓	✓		
Owhiro Stream	✓	✓		✓	✓	✓	✓	✓	
Upper Tokomairiro River main stem					✓				
Lovells Stream					✓				
Lake Tuakitoto	✓	✓		✓	✓	✓	✓	✓	
Clutha River/Mata-Au <i>between Balclutha and the sea</i>	✓	✓	✓	✓	✓	✓	✓	✓	
Waitepeka River, Puerua River including Glenomaru Stream tributary				✓	✓	✓	✓		

Southwest Otago subregion									
Water body	MA1	MA2	MA3	MA4	MB1	MB2	MB3	MB4	MB5
Pomahaka River	✓	✓	✓	✓	✓	✓	✓	✓	
Waiwera River					✓				
Clutha River/Mata-Au <i>between Island Block and Balclutha</i>	✓	✓	✓	✓	✓	✓	✓	✓	
Waitahuna River					✓				
Waipahi River (lower stretches within Otago region)	✓	✓	✓	✓	✓	✓	✓	✓	

Catlins subregion									
Water body	MA1	MA2	MA3	MA4	MB1	MB2	MB3	MB4	MB5
Catchments between Fleming River and Longbeach Creek (excluding Tautuku River)			✓	✓	✓				
Tautuku River			✓	✓					
Tahakopa River	✓	✓	✓	✓	✓	✓	✓	✓	
Maclennan River	✓	✓		✓	✓	✓	✓	✓	
Catlins River	✓	✓		✓	✓	✓	✓	✓	
Owaka River	✓	✓		✓	✓	✓	✓	✓	
Karoro Creek			✓	✓	✓				

2. Schedule of specified restrictions on the exercise of permits to take surface water

This schedule provides specified minimum flows applying to the taking of surface water within primary and supplementary allocation from catchments identified in the B-series maps, and Welcome Creek. The schedule should be read in conjunction with the policies contained in section 6.4.

Schedule 2A specifies minimum flows that apply to the primary allocation water taken from catchments identified in the B-series maps. The last column of Schedule 2A also specifies the primary allocation limit in accordance with Policy 6.4.2(a) for the whole catchments of the rivers and lakes. The catchment areas for the primary allocation limits set by Policy 6.4.2(a) may be larger than those specified on the B-series maps.

Schedule 2B specifies minimum flows that apply to specified blocks of supplementary allocation for some catchments. Additional supplementary allocation may be granted under Policies 6.4.9 and 6.4.10.

Schedule 2 identifies minimum flows in litres per second and the site at which flows will be monitored. When the minimum flow is reached, consents to take water from the identified catchment will cease or will be suspended by the Otago Regional Council, in accordance with Policy 6.4.11 of this Plan. The flows listed in Schedule 2, which trigger suspension, use the instantaneous flow rates.

In accordance with Policy 6.4.1A, groundwater takes from aquifers listed in Schedule 2C and identified in the C-series maps, and other connected groundwater, are considered against primary or supplementary allocation provided for by Policies 6.4.2 and 6.4.9 and where listed in Schedules 2A and 2B, and may be subject to the minimum flows identified.

Schedule 2D identifies matters to be considered when making additions to these schedules through a plan change.

SCHEDULE 2: SPECIFIED RESTRICTIONS ON THE
EXERCISE OF PERMITS TO TAKE WATER

2A Schedule of specific minimum flows for primary allocation takes in accordance with Policy 6.4.3, and primary allocation limits in accordance with Policies 6.4.2(a) and 6.4.1A

The following schedule:

1. Identifies the minimum flows that apply to the taking of surface water, which includes groundwater managed as surface water in terms of Policy 6.4.1A within primary allocation from the catchments shown in the B-series maps, Welcome Creek and aquifers shown in the C-series maps. The B-series maps identify the location of catchment area boundaries and numbered monitoring sites referred to in the schedule for setting and measuring the minimum flows.
2. Specifies the primary allocation limit in accordance with Policy 6.4.2(a). That limit is exceeded in catchments where the consented takes as at 28 February 1998 (or 19 February 2005 in the Welcome Creek catchment, or 7 July 2000 in the Waianakarua catchment) set a higher limit in accordance with Policy 6.4.2(b). The catchments in which the limit set by Policy 6.4.2(a) is exceeded by Policy 6.4.2(b) (as at 20 December 2008) are the Shag, Kakanui, Taieri, Lake Hayes, Luggate and Manuherikia.

Catchment See the B-series maps	Monitoring Site (with MS number) See the B-series maps	Minimum flow (litres per second – instantaneous flow)	Primary Allocation Limits in accord with Policy 6.4.2(a) (litres per second – instantaneous flow)
Welcome Creek catchment	Steward Road	600	600 <i>Welcome Creek catchment from confluence with Waitaki River to headwaters. (Also subject to Table 12.1.4.2)</i>
Kakanui catchment (a) 1 October to 30 April	Mill Dam (MS 3) and McCones (MS 3b)	250 (300 for secondary permits) If 250 breached, flow must return to 400 before taking can recommence.	750 <i>Kakanui catchment from mouth to headwaters excluding the Waiareka Creek and Island Stream catchments.</i>
(b) 1 May to 30 September	Clifton Falls (MS 3a) Mill Dam (MS 3) and McCones (MS 3b)	400 for primary and secondary permits	
Waianakarua catchment	Browns Pump (MS 13)	200 (1 October to 30 April) 400 (1 May to 30 September)	190 <i>Waianakarua catchment from mouth to headwaters</i>
Trotters catchment	Mathesons Weir (MS 12)	10 (1 October to 30 April) 35 (1 May to 30 September)	15 <i>Trotters catchment from mouth to headwaters</i>

SCHEDULE 2: SPECIFIED RESTRICTIONS ON THE
EXERCISE OF PERMITS TO TAKE WATER

Catchment See the B-series maps	Monitoring Site (with MS number) See the B-series maps	Minimum flow (litres per second – instantaneous flow)	Primary Allocation Limits in accord with Policy 6.4.2(a) (litres per second – instantaneous flow)
Shag catchment (both minimum flows apply)	Goodwood Pump (MS 1) Craig Road (MS 2)	28 150	280 <i>Shag catchment from mouth to headwaters</i>
Water of Leith catchment	Water of Leith at University Footbridge (MS 4)	94	140 <i>Water of Leith catchment from mouth to headwaters</i>
Taieri River upstream of Paerau	Paerau Dam (MS 5a)	850	4,860 <i>Taieri River catchment from mouth to headwaters.</i>
Taieri River catchment between Paerau and Waipiata	Taieri River at Waipiata (MS 5)	1,000	
Taieri River catchment between Waipiata and Tiroiti	Taieri River at Tiroiti (MS 5b)	1,100	
Taieri River catchment between Tiroiti and Sutton	Taieri River at Sutton (MS 6)	1,250	
Taieri River catchment between Sutton and Outram	Taieri River at Outram (MS 6a)	2,500	
Luggate catchment	SH6 Bridge (MS 11)	180 (1 November to 30 April) 500 (1 May to 30 October)	500 <i>Luggate catchment from confluence with Clutha/Mata-Au to headwaters</i>
Lake Hayes catchment area	Mill Creek at Fish Trap (MS 7)	180	260 <i>Lake Hayes catchment from lake outlet to headwaters</i>
Manuherikia River catchment upstream of Ophir	Manuherikia River at Ophir (MS 8)	820	3,200 <i>Manuherikia catchment from confluence with Clutha/Mata-Au to headwaters</i>
Waitahuna River catchment	Waitahuna River at Tweeds Bridge (MS 9)	450	650 <i>Waitahuna catchment from confluence with Clutha/Mata-Au to headwaters</i>
Pomahaka catchment (within Otago Region)	Burkes Ford (MS 15)	3,600 (1 October to 30 April) 7,000 (1 May to 30 September)	1,000 <i>Pomahaka catchment from confluence with Clutha/Mata-Au to headwaters</i>

SCHEDULE 2: SPECIFIED RESTRICTIONS ON THE
EXERCISE OF PERMITS TO TAKE WATER

Catchment See the B-series maps	Monitoring Site (with MS number) See the B-series maps	Minimum flow (litres per second – instantaneous flow)	Primary Allocation Limits in accord with Policy 6.4.2(a) (litres per second – instantaneous flow)
Waiwera catchment	Maws Farm (MS 16)	280 (1 October to 30 April) If 280 breached by taking, flow must return to 310 before taking can recommence. 400 (1 May to 30 September)	150 <i>Waiwera catchment from confluence with Clutha/Mata-Au to headwaters</i>
Lake Tuakitoto catchment	Lovells Creek at SH1 (MS 10)	5	30 <i>Lake Tuakitoto catchment from confluence with Clutha/Mata-Au to headwaters</i>

SCHEDULE 2: SPECIFIED RESTRICTIONS ON THE
EXERCISE OF PERMITS TO TAKE WATER

2B Schedule of supplementary allocation blocks and specific minimum flows in accordance with Policy 6.4.9(c)

Catchment (See the B-series maps) & Supplementary Block Number	Minimum Flow (litres per second – instantaneous flow) at the monitoring site(s) (See the B-series maps)	Supplementary Allocation Block (litres per second – instantaneous flow)
Welcome Creek catchment (first supplementary allocation block)	1,000 At Steward Road (MS 14)	400 (Also subject to Table 12.1.4.2)
Kakanui catchment	For each minimum flow listed below: 1. At Mill Dam (MS 3) for takes downstream of Clifton Falls monitoring site; or 2. At both Mill Dam (MS 3) and Clifton Falls (MS 3a) for takes upstream of Clifton Falls monitoring site.	
Kakanui catchment (first supplementary allocation block)	1 October to 30 April: 1,050	1 October to 30 April: 300
	1 May to 30 September: 1,500	1 May to 30 September: 500
Kakanui catchment (subsequent supplementary allocation blocks)	All subsequent minimum flows corresponding to supplementary allocation blocks in the Kakanui catchment will be based on the following formula: 1 October to 30 April: $1,050 + (300 \times \text{number of supplementary allocation block}^*)$ 1 May to 30 September: $1,500 + (500 \times \text{number of supplementary allocation block}^*)$ * 2 for the 2 nd , 3 for the 3 rd allocation block, and so on.	All subsequent supplementary allocation blocks in the Kakanui catchment will be based on the following sizes: 1 October to 30 April: 300 1 May to 30 September: 500
Waianakarua catchment (first supplementary allocation block)	311 At Browns Pump (MS 13)	100
Trotters catchment (first supplementary allocation block)	1 October to 30 April: 30 at Mathesons Weir (MS 12)	15
	1 May to 30 September: 50 at Mathesons Weir (MS 12)	15
Trotters catchment (second supplementary allocation block)	1 October to 30 April: 60 at Mathesons Weir (MS 12)	30
	1 May to 30 September: 80 at Mathesons Weir (MS 12)	30
Trotters catchment (third supplementary allocation block)	1 October to 30 April: 90 at Mathesons Weir (MS 12)	30
	1 May to 30 September: 110 at Mathesons Weir (MS 12)	30

SCHEDULE 2: SPECIFIED RESTRICTIONS ON THE
EXERCISE OF PERMITS TO TAKE WATER

Catchment (See the B-series maps) & Supplementary Block Number	Minimum Flow (litres per second – instantaneous flow) at the monitoring site(s) (See the B-series maps)	Supplementary Allocation Block (litres per second – instantaneous flow)
Shag catchment (first supplementary allocation block)	650 At Craig Road (MS 2) 401 At Goodwood Pump (MS 1)	100
Shag catchment (second supplementary allocation block)	750 At Craig Road (MS 2) 501 At Goodwood Pump (MS 1)	100
Pomahaka catchment (within Otago Region) (first supplementary allocation block)	13,000 At Burkes Ford (MS 15)	500
Waiwera catchment (first supplementary allocation block)	600 At Maws Farm (MS 16)	100

2C Schedule of aquifers where groundwater takes are to be considered as primary allocation, and subject to minimum flows of specified catchments in accordance with Policy 6.4.1A

Aquifer Name	Map Reference	Catchment to which primary or supplementary allocation limits apply, and minimum flows may apply*
Kakanui-Kauru Alluvium Aquifer	C17 & C18	Kakanui catchment*
Shag Alluvium Aquifer	C19	Shag catchment*
Lindis Alluvial Ribbon Aquifer	C5 & C6	Lindis catchment**
Cardrona Alluvial Ribbon Aquifer	C2 & C3	Cardrona catchment upstream of the Mount Barker recorder site**
Lowburn Alluvial Ribbon Aquifer	C7	Lowburn Stream**
Pomahaka Alluvial Ribbon Aquifer	C22 & C23	Pomahaka catchment**

* as given in Schedules 2A and 2B.

** as provided for by Policies 6.4.2, 6.4.3 and 6.4.9.

2D Schedule of matters to be considered when setting minimum flows and allocation limits

Primary allocation limits and minimum flows will be added to Schedule 2A, to give effect to the objectives and policies in this Plan, through the plan change process following scientific investigation and consultation with the community and affected parties. The lists in 2D.1 and 2D.2 identify matters to which consideration will be given when setting these flows and limits. The lists are not exhaustive and consideration will be given to these and any other relevant matters.

2D.1 When setting minimum flows in Schedule 2A for a catchment, consideration will be given to the following matters:

- (a) Any existing or previous minimum flow regime or residual flow;
- (b) The 7-day mean annual low flow;
- (c) Interaction among water bodies;
- (d) Ecological values, including the need for flow variability;
- (e) Demand for water, including community water supplies;
- (f) Existing water uses and associated infrastructure;
- (g) Environmental, social, cultural, recreational and economic costs and benefits of taking and using water before and after the implementation of a minimum flow regime; and
- (h) Any other relevant matter in giving effect to Part 2 of the Resource Management Act.

2D.2 When setting primary allocation limits in Schedule 2A for a catchment, consideration will be given to the following matters:

- (a) Amount of water currently allocated as primary allocation;
- (b) Amount of water currently taken as primary allocation;
- (c) Any other existing taking and using of water;
- (d) The 7-day mean annual low flow;
- (e) Proposed minimum flow regime;
- (f) Possible sources of water;
- (g) Acceptable duration and frequency of rationing among consented water users; and
- (h) Social and economic benefits of taking and using water.

Note: For catchments not included in Schedule 2A, refer to Policy 6.4.4 for determining minimum flows and Policy 6.4.2 for identification of primary allocation.

3. Schedule of human use values of Otago's aquifers

Schedule 3A identifies the uses of groundwater from particular aquifers in Otago. These aquifers are identified on the C-series maps. Schedule 3B identifies the location of groundwater takes for the purpose of community water supply. The identification of these human use values provides a mechanism for recognising the existence of values which need to be taken into account and given appropriate protection in managing the taking of water and discharge of contaminants (see Policy 9.4.1). The opportunity to provide such protection will arise when considering applications for resource consents for these activities.

Those that utilise the groundwater do take the risk that it may not be suitable for human consumption due to the presence of contaminants.

3A Schedule of human uses of particular aquifers

Aquifer	Map	Values
Lower Waitaki Plains Aquifer	C15, C16 & C17	<ul style="list-style-type: none"> - Human consumption without treatment - Stock drinking water supply and farm dairy water.
Papakaio Aquifer	C15 & C17	<ul style="list-style-type: none"> - Irrigation
North Otago Volcanic Aquifer	C15, C16, C17 & C18	<ul style="list-style-type: none"> - Irrigation
Kakanui-Kauru Alluvium Aquifer	C17 & C18	<ul style="list-style-type: none"> - Human consumption without treatment - Stock drinking water supply and farm dairy water - Irrigation
Shag Alluvium Aquifer	C19	<ul style="list-style-type: none"> - Human consumption without treatment - Human consumption with treatment - Stock drinking water supply - Irrigation
Ettrick Basin Aquifer	C21	<ul style="list-style-type: none"> - Human consumption without treatment - Stock drinking water supply and farm dairy water - Irrigation
Roxburgh Basin Aquifer	C20	<ul style="list-style-type: none"> - Human consumption without treatment - Stock drinking water supply - Irrigation - Industrial
Lower Taieri Aquifer	C24 & C25	<ul style="list-style-type: none"> - Human consumption without treatment - Stock drinking water supply and farm dairy water - Irrigation - Industrial

SCHEDULE 3: HUMAN USE VALUES OF AQUIFERS

3B Schedule of groundwater takes for the purpose of community water supply

Site No.	Community Water Supply Takes (at NZMS 260 Series Map Grid Reference)	Rate (litres per second) and volume (cubic metres per day) authorised
1*	Glenorchy Water Supply at E41:459-841.	63 l/s; 5400 m ³ /day
2*	Arthurs Point Water Supply at E41:686-713.	49 l/s; 3385 m ³ /day
3*	Dalefield Water Supply at F41:739-724.	6 l/s; 300 m ³ /day
4*	Arrowtown Water Supply at: F41:806-773; F41:808-774; and F41:809-774.	108 l/s; 7800 m ³ /day
5*	Cromwell Water Supply at G41:119-671.	210 l/s; 18,000 m ³ /day
6*	Alexandra Water Supplies at: G42:253-444; G42:263-454; and G42:271-442	420 l/s; 21,600 m ³ /day 12.5 l/s; 675 m ³ /day 4 l/s; 345 m ³ /day
7*	Roxburgh Water Supply at G43:210132.	58 l/s; 3000 m ³ /day
8*	Dunedin and Outram Water Supplies at: I44:956-803; I44:956-805; and I44:956-804.	Combined total take of 382 l/s; 33,000 m ³ /day
11	Owaka Water Supply at H46:533-124.	4.4 l/s; 380 m ³ /day
12	Mosgiel Water Supply at: I44:048-789; I44:042-779; I44:036-776; I44:048-789; I44:036-788*; I44:051-787; I44:032-782; I44:051-789; and I44:042-784.	The combined total take shall not exceed 10,104 m ³ /day.
13*	Clydevale-Pomahaka Water Supply at G45:417-507.	60 l/s; 5160 m ³ /day

* Point of take located within 100 metres of a surface water body.

4. Schedule of the allocation and restriction regime for groundwater

This schedule sets out restrictions that apply to the taking of groundwater from certain aquifers in Otago.

Schedule 4A identifies maximum allocation limits for the taking of groundwater from aquifers identified in the C-series maps, in accordance with Policy 6.4.10A2(a) of this Plan. Schedule 4B identifies water levels at which the taking of groundwater will be restricted in accordance with Policy 6.4.10A1(b) of this Plan. Schedule 4C identifies matters to be considered when making additions to these schedules through a plan change.

4A Maximum allocation limits for groundwater takes from aquifers

Aquifer Name	Map Reference	Maximum Allocation Limit (million cubic metres per year)
Cromwell Terrace Aquifer	C7	4
North Otago Volcanic Aquifer	C15, C16, C17 & C18	7

4B Restrictions for groundwater takes

4B.1 Restriction levels for groundwater takes

Schedule 4B.1 identifies water levels at which the taking of groundwater will be restricted, and identifies the nature of the restriction, in terms of a reduction in the take of water authorised by water permits.

The aquifer maximum height refers to the historic record of the water level or pressure head after the recharge season. Note that the areas over which the restrictions apply are shown on Maps D1-D4.

Aquifer See Maps D1–D4	Aquifer Reference Bore See Maps D1–D4	Aquifer maximum height (metres above datum)	Restriction levels (metres above datum)		
			25% restriction or response in terms of Council recognised rationing regime*	50% restriction	100% restriction
North Otago Volcanic	Websters Well	130.8	126.0	125.5	125.0
Lower Taieri – West	Momona Bore	101.24	100	99.5	99
Lower Taieri – East	Harleys Well, Piezo. 2	112.5	110.5	110.0	109.5
Ettrick Basin	Cemetery Bore	172.29	170.29	169.79	169.29
Roxburgh Basin (Coal Creek Terrace)	White-Hall Bore	189.5	188	187.8	187.5

* When the aquifer reaches this level there shall be either a 25% restriction or a water allocation committee, appointed by the Otago Regional Council, will implement a protocol to take all practical steps to curb the decline in the aquifer level so as to avoid a 50% restriction. If there is no water allocation committee or the water allocation committee does not use a protocol approved by the Council, the 25% water restriction

SCHEDULE 4: ALLOCATION AND RESTRICTION REGIME
FOR GROUNDWATER

will apply.

4B.2 Restrictions for Cromwell Terrace Aquifer

There shall be no takes from the Cromwell Terrace Aquifer for irrigation purposes between 1 May and 31 August inclusive in each year.

Because the Cromwell Terrace Aquifer is hydraulically connected to Lake Dunstan, other restrictions may be imposed on resource consents to take water, to help maintain lake levels.

4C **Schedule of matters to be considered when setting maximum allocation limits and restriction levels for aquifers**

Maximum allocation limits and restriction levels for aquifers in Schedules 4A and 4B give effect to the objectives and policies in this Plan. Additional aquifers are added through the plan change process following scientific investigation and consultation with the community and affected parties. The lists in 4C.1 and 4C.2 identify matters to which consideration will be given when setting these volumes and levels. The lists are not exhaustive and consideration will be given to these and any other relevant matters. Restriction levels may not be needed for all aquifers.

4C.1 When setting maximum allocation limits in Schedule 4A for an aquifer, consideration will be given to the following matters:

- (a) Physical properties of the aquifer;
- (b) The amount and characteristics of recharge to the aquifer;
- (c) Interaction with other aquifers;
- (d) Interaction with surface water bodies and their values;
- (e) The potential for contamination (including seawater intrusion);
- (f) The effects of taking groundwater on the aquifer (including results of computer modelling, where available);
- (g) Demand for water and existing water uses, including community water supplies;
- (h) Environmental, social, cultural, recreational and economic benefits of taking and using water; and
- (i) Any other relevant matter in giving effect to Part 2 of the Resource Management Act.

4C.2 When setting restriction levels in Schedule 4B for an aquifer, consideration will be given to the following matters:

- (a) Physical properties of the aquifer;
- (b) Variance of groundwater levels in the aquifer;
- (c) The amount and characteristics of recharge to the aquifer;
- (d) The proposed or existing maximum allocation limit;
- (e) Interaction with surface water bodies and their values;
- (f) Any actual or potential effect of drawdown on groundwater quality; and

- (g) The environmental, social, cultural and economic effects of the restriction level on existing users of groundwater from the aquifer.

Note: For aquifers not included in Schedule 4A, refer to Policy 6.4.10A2(b) for determining a maximum allocation limit.

4D Matters to be considered in calculating mean annual recharge

For any aquifer not included in Schedule 4A the setting of the maximum allocation limit will involve calculating the mean annual recharge of the aquifer (see Policy 6.4.10.A2(b)). The mean annual recharge is a statistical value based on the past climate, aquifer hydrology, soil properties, irrigation practice and other factors with direct influence over groundwater recharge.

This schedule sets out the matters to which consideration will be given when calculating the mean annual recharge of an aquifer.

4D.1 Sources of aquifer recharge

Sources of aquifer recharge may include:

- (a) Land surface recharge due to rainfall excess.
- (b) Land surface recharge due to irrigation excess, which should be based on the application of irrigation at an efficient rate.
- (c) Land surface recharge due to intermittent runoff flowing over the land surface.
- (d) Surface water recharge due to river infiltration.
- (e) Surface water recharge due to wetland, pond or lake infiltration.
- (f) Through-flow from any other aquifer.

The mean annual recharge can arise from a single recharge source or a combination of recharge sources, in which case the mean annual recharge is based on the combined recharge from all relevant sources.

4D.2 Methods for calculating aquifer recharge

Methods for calculating aquifer recharge from various recharge sources may include:

- (a) Daily soil moisture balance for the calculation of land surface recharge.
- (b) Daily soil moisture balance for calculation of irrigation recharge.
- (c) Differences between surface water flows measured at different flow monitoring sites for the determination of bed infiltration passing to an aquifer.
- (d) Direct measurement of land surface recharge using subsoil measuring devices such as lysimeters.
- (e) Calibrated recharge estimation using unsaturated zone matric potential or saturated zone water table height fluctuation.
- (f) Environmental tracers such as isotopes (radioactive or stable) and conservative anions.
- (g) Groundwater computer modelling, especially where calibration and parameter estimation can be used to constrain initial estimates of surface water contributions and land surface recharge.

5. Schedule of limits to instantaneous take of groundwater

5A Schedule of equations to determine stream depletion effects of the take of groundwater

Requirement to determine stream depletion on surface water

The Bekesi and Hodges¹ equations are used to determine whether a proposed groundwater take may have an effect on nearby surface water that is greater than 5 litres per second.

The Bekesi and Hodges equations are preferred to other equations reported in the literature as they are less demanding of hydrogeological data, and allow a reasonable relationship to be calculated empirically, which can be transposed to determine the threshold distance between the point of groundwater take and the surface water body. These equations consider pumping occurs over 30 days, and assumes a 90 percentile confidence. Which equation is used depends on the proposed maximum rate of take (Q in litres per second):

$$\begin{array}{ll} \text{Where } 5 \text{ l/s} \leq Q \leq 25 \text{ l/s} & r = 65 \times Q \\ \text{Where } Q > 25 \text{ l/s} & r = 1138 \times \log Q \end{array}$$

r = distance between abstraction structure and surface water body (metres)

If r is greater than the actual distance from the point of groundwater take to the surface water body, then the stream depletion effect is considered to be greater than 5 litres per second. However, there may be exceptions to the empirical relationship (see below).

Calculation of stream depletion effect and allocation to surface water

The Jenkins² equations are used to calculate the stream depletion effects (or Q_s) which will be considered against the available allocation of the relevant surface water body.

$$Q_s = Q_w \text{erfc}(U)$$

$$U = -(r^2 S / 4 T t)$$

Where:

- Q_s is the rate of stream depletion (cubic length per time)
- Q_w is the pumping rate of the well (cubic length per time)
- r is the perpendicular distance from the point of groundwater take to the surface water body (length)
- S is the storativity (or specific yield) of the aquifer (dimensionless)
- T is the transmissivity of the aquifer (square length per time)
- t is time
- 'erfc(U)' refers to the Complementary Error Function of U

SCHEDULE 5: LIMITS TO INSTANTANEOUS GROUNDWATER TAKES

Where subsurface intake structures have a bore head in a different location from the position of the intake screen, the closest part of the intake screen or gallery should be used for the purpose of measuring the distance to the surface water body in terms of Policy 6.4.1A(c) and the equations set out above.

Situations where stream depletion effect is unlikely

There are a number of situations where the stream depletion effect of groundwater is not likely to be valid; these include hydrological factors related to the depth of the bore screen. In addition, the Bekesi and Hodges, or Jenkins equations have situations where they are less valid or have violated their basic assumptions. The situations referred to above are summarised as follows:

Where the adjacent surface water body;

- (a) Has an impermeable bed; or
- (b) Is ephemeral, or dry for extended periods, containing or conveying water only in episodes of high runoff; or
- (c) Is separated from the underlying water table by an unsaturated zone, decoupling the interaction into a one-way loss of surface water from the surface water body.

Where the groundwater system;

- (a) Has very low permeability (e.g. schist fractured rock aquifers. Although the low permeability will calculate a very low stream depletion effect in the Jenkins equation, this is not considered in the empirical Bekesi and Hodges equations); or
- (b) Has very steep gradients or perched water tables adjacent to surface water body boundaries; or
- (c) Does not influence surface water due to the depth of the bore or well screen.

These situations are often not immediately discernable and may require a higher level of assessment to distinguish the nature of connection between groundwater and surface water. Where an applicant seeks that Policy 6.4.1A should not apply, and that the take should be considered as a full groundwater take under the provisions of 12.2, then the applicant may apply to take groundwater as a discretionary activity under Rule 12.2.4.1.

Use of analytical equations other than the Jenkins Equation:

The use of analytical equations will be accepted over the equations given above, when an applicant can clearly demonstrate:

- 1) That the analytical equation is derived from, or is otherwise comparable to, the Jenkins Equation; and
- 2) That this equation is in common use for the purpose, and shares a degree of acceptance in such use amongst groundwater professionals.

SCHEDULE 5: LIMITS TO INSTANTANEOUS GROUNDWATER TAKES

Use of numerical groundwater flow models:

The use of numerical groundwater flow models will be accepted over the equations given above, when an applicant can clearly demonstrate:

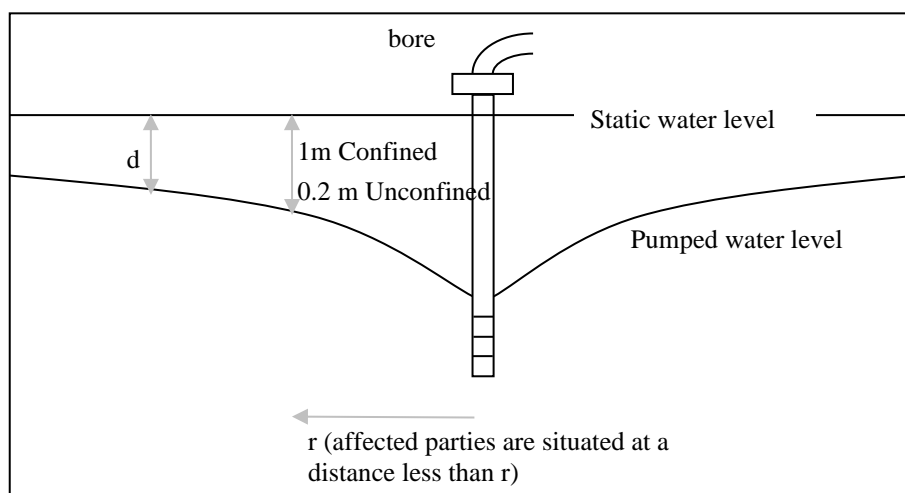
- 1) That the numerical method is validated or potentially validated at a generic level against either the Theis Equation or the Jenkins Equation; and
- 2) That the model is in common use for the purpose, and shares a degree of acceptance in such use among groundwater professionals.

¹ Bekesi, G; and Hodges, S. 2006: The protection of groundwater dependent ecosystems in Otago, New Zealand. Hydrogeology Journal. Vol. 14, No 8, December 2006, pp 1696–1701.

² Jenkins, C T, 1977: Computation of rate and volume of stream depletion by wells. In “Techniques of Water Resource Investigations of the United States Geological Survey”. Chapter D1, Book 4, 3rd Edition. USGS, Department of Interior, Washington DC.

5B Schedule of method for identifying groundwater takes potentially affected by bore interference

This schedule is the method for identifying parties likely to be affected by bore interference when a new application to take groundwater is received. The significance of any interference may result in limits being placed through conditions on permits to take groundwater, depending on distance from another bore, and may limit the instantaneous take of groundwater from any one bore in order to maintain existing access to water.



The radius will be determined using a significant interference of $d \geq 1$ m for confined aquifers or $d \geq 0.2$ m for unconfined aquifers, and the ‘Theis’ equation:

$$d = QW(u)/4\pi T \text{ where } u=r^2S/4Tt$$

Also where:

d is the interference

SCHEDULE 5: LIMITS TO INSTANTANEOUS
GROUNDWATER TAKES

- Q** is the pumping rate from the bore
W(u) is the "well equation", approximated by a Taylor series:
$$-0.5772 - \ln(u) + u - u^2/2 \cdot 2! + u^3/3 \cdot 3! - \dots$$

r is the distance from the pumping bore
S is specific yield/storativity of the unconfined/confined aquifer
t is the time or duration of pumping
T is the transmissivity of the aquifer

For clarification, the variables required for the 'Theis' equation will be quantified as follows:

- Q** from the consent application: maximum daily volume
r from maps, aerial photos, or preferably GPS coordinates
T and S from pumping tests or conservative estimates
t (in days) from consent application: maximum annual volume divided by the maximum daily volume

If a variable cannot be estimated from the consent application or the applicant did not supply the information, the Council will estimate it on an environmentally conservative basis.

SCHEDULE 6: WATER BODIES WHERE DAMMING IS
PROHIBITED

6. Schedule of water bodies where damming is prohibited

This schedule identifies water bodies in Otago, or parts of water bodies, in which the damming of water is prohibited in accordance with Policy 8.5.2, and Rules 12.3.1.1, 12.3.1.2, and 12.3.1.3 of this Plan. Note that the damming of water for stockwater supply purposes is not prohibited in some of the identified water bodies. Such management of these water bodies is required by the Water Conservation (Kawarau) Order 1997.

Water body	Grid references	Type of dam prohibited
Kawarau River main stem from Scrubby Stream to the Lake Wakatipu control gates.	F41:035680 to F41:738667	Any dam.
Shotover River main stem	At or about F41:765680 to E40:662173	Any dam.
Dart River/Te Awa Whakatipu main stem from Lake Wakatipu to its confluence with Beans Burn.	At or about E41:438853 to E40:375077	Any dam.
Rees River main stem from Lake Wakatipu to its confluence with Hunter Creek.	At or about E41:448852 to E40:499117	Any dam.
Diamond Lake, Diamond Creek and Lake Reid.	At or about E40:435975; E41:444963 to E40:450918	Any dam.
Lake Wanaka and Upper Clutha River/Mata-Au	F40:050089 to F40:088067	All dams other than for the duration of an emergency.
Pomahaka River, including its tributaries, from its sources to its confluence with the Clutha River/Mata-Au.	Confluence at G45:447453	All dams other than for stockwater supply purposes.
Waipahi River from its source to its confluence with the Pomahaka River.	Confluence at G45:194520	All dams other than for stockwater supply purposes.
Lower Clutha River/Mata-Au from its confluence with the Pomahaka River to the sea at the mouths of the Matau and Koau Branches.	G45:447453 to H46:667263 and H46:642239	All dams other than for stockwater supply purposes.

SCHEDULE 7: WATER BODIES SENSITIVE TO SUCTION
DREDGE MINING

7. Schedule of water bodies sensitive to suction dredge mining

This schedule identifies water bodies in Otago, or parts of water bodies, that are sensitive to bed disturbance caused by suction dredge mining due to their unique value for fish spawning or rearing, or their importance for water supply. Suction dredge mining in the identified water bodies, and during any identified time period, will require a resource consent under Rule 13.5.3.1 of this Plan (see Policy 8.6.3). The water bodies identified support values that need to be taken into account when considering consent applications to suction dredge. See Maps E1-E9 for areas affected and their numbers.

North Otago subregion			
Water body	Values	Grid References	Area No.
Waianakarua River	Native fish diversity	Catchment upstream of J42:370472	1

Maniototo subregion			
Water body	Values	Grid References	Area No.
Ewe Burn	Native fish habitat	Catchment upstream of H42:808587	2
Kye Burn	Native fish habitat	Catchment upstream of I42:946585	3
Sow Burn	Fisheries values	Catchment upstream of H42:785532	4
Pig Burn	Fisheries values	Catchment upstream of H42:828532	5
Taieri River (Between Hore's Bridge and Long Point) <i>From 1 March to 31 October</i>	Fisheries values	Main stem between H42:713380 and H42:744352	6
Waimonga Creek	Native fish habitat	Catchment upstream of H42:542308	7
Waimonga Creek	Native fish habitat	Catchment upstream of H43:542299	8
Totara Creek	Native fish habitat	Main stem between H42:620342 and 553304	9
Linn Burn	Native fish habitat	Catchment upstream of H42:655323	10
McPhees Creek	Native fish habitat	Catchment upstream of H43:729211	11
McHardys Creek	Fisheries values	Catchment upstream of H43:710151	12
Shepherds Hut Creek	Fisheries values	Catchment upstream of H43:645123	13
Unnamed tributary of the Logan Burn	Native fish habitat	Catchment upstream of H43:614115	14
Taieri River	Native fish habitat	Catchment upstream of H43:549027	15

Central Otago subregion			
Water body	Values	Grid References	Area No.
Cardrona River	Fisheries values	Catchment upstream of F40:087067	16
Unnamed tributary of the Clutha River/Mata-Au	Native fish habitat	Catchment upstream of G40:207933	17
Cluden Stream	Fisheries values	Catchment upstream of G40:342942	18
Dunstan Creek	Fisheries values	Catchment upstream of H41:545745	19
Manuherikia River	Fisheries values	Catchment upstream of H41:661902	20
Gate Creek	Fisheries values	Catchment upstream of H41:664901	21

**SCHEDULE 7: WATER BODIES SENSITIVE TO SUCTION
DREDGE MINING**

Central Otago subregion			
Water body	Values	Grid References	Area No.
Earnsclough or Fraser River	Fisheries values	Catchment upstream of G42:160507	22
Earnsclough or Fraser River	Fisheries values	Main stem between G42:200490 and Clutha River/Mata-Au	23
Cranky Woman Creek	Fisheries values	Catchment upstream of H42:572378	24
Manor Burn Creek	Fisheries values	Catchment upstream of G43:447243	25

Lakes subregion			
Water body	Values	Grid References	Area No.
All rivers flowing into Lake Wakatipu	Fisheries values	-	26
All rivers flowing into Lake Wanaka	Fisheries values	-	27
All rivers flowing into Lake Hawea	Fisheries values	-	28
Skippers Creek	Native fish habitat	Catchment upstream of E41:690896	29
Moke Creek	Fisheries values	Catchment upstream of E41:609701 (both branches)	30
Lake Kirkpatrick outlet stream	Fisheries values	Main stem between Lake Kirkpatrick and Moke Lake	31
Mill Creek	Fisheries values	Catchment upstream of Lake Hayes	32
Hayes Creek	Fisheries values	Main stem between Lake Hayes and Kawarau River	33
Nevis River	Fisheries values	Catchment upstream of F41:979644	34

Roxburgh subregion			
Water body	Values	Grid References	Area No.
Benger Burn	Native fish habitat	Catchment upstream of G43:253006	35
Tima Burn	Native fish habitat	Catchment upstream of G44:293999	36
Unnamed tributary of Lake Onslow	Native fish habitat	Catchment upstream of G43:451133	37

Strath Taieri subregion			
Water body	Values	Grid References	Area No.
Cap Burn	Fisheries values	Main stem between I42:959462 and 955462	38
Mare Burn	Fisheries values	Main stem between I42:971432 and 975432	39
Lug Creek	Fisheries values	Catchment upstream of H43:880257	40
Stoney Creek	Native fish habitat	Catchment upstream of H43:712088	41
Nenthorn Stream	Native fish habitat	Catchment upstream of I43:944054	42

SCHEDULE 7: WATER BODIES SENSITIVE TO SUCTION
DREDGE MINING

Waikouaiti/Lammermoor subregion			
Water body	Values	Grid References	Area No.
Deep Creek	Water Supply	Catchment upstream of H43:665037	43
Deep Stream	Native fish habitat Water Supply	Catchment upstream of H44:683996	44
Lee Stream/Canton Stream	Native fish habitat	Main stem between H44:761909 and 701915	45
Black Rock Stream	Native fish habitat	Catchment upstream of H44:744883	46
Smugglers Creek	Native fish habitat	Catchment upstream of I44:936830	47
Taieri River	Water supply values (land instability threat to water pipeline)	Main stem between I44:009868 and 976830	48
Christmas Creek	Fisheries values	Main stem between I44:038953 and 039955	49
Three O'clock Stream	Fisheries values	Main stem between I44:024974 and Taieri River	50
Three O'clock Stream	Native fish habitat	Main stem between I43:111096 and 077138	51
Waikouaiti River	Native fish habitat Water Supply	Catchment upstream of I43:232079	52

Coastal subregion			
Water body	Values	Grid References	Area No.
Burns Creek	Water Supply	Catchment upstream of I44:158883	53
Jeffersons Creek	Water Supply	Catchment upstream of I44:160873	54
Williams Creek	Water Supply	Catchment upstream of I44:159870	55
Sullivans Dam intake	Water Supply	Catchment upstream of I44:172863	56
Water of Leith, West Branch	Water Supply	Catchment upstream of I44:164857	57
Morrison's Creek	Water Supply	Catchment upstream of I44:160843	58
Nicols Creek	Water Supply	Catchment upstream of I44:153833	59
Ross Creek	Water Supply	Catchment upstream of I44:152820	60
Orokonui Creek	Native fish diversity	Catchment upstream of I44:221921	61
Wetherstons Creek (Waitati River tributary)	Water Supply	Catchment upstream of I44:201882	62
Rossville reservoir intake	Water Supply	Catchment upstream of I44:233865	63
Sawyers Bay Stream	Native fish habitat	Catchment upstream of I44:235851	64
Unnamed tributary of Otago Harbour	Native fish habitat	Catchment upstream of I44:277825	65
Weipers Creek	Native fish habitat	Catchment upstream of I44:281792	66
Big Creek	Native fish habitat	Catchment upstream of H45:864482	67

Taieri/Clutha Plains subregion			
Water body	Values	Grid References	Area No.
Unnamed tributary of Waipori River	Native fish habitat	Catchment upstream of H44:553814	68
Unnamed tributary of Waipori River	Native fish habitat	Catchment upstream of H44:563813	69
Stony Creek	Native fish habitat	Catchment upstream of H44:606839	70

**SCHEDULE 7: WATER BODIES SENSITIVE TO SUCTION
DREDGE MINING**

Taieri/Clutha Plains subregion			
Water body	Values	Grid References	Area No.
Taieri/Clutha Plains subregion			
Water body	Values	Grid References	Area No.
Nardoo Stream	Native fish habitat	Catchment upstream of H44:649831	71
North West Stream	Native fish habitat	Catchment upstream of H44:697840	72
Unnamed tributary of Pioneer Stream	Native fish habitat	Catchment upstream of H44:703752	73
Unnamed tributary of Lake Mahinerangi	Native fish habitat	Catchment upstream of H44:722768	74
Shepherd Stream	Native fish habitat	Main stem between H44:737737 and 725736	75
Unnamed tributary of Shepherd Stream	Native fish habitat	Catchment upstream of H44:724728	76
Unnamed tributary of Shepherd Stream	Native fish habitat	Catchment upstream of H44:732732	77
Unnamed tributary of Waipori River	Native fish habitat	Catchment upstream of H44:749756	78
Unnamed tributary of Waipori River	Native fish habitat	Catchment upstream of H44:765750	79
Unnamed tributary of Waipori River	Native fish habitat	Catchment upstream of H44:780741	80
Unnamed tributary of Waipori River	Native fish habitat	Catchment upstream of H44:777756	81
Unnamed tributary of Waipori River	Native fish habitat	Catchment upstream of H44:782746	82
Mill Creek	Water Supply	Catchment upstream of H44:833730	83
Verter Burn	Native fish habitat	Catchment upstream of H44:794799	84
Silver Stream	Native fish diversity Water Supply	Catchment upstream of I44:039789	85
Meggat Burn	Water Supply	Catchment upstream of H45:744693	86
Tokomairiro River West Branch	Fisheries values	Catchment upstream of H45:747487	87
Lake Tuakitoto	Native fish habitat	Catchment upstream of H45:647407	88
Unnamed tributary of Lake Tuakitoto	Native fish habitat	Catchment upstream of H46:660392	89
Saddle Stream	Native fish habitat	Catchment upstream of H46:657389	90
McCrosties Drain	Native fish habitat	Catchment upstream of H46:654372	91
Lake Tuakitoto	Native fish habitat	Catchment upstream of H46:687369	92

Southwest Otago subregion			
Water body	Values	Grid References	Area No.
Tuapeka River	Water Supply	Catchment upstream of G44:491742	93
All streams flowing into the Phoenix Dam	Water Supply	Catchment upstream of Dam at H44:545755	94
Waitahuna River	Native fish habitat	Catchment upstream of H44:624790	95
Tuapeka Creek	Fisheries values	Main stem between H44:508721 and Tuapeka River	96
Tuapeka River	Fisheries values	Catchment between G45:471669 and Clutha River/Mata-Au, including all tributaries of this reach	97
Waitahuna River	Fisheries values	Main stem between H45:619659 and Clutha River/Mata-Au	98

SCHEDULE 7: WATER BODIES SENSITIVE TO SUCTION
DREDGE MINING

Pomahaka River	Native fish habitat Fisheries values Water Supply	Catchment upstream of G45:445453	99
Waiwera River	Native fish habitat	Catchment upstream of G46:283301	100

Catlins subregion			
Water body	Values	Grid References	Area No.
Unnamed tributary of Mokoreta River	Native fish habitat	Catchment upstream of G46:214247	101
Catlins River	Native fish habitat	Catchment upstream of G46:274228	102
Unnamed tributary of Catlins River	Native fish habitat	Catchment upstream of G46:380169	103
Frank Stream	Native fish habitat	Catchment upstream of G46:400141	104
Matai Stream	Native fish habitat	Catchment upstream of G47:404059	105
Unnamed Creek	Native fish habitat	Catchment upstream of G47:457046	106
MacKenzie Stream	Native fish habitat	Catchment upstream of G47:469051	107
Waitere Stream	Native fish habitat	Catchment upstream of G47:485043	108
Unnamed tributary of Catlins Lake	Native fish habitat	Catchment upstream of H47:561074	109
Unnamed tributary of Owaka River	Native fish habitat	Catchment upstream of H46:553143	110
Burnt Scrub Creek	Native fish habitat	Catchment upstream of H46:595183	111
Unnamed Creek	Native fish habitat	Catchment upstream of H46:600175	112
Nugget Stream	Native fish habitat	Catchment upstream of H46:631160	113

SCHEDULE 8: REQUIREMENTS FOR DISCHARGE OF ANIMAL WASTE

8. Schedule of requirements for discharge of animal wastes

This schedule establishes requirements for the discharge of contaminants from any waste collection system onto production land. If these requirements are met, in addition to the conditions set out in Rules 12.C.1.1 and 12.C.1.1A, and the discharge is not prohibited under 12.C.0.2, such a discharge is a permitted activity under this Plan.

The schedule specifies a maximum application depth, a maximum application rate and a minimum return period.

- The **maximum application depth** is the amount of animal waste that can be applied at any one time.
- The **maximum application rate** is the speed at which animal waste can be applied.
- The **minimum return period** is the time which should expire before animal waste is reapplied to the same land.

These requirements vary depending on the soil type as each soil type has a different capacity to assimilate contaminants. The requirements will ensure that this assimilative capacity is not exceeded by the discharge of animal waste.

ANIMAL WASTE APPLICATION FOR VARIOUS SOIL TYPES UNDER PASTURE COVER			
Soil Type	Maximum Application Depth at any One Time	Maximum Application Rate	Minimum Return Period
Sand and loamy sand	25mm	32mm/hr	15 days
Sandy loam and fine sandy loam	25mm	20mm/hr	15days
Silt and sandy silt loam	25mm	17mm/hr	20 days
Clay and clay loam	25mm	10mm/hr	20 days
Peat	25mm	17mm/hr	15 days

Note: The values in this table are based on soil moisture under 50% saturation. Any person applying animal waste on soils exceeding 50% saturation will need to adjust their application depth and rate accordingly, to avoid breaching rule conditions.

The following conversions may be useful:

- Amounts in mm to litres per hectare: multiply by 10,000.
- Amounts in mm/hr to litres per hectare per hour: multiply by 10,000.

SCHEDULE 9: IDENTIFIED REGIONALLY SIGNIFICANT WETLANDS AND WETLAND MANAGEMENT AREAS

9 Schedule of identified Regionally Significant Wetlands and Wetland Management Areas

This schedule lists Otago's identified Regionally Significant Wetlands and Wetland Management Areas. An identified Regionally Significant Wetland or Wetland Management Area is one that has been mapped in Maps F1–F63 and contains one or more regionally significant wetland values (see Chapter 10).

The ORC holds an inventory on wetlands, including all Regionally Significant Wetlands listed in Schedule 9, as well as some wetlands that are not included in this Schedule. The inventory is available on the ORC website. The inventory is intended for information purposes only. It is not incorporated by reference in this plan and does not form part of this plan or any other regulatory document. It is a stand-alone repository for data and information and has no legal effect.

In addition, GIS (geographical information systems) data on wetland extents can be made available on request.

SCHEDULE 9: IDENTIFIED REGIONALLY SIGNIFICANT
WETLANDS AND WETLAND MANAGEMENT AREAS

**Index to Otago's Identified Regionally Significant Wetlands and Wetland
Management Areas**

#	Wetland Name	Map
1	Akatore Creek Swamp	F42
2	All Day Bay Lagoon	F60
3	Andersons Pond Margins	F52
4	Aramoana Saltmarsh	F53
6	Belmont Inland Saline Wetland Management Area	F22
7	Bendigo Wetland	F16
8	Big Boggy Swamp	F1
9	Black Rock Marshes	F63
10	Black Swamp	F29
11	Blackcleugh Burn Swamp	F28
12	Blackmans Inland Saline Wetland Management Area	F12
13	Blair Fen	F31
14	Blair Swamp	F31
15	Boundary Creek Fen	F27
16	Braeside Swamp	F57
17	Bungtown Bog	F47
18	Butterfield Wetland	F2
172	Cairn Road Bog	F35
19	Camp Stream Swamp	F40
20	Campbells Reserve Pond Margins	F3
21	Cannibal Bay Road Swamp	F36
22	Catlins River Wetland	F33
23	Chapman Road Inland Saline Wetland	F16
24	Cheetwood Road Wetlands	F38
25	Church Hill Wetland Complex	F6
26	Clachanburn Marsh	F22
27	Clifton Hill Marshes	F29
28	Clutha Matau Wetlands	F37
29	Clutha River Mouth Lagoon	F37
30	Conroys Dam Inland Saline Wetland Management Area	F16
31	Conroys Road Inland Saline Wetland Complex	F16
87	Coutts Gully Swamp	F42
32	Cross Eden Creek Marsh Complex	F14
33	Culcairn Oxbow Marsh	F38
34	Devils Bridge Wetland	F59
35	Diamond Lake Wetland	F3
36	Dingle Lagoon	F1
37	Dunard Inland Saline Wetland Management Area	F11
38	Dunvegan Fen Complex	F34
39	East Benhar Swamp	F39
40	Ellison Saltmarsh	F56
41	False Islet Wetland Management Area	F36
42	Fernhill Marsh	F51
43	Finegand Lagoon Marsh	F38

SCHEDULE 9: IDENTIFIED REGIONALLY SIGNIFICANT
WETLANDS AND WETLAND MANAGEMENT AREAS

#	Wetland Name	Map
44	Flat Top Hill Ephemeral Wetlands	F17
45	Fortification Creek Wetland Management Area	F27
46	Fortification Stream Headwaters Swamp	F52
47	Frasers Stream Headwaters Marsh Complex	F40
48	Galloway No. 1 Inland Saline Wetland Complex	F12
49	Galloway No. 2 Inland Saline Wetland Management Area	F12
50	Gilmour Road Marsh	F13
51	Glendhu Swamp	F28
52	Glenorchy Lagoon Wetland	F8
53	Glyn Wye Wetland Management Area	F51
54	Governors Point Swamp	F43
55	Great Moss Swamp	F26
56	Harrington Mill Road Swamp	F31
57	Hawkdun Runs Road Marsh	F18
58	Hawksbury Lagoon	F56
59	Hazeldale Fens	F49
60	Henley Swamp	F44
61	Hoopers Inlet Swamp	F54
62	Hukihuki Swamp	F32
63	Hungerford Point Saltmarsh	F32
64	Hut Creek Swamps	F18
65	Island Block Pond Marshes	F15
66	Jennings Creek Marsh	F53
67	John O'Groats Hill Fen	F28
68	Kaikorai Lagoon Swamp	F57
69	Kakaho Creek Swamp	F60
70	Kemp Road Lagoon	F60
71	Kinloch Wetland	F3
72	Kirk Creek Headwaters Marsh Complex	F15
73	Kirkwoods Creek Wetland Management Area	F14
74	Kuriwao Saddle Fen Complex	F49
75	Lake Hayes Margins	F7
76	Lake Reid Wetland	F3
77	Lake Tuakitoto Wetland	F39
78	Lake Wilkie Swamp	F32
79	Lamb Hill Fen Complex	F53
80	Laws Road Swamp	F11
81	Lenz Reserve Wetlands	F32
82	Little Boggy Swamp	F51
83	Little Stoney Bog	F4
84	Loch Loudon Fen Complex	F46
85	Loch Luella Fen Complex	F46 & F47
86	Long Gully Marsh	F12
88	Lower Manorburn Dam Margins	F13
89	Lower Otokia Creek Marsh	F54
91	Macfarlane Road Oxbow Swamp	F30
92	Maclennan River Podocarp Swamp Complex	F50

SCHEDULE 9: IDENTIFIED REGIONALLY SIGNIFICANT
WETLANDS AND WETLAND MANAGEMENT AREAS

#	Wetland Name	Map
93	Makarora Flat Swamp Complex	F1
94	Malones Dam Margins	F28
95	Marana Swamp	F30
96	Matakauri Wetland	F4
97	Matukituki Bluff Ephemeral Wetland Management Area	F2
98	Matukituki Valley Wetland Management Area	F5
99	Maungatua Summit Wetland Management Area	F58
100	McGregor Swamp	F56
101	McKays Triangle Wetland	F54
102	McLachlan Road Marsh	F56
103	Measly Beach Wetland Complex	F41
104	Middle Swamp	F27
105	Minaret Bay Swamp	F1
106	Moa Creek Inland Saline Wetland	F12
107	Moke Creek Swamp	F4
108	Moke Lake Bog	F4
109	Molyneux Bay Swamp	F37
110	Mount Nicholas Lagoon	F7
111	Murrays Road Inland Saline Wetland Management Area	F51
112	Nenthorn Ridge Wetland Management Area	F59
113	Nevis Red Tussock Fen	F17
114	Office Creek Seepage	F58
115	Okia Flat Wetland Management Area	F63
116	Old Dunstan Road Swamp	F52
117	Otanomomo Tuatiki Reserve	F33
118	Otokia Swamp	F57
119	Paddys Rock Ephemeral Tarn	F59
120	Papanui Inlet Saltmarsh	F61
121	Patearoa Inland Saline Wetland	F22
122	Peat Moss Hills Fen Complex	F55
123	Pleasant River Estuary Wetland Complex	F62
124	Pomahaka River Oxbow Marsh (Dalvey School Road)	F29
125	Pomahaka River Oxbow Marsh (Koi Creek)	F29
126	Ratanui Swamp	F33
127	Red Bank Wetland Management Area	F62
128	Reefs Pond Margins	F52
129	Rigney Pond Margins	F15
130	Rockdale Inland Saline Wetland Management Area	F11
131	Rocky Hill Tidal Marshes	F43
132	Samson Hill Marshes	F31
133	Scaifes Lagoon	F2
134	Schoolhouse Flat Red Tussock Fen	F17
135	Shag Point Dam Margins	F59
136	Shag River Estuary Swamp	F59
137	Shotover River Confluence Swamp	F8
138	Signal Hill Swamp	F8
139	Stirling Marsh Complex	F39

SCHEDULE 9: IDENTIFIED REGIONALLY SIGNIFICANT
WETLANDS AND WETLAND MANAGEMENT AREAS

#	Wetland Name	Map
140	Stuarts Marsh	F50
141	Styx Ephemeral Wetland Management Area	F13
142	Sutton Salt Lake Wetland Management Area	F55
143	Swampy Summit Swamp	F53
144	Tahakopa Bay Podocarp Swamp	F50
145	Tahakopa Marsh Complex	F36
146	Tahakopa River Bogs	F50
147	Takitoa Swamp	F43
148	Tautuku River Mouth Marsh	F32
173	Tavora Wetland	F61
171	Te Hua Taki Wetland	F61
149	Te Matai Marsh Complex	F63
150	The Neck Wetlands	F2
151	Three Stones Fen Complex	F49
152	Timber Creek Seepage	F11
153	Tokomairiro River Swamp	F48
154	Tomahawk Lagoon	F54
155	Totara Creek Inland Saline Wetland	F22
157	Trig Y Bogs	F30
158	Two Stone Hill Stream Swamp	F40
159	Upper Black Stream Marshes	F13
160	Upper Tahakopa Swamps	F31
161	Upper Taieri Wetlands Complex	F19 to F25
162	Upper Waiareka Creek Swamp	F61
163	Von Valley Wetland Complex	F9 & F10
164	Waianakarua River Estuary Swamp	F60
165	Waikouaiti River Estuary Wetland Complex	F56
166	Waipori Boot Swamp	F44 & F45
167	Waipori/Waihola Wetlands Complex	F44 & F45
168	Wairepo Creek Marsh Complex	F34
169	Whareakeake Marsh	F53
170	Willowburn Bog	F30

SCHEDULE 10: [REPEALED]

10 *[Repealed – 1 October 2013]*

11 *[Repealed – 1 March 2012]*

12 Schedule of coastal marine area boundaries

This schedule, and the accompanying maps, identify the boundary of the coastal marine area at Otago’s river mouths. Water on the landward side of the identified boundary is subject to the provisions of this Plan, while water on the coastal side is subject to the provisions of the Regional Plan: Coast.

Waitaki District

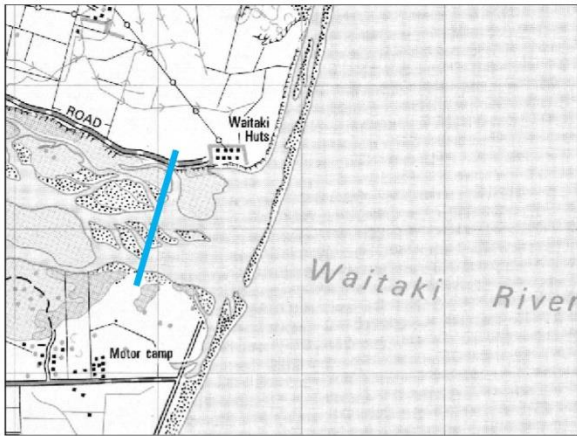
Water body	Description of mouth and boundary *	Mouth grid reference	Boundary grid reference
1. Waitaki River	The “mouth” where it enters the sea, the “boundary” five times the width of the mouth upstream.	J41 (Edition 1 1984):636837, 636835	J41 (Edition 1 1984):630844, 628837
2. Awamoia Creek	The “mouth” where it enters the sea, the “boundary” at the downstream side of the Beach Road bridge.	J41 (Edition 1 1984):47608, 476608	J41 (Edition 1 1984):475608, 476608
3. Kakanui River	The “mouth” where it enters the sea, the “boundary” at the downstream side of the Kakanui Point Road bridge.	J42 (Edition 1 1984):449559, 448555	J42 (Edition 1 1984):443564, 445564
4. Orore Creek	The “mouth” where it enters the sea, the “boundary” at the downstream side of the Waianakarua Road bridge.	J42 (Edition 1 1984):437531, 437530	J42 (Edition 1 1984):436531, 437530
5. Bow Alley Creek	The “mouth” where it enters the sea, the “boundary” at the downstream side of the Waianakarua Road bridge.	J42 (Edition 1 1984):424503, 425504	J42 (Edition 1 1984):423505, 423506
6. Waianakarua River	The “mouth” where it enters the sea, the “boundary” five times the width of the mouth upstream.	J42 (Edition 1 1984):421482, 421484	J42 (Edition 1 1984):419483, 419484
7. Kurinui Creek a.k.a. Big Kuri Creek	The “mouth” where it enters the sea, the “boundary” five times the width of the mouth upstream.	J42 (Edition 1 1984):395403, 396404	J42 (Edition 1 1984):393404, 394405
8. Kuriiti Creek a.k.a. Little Kuri Creek	The “mouth” where it enters the sea, the “boundary” five times the width of the mouth upstream.	J42 (Edition 1 1984):394401, 394399	J42 (Edition 1 1984):393399, 393400
9. Waiwhero-whero Creek	The “mouth” where it enters the sea, the “boundary” at the downstream side of the footbridge.	J42 (Edition 1 1984):397375, 398375	J42 (Edition 1 1984):397374, 398374
10. “Kemp Road” Creek	The “mouth” where it enters the sea, the “boundary” at the lower limit of the lagoon.	J42 (Edition 1 1984):421330, 420330	J42 (Edition 1 1984):419322, 421323
11. Trotters Creek	The “mouth” where it enters the sea, the “boundary” five times the width of the mouth upstream.	J42 (Edition 1 1984):412325, 414327	J42 (Edition 1 1984):412325, 413326
12. Back Creek	The “mouth” where it enters the sea, the “boundary” at the downstream side of the State Highway 1 Road bridge.	J42 (Edition 1 1984):404315, 405316	J42 (Edition 1 1984):404315, 405316
13. Tarapuke Creek	The “mouth” where it enters the sea, the “boundary” at the downstream side of the State Highway 1 Road bridge.	J42 (Edition 1 1984):397305, 398306	J42 (Edition 1 1984):397305, 398306
14a. Shag River - northern arm	The “mouth” where it enters the estuary, the “boundary” five times the width of the mouth upstream.	J43 (Edition 1 1980):377240, 377239	J43 (Edition 1 1980):376238, 377237
14b. Shag River - southern arm	The “mouth” where it enters the estuary, the “boundary” five times the width of the mouth upstream.	J43 (Edition 1 1980):377231, 377230	J43 (Edition 1 1980):374 230, 375 229

SCHEDULE 12: COASTAL MARINE AREA BOUNDARIES

Water body	Description of mouth and boundary *	Mouth grid reference	Boundary grid reference
15. Stony Creek	The “mouth” where it enters the estuary, the “boundary” five times the width of the mouth upstream.	J43 (Edition 1 1980):358200, 359201	J43 (Edition 1 1980):357201, 357200

* Taken from the NZMS 260 series of 1:50,000 scale maps.

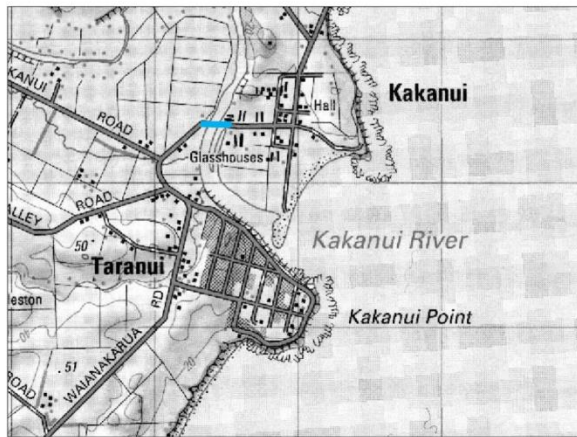
SCHEDULE 12: COASTAL MARINE AREA BOUNDARIES



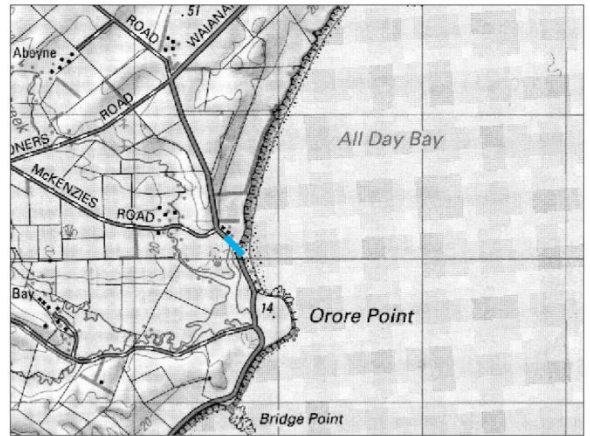
1 Waitaki River



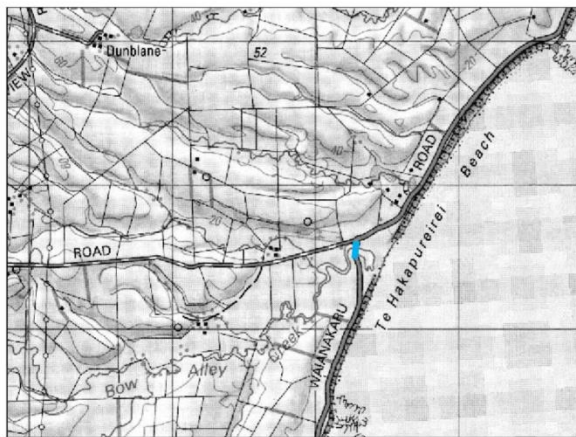
2 Awamoa Creek



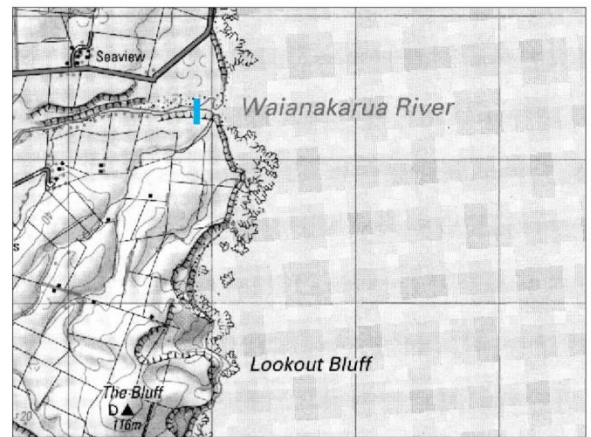
3 Kakanui River



4 Orore Creek



5 Bow Alley Creek

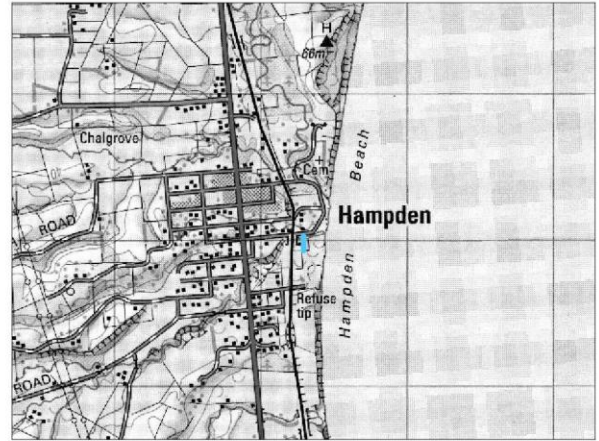


6 Waianakarua River

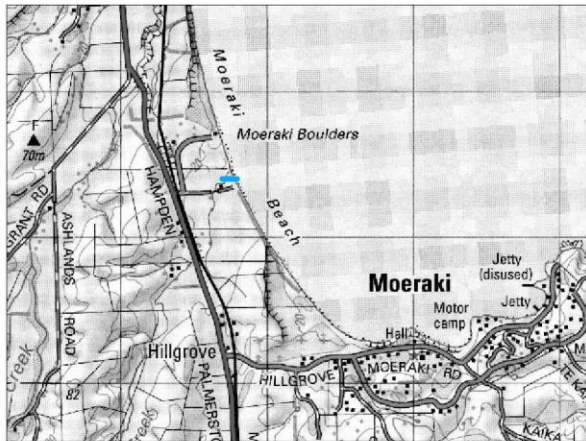
SCHEDULE 12: COASTAL MARINE AREA BOUNDARIES



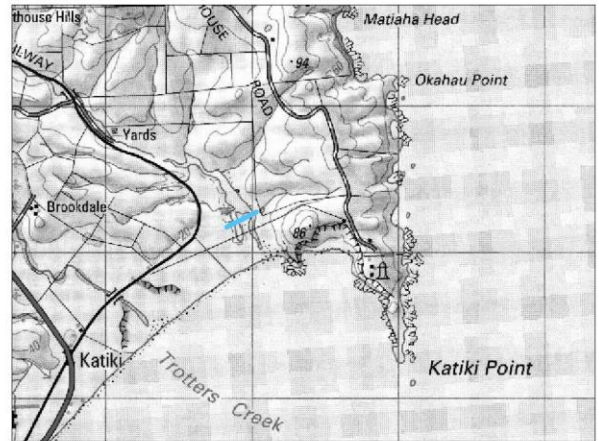
7 Kurinui Creek a.k.a. Big Kuri Creek



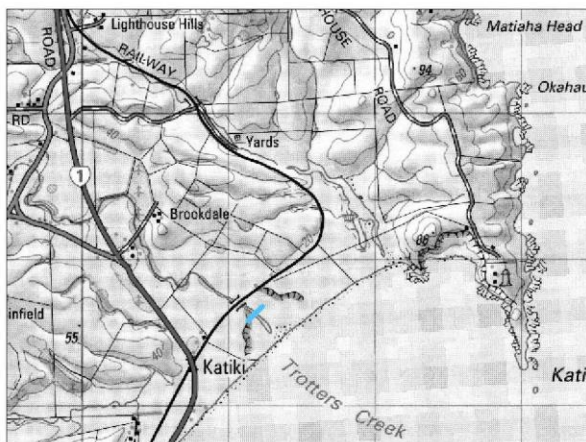
8 Kuriiti Creek a.k.a. Little Kuri Creek



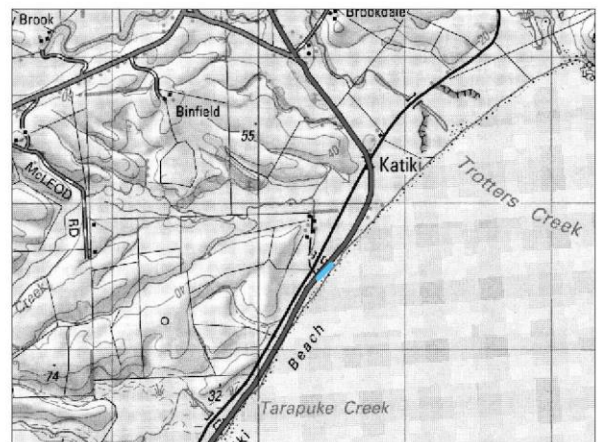
9 Waiherowhero Creek



10 "Kemp Road" Creek

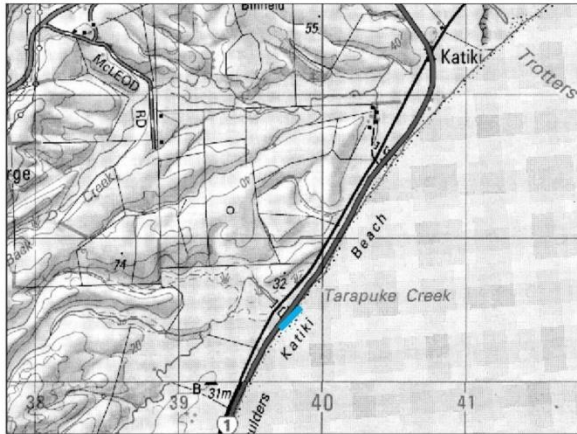


11 Troppers Creek

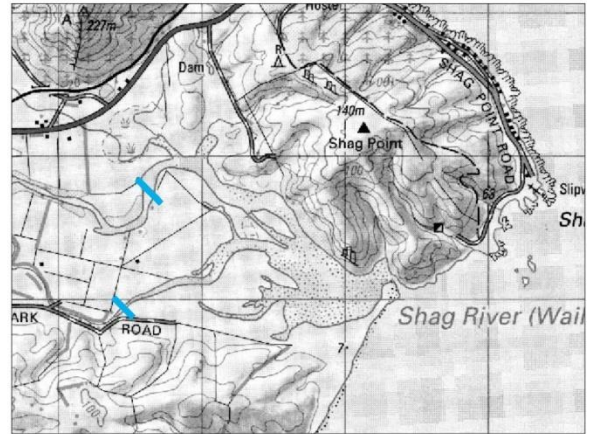


12 Back Creek

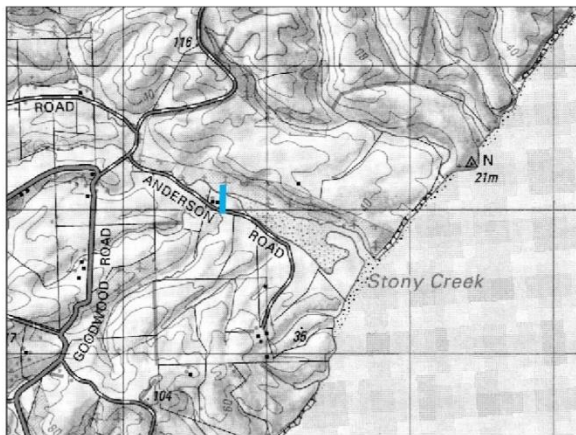
SCHEDULE 12: COASTAL MARINE AREA BOUNDARIES



13 Tarapuke Creek



14 Shag River



15 Stony Creek

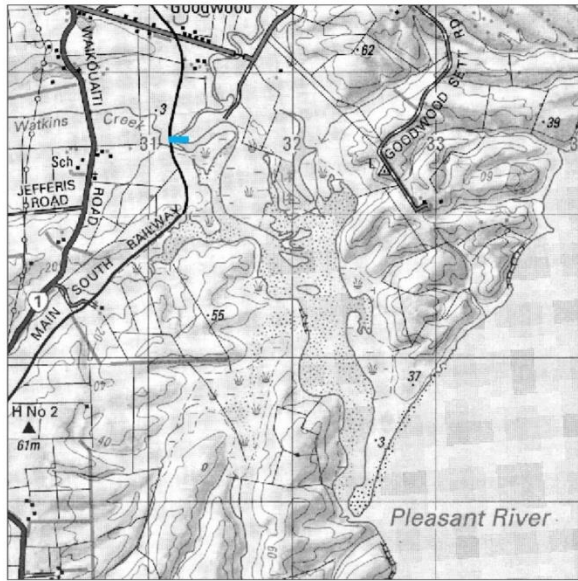
SCHEDULE 12: COASTAL MARINE AREA BOUNDARIES

Dunedin City

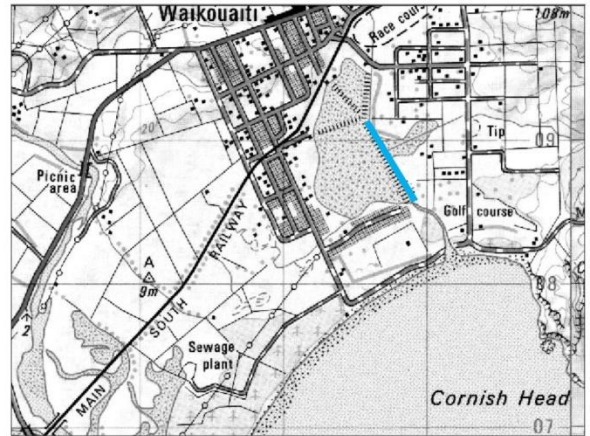
Water body	Description of mouth and boundary *	Mouth grid reference	Boundary grid reference
16. Pleasant River	The “mouth” where it enters the estuary, the “boundary” adjacent to the south end of the railway bridge.	J43 (Edition 1 1980):315156, 315157	J43 (Edition 1 1980):311155, 312155
17. Hawksbury Inlet	The “mouth” where it enters the sea, the “boundary” running along the causeway edge to include the Eastern arm in the coastal marine area.	I43 (Edition 1 1981):437531, 437530	I43 (Edition 1 1981):286091, 289086
18. Waikouaiti River	The “mouth” where it enters the estuary, the “boundary” at the downstream side of the State Highway 1 Road bridge.	I43 (Edition 1 1981):265085, 267085	I43 (Edition 1 1981):266087, 266089
19. Careys Creek	The “mouth” where it enters Blueskin Bay, the “boundary” adjacent to the northern end of the railway bridge.	I44/J44 (Edition 2 1987):208954, 209954	I44/J44 (Edition 2 1987):208956, 209956
20. Waitati River	The “mouth” where it enters Orokonui Inlet, the “boundary” five times the width of the mouth upstream.	I44/J44 (Edition 2 1987):216926, 21 925	I44/J44 (Edition 2 1987):214924, 215923
21. Drivers Creek	The “mouth” where it enters the sea, the “boundary” at the downstream side of the metalled road bridge parallel to Long Beach.	I44/J44 (Edition 2 1987):269923, 270922	I44/J44 (Edition 2 1987):268921, 269920
22. Water of Leith	The “mouth” where it enters the sea, the “boundary” at the downstream side of the railway bridge.	I44/J44 (Edition 2 1987):178787, 179788	I44/J44 (Edition 2 1987):176789, 178789
23. ‘Marne Street’ Creek	The “mouth” where it enters Anderson’s Bay Inlet, the “boundary” at the downstream side of the Marne Street Road bridge.	I44/J44 (Edition 2 1987):179766, 180765	I44/J44 (Edition 2 1987):179766, 180765
24. Tomahawk Lagoon	The “mouth” where it enters the sea, the “boundary” at the downstream side of the Tomahawk Road bridge.	I44/J44 (Edition 2 1987):189750, 191750	I44/J44 (Edition 2 1987):189751, 190751
25. Kaikorai Stream	The “mouth” where it enters the estuary, the “boundary” five times the width of the mouth upstream. The boundary around the estuary is mean high water spring.	I44/J44 (Edition 2 1987):082733, 082735	I44/J44 (Edition 2 1987):084736, 083737
26. Taylors Creek	The “mouth” where it enters the sea, the “boundary” at the downstream side of the Brighton Road bridge.	I44/J44 (Edition 2 1987):041708, 043709	I44/J44 (Edition 2 1987):039708, 040709
27. Otokia Creek	The “mouth” where it enters the sea, the “boundary” at the downstream side of the Brighton Road bridge.	I45 (Edition 1 1980):031701, 031699	I45 (Edition 1 1980):030699, 030700
28. Tutu Stream	The “mouth” where it enters the sea, the “boundary” at the downstream side of the road bridge DCC 47.	I45 (Edition 1 1980):981652, 982654	I45 (Edition 1 1980):980652, 981654
29. Reids Stream	The “mouth” where it enters the sea, the “boundary” at the downstream side of the road bridge DCC 48.	I45 (Edition 1 1980):966633, 967634	I45 (Edition 1 1980):966633, 967634
30. Unnamed	The “mouth” where it enters the sea, the “boundary” at the downstream side of the road bridge DCC 49.	I45 (Edition 1 1980):954612, 955614	I45 (Edition 1 1980):954612, 955614

* Taken from the NZMS 260 series of 1:50,000 scale maps.

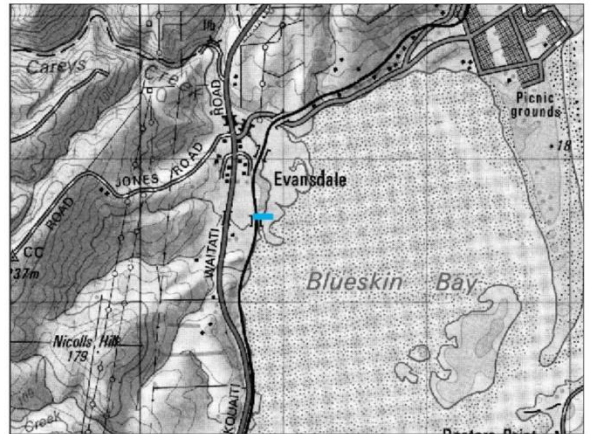
SCHEDULE 12: COASTAL MARINE AREA BOUNDARIES



16 Pleasant River



17 Hawksbury Inlet



19 Careys Creek

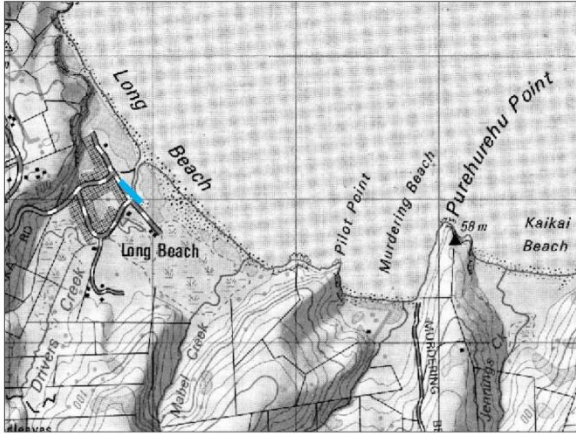


18 Waikouaiti River

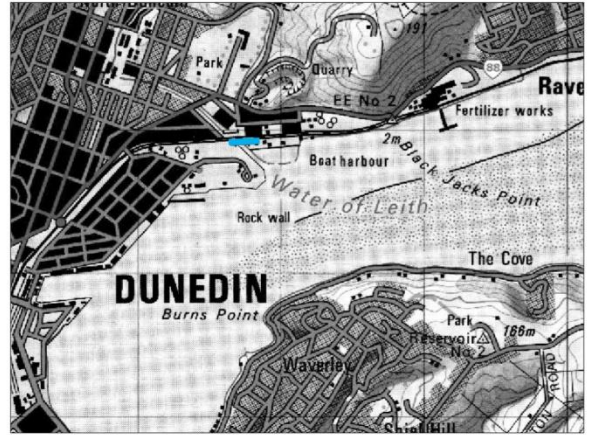


20 Waitati River

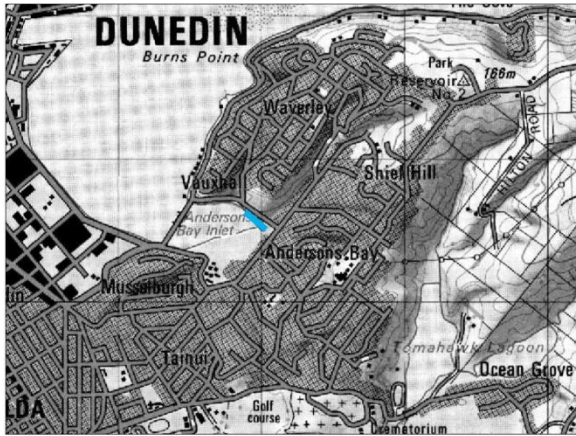
SCHEDULE 12: COASTAL MARINE AREA BOUNDARIES



21 Drivers Creek



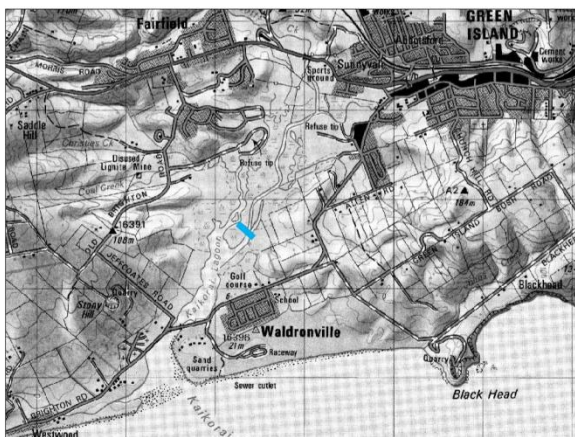
22 Water of Leith



23 "Marne Street" Creek



24 Tomahawk Lagoon

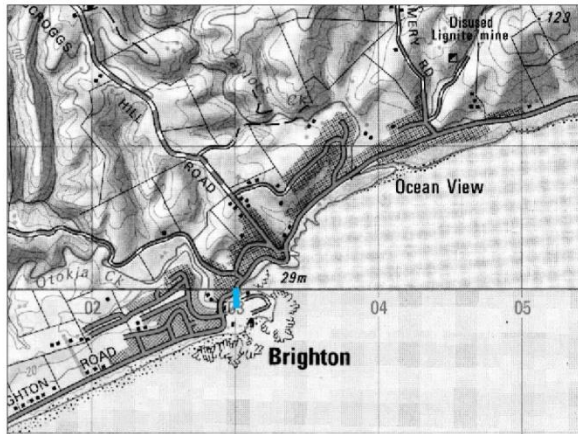


25 Kaikorai Stream

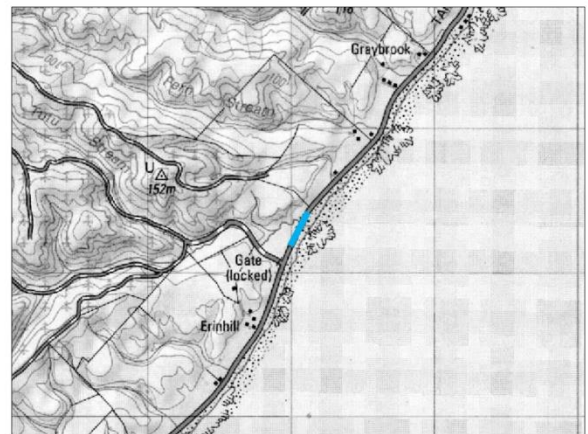


26 Taylors Creek

SCHEDULE 12: COASTAL MARINE AREA BOUNDARIES



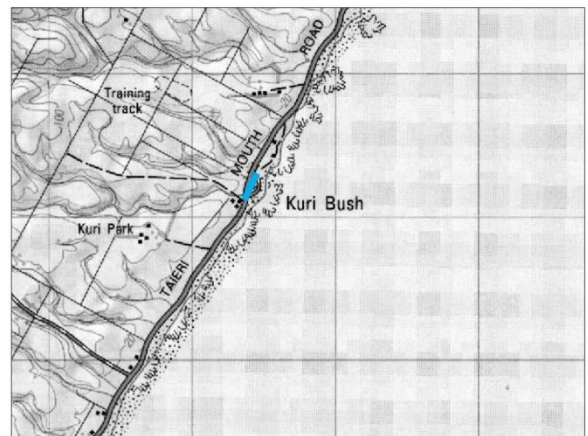
27 Otokia Creek



28 Tutu Stream



29 Reids Stream



30 Unnamed

SCHEDULE 12: COASTAL MARINE AREA BOUNDARIES

Clutha District

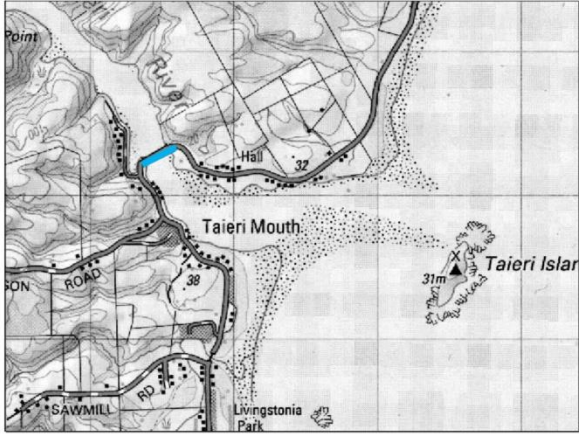
Water body	Description of mouth and boundary *	Mouth grid reference	Boundary grid reference
31. Taieri River	The “mouth” where it enters the sea, the “boundary” at the downstream side of the road bridge at Taieri Mouth.	I45 (Edition 1 1980):930575, 936582	I45 (Edition 1 1980):923581, 925582
32. Duckbend Creek	The “mouth” where it enters the sea, the “boundary” at the downstream side of the road Sawmill Road bridge.	I45 (Edition 1 1980):930570, 930568	I45 (Edition 1 1980):926567, 927569
33. Akatore Creek	The “mouth” where it enters the estuary, the “boundary” five times the width of the mouth upstream.	I45 (Edition 1 1980):905516, 906515	I45 (Edition 1 1980):904516, 905515
34. Bull Creek	The “mouth” where it enters the sea, the “boundary” at the picnic area.	H45 (Edition 1 1981):882439, 884440	H45 (Edition 1 1981):882439, 883441
35. Tokomairiro River	The “mouth” where it enters the sea, the “boundary” five times the width of the mouth upstream.	H45 (Edition 1 1981):882439, 884440	H45 (Edition 1 1981):882439, 883441
36. Wangaloa Creek	The “mouth” at the first constriction, the “boundary” at the second constriction.	H45 (Edition 1 1981):785357, 786356	H45 (Edition 1 1981):782353, 781354
37. Washpool Creek	The “mouth” where it enters the sea, the “boundary” at the downstream side of the Wangaloa Mouth Road bridge.	H46 (Edition 1 1981):752324, 754325	H46 (Edition 1 1981):751326, 752326
38. Clutha River/Mata-Au - Matau Branch	The “mouth” where it enters the sea, the “boundary” five times the width of the mouth upstream.	H46 (Edition 1 1981):665262, 668263	H46 (Edition 1 1981):660264, 660267
39. Clutha River/Mata-Au - Koau Branch	The “mouth” where it enters the sea, the “boundary” along the causeway and five times the width of the mouth upstream.	H46 (Edition 1 1981):639239, 641241	H46 (Edition 1 1981):639247, 642249, 640242, 639245
40. Karoro Creek	The “mouth” where it enters the sea, the “boundary” at the downstream side of the Kaka Point road bridge.	H46 (Edition 1 1981):623184, 624183	H46 (Edition 1 1981):621185, 623184
41. Nugget Stream	The “mouth” where it enters the sea, the “boundary” at the Nuggets Road bridge.	H46 (Edition 1 1981):635162, 636164	H46 (Edition 1 1981):634162, 635164
42. Owaka River	The “mouth” where it enters the Catlins River, the “boundary” at the downstream side of the Pounaweia bridge.	H46 (Edition 1 1981):552110, 554110	H46 (Edition 1 1981):551113, 553113
43. Catlins River	The “mouth” where it enters the Catlins ‘Lake’, the “boundary” at the downstream side of the Ratanui bridge.	G46 (Edition 1 1981):500495, 501493	G46 (Edition 1 1981):491082, 490083
44. Maclellan River	The “mouth” where it enters the Maclellan River, the “boundary” at the downstream side of the State Highway 92 Road bridge between Centre Road and Puaho Road.	G47 (Edition 1 1983):392011, 391013	G47 (Edition 1 1983):393013, 392015
45. Tahakopa River	The “mouth” where the Maclellan River enters, the “boundary” five times the width of the mouth upstream.	G47 (Edition 1 1983):390014, 390011	G47 (Edition 1 1983):385014, 385015
46. Fleming River	The “mouth” where it enters the Tautuku River, the “boundary” five times the width of the mouth upstream.	G47 (Edition 1 1983):346961, 347962	G47 (Edition 1 1983):346962, 347963

SCHEDULE 12: COASTAL MARINE AREA BOUNDARIES

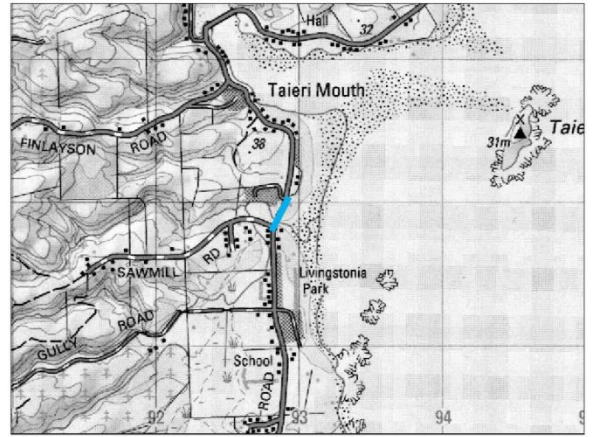
Water body	Description of mouth and boundary *	Mouth grid reference	Boundary grid reference
47. Tautuku River	The “mouth” where the Fleming River enters, the “boundary” at the constriction upstream.	G47 (Edition 1 1983):346962, 347961	G47 (Edition 1 1983):345960, 346961
48. Hukihuki Creek	The “mouth” where it enters the Waipati estuary, the “boundary” five times the width of the mouth upstream.	G47 (Edition 1 1983):291927, 292926	G47 (Edition 1 1983):293928, 294927
49. Waipati River	The “mouth” where it enters Waipati estuary, the “boundary” five times the width of the mouth upstream.	G47 (Edition 1 1983):284925, 294924	G47 (Edition 1 1983):281924, 291924

* Taken from the NZMS 260 series of 1:50,000 scale maps.

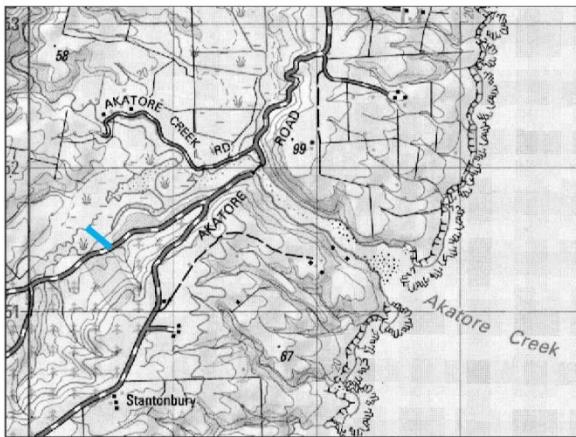
SCHEDULE 12: COASTAL MARINE AREA BOUNDARIES



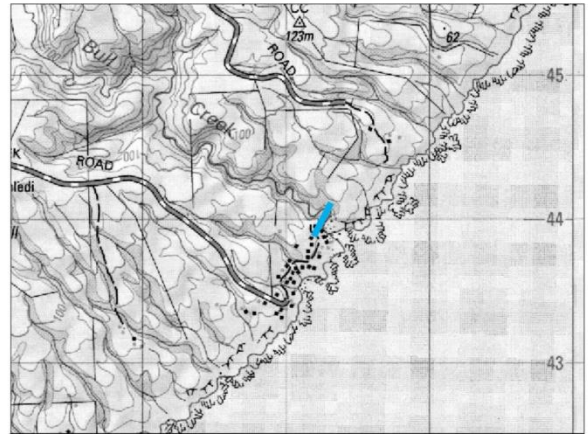
31 Taieri River



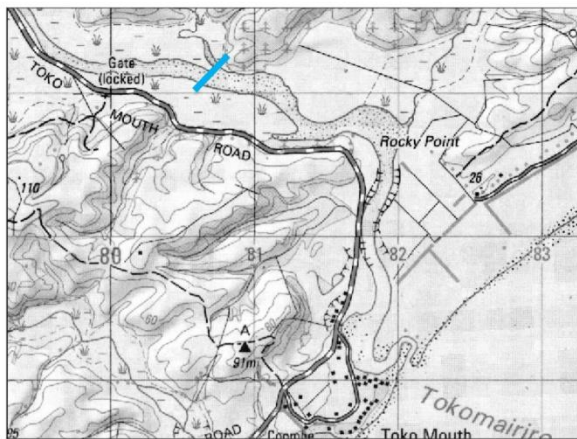
32 "Sawmill Road" Creek



33 Akatore Creek



34 Bull Creek



35 Tokomairiro Stream

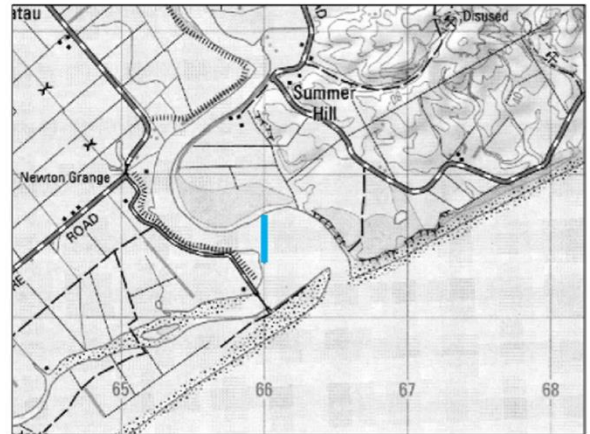


36 Wangaloa Creek

SCHEDULE 12: COASTAL MARINE AREA BOUNDARIES



37 Washpool Creek



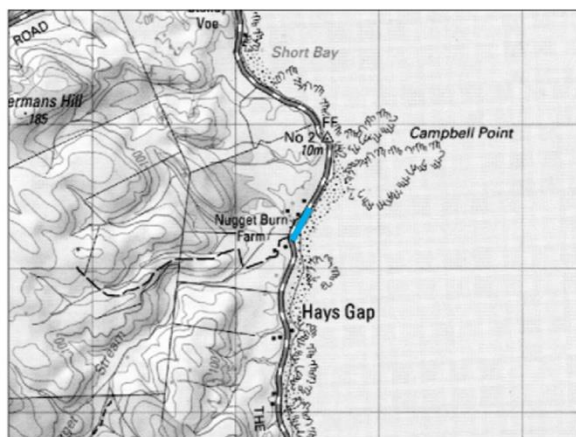
38 Clutha River/Mata-Au – Matau Branch



39 Clutha River/Mata-Au – Koau Branch



40 Karoro Creek

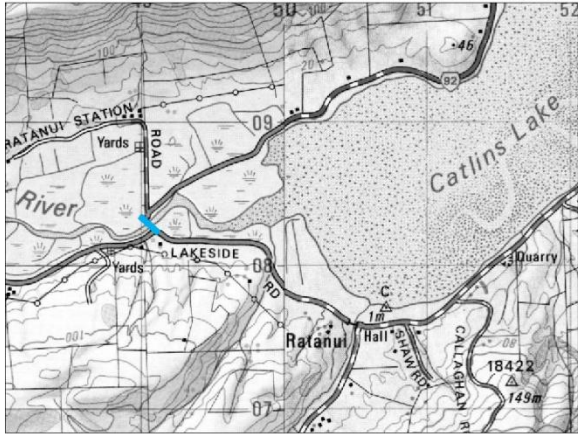


41 Nugget Stream

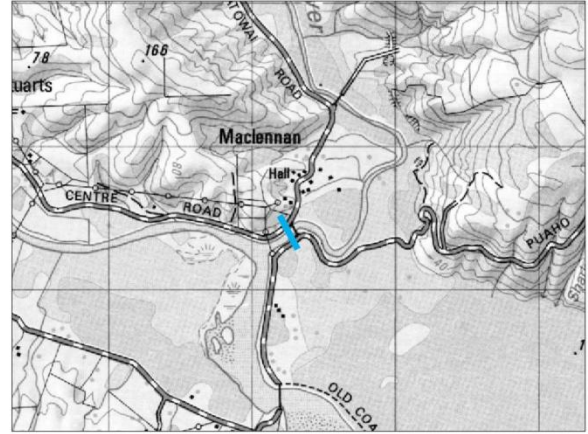


42 Owaka River

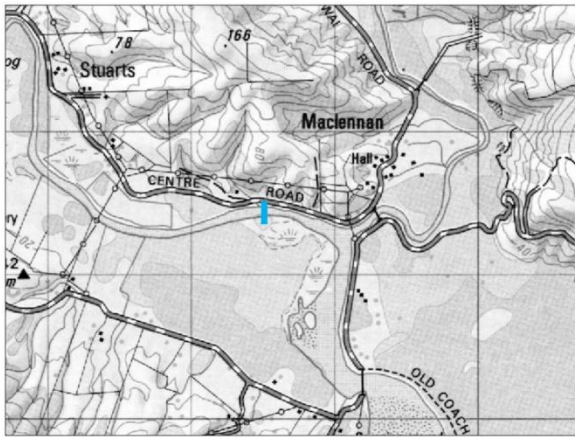
SCHEDULE 12: COASTAL MARINE AREA BOUNDARIES



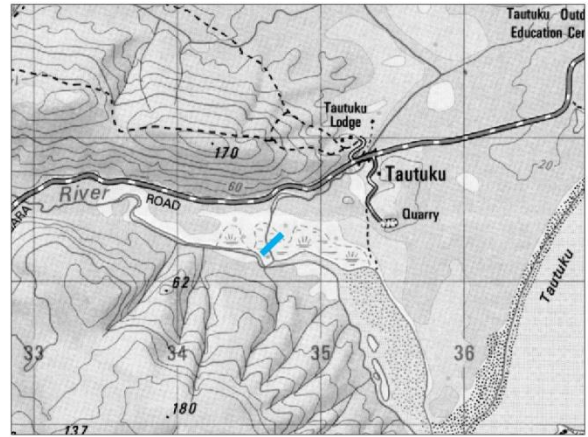
43 Catlins River



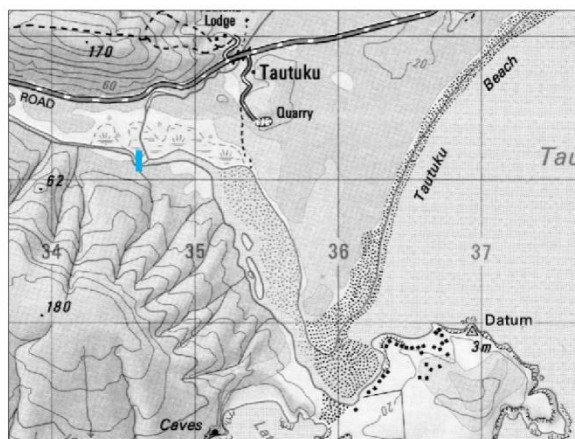
44 Macleannan River



45 Tahakopa River



46 Fleming River

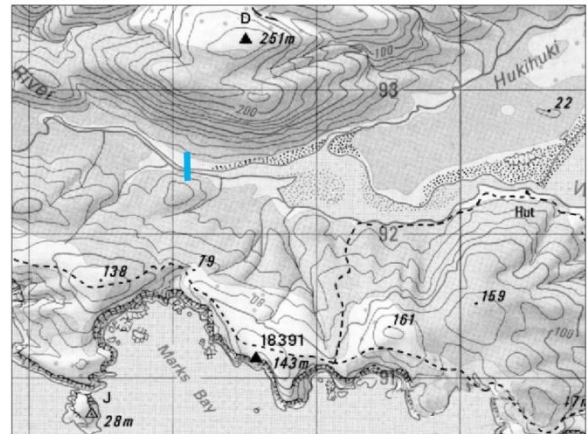


47 Tautuku River



48 Hukihuki Creek

SCHEDULE 12: COASTAL MARINE AREA BOUNDARIES



49 Waipati River

13 Schedule of transitional provisions repealed by this Regional Plan: Water

The Otago Regional Council had an existing Regional Plan for Otago (commonly referred to as the Transitional Regional Plan), constituted by Section 368 of the Resource Management Act 1991. The Transitional Regional Plan was made up of notices, authorisations, bylaws, determinations, and resolutions in operation at the time of the enactment of the Resource Management Act (1 October 1991). These instruments were deemed to form rules in the Transitional Regional Plan, some of which related to the management of Otago’s water bodies.

This Plan deletes the provisions of the Transitional Regional Plan relating to water management within Otago, as identified in this schedule.

Repealed provision of Transitional Regional Plan	Regional Plan: Water provision replacing
Local Water Conservation (Lake Tuakitoto) Notice 1991: 3 “Regionally Significant Features”	Schedule 1A; Schedule 9.
Local Water Conservation (Lake Tuakitoto) Notice 1991: 4 “Minimum Lake Level”	Policy 6.5.1; Rules 12.1.1.1 and 12.3.1.4.
Local Water Conservation (Lake Tuakitoto) Notice 1991: 5.(1) “Water Rights and General Authorisations”	Policy 5.4.2.
Local Water Conservation (Lake Tuakitoto) Notice 1991: 5.(2) “Water Rights and General Authorisations”	No equivalent provision.
Local Water Conservation (Lake Tuakitoto) Notice 1991: 5.(3) “Water Rights and General Authorisations”	No equivalent provision.
Local Water Conservation (Lake Tuakitoto) Notice 1991: 6 “Limit of Notice”	Rule 12.1.2.1; covered by Section 14(3) of the Resource Management Act 1991.
Local Water Conservation (Pomahaka River and tributaries, and Lower Clutha River) Notice 1989: 3 “Regionally Significant Features”	Schedule 1A.
Local Water Conservation (Pomahaka River and tributaries, and Lower Clutha River) Notice 1989: 4 “Right to dam not to be granted”	Rule 12.3.1.3; Schedule 6.
Local Water Conservation (Pomahaka River and tributaries, and Lower Clutha River) Notice 1989: 5 “Water Rights (General):-(1)”	Policy 5.4.2.
Local Water Conservation (Pomahaka River and tributaries, and Lower Clutha River) Notice 1989: 5 “Water Rights (General):-(2)”	No equivalent provision.
Local Water Conservation (Pomahaka River and tributaries, and Lower Clutha River) Notice 1989: 5 “Water Rights (General):-(3)”	No equivalent provision.
Local Water Conservation (Pomahaka River and tributaries, and Lower Clutha River) Notice 1989: 6 “Limit of Notice”	Rule 12.1.2.1; covered by Section 14(3) of the Resource Management Act 1991.
Record of Determination of Appeal: Kakanui River minimum flow 4 September 1991	Schedule 2; Policies 6.4.2 and 6.4.3; Rule 12.1.4.3.
Otago Catchment Board and Regional Water Board, General Authorisations 1988:	
General Authorisation 1: “Minor Agricultural Uses”	Rules 12.1.2.2 to 12.1.2.5 and 12.2.2.2.
General Authorisation 2: “Irrigation Scheme Distribution”	Rules 12.1.4.1, 12.2.2.2, 12.11.2.1 and 12.11.2.3.

SCHEDULE 13: TRANSITIONAL PROVISIONS REPEALED

Repealed provision of Transitional Regional Plan	Regional Plan: Water provision replacing
General Authorisation 3: “School Supply”	Rules 12.1.2.2 to 12.1.2.5 and 12.2.2.2.
General Authorisation 4: “Spray Mixing”	Rules 12.1.2.2 to 12.1.2.5 and 12.2.2.2.
General Authorisation 5: “Earthworks”	Rules 12.1.2.2 to 12.1.2.5 and 12.2.2.2.
General Authorisation 6: “Septic Tank Effluent”	Rules 12.6.1.3 and 12.6.1.4.
General Authorisation 7: “Tracer Dye Discharge”	Rule 12.11.3.1.
General Authorisation 8: “Swimming Pool Discharge”	Rule 12.11.2.1.
General Authorisation 9: “Prospecting and Casual Mining”	Rules 12.1.2.2 to 12.1.2.5, 12.2.2.2, and 12.11.2.3.
General Authorisation 10: “Stormwater/ Drainage Discharges”	Rules 12.1.2.6, 12.3.2.2, 12.4.1.1, 12.4.1.2 and 12.5.1.1.
General Authorisation 11: “Herbicides”	Rules 12.7.1.1 to 12.7.1.4.
General Authorisation 12: “Drilling”	Rules 12.1.2.2 to 12.1.2.5, 12.2.2.2, 12.2.2.3 and 12.9.1.1.
General Authorisation 13: “Minor Dams”	Rule 12.3.2.1.
General Authorisation 14: “Farm Wastes Disposal”	Rules 12.8.1.2 to 12.8.1.4.
General Authorisation 15: “Incidental Damming and Diversion”	Rules 12.3.2.1 and 12.3.2.3.
General Authorisation 16: “Land Stability Drainage”	Rules 12.1.2.6, 12.3.2.2, 12.5.1.1 and 12.11.2.3.
Otago Catchment Board and Regional Water Board, Bylaw 1988:	
Clause 1, “General”, except as it relates to Section 3	No equivalent provision
Clause 2.1, “Maintenance of watercourses and defences against water”	No equivalent provision
Clause 2.2, “Crossings”	Rules under 13.1 to 13.3, 13.5 (as it applies to the bed of a lake or river); Rules under 14.3 and 14.4 (as it applies to land outside of the bed of a lake or river, but within seven metres of the margin of any lake, or of the top of the bank of any river), otherwise no equivalent provision.
Clause 2.3, “Alteration to Watercourse”	Rules under 13.4 and 13.5 (as it applies to the bed of a lake or river), otherwise no equivalent provision.
Clause 2.4, “Construction of a defence against water”	Rules under 13.2 and 13.3 (as it applies to the bed of a lake or river); Rules under 14.3 (as it applies to land outside of the bed of a lake or river).
Clause 2.5, “Removal of shingle, sand, or other material”	Rules under 13.5 (as it applies to the bed of a lake or river), otherwise no equivalent provision.
Clause 2.6, “Vegetation”	Rules under 13.6 (as it applies to the bed of a lake or river), otherwise no equivalent provision.
Clause 2.7, “Obstructions and impairment of efficiency”: 2.7.1	Rules under 12.3; and 13.1 to 13.6, (as it applies to the bed of a lake or river), otherwise no equivalent provision; Rules under 14.3 and 14.4 (as it applies to land outside of the bed of a lake or river, but within seven metres of the margin of any lake, or of the top of the bank of any river), otherwise no equivalent provision.
Clause 2.7, “Obstructions and impairment of efficiency”: 2.7.2	Rules under 13.2 (as it applies to the bed of a lake or river); Rules under 14.4 (as it applies to land outside of the bed of a lake or river, but within seven metres of the margin of any lake, or of the top

SCHEDULE 13: TRANSITIONAL PROVISIONS REPEALED

Repealed provision of Transitional Regional Plan	Regional Plan: Water provision replacing
	of the bank of any river), otherwise no equivalent provision.
Clause 2.7, “Obstructions and impairment of efficiency”: 2.7.3	Rules under 13.5 (as it applies to the bed of a lake or river), otherwise no equivalent provision; Rules under 14.3 and 14.4 (as it applies to land outside of the bed of a lake or river, but within seven metres of the margin of any lake, or of the top of the bank of any river), otherwise no equivalent provision.
Clause 2.7, “Obstructions and impairment of efficiency”: 2.7.4	Rules under 13.5 (as it applies to the bed of a lake or river), otherwise no equivalent provision; Rules under 14.3 and 14.4 (as it applies to land outside of the bed of a lake or river, but within seven metres of the margin of any lake, or of the top of the bank of any river), otherwise no equivalent provision.
Clause 2.8, “Access, damage etc.”	No equivalent provision.
Clause 4, “Dams”: 4.1, “Construction and alteration”	Rules under 12.3, 13.2 and 13.3.
Clause 4, “Dams”: 4.2, “Maintenance and removal”	Rules under 13.3 and 13.4.
Clause 5, “Underground water”: 5.1 to 5.7	Rules under 12.2 and 14.1.
Clause 5, “Underground water”: 5.8, “Control of pile driving, dredging etc”	As it applies to the bed of a lake or river, Rules under 13.5. Rules under 14.2.
Clause 5, “Underground water”: 5.9, “Pollution of underground water”: 5.9.1	Rules under 12.4 to 12.13.
Clause 5, “Underground water”: 5.9, “Pollution of underground water”: 5.9.2	Rules under 14.1 and 14.2.
First Schedule	No equivalent provision.
Second Schedule	No equivalent provision.
Fifth Schedule	No equivalent provision.
Sixth Schedule	No equivalent provision.
Eighth Schedule	No equivalent provision.
Waitaki Catchment Board and Regional Water Board, Bylaw Confirming Resolution, Hilderthorpe Floodway Bylaw 1988	
Clauses 1 to 10	No equivalent provision
Taieri River Trust Bylaw No.1 1960	
Clauses 1 to 30	No equivalent provision

SCHEDULE 14: [REPEALED]

14 *[Repealed – 1 March 2012]*

15 Schedule of characteristics and numerical limits and targets for good quality water in Otago lakes and rivers

Table 15.1 Characteristics indicative of good quality water

Characteristic	Description	Contaminant effect
Clarity	When standing in knee-deep water, the bed is easily and clearly seen.	Sediment reduces the clarity of water, and has an adverse effect on freshwater fish and invertebrate habitat.
Colour	Water-colour is not altered by contamination. Some rivers have natural colour such as tannin-stain.	A change in colour can be indicative of contamination by sediment or organic matter, linked to potentially high concentrations of DRP, NNN, ammoniacal nitrogen or <i>E coli</i> .
Sediment	Riffles and runs are free of obvious clay and silt deposits. Walking across a riffle or run should not produce an obvious plume. Some rivers are naturally high in sediment.	Sediment affects the colour of water, and has an adverse effect on freshwater fish and invertebrate habitat, and can result in high concentrations of phosphorus, and allow <i>E coli</i> to persist.
Smell	Water is odourless.	Smell can be indicative of contamination from a source high in ammoniacal nitrogen or <i>E coli</i> or the decay of excessive amounts of algae which limits people's opportunity to appreciate water.
Algae	Filamentous algae in rivers should cover less than 30% of the river bed. Floating algae occurring in lakes and rivers should not reduce water clarity. Algal growth in rivers or lakes should not cause slime on the surface of the water.	Excessive nitrogen and phosphorus contribute to algal growth which has an adverse effect on freshwater fish and invertebrate habitat, amenity and recreation values, and angling opportunities.
Bank appearance	Functioning riparian margins: <ul style="list-style-type: none"> ▪ Vegetation is healthy. ▪ Banks are stable. ▪ No obvious livestock disturbance. 	Healthy riparian margins mitigate sediment and nutrient discharges, and provide habitat for invertebrates.

SCHEDULE 15: GOOD QUALITY WATER

Table 15.2 Receiving water numerical limits and targets for achieving good quality water

The limits for Groups 1, 2 and 3 are achieved when 80% of samples collected at a site, when flows are at or below median flow, over a rolling 5-year period, meet or are better than the limits in Schedule 15.

A target date of 31 March 2025 is set when the contaminant concentration does not meet the limit as at 31 March 2012.

Table 15.2.1: Receiving Water Group 1

	Nitrate-nitrite nitrogen	Dissolved reactive phosphorus	Ammoniacal nitrogen	<i>Escherichia coli</i>	Turbidity
	0.444 mg/l	0.026 mg/l	0.1 mg/l	260 cfu/100 ml	5 NTU
Catlins	31 March 2025	31 March 2012	31 March 2012	31 March 2012	31 March 2025
Careys Creek	31 March 2012				
Kaikorai	31 March 2012	31 March 2012	31 March 2012	31 March 2025	31 March 2012
Leith	31 March 2025	31 March 2025	31 March 2012	31 March 2025	31 March 2012
Mokoreta (within Otago)	31 March 2025	31 March 2025	31 March 2012	31 March 2025	31 March 2012
Owaka	31 March 2025	31 March 2025	31 March 2012	31 March 2025	31 March 2025
Pomahaka , downstream of Glenken	31 March 2025	31 March 2025	31 March 2012	31 March 2025	31 March 2025
Tahakopa	31 March 2012	31 March 2012	31 March 2012	31 March 2025	31 March 2025
Tokomairiro	31 March 2012	31 March 2012	31 March 2012	31 March 2025	31 March 2012
Tuapeka	31 March 2025	31 March 2012	31 March 2012	31 March 2012	31 March 2012
Waitahuna	31 March 2012	31 March 2012	31 March 2012	31 March 2025	31 March 2012
Waitati	31 March 2012	31 March 2012	31 March 2012	31 March 2025	31 March 2012
Waiwera	31 March 2025	31 March 2025	31 March 2012	31 March 2025	31 March 2012
Any unlisted tributary on the true right bank of the Clutha/Mata-Au , south of Judge Creek	31 March 2012				
Any unlisted tributary on the true left bank of the Clutha/Mata-Au , south of the Tuapeka catchment					
Any unlisted catchment that discharges to the coast , south of Taieri Mouth					

SCHEDULE 15: GOOD QUALITY WATER

Table 15.2.2: Receiving Water Group 2

	Nitrate-nitrite nitrogen	Dissolved reactive phosphorus	Ammoniacal nitrogen	<i>Escherichia coli</i>	Turbidity
	0.075 mg/l	0.01 mg/l	0.1 mg/l	260 cfu/100 ml	5 NTU
Cardrona	31 March 2012				
Clutha/Mata-Au and any unlisted tributary (Luggate to mouth, including Lake Roxburgh, and excluding tributaries described in Group 1)	31 March 2025	31 March 2012	31 March 2012	31 March 2012	31 March 2025
Fraser	31 March 2012				
Kakanui	31 March 2025	31 March 2025	31 March 2012	31 March 2012	31 March 2012
Kawarau downstream of the Shotover confluence	31 March 2025	31 March 2012	31 March 2012	31 March 2012	31 March 2012
Lake Dunstan	31 March 2012				
Lindis	31 March 2025	31 March 2025	31 March 2012	31 March 2012	31 March 2012
Luggate	31 March 2012				
Manuherikia	31 March 2012	31 March 2025	31 March 2012	31 March 2012	31 March 2012
Mill Creek (tributary to Lake Hayes)	31 March 2025	31 March 2012	31 March 2012	31 March 2012	31 March 2012
Pomahaka , upstream of Glenken	31 March 2012				
Shag	31 March 2025	31 March 2012	31 March 2012	31 March 2012	31 March 2012
Shotover	31 March 2012	31 March 2012	31 March 2012	31 March 2012	Exempt
Taieri	31 March 2025	31 March 2025	31 March 2012	31 March 2025	31 March 2025
Trotters	31 March 2025	31 March 2012	31 March 2012	31 March 2012	31 March 2012
Waianakarua	31 March 2025	31 March 2012	31 March 2012	31 March 2012	31 March 2012
Waikouaiti	31 March 2012				
Waipori	31 March 2012				
Waitaki tributaries within Otago	31 March 2025	31 March 2025	31 March 2012	31 March 2025	31 March 2012
Any unlisted catchment that discharges to the coast, north of Taieri Mouth	31 March 2012				

SCHEDULE 15: GOOD QUALITY WATER

Table 15.2.3: Receiving Water Group 3

	Nitrate-nitrite nitrogen	Dissolved reactive phosphorus	Ammoniacal nitrogen	<i>Escherichia coli</i>	Turbidity
	0.075 mg/l	0.005 mg/l	0.01 mg/l	50 cfu/100 ml	3 NTU
Clutha/Mata-Au, above Luggate	31 March 2012				
Dart	31 March 2012	31 March 2012	31 March 2012	31 March 2012	Exempt
Kawarau, upstream of the Shotover confluence	31 March 2012				
Matukituki	31 March 2012	31 March 2012	31 March 2012	31 March 2012	Exempt
Tributaries to Lakes Hawea, Wakatipu, & Wanaka	31 March 2012				

The limits for Groups 4 and 5 are achieved when 80% of samples collected at a site, over a rolling 5-year period, meet or are better than the limits in Schedule 15.

A target date of 31 March 2025 is set when the contaminant concentration does not meet the limit as at 31 March 2012.

Table 15.2.4: Receiving Water Group 4

	Total nitrogen	Total phosphorus	Ammoniacal nitrogen	<i>Escherichia coli</i>	Turbidity
	0.55 mg/l	0.033 mg/l	0.1 mg/l	126 cfu/100 ml	5 NTU
Lake Hayes	31 March 2012	31 March 2025	31 March 2012	31 March 2012	31 March 2012
Lake Johnson	31 March 2025	31 March 2025	31 March 2012	31 March 2012	31 March 2012
Lake Onslow	31 March 2012	31 March 2025	31 March 2012	31 March 2012	31 March 2025
Lake Tuakitoto	31 March 2025	31 March 2025	31 March 2012	31 March 2025	31 March 2025
Lake Waipori & Waiholā	31 March 2025	31 March 2025	31 March 2012	31 March 2012	31 March 2025

Table 15.2.5: Receiving Water Group 5

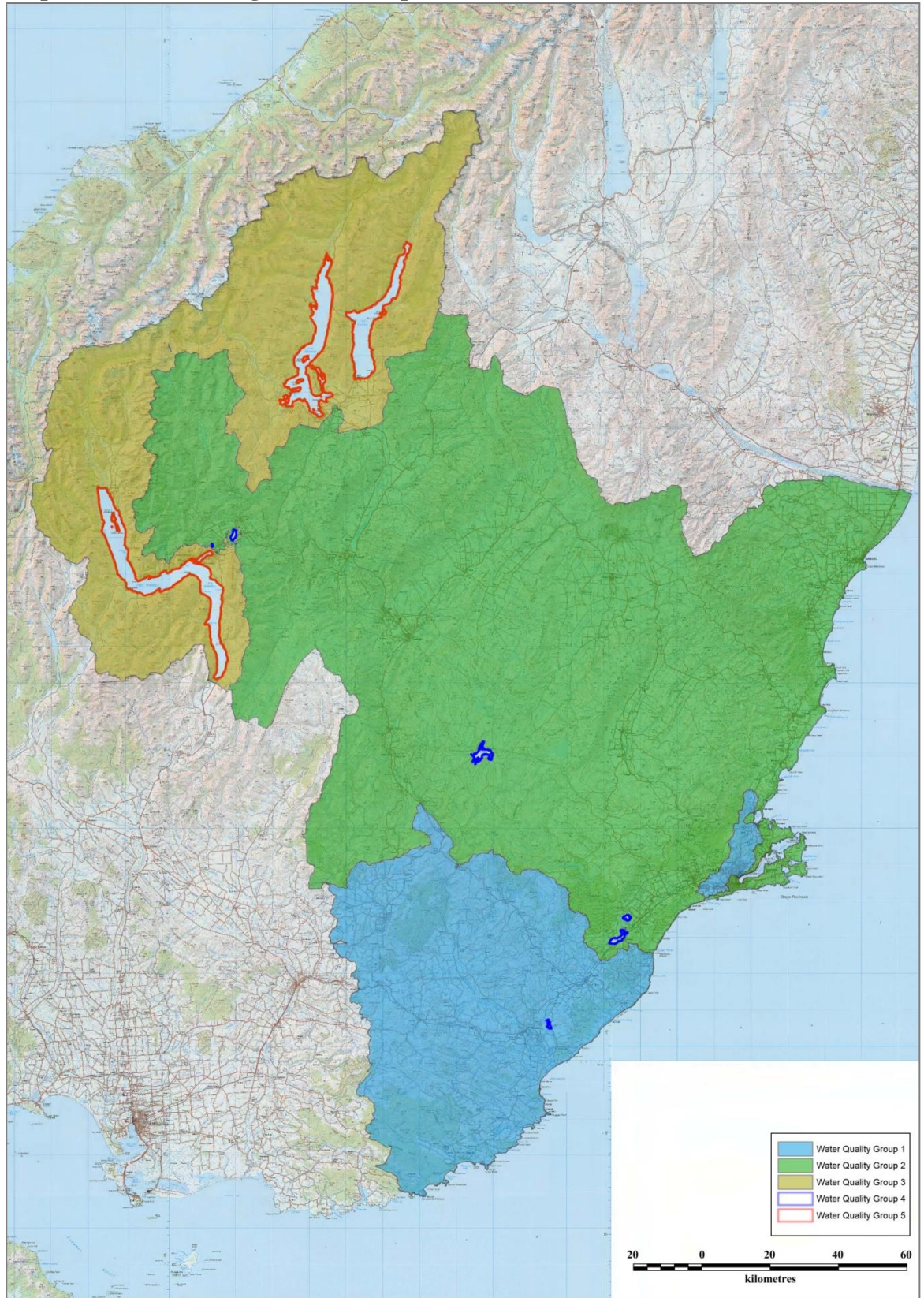
	Total Nitrogen	Total Phosphorus	Ammoniacal nitrogen	<i>Escherichia coli</i> ³	Turbidity
	0.1 mg/l	0.005mg/l	0.01 mg/l	10 cfu/100 ml	3 NTU
Lake Hawea	31 March 2012				
Lake Wakatipu	31 March 2012	31 March 2025	31 March 2012	31 March 2012	31 March 2012
Lake Wanaka	31 March 2012				

mg/l = milligrams per litre

cfu/100 ml = colony-forming units per 100 millilitres

NTU = nephelometric turbidity units

Map 15.1 Receiving Water Groups



SCHEDULE 15: GOOD QUALITY WATER

Table 15.3 Aquifer Concentration Limits

Aquifer/Zone	Aquifer N concentration limit (mg/l)	Reason for Limit
*	*	*

* To be populated following aquifer studies

SCHEDULE 16: DISCHARGE THRESHOLDS

16 Schedule of permitted activity discharge thresholds for water quality

Schedule 16 describes the thresholds that apply to discharges permitted under Rule 12.C.1.1A in the catchments of each discharge threshold area. Discharge Threshold Areas 1 and 2 catchments are shown on the J-series Maps.

16A Permitted activity discharge thresholds for water quality by discharge threshold area

Discharge Threshold Area 1 Catchments	Nitrate-nitrite nitrogen	Dissolved reactive phosphorus	Ammoniacal nitrogen	<i>Escherichia coli</i>
Timeframe	1 April 2026			
<ul style="list-style-type: none"> ▪ Catlins ▪ Careys Creek ▪ Kaikorai ▪ Leith ▪ Mokoreta (within Otago) ▪ Owaka ▪ Pomahaka, downstream of Glenken ▪ Tahakopa ▪ Tokomairiro ▪ Tuapeka ▪ Waitahuna ▪ Waitati ▪ Waiwera ▪ Any unlisted tributary on the true right bank of the Clutha/Mata-Au, south of Judge Creek ▪ Any unlisted tributary on the true left bank of the Clutha/Mata-Au, south of the Tuapeka ▪ Any unlisted catchment that discharges to the coast, south of Taieri Mouth 	3.6 mg/l	0.045 mg/l	0.2 mg/l	550 cfu/100 ml

SCHEDULE 16: DISCHARGE THRESHOLDS

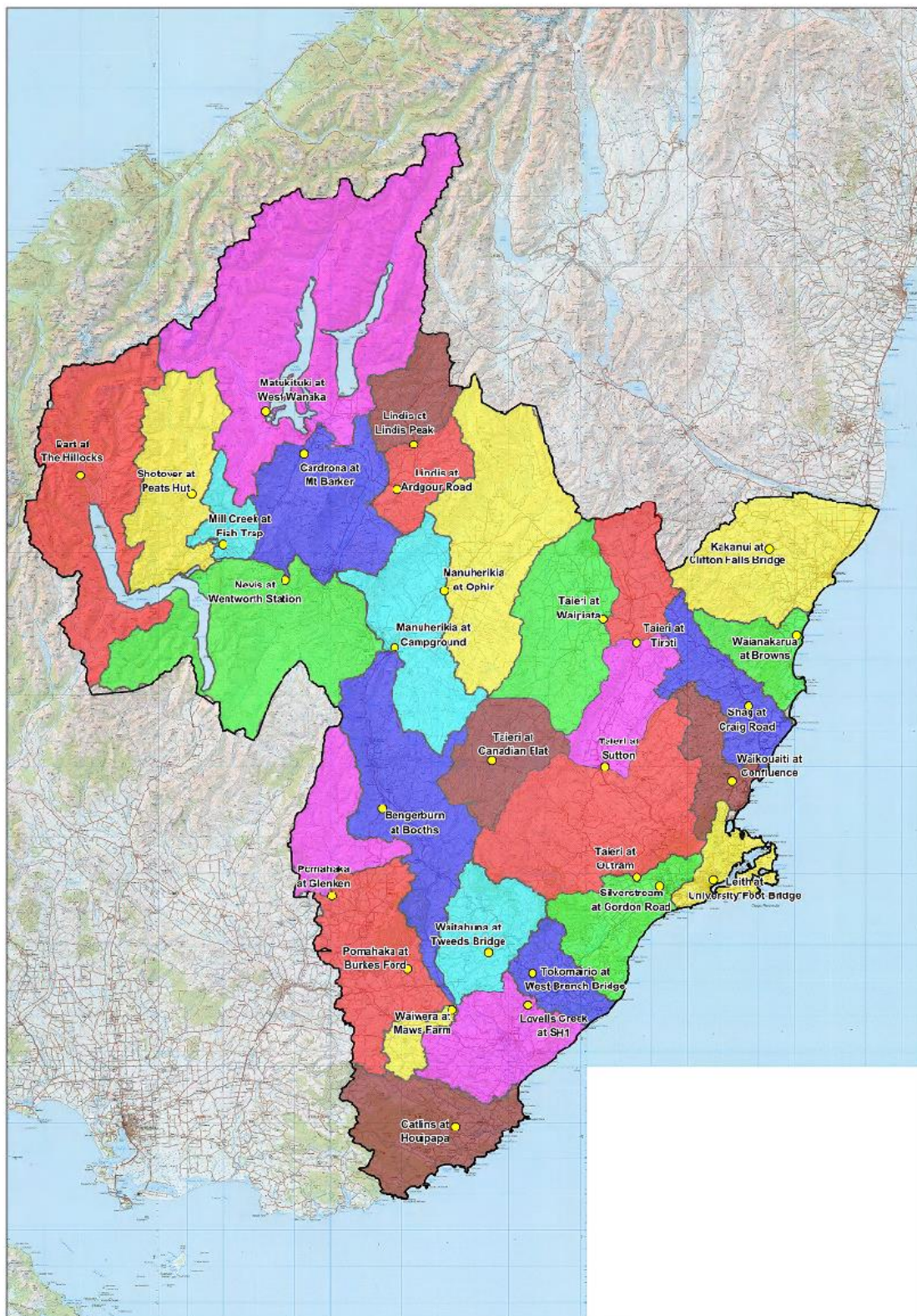
Discharge Threshold Area 2 Catchments	Nitrate-nitrite nitrogen	Dissolved reactive phosphorus	Ammoniacal nitrogen	<i>Escherichia coli</i>
Timeframe	1 April 2026			
<ul style="list-style-type: none"> ▪ Cardrona ▪ Clutha/Mata-Au (above Luggate) ▪ Clutha/Mata-Au and any unlisted tributary (Luggate to mouth, including Lake Roxburgh, and excluding tributaries described in Discharge Threshold Catchment Area 1) ▪ Fraser ▪ Kakanui ▪ Kawarau ▪ Lake Dunstan ▪ Lake Hayes ▪ Lake Hawea and any tributary ▪ Lake Johnson ▪ Lake Onslow ▪ Lake Tuakitoto ▪ Lake Waipori & Waihola ▪ Lake Wakatipu and any tributary ▪ Lake Wanaka and any tributary ▪ Lindis ▪ Luggate ▪ Manuherikia ▪ Mill Creek (tributary to Lake Hayes) ▪ Pomahaka, upstream of Glenken ▪ Shag ▪ Shotover ▪ Taieri ▪ Trotters ▪ Waianakarua ▪ Waikouaiti ▪ Waipori ▪ Waitaki tributaries within Otago ▪ Any unlisted catchment that discharges to the coast, north of Taieri Mouth 	1.0 mg/l	0.035 mg/l	0.2 mg/l	550 cfu/100 ml

mg/l = milligrams per litre

cfu/100 ml = colony-forming units per 100 millilitres

16B Representative flow monitoring sites and reference flows

Map 16B Representative flow monitoring sites for every part of Otago
 Representative flow monitoring sites are shown on the Water Info website (<http://water.orc.govt.nz/WaterInfo/Default.aspx>).



SCHEDULE 16: DISCHARGE THRESHOLDS

Table 16B Reference flows at each representative flow monitoring site

Reference flows are fixed and have been calculated using median flow data from 01/01/2007 to 01/01/2013. River flows for Otago are available on the Water Info website (<http://water.orc.govt.nz/WaterInfo/Default.aspx>).

Monitoring Flow Site	Reference flow (cumecs)
Bengerburn at Booths	0.37
Cardrona at Mt Barker	1.95
Catlins at Houipapa	2.34
Dart at The Hillocks	51.49
Kakanui at Clifton Falls Bridge	1.29
Leith at University Foot Bridge	0.34
Lindis at Ardgour Road	3.50
Lindis at Lindis Peak	3.51
Lovells Creek at SH1	0.14
Manuherikia at Campground	11.60
Manuherikia at Ophir	8.01
Matukituki at West Wanaka	44.99
Mill Creek at Fish Trap	0.35
Nevis at Wentworth Station	7.25
Pomahaka at Burkes Ford	15.48
Pomahaka at Glenken	7.00
Shag at Craig Road	0.65
Shotover at Peats	18.12
Silverstream at Gordon Road	0.30
Taieri at Canadian Flat	2.45
Taieri at Outram	15.86
Taieri at Sutton	10.52
Taieri at Tiroiti	7.88
Taieri at Waipiata	6.02
Tokomairiro at West Branch Bridge	0.44
Waiakarua at Browns	0.78
Waikouaiti at Confluence	1.34
Waitahuna at Tweeds Bridge	1.55
Waiwera at Maws Farm	1.58

17 Schedule of rules applying to plantation forestry in Otago

The Resource Management (National Environmental Standards for Plantation Forestry) Regulations 2017 (NES-PF) came into effect on 1 May 2018. The regulation set out rules for core plantation forestry activities and apply to any forest larger than one hectare, planted specifically for commercial activities and harvest. In general, the standards prevail over rules in regional and district plans, however, in some cases stricter rules in this Plan may apply.

The standards are online here:

<http://www.legislation.govt.nz/regulation/public/2017/0174/latest/whole.html>¹

In this Plan, stricter rules apply that give effect to Objective A1 of the National Policy Statement for Freshwater Management: *To safeguard the life-supporting capacity, ecosystem processes and indigenous species including their associated ecosystems of fresh water, in sustainably managing the use and development of land, and of discharges of contaminants.*

Stricter Water Plan rules are applied:

- In accordance with Regulation 6 of the NES-PF;
- To achieve Objective 7.A.2 in the Water Plan, in accordance with Policy 7.B.2 in the Water Plan; and
- In particular, to protect indigenous non-migratory fish such as galaxiid species, which are classified as threatened and are particularly vulnerable to habitat disturbance and sedimentation.

For this reason, some rules in sections 12.C and 13.5 of this Plan prevail over the NES-PF in accordance with Section 43A(1) of the RMA.

A summary of the rules that apply to plantation forestry in Otago is in Table 17.1 below.

¹ Link to *Resource Management (National Environmental Standards for Plantation Forestry) Regulations 2017*, retrieved 29 March 2018.

Table 17.1 Rules for Plantation Forestry in Otago

National Environmental Standards for Plantation Forestry (Part 2)	Regional Plan: Water for Otago
<p>Subpart 1 – Afforestation All regulations apply</p>	<p>Not applicable.</p>
<p>Subpart 8 – Replanting All regulations apply</p>	
<p>Subpart 2 – Pruning and thinning to waste All regulations apply</p>	<p>Chapter 12: Rules Water Take, Use & Management</p> <p>12.C Other discharges</p> <p>12.C.1 Permitted activities: No resource consent required</p> <p>12.C.1.1 (d) (e) (f), excluding (iii)</p> <p>12.C.2 Restricted discretionary activities: Resource consent required</p> <p>12.C.2.1</p> <p>12.C.2.2</p> <p>12.C.2.4</p> <p>12.C.3 Discretionary activities: Resource consent required</p> <p>12.C.3.2</p>
<p>Subpart 3 – Earthworks All regulations apply, except 26 replaced (see opposite and 13.5 rules below in relation to ephemeral rivers)</p>	
<p>Subpart 5 – Forest quarrying All regulations apply, except 56 (1) replaced (see opposite)</p>	
<p>Subpart 6 – Harvesting All regulations apply, except 65 replaced (see opposite).</p>	
<p>Subpart 7 – Mechanical land preparation All regulations apply, except 74 (6) replaced (see opposite)</p>	
<p>Subpart 9 – Ancillary activities All regulations apply, except 90 replaced (see opposite)</p>	

Table continues next page.

Table 17.1 Rules for Plantation Forestry in Otago *continued*

National Environmental Standards for Plantation Forestry (Part 2)	Regional Plan: Water for Otago
<p>Subpart 3 – Earthworks</p> <p>All regulations apply (except 26 replaced, see above). In addition to 28(2), 13.5.3.1 rule opposite also applies for ephemeral flow paths.</p>	<p>Chapter 13: Rules: Land Use on Lake or River Beds or Regionally Significant Wetlands</p> <p>13.5 Alteration of the bed of a lake or river, or of a Regionally Significant Wetland</p> <p>13.5.1 Permitted activities: No resource consent required.</p> <p>13.5.1.1 (g)</p> <p>13.5.3 Discretionary activities: Resource consent required</p> <p>13.5.3.1</p>
<p>Subpart 4 – River Crossings</p> <p>All regulations apply. In addition to 44, 13.5.1.1(g) rule opposite applies, if this rule cannot be met then 13.5.3.1 applies.</p>	
<p>Subpart 6 – Harvesting</p> <p>All regulations apply. In addition to 68(3), rule 13.5.3.1 opposite applies if logs are to be dragged through streams less than 3 metres wide.</p>	
<p>Subpart 9 – Ancillary activities</p> <p>All regulations apply. In addition to 89, 13.5.1.1(g) rule opposite applies, if this rule cannot be met then 13.5.3.1 applies.</p>	
<p>Subpart 10 – General provisions</p> <p>All regulations apply. In addition to 97, rule 13.5.3.1 opposite also applies to any bed disturbance outside fish spawning seasons as defined by the Fish Spawning Indicator.²</p>	

² This is an online mapping tool developed by the Ministry for Primary Industries, which can be found on its website: <https://www.mpi.govt.nz/growing-and-harvesting/forestry/national-environmental-standards-for-plantation-forestry/fish-spawning-indicator/>

18. Schedule of pond drop test requirements and criteria

Part B:
Animal
waste
storage and
application

This schedule outlines the requirements for undertaking pond drop tests on animal effluent storage facilities that are part of an animal effluent system and the pass criteria for drop test results.

Requirements

- A minimum of 24 hours of accurate data within a single test period.
- Total test error of less than ± 1 mm.
- Continuous readings are to be taken over the entire test period at not more than 10 second intervals.
- Any change in pond fluid level over the test period needs to be accounted for.
- Ponds must be at or over 75% design depth (excluding freeboard) before a test can be undertaken.
- The level of sludge or crust on the pond during the test should be minimal so that it does not impact on test results.
- The pond surface is not frozen during any part of the testing.
- An anemometer is installed for the duration of the test and only data obtained when the wind speed does not exceed 50 kilometres per hour (14 m per second) at the test site is used in the test results.

Table 18.1 Maximum allowable pond level change

When tested in accordance with the requirements above, the animal effluent storage facility is considered to meet the pond drop test criteria if the maximum pond level change does not exceed the following:

Maximum design depth of pond (m) excluding freeboard	Maximum allowable pond level change (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

19. Schedule of progressive implementation of animal effluent storage requirements

Part B:
Animal waste storage and application

Many animal effluent storage facilities in Otago will need to be upgraded to meet the requirements of this Plan. The intent of this Schedule is to stage implementation of the Plan’s requirements according to the environmental risk posed by existing animal effluent storage facilities. To assess this risk, Schedule 19 provides two calculations that will determine the current storage volume available on a landholding (in days) as follows:

- Schedule 19A sets out the calculations required to determine days of storage available on a landholding.
- Schedule 19B sets out the date by which a complete resource consent application must be lodged with the Otago Regional Council under Rule 14.7.3.1 (and correspondingly Rule 14.7.1.2 ceases to apply). A complete application is one that is not determined as being incomplete by the Otago Regional Council pursuant to section 88 of the Resource Management Act 1991.

For clarity, this calculation under Schedule 19A does not determine the volume of the storage facility under section 14.7, it only determines the date that applications must be received.

19A Storage calculation

Two calculations are required to determine the current minimum number of days of animal waste storage available on a landholding. These are set out below.

Step One: Daily waste volume

To calculate the daily waste volume per farm, use the following formula:

$$\text{Daily waste volume (m}^3\text{)} = \text{Maximum number of cows milked per day} \times 0.05^{\wedge} \times \text{Maximum number of times per day that cows are milked during milking season}$$

[^] being 0.05 cubic metres (50 litres per cow per day)

For example:

During milking season, Farm A milks 500 cows twice per day. Using the formula above:

$$\text{Daily waste volume (m}^3\text{)} = 500 \times 0.05 \times 2$$

Daily waste volume (m³) = 50

Step Two:

To calculate the minimum number of days of storage available, use the following formula:

$$\text{Days of storage available} = \text{Actual storage volume (m}^3\text{)} \div \text{Daily waste volume (m}^3\text{)}$$

^ determined assuming that the storage facility is empty

For example:

As calculated above, Farm A has a daily waste volume of 50 m³. The farm has a storage pond with a storage volume of 1000 m³. Using the formula above:

$$\text{Days of storage available} = 1000 \div 50$$

$$\text{Days of storage available} = 20$$

Using the table in Schedule 19B, Otago Regional Council must receive a complete resource consent application under Rule 14.7.3.1 from Farm A no later than two years from the date Plan Change 8 is made operative.

19B Application dates

The following table sets out the dates by which complete resource consent applications must be received under Rule 14.7.3.1 (and correspondingly Rule 14.7.1.2 ceases to apply). The “application date” is the date Plan Change 8 is made operative, plus the number of years in the “year” column below.

Days of storage available as calculated in accordance with Schedule 19B	Year
0 – 10	0.5
11 – 40	2
41+	3

20. Schedule defining Suitably Qualified Persons

A suitably qualified person for the purposes of this schedule is a person who has been certified by the Otago Regional Council as being appropriately qualified and experienced in accordance with the requirements below.

Requirements – Animal Effluent systems

For the purposes of Rules 14.7.1.1A(b), 14.7.1.1(b) and Schedule 21(j), a Suitably Qualified Person has either:

- (a) A relevant tertiary qualification in agricultural engineering, natural resources engineering or civil engineering and at least five years' professional experience in designing and constructing effluent management systems; or
- (b) A relevant equivalent qualification (for example, international qualifications) and at least five years' professional experience in designing and constructing effluent management systems; or
- (c) At least ten years' professional experience in designing and constructing effluent management systems.

Requirements – Calculations using the Dairy Effluent Storage Calculator

For the purposes of Rules 14.7.1.1(a) and Rule 14.7.2.1(a), a Suitably Qualified Person has:

- (a) For undertaking a calculation using the Dairy Effluent Storage Calculator, at least five years' relevant professional experience in designing effluent management systems, and
- (b) For determining a conversion factor for animals that are not dairy cows, a relevant scientific tertiary qualification or relevant research experience.

21. Schedule of management plan requirements

- (1) A management plan for the purpose of preventing the unauthorised discharge of liquid or solid animal effluent to water is:
 - (a) prepared by the landholding owner or their agent and retained on the landholding, identifying the matters set out in clause 2 below;
 - (b) reviewed at least once every 12 months by the landholding owner or their agent, and the outcome of the review documented; and
 - (c) provided to the Otago Regional Council upon request, and
- (2) The management plan must contain the following:
 - (a) physical address of where the animal effluent system is located, and the land where liquid or solid animal effluent is to be applied,
 - (b) a description of the landholding ownership, and the contact details of the owner and the person in charge,
 - (c) legal description(s) of the landholding,
 - (d) a list of all the relevant resource consents held for the landholding and their expiry dates,
 - (e) a map(s) or aerial or satellite photograph(s) showing the locations of:

- (i) the boundaries of the landholding,
- (ii) the location of any dairy shed, animal effluent storage facilities, and any other components of an animal effluent system,
- (iii) lakes, rivers, natural wetlands, bores, soak holes, the coastal marine area, water supply for human consumption and dwellings within the landholding,
- (iv) the area of land where liquid or solid animal effluent is to be applied, and in relation to this area:
 - soil types and their risk profile¹,
 - any critical source areas and the locations of known subsurface drains.
- (f) Operational procedures for using and maintaining the animal effluent system and for managing the discharge of animal effluent,
- (g) Inspection, monitoring and reporting requirements and timeframes.
- (h) The records of pond drop tests of the animal effluent storage facility undertaken at least every five years (excluding above-ground tanks, bladders, solid animal effluent storage facilities and an animal effluent storage facility with a leak detection system),
- (i) Contingency measures to prevent the discharge of liquid or solid animal effluent to a water body, an artificial watercourse, or the coastal marine area, either directly or indirectly,
- (j) Identification of measures to be taken to respond to a leak and the timeframe for response; including, for animal effluent storage facilities with a leak detection system where a leak is detected, a requirement for an assessment by a Suitably Qualified Person to be undertaken as soon as practicable and no later than two months of the detection to determine whether the leak is within the normal operating parameters of the pond, and
- (k) Responses to any other system failures or emergencies, including timeframes for response.

Footnote 1: A digital soil map for New Zealand can be found online at <https://smap.landcareresearch.co.nz/>

Chapter 21
Glossary

21

Glossary

Terms marked with an asterisk * are terms defined by the Resource Management Act 1991.

In this Plan, the spelling of Māori words using ng and k is interchangeable (for example Ngāi Tahu and Kāi Tahu).

Abandoned structure	A structure that is no longer required or utilised for the purpose for which it was erected or placed.
Access strip*	Means a strip of land created by the registration of an easement in accordance with Section 237B (of the Resource Management Act 1991) for the purpose of allowing public access to or along any river, or lake, or the coast, or to any esplanade reserve, esplanade strip, other reserve, or land owned by the local authority or by the Crown (but excluding all land held for a public work except land held, administered or managed under the Conservation Act 1987 and the Acts named in the First Schedule to that Act).
Adverse effect	A detrimental effect.
Aerial discharge	The discharge of any agrichemical from any aircraft.
Agricultural and horticultural activities <i>(definition only applies where term is underlined in this Plan)</i>	All activities involved with the primary industries of agriculture and horticulture, including common stock drinking-water schemes, but excludes processing agricultural and horticulture produce.
Allocation limit	The maximum flow or quantity of water in a water body, which is able to be allocated to resource consents for taking.
Alluvium	Sediment including rock, gravel, sand or silt material deposited by flowing water on floodplains and in lake and river beds, as a result of alluvial processes.
Alteration of the bed	Any bed disturbance, reclamation or deposition.
Amenity values*	Means those natural or physical qualities and characteristics of an area that contribute to people's appreciation of its pleasantness, aesthetic coherence, and cultural and recreational attributes.
Animal waste	Faeces or urine from any animal.
Animal effluent storage facility	A pond, tank, or structure primarily used for the containment or storage of animal effluent, but excludes any ancillary structures for the collection, conveyance or treatment of liquid or solid animal effluent, such as sumps, stone traps and weeping walls.

Animal effluent system	Means the collection, storage, or treatment of liquid or solid animal effluent.
Annual renewable yield	<i>[Repealed – 1 March 2012]</i>
Annual volume <i>(definition only applies where term is underlined in this Plan)</i>	The volume of water that can be taken or diverted in any 12-month period.
Anticipated environmental result	The intended result or outcome on the environment as a consequence of implementing the policies and methods.
Any other activities <i>(definition only applies where term is underlined in this Plan)</i>	Activities that are not agricultural and horticultural activities, hydro-electricity generation, industrial and commercial activities, tourism and recreation facilities, or town and community water supplies.
Aquatic plant	Any plant species that grows in water and is either totally or predominantly submerged in water.
Aquifer	A geological formation capable of holding water.
Aquifer compression	A reduction in an aquifer's capacity to hold water.
Archaeological site	Any place in New Zealand that <ul style="list-style-type: none"> (a) EITHER – <ul style="list-style-type: none"> (i) Was associated with human activity that occurred before 1900; or (ii) Is the site of the wreck of any vessel where that wreck occurred before 1900; and (b) Is or may be able through investigation by archaeological methods to provide evidence relating to the history of New Zealand. <p>- defined by Section 2 of the Historic Places Act 1993.</p>
Artesian pressure	The pressure of water in a confined aquifer resulting in water level rise above the bottom of the confining layer.
Assessed maximum annual take	The sum of the takes of groundwater as calculated under Method 15.8.3.1

Assimilative capacity	The ability of a water body to assimilate contaminants without adversely affecting the natural and human use values supported by the water body.
Augmentation	Increasing the supply of available water through the active management of water resources.
Back-flow	The return of water to the source water body, through the device used to take water, including back-siphoning.
Bed*	Means, - <ul style="list-style-type: none"> (a) In relation to any river- <ul style="list-style-type: none"> (i) For the purposes of esplanade reserves, esplanade strips, and subdivision, the space of land which the waters of the river cover at its annual fullest flow without overtopping its banks: (ii) In all other cases, the space of land which the waters of the river cover at its fullest flow without overtopping its banks; and (b) In relation to any lake, except a lake controlled by artificial means, - <ul style="list-style-type: none"> (i) For the purposes of esplanade reserves, esplanade strips, and subdivision, the space of land which the waters of the lake cover at its annual highest level without exceeding its margin: (ii) In all other cases, the space of land which the waters of the lake cover at its highest level without exceeding its margin; and (c) In relation to any lake controlled by artificial means, the space of land which the waters of the lake cover at its maximum permitted operating level; and (d) In relation to the sea, the submarine areas covered by the internal waters and the territorial sea.
Bed disturbance	Any activity which affects the bed or bank of a water body and includes any excavation, dredging, drilling, tunnelling, and any widening, deepening or altering of the course of the water body.
Bedform	The topography or shape of the bed of a lake or river.
Bed material	The sand, gravel or other alluvium forming part of the bed of a lake or river.
Benthic invertebrate	An animal without a backbone (e.g. snail, crustacean, worm, insect) living on, under, or within the bed material of a water body.
BOD₅	The quantity of oxygen consumed by microbial and chemical processes over a five day period at 20 degrees.

Bore	Every device or means, including any well or pit, which is drilled or constructed for the purpose of taking groundwater, or which results in groundwater being taken, other than piezometers or other monitoring devices used for water sampling purposes only.
Bore interference	The reduced ability of users in a localised area to take water from a bore, due to the taking of water from another bore, reducing the pressure and/or the level of groundwater.
Bunding	Constructing an embankment or low wall (usually concrete) designed to contain accidental spillage of a stored liquid.
CFU	Colony-Forming Units, an indication of faecal contamination.
Cleanfill	A natural material such as sand, gravel and rock, and such other materials as concrete, brick or demolition products that are free of soluble materials and are therefore not subject to biological or chemical breakdown.
Coastal marine area*	Means the foreshore, seabed, and coastal water, and the air space above the water - <ul style="list-style-type: none"> (a) Of which the seaward boundary is the outer limits of the territorial sea: (b) Of which the landward boundary is the line of mean high water springs, except that where that line crosses a river, the landward boundary at that point shall be whichever is the lesser of - <ul style="list-style-type: none"> (i) One kilometre upstream from the mouth of the river; or (ii) The point upstream that is calculated by multiplying the width of the river mouth by 5.
Conditions*	In relation to plans and resource consents, includes terms, standards, restrictions, and prohibitions.
Consent authority*	Means a regional council, a territorial authority, or a local authority that is both a regional council and a territorial authority, whose permission is required to carry out an activity for which a resource consent is required under the Resource Management Act 1991.
Conspicuous change in visual clarity	A visual change in water clarity of more than 40%.
Consumptive use	Where a use results in a net loss of water from the water body.
Contact recreation	Recreational activities involving contact with water; either primary (full immersion) or secondary (that which may result in some form of contact with water).
Contaminant*	Includes any substance (including gases, odorous compounds, liquids, solids, and micro-organisms) or energy (excluding noise) or heat, that

either by itself or in combination with the same, similar, or other substances, energy or heat -

- (a) When discharged into water, changes or is likely to change the physical, chemical, or biological condition of water; or
- (b) When discharged onto or into land or into air, changes or is likely to change the physical, chemical, or biological condition of the land or air onto or into which it is discharged.

Contaminated land

Land at which hazardous substances occur at concentrations above background levels and where assessment indicates that that land poses, or is likely to pose, an immediate or long-term hazard to human health or the environment.

Contravene*

Includes fail to comply with.

Controlled activity*

If an activity is described in the Resource Management Act 1991, regulations (including any national environmental standard), a plan, or a proposed plan as a controlled activity, a resource consent is required for the activity and -

- (a) The consent authority must grant a resource consent (except if Section 106 of the Act applies); and
- (b) The consent authority's power to impose conditions on the resource consent is restricted to the matters over which control is reserved (whether in its plan or proposed plan, a national environmental standard, or otherwise); and
- (c) The activity must comply with the requirements, conditions, and permissions, if any, specified in the Act, regulations, plan, or proposed plan.

Controlled lake

A lake where structures are used to manage the quantity of water leaving the lake.

Critical source area

Means a landscape feature such as a gully, swale, or depression that accumulates runoff from adjacent flats and slopes and delivers contaminants to surface water bodies such as rivers, lakes, artificial watercourses (excluding subsurface drains, and artificial watercourses that do not connect to natural water bodies).

Dairy Effluent Storage Calculator

Means the Dairy Effluent Storage Calculator available from <http://www.dairynzdesc.co.nz>

Dam

A structure used or to be used for the damming of any water, or water body.

Datum

The fixed level for basing subsequent level measurements, in this case datum means Otago Metric Datum, which is the Dunedin Vertical Datum (DVD 1958) plus 100 metres.

Deemed permit

A mining privilege in respect of water (see Appendix 2).

Defence against water	Any dam, weir, bank, carriageway, groyne, or reservoir, and any structure or appliance of any kind which has or may have the effect of stopping, diverting, controlling, restricting, or otherwise regulating the flow or spread or subsidence, in or out of a water body, of water including flood waters, which is specifically established for the purpose of flood hazard mitigation.
Deposition	The deposit of any substance, other than water or waterborne contaminants (discharge), or fill material (reclamation).
Discharge*	Includes emit, deposit, and allow to escape.
Discretionary activity*	<p>If an activity is described in the Resource Management Act 1991, regulations (including any national environmental standard), a plan, or a proposed plan as a discretionary activity, a resource consent is required for the activity and -</p> <p>(a) The consent authority may decline the consent or grant the consent with or without conditions; and</p> <p>(b) If granted, the activity must comply with the requirements, conditions, and permissions, if any, specified in the Act, regulations, plan, or proposed plan.</p>
Disposal field	That part of a constructed on-site waste water treatment system where the effluent is discharged to land.
District plan*	<p>(a) Means an operative plan approved by a territorial authority under Schedule 1 of the Resource Management Act 1991; and</p> <p>(b) Includes all operative changes to the plan (whether arising from a review or otherwise).</p>
Divert	In relation to the diversion of water, is the process of redirecting the flow of water from its existing course to another.
Down-hole pump test	A test conducted to determine aquifer or bore characteristics.
Drain	Artificial channel or subsurface conduit (e.g. mole drain, tile drain or drainage tunnel) constructed to either lower the watertable or divert water, excluding a water race.
Drainage water	Water collected by and discharged from a drain.
Drilling	<p>The process of creating a hole in the ground with a drill to a depth greater than 1 metre. This does not include hole creation for the purpose of:</p> <ul style="list-style-type: none"> • The construction of a bore; • The erection of fences or overhead utilities; or

	<ul style="list-style-type: none"> • The placement of building foundations.
Drill hole	The hole created by drilling.
Drinking-water supply reservoir	A reservoir which is used primarily for the purpose of storing a supply of drinking water.
<u>Earthworks</u>	<u>Means the alteration or disturbance of land, including by moving, removing, placing, blading, cutting, contouring, filling or excavation of earth (or any matter constituting the land including soil, clay, sand and rock); but excludes gardening, cultivation, and disturbance of land for the installation of fence posts.</u>
Ecosystem	A dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit.
Effect*	<p>In the Resource Management Act 1991, unless the context otherwise requires, the term effect includes -</p> <ul style="list-style-type: none"> (a) Any positive or adverse effect; and (b) Any temporary or permanent effect; and (c) Any past, present, or future effect; and (d) Any cumulative effect which arises over time or in combination with other effects - <p>regardless of the scale, intensity, duration, or frequency of the effect, and also includes -</p> <ul style="list-style-type: none"> (e) Any potential effect of high probability; and (f) Any potential effect of low probability which has a high potential impact.
Effluent	Liquid waste, including liquid leaching from solid waste.
Enforcement order*	Means an order made under Section 319 of the Resource Management Act 1991 for any purposes set out in Section 314 of the Act; and includes an interim enforcement order made under Section 320 of the Act.
Environment*	<p>Includes -</p> <ul style="list-style-type: none"> (a) Ecosystems and their constituent parts, including people and communities; and (b) All natural and physical resources; and (c) Amenity values; and (d) The social, economic, aesthetic, and cultural conditions which affect the matters stated in paragraphs (a) to (c) of this definition or which are affected by those matters.
Environmental flow and level regimes (definition)	The flow-sharing, allocation limits and minimum flows and levels established by the Water Plan as specified in Rule 12.1.4.4A.

only applies where term is underlined in this Plan)

Erosion	The processes of the wearing away of the land surface (including the land that forms the bed of a lake or river) by natural agents and the transport of the material that results.
Esplanade reserve*	Means a reserve within the meaning of the Reserves Act 1977 - <ul style="list-style-type: none"> (a) Which is either - <ul style="list-style-type: none"> (i) A local purpose reserve within the meaning of Section 23 of that Act, if vested in the territorial authority under Section 239 of the Resource Management Act 1991; or (ii) A reserve vested in the Crown or a regional council under Section 237D of the Resource Management Act 1991; and (b) Which is vested in the territorial authority, regional council, or the Crown for a purpose or purposes set out in Section 229 of the Resource Management Act 1991.
Esplanade strip*	Means a strip of land created by the registration of an instrument in accordance with Section 232 of the Resource Management Act 1991 for a purpose or purposes set out in Section 229 of the Act.
Excavation over a groundwater protection zone	The digging and removal of a volume of earth material from below the topsoil horizon in excess of 10 cubic metres, or to a depth of greater than 1 metre, but does not include that required for bore construction, or for the erection of fences, overhead utilities or foundations for buildings, or for land cultivation.
Exotic plant	A plant which is not native to New Zealand. These may include introduced plants which have been brought in by accident or design.
Extraction	Removal of material from the lake or river system.
Faecal coliform	A type of bacteria associated with animal excrement that indicates faecal pollution. If the faecal coliform count is high there may be disease-causing organisms present.
Fauna	All the animal life of a given place.
Fertiliser	Any proprietary substance specifically manufactured for use in increasing the nutrient status of land. Excludes compost, effluent or seaweed.
Financial contribution	A contribution as set out in Section 108(9) of the Resource Management Act.

Fisheries and wildlife (<i>definition only applies where term is underlined in this Plan</i>)	Activities relating to the management and enhancement of habitats of fish and indigenous wildlife.
Flood carrying capacity	The capacity of any channel to convey flood waters.
Flooding of any other person's property	Where a discharge of water or contaminants on one property causes inundation on another property.
Flora	All the plant life of a given place.
Flushes	Wet or damp areas of ground where the watertable intersects the land surface. Characterised by the presence of wetland species such as Sphagnum, and a greener, more lush appearance than surrounding vegetation.
Ford	Any modification of the bed to establish a crossing by which any vehicle, livestock, or persons may traverse through any water body.
Galaxias	The genus name of members of the native fish family Galaxiidae, which includes inanga (whitebait) and banded kokopu.
Galaxiid	A member of the native fish family Galaxiidae.
Grassed swale	An open artificial water body or drain with gently-sloping walls of permeable material that conducts water only when the substrate is saturated.
Groundwater	Water that occupies or moves through openings, cavities or spaces in geological formations under the ground.
Groundwater protection zone	An area of land in which land use and water use activities are to be managed to protect the underlying groundwater resource.
Hapu	Sub-tribe, extended whanau.
Hazardous substance	Unless expressly provided otherwise by regulations, any substance - <ul style="list-style-type: none"> (a) With one or more of the following intrinsic properties: <ul style="list-style-type: none"> (i) Explosiveness: (ii) Flammability: (iii) A capacity to oxidise: (iv) Corrosiveness: (v) Toxicity (including chronic toxicity): (vi) Ecotoxicity, with or without bioaccumulation; or (b) Which on contact with air or water (other than air or water where the temperature or pressure has been artificially

increased or decreased) generates a substance with any one or more of the properties specified in paragraph (a) of this definition.

- defined by Section 2 of the Hazardous Substances and New Organisms Act 1996.

Herbicide	Substance toxic to plants and used to kill or control plants.
High degree of naturalness	Retaining characteristics not significantly modified by human beings or non-indigenous plants or animals.
Historic place	Any land (including an archaeological site); or any building or structure (including part of a building or structure); or any combination of land and a building or structure that forms part of the historical and cultural heritage of New Zealand and lies within the territorial limits of New Zealand; and includes anything that is in or fixed to such land.
Hydrological values	The natural processes of an ecosystem in providing regulated water flow and enhanced water quality.
Impervious strata	A layer of soil, rock or other natural material which does not allow the percolation of water.
In-catchment needs (<i>definition only applies where term is underlined in this Plan</i>)	Water requirements of users where the water is taken or diverted for use within the Waitaki catchment.
Indigenous species	A New Zealand native species that is, or is thought to have been, naturally existing within the catchment.
Industrial and commercial activities (<i>definition only applies where term is underlined in this Plan</i>)	Industrial and commercial activities (but excluding hydro-electricity generation) that are not served by a reticulated town and community water supply.
Industrial or trade premises*	Means - <ul style="list-style-type: none"> (a) Any premises used for any industrial or trade purposes; or (b) Any premises used for the storage, transfer, treatment, or disposal of waste materials or for other waste-management purposes, or used for composting organic materials; or (c) Any other premises from which a contaminant is discharged in connection with any industrial or trade process - but does not include any production land.

	In this plan, the phrase ‘industrial or trade premises’ includes any structure associated with electricity generation.
Industrial or trade process*	Includes every part of a process from the receipt of raw material to the dispatch or use in another process or disposal of any product or waste material, and any intervening storage of the raw material, partly processed matter, or product.
Industrial or trade waste	Waste from an industrial or trade premises, that is derived from an industrial or trade process.
Instantaneous take	All takes of water occurring at a particular time.
Intake structure	The device by which water is taken from a water body.
Intensive winter grazing	Has the same meaning as defined in the Resource Management (National Environmental Standards for Freshwater) Regulations 2020.
Intrinsic values*	In relation to ecosystems, means those aspects of ecosystems and their constituent parts which have value in their own right, including - <ul style="list-style-type: none"> (a) Their biological and genetic diversity; and (b) The essential characteristics that determine any ecosystem’s integrity, form, functioning, and resilience.
Issue	A matter of concern to the region’s community regarding activities affecting some aspect of natural and physical resources and the environment of the region.
Iwi	Tribe.
Iwi authority*	Means the authority which represents an iwi and which is recognised by that iwi as having authority to do so. (The iwi authority for the Otago region is Te Runanga O Ngai Tahu).
Iwi management plan	A relevant planning document, such as the Kai Tahu Ki Otago Natural Resource Management Plan, recognised by an iwi authority affected by this Plan, to which local authorities shall have regard.
Kai Tahu	Descendants of Tahu, the tribe. The manawhenua of the Otago region. (Also known as Ngai Tahu).
Kāi Tahu or Ngāi Tahu (<i>definition only applies where term is underlined in this Plan</i>)	The collection of individuals who descend from the primary hapū of Waitaha, Ngāti Mamoe, and Ngāi Tahu, namely Kāti Kurī, Kāti Irakehu, Kāti Huirapa, Ngāi Tuahuriri and Kai Te Ruahikihiki.
Kaitiaki	Guardians.

Kaitiakitanga*	Means the exercise of guardianship by the tangata whenua of an area in accordance with tikanga Maori in relation to natural and physical resources; and includes the ethic of stewardship.
Kanakana	The primitive parasitic native fresh water lamprey, <i>Geotria australis</i> .
Kokopu	Native fish species of the Galaxiid family, including banded kokopu (<i>Galaxias fasciatus</i>) and giant kokopu (<i>G. argenteus</i>), sometimes referred to as ‘native trout’.
Koura	Native fresh water crayfish of the genus <i>Paranephrops</i> .
Lake Tuakitoto	The variable and more or less continuous body of water commonly known as Lake Tuakitoto, including Robson’s Lagoon, situated at and about map reference NZMS260 H46:650370. The shoreline of the lake is defined as the variable extent of surface water, as it is observed at any particular time, whether of natural extent or whether restricted by any floodbank.
Lake*	Means a body of fresh water which is entirely or nearly surrounded by land.
Land*	<ul style="list-style-type: none"> (a) Includes land covered by water and the air space above land; and (b) In a national environmental standard dealing with a regional council function under Section 30 of the Resource Management Act 1991 or a regional rule, does not include the bed of a lake or river; and (c) In a national environmental standard dealing with a territorial authority function under Section 31 of the Act or a district rule, includes the surface of water in a lake or river.
Land-based discharge	The discharge of any agrichemical from any thing other than any aircraft.
Land drainage	The removal of water from in or on land.
Landholder	Includes land owner, lessee and occupier.
Landholding	<ul style="list-style-type: none"> (1) For land subject to the Land Transfer Act 1952, land in: <ul style="list-style-type: none"> (i) A single certificate of title; or (ii) Two or more adjoining certificates of title, with a common occupier. (2) 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.
Lawful take of water	Any take under Section 14(3) of the Resource Management Act, any take exercised under Rules 12.1.2.1 to 12.1.2.6, or 12.2.2.1 to 12.2.2.3 of this Plan, any take exercised under the Transitional Regional Plan rule constituted by General Authorisations 1 to 5, 9

and 12, and any take under any resource consent or deemed permit under the Resource Management Act 1991.

Leachate	A liquid contaminant resulting from the liquid being exuded from or percolated through some more-or-less solid matter.
Legal public access	Includes legal roads, marginal strips, esplanade reserves, esplanade strips, access strips and Walkways.
Line	A wire or conductor (including a fibre optic cable) used or intended to be used for telecommunication or transmission of electricity.
Liquid animal effluent	Faeces and urine from land-based animals, including associated process water, wash-down water, contaminants and sludge but excluding solid animal effluent. For the purposes of this definition, it does not include incidental animal effluent present in livestock processing waste streams.
Local authority	A term that collectively describes regional councils, city councils, and district councils.
Long-drop toilet	An unlined hole or pit excavated for the disposal of human sewage, which is not subject to any treatment or flushing.
Macro-invertebrate Community Index (MCI)	An index of the proportion of sensitive to tolerant species (designed to assess the effects of nutrient enrichment in stoney streams, but also affected by dissolved oxygen, temperature and physical habitat features), among the community of benthic invertebrates that can be seen with the naked eye (see Appendix 1).
Mahika kai	Places where food is procured or produced, examples in the case of waterborne mahika kai include eels, whitebait, kanakana, kokopu, koura, fresh water mussels, indigenous waterfowl, watercress and raupo.
Main stem	The principal course of a river (i.e. does not include tributaries).
Mana	Authority, influence or prestige.
Manawhenua*	Means customary authority exercised by an iwi or hapu in an identified area.
Margin	Land alongside a river or lake.
Mauri	Life force; for example the mauri of a river is most recognisable when there is abundance of water flow and the associated ecosystems are healthy and plentiful; a most important element in the relationship that Kai Tahu have with the water bodies of Otago.
Maximum allocation limit	The quantity of groundwater as established under Policy 6.4.10A2.

MCI	See Macroinvertebrate Community Index.
Mean annual recharge	The quantity of groundwater recharge as calculated by Schedule 4D.

Mean high water springs	The average line of spring high tide.
Method	The practical action by which a policy is implemented.
Micro hydro-electricity generation <i>(definition only applies where term is underlined in this Plan)</i>	The generation of hydro-electricity not exceeding a capacity of 50 Kilowatts continuous output.
Minimum flow	The flow below which the holder of any resource consent to take water must cease taking water.
Mining privilege	See Appendix 2.
Mixing zone	An area of water associated with a discharge within which any standards or requirements relating to water quality are set aside to enable reasonable mixing to occur. (See Reasonable mixing).
Mouth*	For the purpose of defining the landward boundary of the coastal marine area, means the mouth of a river either - <ul style="list-style-type: none"> (a) As agreed and set between the Minister of Conservation, the regional council, and the appropriate territorial authority in the period between consultation on, and notification of, the proposed regional coastal plan; or (b) As declared by the Environment Court under Section 310 of the Resource Management Act 1991 upon application made by the Minister of Conservation, the regional council, or the territorial authority prior to the plan becoming operative, - and once so agreed and set or declared shall not be changed in accordance with Schedule 1 of the Act or otherwise varied, altered, questioned, or reviewed in any way until the next review of the regional coastal plan, unless the Minister of Conservation, the regional council, and the appropriate territorial authority agree.
Natural and human use values	Characteristics of a water body which are important to, or are an essential part of, ecological communities, or are enjoyed or utilised by people and communities. While some of these values are identified in Schedule 1, natural character, amenity values, existing lawful uses, and archaeological sites will be identified on a case-by-case basis.
Natural and physical resources*	Includes land, water, air, soil, minerals, and energy, all forms of plants and animals (whether native to New Zealand or introduced), and all structures.
Natural hazard*	Means any atmospheric or earth or water related occurrence (including earthquake, tsunami, erosion, volcanic and geothermal activity, landslip, subsidence, sedimentation, wind, drought, fire, or

flooding) the action of which adversely affects or may adversely affect human life, property, or other aspects of the environment.

Noa	Free from tapu or other restriction.
Non-biodegradable	Unable to be decomposed by living organisms present in the particular receiving environment.
Non-complying activity*	<p>If an activity is described in the Resource Management Act 1991, regulations (including a national environmental standard), a plan, or a proposed plan as a non-complying activity, a resource consent is required for the activity and the consent authority may -</p> <ul style="list-style-type: none"> (a) Decline the consent; or (b) Grant the consent, with or without conditions, but only if the consent authority is satisfied that the requirements of Section 104D of the Act are met and the activity must comply with the requirements, conditions, and permissions, if any, specified in the Act, regulations, plan, or proposed plan.
Non-consumptive take **	<p>A take is non-consumptive when:</p> <ul style="list-style-type: none"> (1) The same amount of water is returned to the same water body at or near the location from which it was taken; and (2) There is no significant delay between the taking and the returning of the water. <p>** as defined in the Resource Management (Measurement and Reporting of Water Takes) Regulations 2010</p>
Non-point source discharge	A discharge of water or contaminant that enters a water body from a diffuse source, such as land runoff or infiltration.
Notified use	Any right in respect of natural water which was notified under Section 21 (2) or 21 (2A) of the Water and Soil Conservation Act 1967 (an 'existing authority' under Section 386(1)(b) of the Resource Management Act 1991).
Objective	The desired result, end state, situation or condition that is aimed for.
Occupier*	<p>Means -</p> <ul style="list-style-type: none"> (a) The inhabitant occupier of any property; and (b) <i>[Repealed]</i> (c) For the purposes of Section 16 of the Resource Management Act 1991, in relation to any land (including any premises and any coastal marine area), includes any agent, employee, or other person acting or apparently acting in the general management or control of the land, or any plant or machinery on that land.

On-site waste water treatment system	Any system, such as a septic tank, designed to treat household liquid effluent including sewage within the boundary of the property on which the effluent was generated, and includes the treatment system and any attached disposal field.
Open pile(d)	The nature of a structure’s supporting piles whereby no significant hindrance to the passage of water or sediment is caused.
Operative*	In relation to a policy statement or plan, or a provision of a policy statement or plan, means that the policy statement, plan, or provision - <ul style="list-style-type: none"> (a) Has become operative - <ul style="list-style-type: none"> (i) In terms of clause 20 of Schedule 1 of the Resource Management Act 1991; or (ii) Under Section 86F of the Act; and (b) Has not ceased to be operative.
Papatipu Runanga	The Papatipu Runanga and their takiwa for the Otago Region are described in the schedule to the Te Runanga o Ngai Tahu Act 1996.
Percent probability flood	A flood event which has a particular probability of being exceeded in any 12 month period.
Permitted activity*	If an activity is described in the Resource Management Act 1991, regulations (including any national environmental standard), a plan, or a proposed plan as a permitted activity, a resource consent is not required for the activity if it complies with the requirements, conditions, and permissions, if any, specified in the Act, regulations, plan, or proposed plan.
Person*	Includes the Crown, a corporation sole, and also a body of persons, whether corporate or unincorporate.
Pest plant	Any plant specified as a pest in a pest management strategy written under the Biosecurity Act 1993.
Pesticide	A substance or mixture of substances used to kill or control unwanted species of plants, animals or other organisms.
Policy	The course of action to achieve the objective.
Point source discharge	A discharge of water or contaminant that enters a water body at a definable point, often through a pipe or drain.
Primary allocation	The quantity of water established under Policy 6.4.2.
Production land*	(a) Means any land and auxiliary buildings used for the production (but not processing) of primary products (including agricultural, pastoral, horticultural, and forestry products):

	(b) Does not include land or auxiliary buildings used or associated with prospecting, exploration, or mining for minerals - and “production” has a corresponding meaning.
Prohibited activity*	<p>If an activity is described in the Resource Management Act 1991, regulations (including a national environmental standard), a plan, or a proposed plan as a prohibited activity, -</p> <p>(a) No application for a resource consent may be made for the activity; and</p> <p>(b) The consent authority must not grant a consent for it.</p>
Proposed plan*	<p>In the Resource Management Act 1991, unless the context otherwise requires, proposed plan -</p> <p>(a) Means a proposed plan, a variation to a proposed plan or change, or a change to a plan proposed by a local authority that has been notified under clause 5 of Schedule 1 but has not become operative in terms of clause 20 of Schedule 1; and</p> <p>(b) Includes a proposed plan or a change to a plan proposed by a person under Part 2 of Schedule 1 that has been adopted by the local authority under clause 25(2)(a) of Schedule 1.</p>
Protective soil mantle	A layer of soil, rock or other natural material which reduces the percolation of water.
Public notice*	<p>(a) Means a notice published in a newspaper circulating in the entire area likely to be affected by the proposal to which the notice relates; and</p> <p>(b) If a local authority also publishes a notice on an Internet site to which the public have free access, includes that notice.</p>
Rahui	Restrictions.
Reasonable mixing	The process where undiluted effluent disperses through receiving waters. Mixing results in a mixing zone where the concentration of contaminants varies from that in the effluent to that of the fully mixed receiving water. Reasonable mixing may be said to have occurred at some point between the point of discharge and the point at which the effluent is completely mixed with the receiving water. Beyond the reasonable mixing zone, the effluent and water mix complies with any water quality standards for the water body.
Reclamation	The permanent infilling of a water body or part of a water body with sand, rock, quarry material, concrete, or other similar material, for any purpose, and includes any embankment or causeway, but does not include any structure above water where that structure is supported by piles, or any deposition of material or infilling that is not permanent.

Regional plan*	(a) Means an operative plan approved by a regional council under Schedule 1 (including all operative changes to the plan (whether arising from a review or otherwise)); and (b) Includes a regional coastal plan.
Regionally Significant Wetland	See Policy 10.4.1A
Regionally significant wetland value	See Policy 10.4.1.
Registered community drinking water supply	A drinking water supply, which is registered under Section 69J of the Health Act and serves a community of more than 25 people for more than 60 days a year.
Registered Historic Place	Any Historic Place registered under Part II of the Historic Places Act 1993.
Residual flow	Refer to Policy 6.4.7.
Resource consent	A consent for an activity as set out in Section 87 of the Resource Management Act 1991; and includes all conditions to which the consent is subject.
Restricted discretionary activity*	If an activity is described in the Resource Management Act 1991, regulations (including any national environmental standard), a plan, or a proposed plan as a restricted discretionary activity, a resource consent is required for the activity and - (a) The consent authority's power to decline a consent, or to grant a consent and to impose conditions on the consent, is restricted to the matters over which discretion is restricted (whether in its plan or proposed plan, a national environmental standard, or otherwise); and (b) The activity must comply with the requirements, conditions, and permissions, if any, specified in the Act, regulations, plan, or proposed plan.
Reticulated system, or reticulation	The means by which water, stormwater, sewage or other waterborne contaminant is collected and delivered prior to discharge.
Riparian vegetation	The terrestrial plants growing on the bed or margin of a water body.
River*	Means a continually or intermittently flowing body of fresh water; and includes a stream and modified watercourse; but does not include any artificial watercourse (including an irrigation canal, water supply

race, canal for the supply of water for electricity power generation, and farm drainage canal).

Runanga	Local representative groups or community system of organisation.
Sediment trap	An excavated or bunded area in the bed of an ephemeral or intermittently flowing river designed and constructed solely for the purpose of allowing sediment to drop from the water column.
Seven-day (“7-day”) mean annual low flow	<p>The seven-day low flow in any year is determined by calculating the average flow over seven consecutive days for every seven consecutive day period in the year, and choosing the lowest.</p> <p>When this is done for every year of record, the seven-day mean annual low flow can be determined by adding the lowest seven-day low flows for every year of record and dividing by the number of years in the record.</p>
Small dam	<p>A dam:</p> <ul style="list-style-type: none"> (a) Where the size of the catchment upstream of the dam is no more than 50 hectares; and (b) where the water stored immediately upstream of the dam is no more than 3 metres deep; and (c) where the volume of water stored by the dam is no more than 20,000 cubic metres.
Soil contamination	Occurs where the discharge of a contaminant reduces the primary productive capacity of soil.
Solid animal effluent	Solid excreta from land-based animals that cannot be pumped and sprayed, including bedding material and manure, but does not include dead animals or animal parts.
Stormwater	The water running off from any impervious surface such as roads, carparks, roofs, and sealed runways.
Structure*	Means any building, equipment, device, or other facility made by people and which is fixed to land; and includes any raft.
Suction dredging; Suction dredge mining	Any activity utilising a motor, pump, and hose within a river bed.
Suitably Qualified Person	Has the meanings set out in Schedule 20.
Sullage	The waste water from sinks, basins, baths, showers and similar appliances, but not including toilet wastes (sometimes referred to as grey water).

Supplementary allocation	A volume of water established under Policies 6.4.9 or 6.4.10 which is able to be taken subject to a supplementary allocation minimum flow set under those policies.
Suspended solids	Particulate matter carried in suspension within water.
Taking	In relation to the taking of water, is the process of extracting the water for any purpose and for any period of time.
Taoka	Treasures.
Tapu	Sacred.
Tarn	Small mountain lake or pool, often formed in a cirque basin.
Technical efficiency <i>(definition only applies where term is underlined in this Plan)</i>	Using a resource in a way that any given output is produced at least cost, including avoiding waste.
Territorial local authority	A term that collectively describes city councils and district councils, but not regional councils.
The Act	The Resource Management Act 1991.
To Dam	In relation to the damming of water, is the process of impounding the water for any purpose and for any period of time, as in a reservoir.
Tourism and recreation facilities <i>(definition only applies where term is underlined in this Plan)</i>	Tourism and recreation facilities that are not served by a reticulated town and community supply, such as hotels, lodges, restaurants and ski fields.
Town and community water supply <i>(definition only applies where term is underlined in this Plan)</i>	Reticulated water supplies servicing urban areas, rural-residential and residential subdivisions including all commercial and industrial premises and schools and other educational facilities located within the reticulated area.
Trace amount of any contaminant	A contaminant is present in a quantity that is incapable of practicable measurement.
Transmissivity	The degree to which an aquifer allows water to pass through it.

Treaty of Waitangi (Te Tiriti o Waitangi)	The same meaning as the word “Treaty” as defined in Section 2 of the Treaty of Waitangi Act 1975.
Upland bogs	A wet or spongy high altitude area of ground chiefly composed of decaying vegetable matter or peat.
Use	<i>[Repealed – 1 March 2012]</i>
Vegetation	Includes any trees, shrubs, plants or grasses.
Vessel	Every description of ship, boat, ferry, or craft used in navigation, whether or not it has any means of propulsion, and regardless of that means; and includes: a barge, lighter, or other like vessel; a hovercraft or other thing deriving full or partial support in the atmosphere from the reactions of air against the surface of the water over which it operates; a submarine or other thing used in navigation whilst totally submerged.
Waahi taoka	Treasured resource; values, sites and resources that are valued and reinforce the special relationship Kai Tahu have with Otago’s water resources.
Waahi tapu	Sacred places; sites, areas and values associated with water bodies that hold spiritual values of importance to Kai Tahu.
Waitaki catchment <i>(definition only applies where term is underlined in this Plan)</i>	(a) Means the area of land bounded by watersheds draining into the Waitaki River; and (b) Includes aquifers wholly or partially within that area of land.
Walkway	A formal Walkway created under the New Zealand Walkways Act 1975.
Water*	(a) Means water in all its physical forms whether flowing or not and whether over or under the ground: (b) Includes fresh water, coastal water, and geothermal water: (c) Does not include water in any form while in any pipe, tank, or cistern.
Water allocation committee	Refer to Policy 6.4.12.
Water body*	Means fresh water or geothermal water in a river, lake, stream, pond, wetland, or aquifer, or any part thereof, that is not located within the coastal marine area.

G L O S S A R Y

Water conservation order*	Has the meaning set out in Section 200 of the Resource Management Act 1991.
“Water Info” phone	The telephone service by which the Otago Regional Council provides frequently-updated information on water body condition including river flows.
Water race	An artificial channel used for conveying water for various uses, but not for the drainage of land.
Water supply values	The existence of a take for human consumption, which people and communities have come to depend upon.
Water user group	Refer to Policy 5.4.12.
Wet bed	That part of the bed of a lake or river which is covered by water.
Wetland*	<p>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.</p> <p>In this plan, ‘wetland’ excludes any wetland constructed for the purpose of water quality management.</p>
Whanau	Family.
Whanui	Large, extended, broad.

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Appendices

1 The Macroinvertebrate Community Index

The most widely used and effective form of biological monitoring in streams and rivers is the sampling and analysis of the invertebrate life (aquatic insects, crustaceans, snails, worms etc) living on the bed or amongst aquatic plants. These invertebrates are almost always found in abundance in such habitats, they are easy to collect, and with suitable resources they are easy to identify.

Typically there are 15 to 30 distinct “species” (or taxa) of invertebrates at most stream or river sites. The composition of these communities is dependent on physical habitat characteristics, water quality and biological factors. If physical habitat quality is kept consistent (eg sampling is undertaken in fast-flowing, shallow stony “riffles” rather than slow flowing pools or backwaters) water quality tends to become the factor determining community composition.

Some “tolerant” invertebrate species are able to inhabit degraded waters such as algae-smothered habitats or nutrient enriched or low oxygen waters. Other species are highly sensitive to such conditions and are almost always found in cool, “clean” (low-nutrient), high-oxygen waters.

The fresh water biological index referred to in this Plan (see Policy 7.6.2) is the Macroinvertebrate Community Index (MCI). The MCI was developed for New Zealand stony streams by Dr John Stark in 1985, using a British system (the BMWP Index) which assigned sensitivity scores to particular fresh water invertebrate species. These scores relate to the ability of each species to tolerate nutrient enrichment and associated water quality degradation. The scores range from one (for the most tolerant species) to ten (for the most sensitive species). For example, the “swimming mayfly” has a sensitivity score of 9, while the common sandfly has a sensitivity score of 3.

An MCI value is calculated simply by averaging the sensitivity scores for the species found at one site, and multiplying this average by a scaling factor of 20. A high MCI value (over 100) is generally indicative of good water quality, although it will vary depending upon the river type, as shown in Table 5.

Table 5: MCI ranges for different stream and river habitat types

River type	Habitat quality (MCI score)		
	High quality	Medium quality	Low quality
Stony riffle	100 - 130	80 - 100	60 - 80
Fine sandy/gravelly runs	90 - 110	70 - 90	50 - 70
Weedy/muddy runs/pools	80 - 100	60 - 80	40 - 60

The MCI value can therefore be used to indicate the state of water quality in Otago’s streams and rivers.

The expected MCI scores for the water bodies identified in Policy 7.6.2, as well as the actual observed MCI scores, are shown in Table 5. The expected MCI scores become the target for enhancing water quality in the identified water bodies.

Table 6: Water bodies with degraded water quality for aquatic habitats.

Water body	Habitat type	Average observed MCI score	Expected MCI score
Hayes Creek	Weedy/muddy runs	67	> 70
Lower Horne Creek	Stony riffle	76	> 80
Lower Kaikorai Stream	Stony riffle	70	> 80
Lower Taieri River	Weedy/muddy pools	69	> 70
Lower Waipori River	Weedy/muddy pools	68	> 70
Lower Tokomairiro River	Weedy/muddy pools	69	> 70
Lower Owaka River	Stony run	76	> 80
Lower Waiareka Creek	Weedy/muddy pools	68	> 70
Lower Kaihiku Stream	Stony riffle	74	> 80
Lower Wairuna River	Stony riffle	79	>80

2 Mining privileges in respect of water (deemed permits)

A number of Otago water bodies are subject to the taking of water through the exercising of mining privileges in respect of water (“mining privileges” for short, but now known as “deemed permits”). Mining privileges were issued under the Mining Act 1926, and earlier mining legislation, and provided for the taking, damming and discharging of water. However, as gold mining declined, this water was increasingly used for irrigation. The Crown acquired a number of the higher priority, significant mining privileges which were being used for irrigation schemes, and these were then disposed of to the community irrigation groups.

Under Section 413 of the Resource Management Act, all mining privileges were deemed to become either a water permit (for the taking or damming of water), or a discharge permit (for the discharge of contaminants) on the same terms and conditions as the original mining privilege. Under Section 415 and 416 of the Act, compensation must be paid for the acquisition of any such deemed permit, or any restriction of its ability to be exercised.

As provided by Section 413(3), deemed permits expire on 1 October 2021, the thirtieth anniversary of the date of commencement of the Act, at which time they will lose their priority and there shall no longer be any liability for compensation as a result of loss or restriction of the rights. After 1 October 2021, resource consent is required in place of a deemed permit to take water and Section 124 of the Act applies.

Deemed permits can, however, be restricted by an abatement notice, enforcement order or by a Water Shortage Direction issued under Section 329 of the Resource Management Act.

2A Water management groups

Water management groups, established in terms of Policy 6.4.12A, provide the opportunity for groups to become more responsible for managing their taking by allowing for individual or shared consents to be managed by the group. Lists 2A.1 and 2A.2 set out the Council's requirements for the approval and features of such groups. The form of the group is not otherwise limited by the Council and the group may also exercise other roles to meet member needs.

2A.1 List of criteria for approval of a water management group

For a group to be approved by the Council as a water management group with authority and responsibility for specified resource consents (including deemed permits), the Council must be satisfied that:

- (a) A schedule has been provided that specifies the resource consents which are to be managed by the water management group; and
- (b) The water management group has an appropriate form and rules; and
- (c) The water management group seeks to be granted authority and responsibility to manage the specified consents; and
- (d) The water management group is able to provide documentary evidence that their members, including scheduled consents holders, agree to be bound by the group.

2A.2 Other features of a water management group

A water management group which has been approved by the Council in terms of List 2A.1 above:

- (a) May have a terminating date or criteria;
- (b) May apply to have other resource consents included within its management;
- (ba) May have the whole or any part of the interest in a consent transferred to it;
- (c) Must have amendments of its form and rules approved by the Council;
- (d) May have its authority to manage the specified consents revoked, in part or in full, either;
 - (i) On its request; or
 - (ii) On receipt of not less than 6 months' written notice by the Council;
- (e) Must report annually to the Council on the operation of the group; and
- (f) May have a rationing regime approved by the Council.

Note: This Appendix is reproduced from the Ngai Tahu Claims Settlement Act 1998 for public information purposes only and does not represent Otago Regional Council policy, nor does it form part of this Plan.

3 Ngai Tahu Claims Settlement Act Statutory Acknowledgements

Introduction

Statutory acknowledgements are recorded in the Ngai Tahu Claims Settlement Act 1998 (the NTCS Act) for several water bodies, mountains and coastal features in the Otago Region.

The following pages contain the text from the Schedules to the NTCS Act (as extracted from Brookers New Zealand Statutes) that describe the statutory acknowledgement sites that occur in Otago. Each schedule contains:

- The statutory area involved,
- A standard preamble,
- A description of the Ngai Tahu association with the site, and
- Standard statements of purposes, and limitations on effect, of the statutory acknowledgement.

These acknowledgements comprise a statement made by Te Runanga o Ngai Tahu of the particular cultural, spiritual, historic and traditional association of Ngai Tahu (Kai Tahu) with these areas.

Part 12 of the NTCS Act provides details of statutory acknowledgements, and the responsibilities relating to them. Section 208 of that act requires that local authorities have regard to these statutory acknowledgements in resource consent processing under Sections 93 to 94(C) of the Resource Management Act 1991 (Notification of resource consents), in deciding whether Te Runanga o Ngai Tahu is a person who may be adversely affected by the granting of a resource consent for activities within, adjacent to or impacting directly on the statutory area.

Section 211 of the NTCS Act enables Ngai Tahu to cite these acknowledgements in submissions, or in proceedings before consent authorities or the Environment Court. In these proceedings, the contents of the 'Ngai Tahu association with the site' part of the acknowledgement in question is not binding on the consent authority (e.g. the Regional Council), but may be taken into account.

Section 220 of the NTCS Act requires that all regional policy statements, district plans and regional plans have information recording those statutory acknowledgements for areas covered by the policy statement or plan attached to them. The attachment of this information may be by way of reference, or be set out in full (as is the case here). This is for the purpose of public information only and does not form part of the policy statement or plan.

APPENDIX 3: NGAI TAHU CLAIMS SETTLEMENT
ACT STATUTORY ACKNOWLEDGEMENTS

Note: This Appendix is reproduced from the Ngai Tahu Claims Settlement Act 1998 for public information purposes only and does not represent Otago Regional Council policy, nor does it form part of this Plan.

Index:

The statutory acknowledgement areas for Otago are arranged as follows –

Statutory Acknowledgement area	Page no.
Tititea (Mount Aspiring)	22-8
Pikirakatahi (Mount Earnslaw)	22-10
Lake Hawea	22-12
Lake Wanaka	22-14
Whakatipu Wai Maori (Lake Wakatipu)	22-17
Te Wairere (Lake Dunstan)	22-20
Ka Moana Haehae (Lake Roxburgh)	22-23
Mata-Au (Clutha River)	22-25
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Kakaunui River	22-29
Waihola/Waipori Wetland	22-32
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SCHEDULE 62

Sections 205 and 206

STATUTORY ACKNOWLEDGEMENT FOR TITITEA (MOUNT ASPIRING)

Statutory Area

The statutory area to which this statutory acknowledgement applies is the mountain known as Tititea (Mount Aspiring), located in the Mount Aspiring National Park, as shown on Allocation Plan MS 2 (SO 24665).

Preamble

Under section 206, the Crown acknowledges Te Runanga o Ngai Tahu's statement of Ngai Tahu's cultural, spiritual, historic, and traditional association to Tititea as set out below.

Ngai Tahu Association with Tititea

As with all principal maunga (mountains), Tititea is imbued with the spiritual elements of Raki and Papa, in tradition and practice regarded as an important link to the primeval parents. Tititea is a prominent and majestic peak, clearly visible from a number of vantage points in the south, and its role in Ngai Tahu's creation stories gives rise to its tapu status. From the heights above Te Ana-au (Lake Te Anau), it is a particularly impressive sight when the sun is setting.

The most common Ngai Tahu name for the mountain known to Pakeha as Mount Aspiring is Tititea, referring to the mountain's white peak. It is not unusual, however, for places and physical features to have more than one name, reflecting the traditions of the successive iwi who peopled the land. Other names for the mountain include 'Makahi Ta Rakiwhanoa' (referring to a wedge belonging to Tu Te Rakiwhanoa) and 'Otapahu', which may refer to a type of dogskin cloak.

The Bonar Glacier is known as Hukairoroa Ta Parekiore (which refers to the long, hard glacial ice and crevasses formed by Parekiore). Parekiore was a giant who used to stalk up and down the South and North Islands taking titi (muttonbirds) northwards and returning with kumara. The lakes represent his footprints and the frozen splashes from his footsteps in the south were transformed into glaciers.

For Ngai 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 Ngai Tahu as an iwi.

The area was 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 hapu and is regarded as taonga. The traditional mobile lifestyle of the people led to their dependence on the resources of the land.

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The mauri of Tititea 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 Ngai Tahu Whanui with the area.

Purposes of Statutory Acknowledgement

Pursuant to section 215, and without limiting the rest of this schedule, the only purposes of this statutory acknowledgement are -

- (a) To require that consent authorities forward summaries of resource consent applications to Te Runanga o Ngai 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 this statutory acknowledgement in relation to Tititea, 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 Tititea 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 Runanga o Ngai Tahu and any member of Ngai Tahu Whanui to cite this statutory acknowledgement as evidence of the association of Ngai Tahu to Tititea as provided in section 211 (clause 12.2.5 of the deed of settlement).

Limitations on Effect of Statutory Acknowledgement

Except as expressly provided in sections 208 to 211, 213, and 215, -

- (a) This statutory acknowledgement does not affect, and is 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 Ngai Tahu's association to Tititea (as described in this statutory acknowledgement) than that person or entity would give under the relevant statute, regulation, or bylaw, if this statutory acknowledgement did not exist in respect of Tititea.

Except as expressly provided in this Act, this statutory acknowledgement does not affect the lawful rights or interests of any person who is not a party to the deed of settlement.

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Except as expressly provided in this Act, this statutory acknowledgement does not, of itself, have the effect of granting, creating, or providing evidence of any estate or interest in, or any rights of any kind whatsoever relating to, Tititea.

SCHEDULE 51

Sections 205 and 206

STATUTORY ACKNOWLEDGEMENT FOR PIKIRAKATAHI (MOUNT EARNSLAW)

Statutory Area

The statutory area to which this statutory acknowledgement applies is the area known as Pikirakatahi (Mount Earnslaw), as shown on Allocation Plan MS 4 (SO 24666).

Preamble

Under section 206, the Crown acknowledges Te Runanga o Ngai Tahu's statement of Ngai Tahu's cultural, spiritual, historic, and traditional association to Pikirakatahi as set out below.

Ngai Tahu Association with Pikirakatahi

The creation of Pikirakatahi (Mt Earnslaw) relates in time to Te Waka o Aoraki, and the efforts of Tu Te Rakiwhanoa. It is said that during its formation a wedge of pounamu was inserted into this mountain, which is the highest and most prominent peak in this block of mountains. The mountain is also linked to the travels of Rakaihautu, who dug out the great lakes of the interior with his ko (a tool similar to a spade), known as Tu Whakaroria and later renamed Tuhiraki at the conclusion of the expedition.

The origins of the name 'Pikirakatahi' have been lost, but it is known that many places and physical features have more than one name, reflecting the traditions of the successive iwi who peopled the land. It is, however, likely that the name relates to Rakaihautu or subsequent people, as most of the prominent lakes, rivers and mountains of the interior take their name from the journey of Rakaihautu.

For Ngai 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 Ngai Tahu as an iwi.

Pikirakatahi was of crucial significance to the many generations that journeyed to that end of Whakatipu-wai-maori (Lake Wakatipu) and beyond. Staging camps for the retrieval of pounamu were located at the base of the mountain, while semi-permanent settlements related to the pounamu trade were located closer to the lake.

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Pikirakatahi stands as kaitiaki (guardian) over the pounamu resource and marks the end of a trail, with the tohu (marker) to the pounamu resource sitting opposite on Koroka (Cosmos Peak). The tupuna (ancestors) had considerable knowledge of whakapapa, traditional trails, places for gathering kai (food) 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 Ngai Tahu today.

The retrieval of large amounts of pounamu from this source, so far inland and over a range of physical barriers, attests to the importance of this resource to the economy and customs of the iwi over many generations. The people would also gather native birds for kai, and firewood with which to cook and provide warmth, from the forests covering the lower flanks of Pikirakatahi. Strategic marriages between hapu strengthened the kupenga (net) of whakapapa and thus rights to use the resources of the mountain. It is because of these patterns of activity that Pikirakatahi continues to be important to runanga located in Otago, Murihiku and beyond. These runanga carry the responsibilities of kaitiaki in relation to the area, and are represented by the tribal structure, Te Runanga o Ngai Tahu.

The mauri of Pikirakatahi 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 Ngai Tahu Whanui with Pikirakatahi.

Purposes of Statutory Acknowledgement

Pursuant to section 212, and without limiting the rest of this schedule, the only purposes of this statutory acknowledgement are -

- (a) To require that consent authorities forward summaries of resource consent applications to Te Runanga o Ngai Tahu as required by regulations made pursuant to section 207 (clause 12.2.3 of the deed of settlement);
- (b) To require that consent authorities, the Historic Places Trust, or the Environment Court, as the case may be, have regard to this statutory acknowledgement in relation to Pikirakatahi, as provided in sections 208 to 210 (clause 12.2.4 of the deed of settlement);
- (c) To empower the Minister responsible for management of Pikirakatahi 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 Runanga o Ngai Tahu and any member of Ngai Tahu Whanui to cite this statutory acknowledgement as evidence of the association of Ngai Tahu to Pikirakatahi as provided in section 211 (clause 12.2.5 of the deed of settlement).

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Limitations on Effect of Statutory Acknowledgement

Except as expressly provided in sections 208 to 211, 213, and 215, -

- (a) This statutory acknowledgement does not affect, and is 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 Ngai Tahu's association to Pikirakatahi (as described in this statutory acknowledgement) than that person or entity would give under the relevant statute, regulation, or bylaw, if this statutory acknowledgement did not exist in respect of Pikirakatahi.

Except as expressly provided in this Act, this statutory acknowledgement does 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, this statutory acknowledgement does not, of itself, have the effect of granting, creating, or providing evidence of any estate or interest in, or any rights of any kind whatsoever relating to, Pikirakatahi.

SCHEDULE 30

Sections 205 and 206

STATUTORY ACKNOWLEDGEMENT FOR LAKE HAWEA

Statutory Area

The statutory area to which this statutory acknowledgement applies is the lake known as Hawea, the location of which is shown on Allocation Plan MD 37 (SO 24718).

Preamble

Under section 206, the Crown acknowledges Te Runanga o Ngai Tahu's statement of Ngai Tahu's cultural, spiritual, historic, and traditional association to Lake Hawea, as set out below.

Ngai Tahu Association with Lake Hawea

Hawea is one of the lakes referred to in the tradition of 'Nga Puna Wai Karikari o Rakaihautu' which tells how the principal lakes of Te Wai Pounamu were dug by the rangatira (chief) Rakaihautu. Rakaihautu was the captain of the canoe, Uruao, which brought the tribe, Waitaha, to New Zealand. Rakaihautu beached his canoe at Whakatu (Nelson). From Whakatu, Rakaihautu divided the new arrivals in two, with his son taking one party to explore the coastline southwards and Rakaihautu

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taking another southwards by an inland route. On his inland journey southward Rakaihautu used his famous ko (a tool similar to a spade) to dig the principal lakes of Te Wai Pounamu, including Hawea.

For Ngai 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 Ngai Tahu as an iwi.

The name Hawea may derive from Hawea, tupuna (ancestor) of the Waitaha hapu, Ngati Hawea.

Hawea was traditionally noted as a rich tuna (eel) fishery, with many thousands of the fish once being caught, preserved and transported back to the kainga nohoanga (settlements) of coastal Otago.

The tupuna 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 Hawea, 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 Ngai Tahu today.

The mauri of Hawea 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 Ngai Tahu Whanui with the lake.

Purposes of Statutory Acknowledgement

Pursuant to section 215, and without limiting the rest of this schedule, the only purposes of this statutory acknowledgement are -

- (a) To require that consent authorities forward summaries of resource consent applications to Te Runanga o Ngai 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 this statutory acknowledgement in relation to Lake Hawea, 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 Lake Hawea 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 Runanga o Ngai Tahu and any member of Ngai Tahu Whanui to cite this statutory acknowledgement as evidence of the association of Ngai Tahu to Lake Hawea as provided in section 211 (clause 12.2.5 of the deed of

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settlement).

Limitations on Effect of Statutory Acknowledgement

Except as expressly provided in sections 208 to 211, 213, and 215, -

- (a) This statutory acknowledgement does not affect, and is 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 Ngai Tahu's association to Lake Hawea (as described in this statutory acknowledgement) than that person or entity would give under the relevant statute, regulation, or bylaw, if this statutory acknowledgement did not exist in respect of Lake Hawea.

Except as expressly provided in this Act, this statutory acknowledgement does 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, this statutory acknowledgement does not, of itself, have the effect of granting, creating, or providing evidence of any estate or interest in, or any rights of any kind whatsoever relating to, Lake Hawea.

SCHEDULE 36

Sections 205 and 206

STATUTORY ACKNOWLEDGEMENT FOR LAKE WANAKA

Statutory Area

The statutory area to which this statutory acknowledgement applies is the Lake known as Wanaka, the location of which is shown on Allocation Plan MD 38 (SO 24719).

Preamble

Under section 206, the Crown acknowledges Te Runanga o Ngai Tahu's statement of Ngai Tahu's cultural, spiritual, historic, and traditional association to Lake Wanaka, as set out below.

Ngai Tahu Association with Lake Wanaka

Wanaka is one of the lakes referred to in the tradition of 'Nga Puna Wai Karikari o Rakaihautu' which tells how the principal lakes of Te Wai Pounamu were dug by the rangatira (chief) Rakaihautu. Rakaihautu was the captain of the canoe, Uruao, which brought the tribe, Waitaha, to New Zealand. Rakaihautu beached his canoe

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at Whakatu (Nelson). From Whakatu, 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 ko (a tool similar to a spade) to dig the principal lakes of Te Wai Pounamu, including Wanaka.

For Ngai 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 Ngai Tahu as an iwi.

The name 'Wanaka' is considered by some to be a South Island variant of the word 'wananga' which refers to the ancient schools of learning. In these schools Ngai Tahu tohunga (men of learning) would be taught whakapapa (genealogies) which stretched back to over a hundred generations and karakia incantations) for innumerable situations. All of this learning they would be required to commit to memory.

Wanaka was traditionally noted as a rich tuna (eel) fishery, with many thousands of the fish once being caught, preserved and transported back to the kainga nohoanga (settlements) of coastal Otago.

The tupuna 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 Wanaka, 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 Ngai Tahu today.

In 1836 an eeling party was attacked by Te Puoho, a rangatira (chief) of the North Island Ngati Tama iwi. Te Puoho had plans of conquering Te Wai Pounamu, beginning his campaign at the southern end of the island. He compared his strategy to boning an eel which is started at the tail end of the fish. Having travelled down Te Tai Poutini (the West Coast) to Jackson Bay, Te Puoho crossed Haast Past into Wanaka and Lake Hawea where he found a Ngai Tahu eeling party which he captured at Makarora. Two infant girls were captured and eaten. Te Puoho suspected this family was an outpost and so he gave instructions for two guards to follow a young teenager called Pukuharuru who was ordered to show them where the main camp was. However, Pukuharuru managed to escape after dark and alert his father, Te Raki. Te Raki killed the two guards, who were lost without their guide, and the Wanaka families managed to escape the region.

Te Puoho continued his campaign at Tukurau where there were other families fishing. However, some of the people managed to escape to Tiwai Point near Bluff where they lit a warning fire. This fire alerted the southern forces and, under the leadership of Tuhawaiki, Ngai Tahu prepared to meet Te Puoho at Tukurau. After discussing the situation with the tohunga, Ngai Tahu were assured of victory. While

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the priests chanted their karakia to the gods of war, the heart of the enemy chief appeared before Ngai Tahu in the firelight, carried by the wings of a bird. With this omen that the gods of war were on the side of Ngai Tahu, they attacked Te Puoho the next morning.

Te Puoho was shot by a young Ngai Tahu called Topi and his army was taken captive. The head of Te Puoho was cut from his body and stuck on a pole facing his home in the north. Wanaka is therefore noted in history for its part in what was to be the last battle between North and South Island tribes.

The mauri of Wanaka 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 Ngai Tahu Whanui with the lake.

Purposes of Statutory Acknowledgement

Pursuant to section 215, and without limiting the rest of this schedule, the only purposes of this statutory acknowledgement are -

- (a) To require that consent authorities forward summaries of resource consent applications to Te Runanga o Ngai 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 this statutory acknowledgement in relation to Lake Wanaka, 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 Lake Wanaka 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 Runanga o Ngai Tahu and any member of Ngai Tahu Whanui to cite this statutory acknowledgement as evidence of the association of Ngai Tahu to Lake Wanaka as provided in section 211 (clause 12.2.5 of the deed of settlement).

Limitations on Effect of Statutory Acknowledgement

Except as expressly provided in sections 208 to 211, 213, and 215, -

- (a) This statutory acknowledgement does not affect, and is 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 Ngai Tahu's association to Lake Wanaka (as described in this statutory acknowledgement) than that

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person or entity would give under the relevant statute, regulation, or bylaw, if this statutory acknowledgement did not exist in respect of Lake Wanaka.

Except as expressly provided in this Act, this statutory acknowledgement does 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, this statutory acknowledgement does not, of itself, have the effect of granting, creating, or providing evidence of any estate or interest in, or any rights of any kind whatsoever relating to, Lake Wanaka.

SCHEDULE 75

Sections 205 and 206

STATUTORY ACKNOWLEDGEMENT FOR WHAKATIPU WAI MAORI (LAKE WAKATIPU)

Statutory Area

The statutory area to which this statutory acknowledgement applies is the Lake known as Whakatipu-wai-maori (Lake Wakatipu), the location of which is shown on Allocation Plan MD 39 (SO 24720).

Preamble

Under section 206, the Crown acknowledges Te Runanga o Ngai Tahu's statement of Ngai Tahu's cultural, spiritual, historic, and traditional association to Whakatipu-wai-maori, as set out below.

Ngai Tahu Association with Whakatipu-wai-maori

The name Whakatipu-wai-maori originates from the earliest expedition of discovery made many generations ago by the tupuna Rakaihautu and his party from the Uruao waka. Rakaihautu is traditionally credited with creating the great waterways of the interior of the island with his famous ko (a tool similar to a spade), known as Tu Whakaroria and renamed Tuhiraki at the conclusion of the expedition.

There are many traditions relating to the lake. One of the most famous tells that the hollow which forms the bed of the lake was created when the people known as Te Rapuwai came upon the giant tipua (ogre) Matau as he lay there in a deep sleep. Matau had been responsible for the disappearance of many small hunting parties and had entrapped a beautiful maiden, Manata. The father of Manata offered her in marriage to the man who could bring her safely home. Matakauri, who was in love with Manata ventured forth, discovering that Matau slept when the northwest wind blew. Matakauri selected a day when the wind was blowing the right way and set forth. He found Manata and, using his mere, he attempted to sever the bonds which

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held her, but try as he would he failed. Manata began to sob bitterly, and as her tears fell on the cords, they melted away. Matakauri carried Manata back to the village where they became man and wife. However, Matakauri knew that while Matau lived no maiden was safe, so he set forth when again the northwest wind blew, and set fire to the large growth of bracken that acted as a bed for the giant. Matau was smothered in flames, the fat from his body augmenting the fire, until the blaze was so fierce that it burned a hole more than 1,000 feet deep. The snow on the surrounding hills melted and filled the hole, which is known today as Lake Wakatipu.

For Ngai Tahu, traditions such as this represent the links between the cosmological world of the gods and present generations, these histories reinforce tribal identity and continuity between generations, and document the events which shaped the environment of Te Wai Pounamu and Ngai Tahu as an iwi.

Whakatipu-wai-maori once supported nohoanga and villages which were the seasonal destinations of Otago and Murihiku (Southland) whanau and hapu for many generations, exercising ahi ka and accessing mahinga kai and providing a route to access the treasured pounamu located beyond the head of the lake. Strategic marriages between hapu strengthened the kupenga (net) of whakapapa and thus rights to use the resources of the lake. It is because of these patterns of activity that the lake continues to be important to runanga located in Murihiku, Otago and beyond. These runanga carry the responsibilities of kaitiaki in relation to the area, and are represented by the tribal structure Te Runanga o Ngai Tahu.

The lake also supported permanent settlements, such as the kaika (village) Tahuna near present-day Queenstown, Te Kirikiri Pa, located where the Queenstown gardens are found today, a Ngati Mamoe kaika near the Kawarau Falls called O Te Roto, and another called Takerehaka near Kingston. The Ngati Mamoe chief Tu Wiri Roa had a daughter, Haki Te Kura, who is remembered for her feat of swimming across the lake from Tahuna, a distance of some three kilometres.

The tupuna 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 lake, 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 Ngai Tahu today.

A key attraction of the lake was the access it provided to seasonal campsites and the pounamu located at the head of the lake at the Dart and Routeburn River catchments, from which countless generations gathered inaka and koko-takiwai pounamu and transported it back to coastal settlements for fashioning into tools, ornaments and weapons.

Waka and mokihi were the key modes of transport for the pounamu trade, travelling the length and breadth of Whakatipu-wai-maori. Thus there were numerous

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tauranga waka (landing places) on the lake and the islands upon it (Matau and Wawahi-waka). The tupuna had an intimate knowledge of navigation, river routes, safe harbours and landing places, and the locations of food and other resources on the lake. The lake 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 whanau and hapu and is regarded as a taonga. The traditional mobile lifestyle of the people led to their dependence on the resources of the roto (lake).

Whakatipu-wai-maori is an important source of freshwater, the lake itself being fed by hukawai (melt waters). These are waters with the highest level of purity and were accorded traditional classifications by Ngai Tahu that recognised this value. Thus it is a puna (spring) which sustains many ecosystems important to Ngai Tahu. The mauri of Whakatipu-wai-maori 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 Ngai Tahu Whanui with the lake.

Purposes of Statutory Acknowledgement

Pursuant to section 215, and without limiting the rest of this schedule, the only purposes of this statutory acknowledgement are -

- (a) To require that consent authorities forward summaries of resource consent applications to Te Runanga o Ngai 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 this statutory acknowledgement in relation to Whakatipu-wai-maori 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 Whakatipu-wai-maori 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 Runanga o Ngai Tahu and any member of Ngai Tahu Whanui to cite this statutory acknowledgement as evidence of the association of Ngai Tahu to Whakatipu-wai-maori as provided in section 211 (clause 12.2.5 of the deed of settlement).

Limitations on Effect of Statutory Acknowledgement

Except as expressly provided in sections 208 to 211, 213, and 215, -

- (a) This statutory acknowledgement does not affect, and is not to be taken into account in, the exercise of any power, duty, or function by any person or entity

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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 Ngai Tahu's association to Whakatipu-wai-maori (as described in this statutory acknowledgement) than that person or entity would give under the relevant statute, regulation, or bylaw, if this statutory acknowledgement did not exist in respect of Whakatipu-wai-maori.

Except as expressly provided in this Act, this statutory acknowledgement does 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, this statutory acknowledgement does not, of itself, have the effect of granting, creating, or providing evidence of any estate or interest in, or any rights of any kind whatsoever relating to, Whakatipu-wai-maori.

SCHEDULE 61

Sections 205 and 206

STATUTORY ACKNOWLEDGEMENT FOR TE WAIRERE (LAKE DUNSTAN)

Statutory Area

The statutory area to which this statutory acknowledgement applies is the lake known as Te Wairere (Lake Dunstan), the location of which is shown on Allocation Plan MD 490 (SO 24729)

Preamble

Under section 206, the Crown acknowledges Te Runanga o Ngai Tahu's statement of Ngai Tahu's cultural, spiritual, historic, and traditional association to Te Wairere as set out below.

Ngai Tahu Association with Te Wairere

The name 'Te Wairere' refers to the speed with which the river once ran at this point.

The whole of the Mata-au (Clutha River), on which Te Wairere lies, was part of a mahinga kai trail that led inland and was used by Otago hapu including Kati Kuri, Ngati Ruahikihiki, Ngati Huirapa and Ngai Tuahuriri. The river was used as a highway into the interior, and provided many resources to sustain travellers on that journey. The river was a significant indigenous fishery, providing tuna (eels), kanakana (lamprey) and kokopu in the area over which Te Wairere now lies. Manu

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(birds), including moa, were taken from areas adjoining the river, over which the lake now lies.

The tupuna 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 river, 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 Ngai Tahu today.

The waterway was also very important in the transportation of pounamu from inland areas down to settlements on the coast, from where it was traded north and south. Because of its location at the confluence of Mata-au and Kawarau Rivers, Te Wairere was an important staging post on journeys inland and down-river. A tauranga waka and nohanga sited at the junction of the two rivers acted as such a staging post. As a result of this history of use and occupation there are a number of wahi taonga (including rock shelters and archaeological sites) in the area, some of which are now under the waters of the lake. Wahi tapu are important as places holding the memories and traditions of Ngai Tahu tupuna.

The tupuna had an intimate knowledge of navigation, river routes, safe harbours and landing places, and the locations of food and other resources on the river. The waterway 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 whanau and hapu and is regarded as a taonga. The traditional mobile lifestyle of the people led to their dependence on the resources of the waterway.

The mauri of Te Wairere 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 Ngai Tahu Whanui with the lake.

Purposes of Statutory Acknowledgement

Pursuant to section 215, and without limiting the rest of this schedule, the only purposes of this statutory acknowledgement are -

- (a) To require that consent authorities forward summaries of resource consent applications to Te Runanga o Ngai 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 this statutory acknowledgement in relation to Te Wairere, as provided in sections 208 to

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210 (clause 12.2.4 of the deed of settlement); and

- (c) To empower the Minister responsible for management of Te Wairere 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 Runanga o Ngai Tahu and any member of Ngai Tahu Whanui to cite this statutory acknowledgement as evidence of the association of Ngai Tahu to Te Wairere as provided in section 211 (clause 12.2.5 of the deed of settlement).

Limitations on Effect of Statutory Acknowledgement

Except as expressly provided in sections 208 to 211, 213, and 215, -

- (a) This statutory acknowledgement does not affect, and is 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 Ngai Tahu's association to Te Wairere (as described in this statutory acknowledgement) than that person or entity would give under the relevant statute, regulation, or bylaw, if this statutory acknowledgement did not exist in respect of Te Wairere.

Except as expressly provided in this Act, this statutory acknowledgement does 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, this statutory acknowledgement does not, of itself, have the effect of granting, creating, or providing evidence of any estate or interest in, or any rights of any kind whatsoever relating to, Te Wairere.

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SCHEDULE 22

Sections 205 and 206

STATUTORY ACKNOWLEDGEMENT FOR KA MOANA HAEHAE (LAKE ROXBURGH)

Statutory Area

The statutory area to which this statutory acknowledgement applies is the lake known as Ka Moana Haehae (Lake Roxburgh), the location of which is shown on Allocation Plan MD 491 (SO 24730).

Preamble

Under section 206, the Crown acknowledges Te Runanga o Ngai Tahu's statement of Ngai Tahu's cultural, spiritual, historic, and traditional association to Ka Moana Haehae, as set out below.

Ngai Tahu Association with Ka Moana Haehae

The name Ka Moana Haehae refers to the joining of two waterways. In this case it refers to the confluence of the Mata-au and Manuherikia Rivers over which the lake lies.

The whole of the Mata-au (Clutha River), on which Ka Moana Haehae lies, was part of a mahinga kai trail that led inland and was used by Otago hapu including Ngati Kuri, Ngati Ruahikihiki, Ngati Huirapa and Ngai Tuahuriri. The river was used as a highway into the interior, and provided many resources to sustain travellers on that journey. The river was a significant indigenous fishery, providing tuna (eels), kanakana (lamprey) and kokopu in the area over which Ka Moana Haehae now lies. Manu (birds), including moa, were taken from areas adjoining the river, over which the lake now lies.

The tupuna 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 river, 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 Ngai Tahu today.

The waterway was also very important in the transportation of pounamu from inland areas down to settlements on the coast, from where it was traded north and south. Thus there were numerous tauranga waka (landing places) along it. The tupuna had an intimate knowledge of navigation, river routes, safe harbours and landing places, and the locations of food and other resources on the river. The waterway 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

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to be held by whanau and hapu and is regarded as a taonga. The traditional mobile lifestyle of the people led to their dependence on the resources of the waterway.

The mauri of Ka Moana Haehae 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 Ngai Tahu Whanui with the lake.

Purposes of Statutory Acknowledgement

Pursuant to section 215, and without limiting the rest of this schedule, the only purposes of this statutory acknowledgement are -

- (a) To require that consent authorities forward summaries of resource consent applications to Te Runanga o Ngai 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 this statutory acknowledgement in relation to Ka Moana Haehae, 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 Ka Moana Haehae 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 Runanga o Ngai Tahu and any member of Ngai Tahu Whanui to cite this statutory acknowledgement as evidence of the association of Ngai Tahu to Ka Moana Haehae as provided in section 211 (clause 12.2.5 of the deed of settlement).

Limitations on Effect of Statutory Acknowledgement

Except as expressly provided in sections 208 to 211, 213, and 215, -

- (a) This statutory acknowledgement does not affect, and is 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 Ngai Tahu's association to Ka Moana Haehae (as described in this statutory acknowledgement) than that person or entity would give under the relevant statute, regulation, or bylaw, if this statutory acknowledgement did not exist in respect of Ka Moana Haehae.

Except as expressly provided in this Act, this statutory acknowledgement does not affect the lawful rights or interests of any person who is not a party to the deed of settlement.

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Except as expressly provided in this Act, this statutory acknowledgement does not, of itself, have the effect of granting, creating, or providing evidence of any estate or interest in, or any rights of any kind whatsoever relating to, Ka Moana Haehae.

SCHEDULE 40

Sections 205 and 206

STATUTORY ACKNOWLEDGEMENT FOR MATA-AU (CLUTHA RIVER)

Statutory Area

The statutory area to which this statutory acknowledgement applies is the River known as Mata-au (Clutha River), the location of which is shown on Allocation Plan MD 122 (SO 24727).

Preamble

Under section 206, the Crown acknowledges Te Runanga o Ngai Tahu's statement of Ngai Tahu's cultural, spiritual, historic, and traditional association to the Mata-au, as set out below.

Ngai Tahu Association with the Mata-au

The Mata-au river takes its name from a Ngai Tahu whakapapa that traces the genealogy of water. On that basis, the Mata-au is seen as a descendant of the creation traditions. For Ngai 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 Ngai Tahu as an iwi.

On another level, the Mata-au was part of a mahinga kai trail that led inland and was used by Otagou hapu including Ngati Kuri, Ngati Ruahikihiki, Ngati Huirapa and Ngai Tuahuriri. The tupuna 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 river, 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 Ngai Tahu today.

The river was also very important in the transportation of pounamu from inland areas down to settlements on the coast, from where it was traded north and south. Thus there were numerous tauranga waka (landing places) along it. The tupuna had an intimate knowledge of navigation, river routes, safe harbours and landing places, and the locations of food and other resources on the river. 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

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camping overnight and gathering kai. Knowledge of these trails continue to be held by whanau and hapu and is regarded as a taonga. The traditional mobile lifestyle of the people led to their dependence on the resources of the river.

The Mata-au is where Ngai Tahu's leader, Te Hautapunui o Tu, established the boundary line between Ngai Tahu and Ngati Mamoe. Ngati Mamoe were to hold mana (authority) over the lands south of the river and Ngai Tahu were to hold mana northwards. Eventually, the unions between the families of Te Hautapunui o Tu and Ngati Mamoe were to overcome these boundaries. For Ngai Tahu, histories such as this represent the links and continuity between past and present generations, reinforce tribal identity, and document the events which shaped Ngai Tahu as an iwi.

Strategic marriages between hapu further strengthened the kupenga (net) of whakapapa, and thus rights to travel on and use the resources of the river. It is because of these patterns of activity that the river continues to be important to runanga located in Otago and beyond. These runanga carry the responsibilities of kaitiaki in relation to the area, and are represented by the tribal structure, Te Runanga o Ngai Tahu.

Urupa and battlegrounds are located all along this river. One battleground, known as Te Kauae Whakatoro (downstream of Tuapeka), recalls a confrontation between Ngai Tahu and Ngati Mamoe that led to the armistice established by Te Hautapunui o Tu. Urupa are the resting places of Ngai Tahu tupuna and, as such, are the focus for whanau traditions. These are places holding the memories, traditions, victories and defeats of Ngai Tahu tupuna, and are frequently protected by secret locations.

The mauri of Mata-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 Ngai Tahu Whanui with the river.

Purposes of Statutory Acknowledgement

Pursuant to section 215, and without limiting the rest of this schedule, the only purposes of this statutory acknowledgement are -

- (a) To require that consent authorities forward summaries of resource consent applications to Te Runanga o Ngai 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 this statutory acknowledgement in relation to the Mata-au, 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 the Mata-au or the Commissioner of Crown Lands, as the case may be, to enter into a Deed of

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Recognition as provided in section 212 (clause 12.2.6 of the deed of settlement); and

- (d) To enable Te Runanga o Ngai Tahu and any member of Ngai Tahu Whanui to cite this statutory acknowledgement as evidence of the association of Ngai Tahu to the Mata-au as provided in section 211 (clause 12.2.5 of the deed of settlement).

Limitations on Effect of Statutory Acknowledgement

Except as expressly provided in sections 208 to 211, 213, and 215, -

- (a) This statutory acknowledgement does not affect, and is 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 Ngai Tahu's association to the Mata-au (as described in this statutory acknowledgement) than that person or entity would give under the relevant statute, regulation, or bylaw, if this statutory acknowledgement did not exist in respect of the Mata-au.

Except as expressly provided in this Act, this statutory acknowledgement does 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, this statutory acknowledgement does not, of itself, have the effect of granting, creating, or providing evidence of any estate or interest in, or any rights of any kind whatsoever relating to, the Mata-au.

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SCHEDULE 52

Sections 205 and 206

STATUTORY ACKNOWLEDGEMENT FOR POMAHAKA RIVER

Statutory Area

The statutory area to which this statutory acknowledgement applies is the River known as Pomahaka, the location of which is shown on Allocation Plan MD 12 (SO 24726).

Preamble

Under section 206, the Crown acknowledges Te Runanga o Ngai Tahu's statement of Ngai Tahu's cultural, spiritual, historic, and traditional association to the Pomahaka River, as set out below.

Ngai Tahu Association with the Pomahaka River

The Pomahaka was an important mahinga kai for Ngati Mamoe and Ngai Tahu kainga (settlements) in the Catlins and Tautuku areas. The river was particularly noted for its kanakana (lamprey) fishery. Other mahinga kai associated with the river included weka and other manu (birds).

The tupuna 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 Pomahaka, 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 Ngai Tahu today.

The mauri of the Pomahaka 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 Ngai Tahu Whanui with the river.

Purposes of Statutory Acknowledgement

Pursuant to section 215, and without limiting the rest of this schedule, the only purposes of this statutory acknowledgement are -

- (a) To require that consent authorities forward summaries of resource consent applications to Te Runanga o Ngai Tahu as required by regulations made pursuant to section 207 (clause 12.2.3 of the deed of settlement);
- (b) To require that consent authorities, the Historic Places Trust, or the Environment Court, as the case may be, have regard to this statutory acknowledgement in relation to the Pomahaka River, as provided in sections 208 to 210 (clause 12.2.4 of the deed of settlement);

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- (c) To empower the Minister responsible for management of the Pomahaka River 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 Runanga o Ngai Tahu and any member of Ngai Tahu Whanui to cite this statutory acknowledgement as evidence of the association of Ngai Tahu to the Pomahaka River as provided in section 211 (clause 12.2.5 of the deed of settlement).

Limitations on Effect of Statutory Acknowledgement

Except as expressly provided in sections 208 to 211, 213, and 215, -

- (a) This statutory acknowledgement does not affect, and is 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 Ngai Tahu's association to the Pomahaka River (as described in this statutory acknowledgement) than that person or entity would give under the relevant statute, regulation, or bylaw, if this statutory acknowledgement did not exist in respect of the Pomahaka River.

Except as expressly provided in this Act, this statutory acknowledgement does 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, this statutory acknowledgement does not, of itself, have the effect of granting, creating, or providing evidence of any estate or interest in, or any rights of any kind whatsoever relating to, the Pomahaka River.

SCHEDULE 23

Sections 205 and 206

STATUTORY ACKNOWLEDGEMENT FOR KAKAUNUI RIVER

Statutory Area

The statutory area to which this statutory acknowledgement applies is the River known as Kakaunui, the location of which is shown on Allocation Plan MD 120 (SO 24725).

Preamble

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Under section 206, the Crown acknowledges Te Runanga o Ngai Tahu's statement of Ngai Tahu's cultural, spiritual, historic, and traditional association to the Kakaunui River, as set out below.

Ngai Tahu Association with the Kakaunui River

The creation of the Kakaunui relates in time to Te Waka o Aoraki, and the further shaping of the island by Tu Te Rakiwhanoa and his assistants including Marokura who stocked the waterways and Kahukura, who stocked the forests. For Ngai 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 Ngai Tahu as an iwi. The origin of the name 'Kakaunui' has been lost, but is likely to refer to swimming in the river.

There was a tauranga waka (landing place) at the mouth of the Kakaunui, which was an important part of the coastal trails north and south. The river was also a part of the seasonal trail of mahinga kai and resource gathering and hapu and whanau bonding. The tupuna had an intimate knowledge of navigation, river routes, safe harbours and landing places, and the locations of food and other resources on the river. The Kakaunui 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 whanau and hapu and is regarded as a taonga. The traditional mobile lifestyle of the people led to their dependence on the resources of the river.

The Kakaunui was a noted indigenous fishery, offering tuna (eel), inaka (whitebait), kanakana (lamprey), kokopu and other species. Other materials provided by the river included raupo, harakeke and watercress. The tupuna 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 Kakaunui, 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 Ngai Tahu today.

These mahinga kai resources supported both semi-permanent and seasonal occupations, including a kainga on the northern bank of the river near Maheno. The surviving rock art remnants and rock shelters are a particular taonga of the area, providing a unique record of the lives and beliefs of the people who travelled the river.

The mauri of the Kakaunui 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 Ngai Tahu Whanui with the river.

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Purposes of Statutory Acknowledgement

Pursuant to section 215, and without limiting the rest of this schedule, the only purposes of this statutory acknowledgement are -

- (a) To require that consent authorities forward summaries of resource consent applications to Te Runanga o Ngai 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 this statutory acknowledgement in relation to the Kakaunui River, 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 the Kakaunui River 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 Runanga o Ngai Tahu and any member of Ngai Tahu Whanui to cite this statutory acknowledgement as evidence of the association of Ngai Tahu to the Kakaunui River as provided in section 211 (clause 12.2.5 of the deed of settlement).

Limitations on Effect of Statutory Acknowledgement

Except as expressly provided in sections 208 to 211, 213, and 215, -

- (a) This statutory acknowledgement does not affect, and is 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 Ngai Tahu's association to the Kakaunui River (as described in this statutory acknowledgement) than that person or entity would give under the relevant statute, regulation, or bylaw, if this statutory acknowledgement did not exist in respect of the Kakaunui River.

Except as expressly provided in this Act, this statutory acknowledgement does 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, this statutory acknowledgement does not, of itself, have the effect of granting, creating, or providing evidence of any estate or interest in, or any rights of any kind whatsoever relating to, the Kakaunui River.

SCHEDULE 70

Sections 205 and 206

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STATUTORY ACKNOWLEDGEMENT FOR WAIHOLA/WAIPORI WETLAND

Statutory Area

The statutory area to which this statutory acknowledgement applies is the Wetland known as Waihola/Waipori, the location of which is shown on Allocation Plan MD 55 (SO 24721).

Preamble

Under section 206, the Crown acknowledges Te Runanga o Ngai Tahu's statement of Ngai Tahu's cultural, spiritual, historic, and traditional association to Waihola/Waipori, as set out below.

Ngai Tahu Association with Waihola/Waipori

The Waihola/Waipori wetlands were once one of the most significant food baskets in the Otago region, and featured in the seasonal activity of the coastal settlements as far away as the Otago Peninsula and harbour area, Purakaunui and Puketeraki. The wetlands were once much larger in water area and deeper than at present, connected by a labyrinth of waterways and having a gravel bed which has now been overlaid by silt and mud.

The names Waihola/Waipori are likely of Waitaha derivation, with 'hola' being the Waitaha form of 'hora' meaning flat, spread out or widespread. Waipori may in fact be a misrecording of Waipouri, which is used in many older manuscripts, being a reference to the dark, tanin-stained water the wetland receives from Waipori River, a heavily wooded catchment.

The Waihola/Waipori area was visited and occupied by Waitaha, Ngati Mamoe and Ngai Tahu in succession, who through conflict and alliance, have merged in the whakapapa (genealogy) of Ngai Tahu Whanui. The wetland supported a number of pa within its environs and nearby. For example, Whakaraupuka, the pa of the Ngati Mamoe chief Tukiauau was located in the area now known as Sinclair Wetlands, although Tukiauau eventually relocated further to the south as the southward movement of his Ngai Tahu foes became uncomfortably close.

There were also many nohoanga (temporary campsites) located within the complex, used by food gathering parties which would travel to the lakes and camp on the fringes for two to three days to gather kai; to eel, hunt water fowl and gather flax. There were also permanent or semi-permanent settlements located in a number of locations around the lakes, some on islands in the wetlands system.

A number of other settlements further afield were also dependent on the mahinga kai resources of Waihola/Waipori for sustenance, including Tu Paritaniwha Pa near Momona, Omoua Pa above Henley, Maitapapa (Henley area), the kaik south of Henley and Takaaihitau near the old Taieri Ferry bridge, in addition to other settlements adjacent to the Taieri River up and downstream of the wetlands. Otakou

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and Puketeraki hapu would also make seasonal visits to gather resources and strengthen and maintain the kupenga (net) of whakapapa on which their rights to use those resources were based.

There is an account which tells of a sudden flood which required people trapped on the bank at a place called Whakaraupo, on the network of waterways that link Waihola with Waipori, to hastily construct a mokihi out of raupo to reach safety. A meeting place was opened here in 1901 by the locals, the house was named Te Waipounamu.

For Ngai 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 Ngai Tahu as an iwi.

Waihola/Waipori was a key mahinga kai resource for Ngai Tahu based along the Otago coastal region, where an abundance of tuna (eel), inaka (whitebait), patiki (flounder) and other indigenous fish were available. Waterfowl and fibre resources such as harakeke and raupo were also easily accessible from the wetlands. Spearing, setting hinaki and nets, and bobbing for eel were regular activities on the wetlands in the season. The gathering of young ducks in the moult, and the catching of herons, pukeko and other birds supplemented the broad range of kai available from the wetlands.

The tupuna 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 Waihola/Waipori, 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 Ngai Tahu today.

The attractiveness of Waihola/Waipori as a mahinga kai was enhanced by their accessibility. With the direct link to the Taieri River, access via the Taieri to villages on the banks of the Taieri River, upstream and down, and access by waka to the coast and northward to Otakou, kai and other resources gathered from the wetlands could be transported back to these home bases with relative ease.

The tupuna had an intimate knowledge of navigation, river routes, safe harbours and landing places, and the locations of food and other resources on the wetlands. Knowledge of these trails continues to be held by whanau and hapu and is regarded as a taonga. The traditional mobile lifestyle of the people led to their dependence on the resources of the wetlands.

Because of the long history of use of Waihola/Waipori as a mahinga kai, supporting permanent and temporary settlements, there are numerous urupa, wahi tapu and wahi taonga associated with the wetlands. These are all places holding the memories, traditions, victories and defeats of Ngai Tahu tupuna, and are frequently

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protected by secret locations. Urupa are the resting places of Ngai Tahu tupuna and, as such, are a particular focus for whanau traditions.

The mauri of Waihola/Waipori 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 Ngai Tahu Whanui with the wetlands. The wetlands represent, in their resources and characteristics, a strong element of identity for those who had manawhenua (tribal authority over the area) whose tupuna were nurtured on the food and resources of the wetlands for generations.

Purposes of Statutory Acknowledgement

Pursuant to section 215, and without limiting the rest of this schedule, the only purposes of this statutory acknowledgement are -

- (a) To require that consent authorities forward summaries of resource consent applications to Te Runanga o Ngai 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 this statutory acknowledgement in relation to Waihola/Waipori, 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 Waihola/Waipori 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 Runanga o Ngai Tahu and any member of Ngai Tahu Whanui to cite this statutory acknowledgement as evidence of the association of Ngai Tahu to Waihola/Waipori as provided in section 211 (clause 12.2.5 of the deed of settlement).

Limitations on Effect of Statutory Acknowledgement

Except as expressly provided in sections 208 to 211, 213, and 215, -

- (a) This statutory acknowledgement does not affect, and is 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 Ngai Tahu's association to Waihola/Waipori (as described in this statutory acknowledgement) than that person or entity would give under the relevant statute, regulation, or bylaw, if this statutory acknowledgement did not exist in respect of Waihola/Waipori.

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Except as expressly provided in this Act, this statutory acknowledgement does 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, this statutory acknowledgement does not, of itself, have the effect of granting, creating, or providing evidence of any estate or interest in, or any rights of any kind whatsoever relating to, Waihola/Waipori.

SCHEDULE 60

Sections 205 and 206

STATUTORY ACKNOWLEDGEMENT FOR TE TAURAKA POTI (MERTON TIDAL ARM)

Statutory Area

The statutory area to which this statutory acknowledgement applies is the Wetland known as Te Tauraka Poti (Merton Tidal Arm), the location of which is shown on Allocation Plan MD 56 (SO 24722).

Preamble

Under section 206, the Crown acknowledges Te Runanga o Ngai Tahu's statement of Ngai Tahu's cultural, spiritual, historic, and traditional association to Te Tauraka Poti, as set out below.

Ngai Tahu Association with Te Tauraka Poti

Te Tauraka Poti, fed by the streams known as Kirikiri Whakahoro and Kokonui, was a major mahinga kai for kainga and pa located on the coast north of the Otago Peninsula. The wetlands were a rich source of kai, including tuna (eels), mohoa (black flounder), giant kokopu and water fowl. The wetlands were particularly valued as a spawning ground for inaka (whitebait).

The tupuna 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 Tauraka Poti, 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 Ngai Tahu today.

As a result of this history of use, there are a number of wahi taonga within the wetland area, including middens and other evidence of occupation. These are important as places holding the memories of Ngai Tahu tupuna.

Te Tauraka Poti formed 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.

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Knowledge of these trails continues to be held by whanau and hapu and is regarded as a taonga. The traditional mobile lifestyle of the people led to their dependence on the resources of the wetland.

Much of Te Tauraka Poti's continuing significance to Ngai Tahu lies in the fact that it is the only remaining wetland area of any significance in the vicinity. The mauri of Te Tauraka Poti 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 Ngai Tahu Whanui with the wetland.

Purposes of Statutory Acknowledgement

Pursuant to section 215, and without limiting the rest of this schedule, the only purposes of this statutory acknowledgement are -

- (a) To require that consent authorities forward summaries of resource consent applications to Te Runanga o Ngai Tahu as required by regulations made pursuant to section 207 (clause 12.2.3 of the deed of settlement);
- (b) To require that consent authorities, the Historic Places Trust, or the Environment Court, as the case may be, have regard to this statutory acknowledgement in relation to Te Tauraka Poti, as provided in sections 208 to 210 (clause 12.2.4 of the deed of settlement);
- (c) To empower the Minister responsible for management of Te Tauraka Poti 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 Runanga o Ngai Tahu and any member of Ngai Tahu Whanui to cite this statutory acknowledgement as evidence of the association of Ngai Tahu to Te Tauraka Poti as provided in section 211 (clause 12.2.5 of the deed of settlement).

Limitations on Effect of Statutory Acknowledgement

Except as expressly provided in sections 208 to 211, 213, and 215, -

- (a) This statutory acknowledgement does not affect, and is 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 Ngai Tahu's association to Te Tauraka Poti (as described in this statutory acknowledgement) than that person or entity would give under the relevant statute, regulation, or bylaw, if this statutory acknowledgement did not exist in respect of Te Tauraka Poti.

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Except as expressly provided in this Act, this statutory acknowledgement does 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, this statutory acknowledgement does not, of itself, have the effect of granting, creating, or providing evidence of any estate or interest in, or any rights of any kind whatsoever relating to, Te Tauraka Poti.

SCHEDULE 28

Sections 205 and 206

STATUTORY ACKNOWLEDGEMENT FOR KURAMEA (LAKE CATLINS)

Statutory Area

The statutory area to which this statutory acknowledgement applies is the Lake known as Kuramea (Lake Catlins), the location of which is shown on Allocation Plan MD 134 (SO 24728).

Preamble

Under section 206, the Crown acknowledges Te Runanga o Ngai Tahu's statement of Ngai Tahu's cultural, spiritual, historic, and traditional association to Kuramea, as set out below.

Ngai Tahu Association with Kuramea

Kuramea is the traditional name for the waterway now known as Catlins Lake.

The lake and estuary were significant sources of mahinga kai, supporting a number of nohoanga (settlements) in the vicinity. Tuna (eels), inaka (whitebait), tuaki (cockles), pupu (mudsnails), pipi and flatfish were taken from Kuramea. The lake was also a source of raranga (weaving) materials including harakeke and paru (mud used in dying).

The tupuna 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 Kuramea, 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 Ngai Tahu today.

As a result of this history of use, there are a number of wahi taonga within the wetland area, including middens and other evidence of occupation. These are important as places holding the memories of Ngai Tahu tupuna. In particular, a number of archaeological finds within the wetlands confirm the area's history as a wake (canoe) building area.

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The mauri of Kuramea 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 Ngai Tahu Whanui with the lake.

Purposes of Statutory Acknowledgement

Pursuant to section 215, and without limiting the rest of this schedule, the only purposes of this statutory acknowledgement are -

- (a) To require that consent authorities forward summaries of resource consent applications to Te Runanga o Ngai 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 this statutory acknowledgement in relation to Kuramea, 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 Kuramea 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 Runanga o Ngai Tahu and any member of Ngai Tahu Whanui to cite this statutory acknowledgement as evidence of the association of Ngai Tahu to Kuramea as provided in section 211 (clause 12.2.5 of the deed of settlement).

Limitations on Effect of Statutory Acknowledgement

Except as expressly provided in sections 208 to 211, 213, and 215, -

- (a) This statutory acknowledgement does not affect, and is 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 Ngai Tahu's association to Kuramea (as described in this statutory acknowledgement) than that person or entity would give under the relevant statute, regulation, or bylaw, if this statutory acknowledgement did not exist in respect of Kuramea.

Except as expressly provided in this Act, this statutory acknowledgement does 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, this statutory acknowledgement does not, of itself, have the effect of granting, creating, or providing evidence of any estate or interest in, or any rights of any kind whatsoever relating to, Kuramea.

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SCHEDULE 41

Sections 205 and 206

STATUTORY ACKNOWLEDGEMENT FOR MATAKAEA (SHAG POINT)

Statutory Area

The statutory area to which this statutory acknowledgement applies is the area known as Matakaea Recreation Reserve and Onewhenua Historic Reserve, as shown on Allocation Plan MS 9 (SO 24686).

Preamble

Under section 206, the Crown acknowledges Te Runanga o Ngai Tahu's statement of Ngai Tahu's cultural, spiritual, historic, and traditional association to Matakaea.

Ngai Tahu Association with Matakaea

The name Matakaea recalls the tradition of the Arai Te Uru canoe, which capsized off Moeraki. From Moeraki, the crew managed to swim ashore leaving the cargo to be taken ashore by the waves. The crew members fled inland and were transformed into the mountains which form the Southern Alps.

The Arai Te Uru tradition is also important because it explains the origins of kumara. The story originally began with Roko i Tua who came to Aotearoa and met the Kahui Tipua. The Kahui Tipua gave Roko i Tua mamaku (tree fern) to eat. However Roko i Tua preferred the kumara that he had in his belt which he took out and soaked in a bowl of water. The Kahui Tipua tasted the kumara and asked where it was from. Roko i Tua replied saying that the kumara came from 'across the sea'.

The Kahui Tipua then made a canoe and, under the leadership of Tu Kakariki, went to Hawaiiiki and returned with the kumara to Aotearoa. The Kahui Tipua planted the kumara but the crop failed. However, Roko i Tua had also sailed to Hawaiiiki on the canoe called Arai Te Uru. Roko i Tua landed at Whangara, Hawaiiiki, and learnt the karakia (incantations) and tikanga (customs) connected with planting kumara. Roko i Tua then gave his canoe to two crew members called Pakihiwitahi and Hape ki Tua Raki. The Arai Te Uru returned under the leadership of these two commanders and eventually foundered off the Moeraki Coast at Matakaea.

For Ngai 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 Ngai Tahu as an iwi.

The Matakaea area has been occupied for many centuries and is the site of numerous urupa and wahi tapu. Urupa are the resting places of Ngai Tahu tupuna (ancestors)

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and, as such, are the focus for whanau traditions. Urupa and wahi tapu are places holding the memories, traditions, victories and defeats of Ngai Tahu tupuna, and are frequently protected by secret locations.

The mauri of Matakaea 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 Ngai Tahu Whanui with the area.

Purposes of Statutory Acknowledgement

Pursuant to section 215, and without limiting the rest of this schedule, the only purposes of this statutory acknowledgement are -

- (a) To require that consent authorities forward summaries of resource consent applications to Te Runanga o Ngai 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 this statutory acknowledgement in relation to Matakaea, 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 Matakaea 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 Runanga o Ngai Tahu and any member of Ngai Tahu Whanui to cite this statutory acknowledgement as evidence of the association of Ngai Tahu to Matakaea as provided in section 211 (clause 12.2.5 of the deed of settlement).

Limitations on Effect of Statutory Acknowledgement

Except as expressly provided in sections 208 to 211, 213, and 215, -

- (a) This statutory acknowledgement does not affect, and is 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 Ngai Tahu's association to Matakaea (as described in this statutory acknowledgement) than that person or entity would give under the relevant statute, regulation, or bylaw, if this statutory acknowledgement did not exist in respect of Matakaea.

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Except as expressly provided in this Act, this statutory acknowledgement does not, of itself, have the effect of granting, creating, or providing evidence of any estate or interest in, or any rights of any kind whatsoever relating to, Matakaea.

SCHEDULE 64

Sections 205 and 206

STATUTORY ACKNOWLEDGEMENT FOR TOKATA (THE NUGGETS)

Statutory Area

The statutory area to which this statutory acknowledgement applies is the area known as Tokata (The Nuggets), as shown on Allocation Plan MS 10 (SO 24699).

Preamble

Under sections 206, the Crown acknowledges Te Runanga o Ngai Tahu's statement of Ngai Tahu's cultural, spiritual, historic, and traditional association to Tokata as set out below.

Ngai Tahu Association with Tokata

The creation and shaping of Tokata and the surrounding coastline relates in time to Te Waka o Aoraki, and the subsequent efforts of Tu Te Rakiwhanoa. The name Tokata is a reference to the Nuggets, however, the individual nuggets also carry their own names: Te Ana Puta has a cave in it, Pae Koau is frequented by shags, three small nuggets on the north side are known collectively as Makunui and support a large seal colony, while the nugget furthest out to sea is Porokaea. The hill on which the lighthouse stands is known to Ngai Tahu as Taumata o Te Rakipokia, and a cave on the north side of this hill is Te Ana o Katiwairua. For Ngai Tahu, such traditional names and their associated histories reinforce tribal identity and solidarity, and continuity between generations, and document the events that have shaped the environment of Te Wai Pounamu and Ngai Tahu as an iwi.

The great explorer Rakaihautu passed by this area of the Otago coast on his journey northward, and the area was subsequently visited and occupied by Waitaha, Ngati Mamoe and Ngai Tahu in succession, who through conflict and alliance, have merged in the whakapapa (genealogy) of Ngai Tahu Whanui. This area of the Otago coast has many reminders of the uneasy relationships that once existed between Ngati Mamoe and Ngai Tahu. Skirmishes between the two iwi occurred intermittently just to the north. However, one battle occurred within the area referred to as Tokata after which some of the fallen were cooked. As a result of this activity, this area is now a wahi tapu. Such wahi tapu are the resting places of Ngai Tahu tupuna (ancestors) and, as such, are the focus for whanau traditions. These are

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places holding the memories, traditions, victories and defeats of Ngai Tahu tupuna, and are frequently protected by secret locations.

Tokata is a significant physical marker on the South Otago coast, with waka (canoes) voyaging south and north, or out to sea on fishing expeditions utilising it as a bearing marker. It also acted as a pointer to the safe tauranga waka (landing place) in Kaimataitai Bay, just to the north. The tupuna had an intimate knowledge of navigation, sea routes, safe harbours and landing places, and the locations of food and other resources on the coast. Tokata therefore formed 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 hapu and is regarded as taonga. The traditional mobile lifestyle of the people led to their dependence on the resources of the land and sea. Tokata also marks the south-eastern boundary of the Otakou Sale Deed area, marked out in 1844.

A variety of mahinga kai (principally kaimoana - seafood) is available at Tokata. The extensive rocky intertidal zone provides paua, kutai (mussels) and koura (crayfish) in abundance. The fur seal, leopard seal and sea lion all rest here, with their pups forming a ready source of kai in days gone by. Gull eggs, koau (shags) and titi (muttonbirds) were also harvested in the area. An excellent rimurapa (kelp) resource was utilised for making poha (storage bags), capable of preserving the titi for up to two years. Excellent fishing grounds seaward of Tokata supplied the resources of the coast.

The tupuna 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 and sea, the relationship of people with the coastline and their dependence on it, and tikanga for the proper and sustainable utilisation of resources. All of these values remain important to Ngai Tahu today.

The mauri of Tokata 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 Ngai Tahu Whanui with the area.

Purposes of Statutory Acknowledgement

Pursuant to section 215, and without limiting the rest of this schedule, the only purposes of this statutory acknowledgement are -

- (a) To require that consent authorities forward summaries of resource consent applications to Te Runanga o Ngai 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 this statutory

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acknowledgement in relation to Tokata, 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 Tokata 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 Runanga o Ngai Tahu and any member of Ngai Tahu Whanui to cite this statutory acknowledgement as evidence of the association of Ngai Tahu to Tokata as provided in section 211 (clause 12.2.5 of the deed of settlement).

Limitations on Effect of Statutory Acknowledgement

Except as expressly provided in sections 208 to 211, 213, and 215, -

- (a) This statutory acknowledgement does not affect, and is 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 Ngai Tahu's association to Tokata (as described in this statutory acknowledgement) than that person or entity would give under the relevant statute, regulation, or bylaw, if this statutory acknowledgement did not exist in respect of Tokata.

Except as expressly provided in this Act, this statutory acknowledgement does 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, this statutory acknowledgement does not, of itself, have the effect of granting, creating, or providing evidence of any estate or interest in, or any rights of any kind whatsoever relating to, Tokata.

SCHEDULE 103

Sections 205, 312 and 313

STATUTORY ACKNOWLEDGEMENT FOR TE TAI O ARAI TE URU (OTAGO COASTAL MARINE AREA)

Specific Area

The statutory area to which this statutory acknowledgement applies is Te Tai o Arai Te Uru (the Otago Coastal Marine Area), the Coastal Marine Area of the Moeraki, Dunedin Coastal and Molyneaux constituencies of the Otago region, as shown on

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SO Plans 24250, 24249, and 24252, Otago Land District and as shown on Allocation Plan NT 505 (SO 19901).

Preamble

Under section 313, the Crown acknowledges Te Runanga o Ngai Tahu's statement of Ngai Tahu's cultural, spiritual, historic, and traditional association to Te Tai o Arai Te Uru as set out below.

Ngai Tahu Association with Te Tai o Arai Te Uru

The formation of the coastline of Te Wai Pounamu relates to the tradition of Te Waka o Aoraki, which foundered on a submerged reef, leaving its occupants, Aoraki and his brothers, to turn to stone. They are manifested now in the highest peaks in the Ka Tiritiri o Te Moana (the Southern Alps). The bays, inlets, estuaries and fiords which stud the coast are all the creations of Tu Te Rakiwhanoa, who took on the job of making the island suitable for human habitation.

The naming of various features along the coastline reflects the succession of explorers and iwi (tribes) who travelled around the coastline at various times. The first of these was Maui, who fished up the North Island, and is said to have circumnavigated Te Wai Pounamu. In some accounts the island is called Te Waka a Maui in recognition of his discovery of the new lands, with Rakiura (Stewart Island) being Te Puka a Maui (Maui's anchor stone). A number of coastal place names are attributed to Maui, particularly on the southern coast.

The great explorer Rakaihautu travelled overland along the coast, identifying the key places and resources. He also left many place names on prominent coastal features. Another explorer, Tamatea, sailed along the Otago coast in the waka Takitimu. After the waka eventually broke its back off the coast of Murihiku, Tamatea and the survivors made their way overland back to the North Island, arriving at the coast by the place Tamatea named O-amaru (Oamaru).

Place names along the coast record Ngai Tahu history and point to the landscape features which were significant to people for a range of reasons. For example, some of the most significant rivers which enter the coastal waters of Otago include: Waitaki, Kakaunui, Waihemo (Shag), Waikouaiti, Kaikarae (Kaikorai), Tokomairiro, Mata-au (Clutha), Pounaweia (Catlins). Estuaries include: Waitete (Waitati), Otakou (Otago), Makahoe (Papanui Inlet), Murikauhaka (Mate-au and Koau estuaries), Tahaukupu (Tahakopa estuary), Waipatiki (Wapati Estuary). Islands in the coastal area include Okaihe (St Michaels Island), Moturata (Taieri Island), Paparoa, Matoketoke, Hakinikini, and Aonui (Cooks Head).

Particular stretches of the coastline also have their own traditions. The tradition of the waka (canoe) Arai Te Uru and its sinking at the mouth of the Waihemo (Shag River) has led to the coastal area of Otago being known as Te Tai o Araiteuru (the coast of Arai Te Uru). Accounts of the foundering, the wreckage, and the survivors of this waka are marked by numerous landmarks almost for the length of the Otago

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coast. The boulders on Moeraki coast (Kai Hinaki) and the Moeraki pebbles are all associated with the cargo of gourds, kumara and taro seed which were spilled when the Arai Te Uru foundered.

For Ngai Tahu, traditions such as these 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 Ngai Tahu as an iwi.

Because of its attractiveness as a place to establish permanent settlements, including pa (fortified settlements), the coastal area was visited and occupied by Waitaha, Ngati Mamoe and Ngai Tahu in succession, who, through conflict and alliance, have merged in the whakapapa (genealogy) of Ngai Tahu Whanui. Battle sites, urupa and landscape features bearing the names of tupuna (ancestors) record this history. Prominent headlands, in particular, were favoured for their defensive qualities and became the headquarters for a succession of rangatira and their followers. Notable pa on the Otago coast include: Makotukutuku (Oamaru), Te Raka-a-hineatea (Moeraki), Te Pa Katata, Pa a Te Wera, (Huriawa Peninsula), Mapoutahi (Purakaunui), Pukekura (Taiaroa Head), Moturata (Taieri Island). The estuaries from the Waitaki River to the Chaslands also supported various hapu.

Tupuna such as Waitai, Tukiauau, Whaka-taka-newha, Rakiiamo, Tarewai, Maru, Te Aparangi, Taoka, Moki II, Kapo, Te Wera, Tu Wiri Roa, Taikawa, Te Hautapanuiotu among the many illustrious ancestors of Ngati Mamoe and Ngai Tahu lineage whose feats and memories are enshrined in the landscape, bays, tides and whakapapa of Otago.

The results of the struggles, alliances and marriages arising out of these migrations were the eventual emergence of a stable, organised and united series of hapu located at permanent or semi-permanent settlements along the coast, with an intricate network of mahinga kai (food gathering) rights and networks that relied to a large extent on coastal resources. Chiefs such as Korako (several), Tahatu, Honekai, Ihutakuru, Karetai, Taiaroa, Potiki, Tuhawaiki, and Pokene being some among a number who had their own villages and fishing grounds. Otago Peninsula (Muaupoko) had many kaunga nohoanga with a multitude of hapu occupying them. At one time up to 12 kainga existed in the lower Otago harbour, some larger and more important than others.

The whole of the coastal area offered a bounty of mahinga kai, including a range of kaimoana (sea food); sea fishing; eeling and harvest of other freshwater fish in lagoons and rivers; marine mammals providing whale meat and seal pups; waterfowl, sea bird egg gathering and forest birds; and a variety of plant resources including harakeke (flax), fern and ti root. In many areas the reliance on these resources increased after the land sales of the 1840s and 1850s, and the associated loss of access to much traditional land-based mahinga kai.

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Many reefs along the coast are known by name and are customary fishing grounds, many sand banks, channels, currents and depths are also known for their kaimoana. One example is Poatiri (Mt Charles - Cape Saunders) the name of which refers to a fish hook. Poatiri juts out into the Pacific, close to the continental shelf, and is a very rich fishing ground. Another example is Blueskin Bay which was once a kohanga (breeding ground) for the right whale, although it is well over 150 years since it has seen this activity.

Other resources were also important in the coastal area. Paru (black mud used for dying) was obtained from some areas. Some of the permanent coastal settlements, such as those at the mouth of the Mata-au (Clutha River), and at Otakou and Purakaunui, were important pounamu manufacturing sites. Trading between these villages to the south and north via sea routes was an important part of the economy.

The Otago coast was also a major highway and trade route, particularly in areas where travel by land was difficult. Pounamu and titi were traded north with kumara, taro, waka, stone resources and carvings coming south. Travel by sea between settlements and hapu was common, with a variety of different forms of waka, including the southern waka hunua (double-hulled canoe) and, post-contact, whale boats plying the waters continuously. Hence tauranga waka (landing places) occur up and down the coast in their hundreds and wherever a tauranga waka is located there is also likely to be a nohoanga (settlement), fishing ground, kaimoana resource, rimurapa (bull kelp - used to make the poha, in which titi were and still are preserved) with the sea trail linked to a land trail or mahinga kai resource. The tupuna had a huge knowledge of the coastal environment and weather patterns, passed from generation to generation. This knowledge continues to be held by whanau and hapu and is regarded as a taonga. The traditional mobile lifestyle of the people led to their dependence on the resources of the coast.

Numerous urupa are being exposed or eroded at various times along much of coast. Water burial sites on the coast, known as waiwhakaheketupapaku, are also spiritually important and linked with important sites on the land. Places where kaitangata (the eating of those defeated in battle) occurred are also wahi tapu. Urupa are the resting places of Ngai Tahu tupuna and, as such, are the focus for whanau traditions. These are places holding the memories, traditions, victories and defeats of Ngai Tahu tupuna, and are frequently protected in secret locations.

The mauri of the coastal area 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 Ngai Tahu Whanui with the coastal area.

Purposes of Statutory Acknowledgement

Pursuant to section 215 and without limiting the rest of this schedule, the only purposes of this statutory acknowledgement are -

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- (a) To require that consent authorities forward summaries of resource consent applications to Te Runanga o Ngai 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 this statutory acknowledgement in relation to Te Tai o Arai Te Uru, as provided in sections 208 to 210 (clause 12.2.4 of the deed of settlement); and
- (c) To enable Te Runanga o Ngai Tahu and any member of Ngai Tahu Tainui Whanui to cite this statutory acknowledgement as evidence of the association of Ngai Tahu to Te Tai o Arai Te Uru as provided in section 208 (clause 12.2.5 of the deed of settlement).

Limitations on effect of Statutory Acknowledgement

Except as expressly provided in sections 208 to 211, 213, and 215, -

- (a) This statutory acknowledgement does not affect, and is 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 Ngai Tahu's association to Te Tai o Arai Te Uru (as described in this statutory acknowledgement) than that person or entity would give under the relevant statute, regulation, or bylaw, if this statutory acknowledgement did not exist in respect of Te Tai o Arai Te Uru.

Except as expressly provided in this Act, this statutory acknowledgement does not affect the lawful rights and interests of any person who is not a party to the deed of settlement.

Except as expressly provided in this Act, this statutory acknowledgement does not, of itself, have the effect of granting, creating or providing evidence of any estate or interest in, or any rights of any kind whatsoever relating to, Te Tai o Arai Te Uru.

Brooker's Editorial Note

It appears that the above reference (in (c) of 'Purposes') to "section 208" should be read as a reference to "section 211" because cl 208 of the Ngai Tahu Claims Settlement Bill, relating to the use of statutory acknowledgement with submissions, became s 211 of this Act.