

# APPENDIX 1

## Proposed Plan Change 6A (Water Quality)

# Regional Plan: Water for Otago

Incorporating Council Decisions

*Modified to remove all ~~strikethrough~~ and underline markings (30 April 2013)*

*Proposed Plan Change 2 (Regionally Significant Wetlands) text is shown in this document in **blue italics**.*



Modified from 20 April 2013  
ISBN: 978-0-478-37659-3



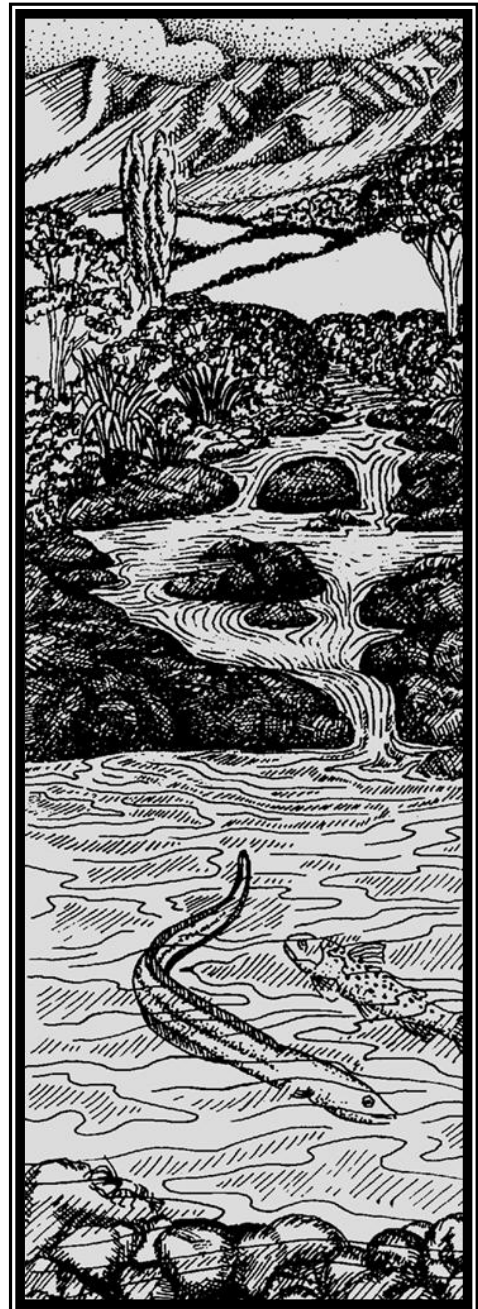
## Table of Contents

<b>Chapter 7: Water Quality .....</b>	<b>1</b>
<b>Chapter 12: Rules: Water Take, Use and Management .....</b>	<b>5</b>
<b>Chapter 13: Rules: Land Use on Lake or River Beds <i>or Regionally Significant Wetlands</i> .....</b>	<b>19</b>
<b>Chapter 15: Methods other than Rules .....</b>	<b>29</b>
<b>Chapter 16: Information.....</b>	<b>31</b>
<b>Schedule 15: Schedule of characteristics and numerical standards for good quality water in Otago lakes and rivers .....</b>	<b>34</b>
<b>Schedule 16: Schedule of discharge limits for water quality .....</b>	<b>39</b>
<b>Glossary .....</b>	<b>44</b>



# 7

## Water Quality



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.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.**
- 7.A.3 To have individuals and communities manage the effects, including cumulative effects, of their activities on water quality.**

## **7.B Policies general**

- 7.B.1 Manage the quality of water in Otago lakes, rivers, wetlands and groundwater by:**
  - (a) Recognising the differences in the effects and management of point and non-point source discharges; and**
  - (b) Defining, in Schedule 15, characteristics and standards that describe 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 standards; and**
  - (e) Recognising discharge effects on groundwater.**
- 7.B.2 Avoid objectionable discharges of water or contaminants that degrade the natural and human use values of Otago lakes, rivers, wetlands and groundwater.**
- 7.B.3 Allow discharges of water or contaminants to Otago lakes, rivers, wetlands and groundwater that have minor effects or are short-term.**
- 7.B.4 [Moved from 7.7.2] 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.**
- 7.B.5 When considering any discharge of water from one catchment to water in another catchment, have regard to:**

- (a) Tangata whenua values; and
- (b) The adverse effects of introducing species that are new to the receiving catchment.

**7.B.6** *[Moved from 7.7.8]* **Require, as appropriate, that any resource consent for discharging water or contaminants contains a review condition.**

**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**

*7.7.3 to 7.7.4 [no change]*

*7.7.6 to 7.7.7 [no change]*

*7.7.9 to 7.7.11 [no change]*

*7.8.2 to 7.8.6 [no change]*

**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 information on water quality and water quantity; 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.

**(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.

- 7.D.2** Schedule 16 discharge contaminant concentration limits apply, from 1 April 2020, 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 of Otago lakes, rivers, wetlands and groundwater.
- 7.D.4** Provide for the 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.
- 7.D.5** When considering any discharge under section 12.C, have regard to:
- (a) The effects of the discharge on water quality, including cumulative effects; and
  - (b) A staged timeframe and management plan to achieve compliance with the permitted activity rules; and
  - (c) The extent to which the contaminants in the discharge result from the activities of the applicant; and
  - (d) The likelihood that the staged timeframe and management plan can be successfully applied; and
  - (e) The current state of technical knowledge.
- 7.D.6** When considering the duration of a resource consent under section 12.C, have regard to:
- (a) The staged timeframe to achieve compliance with the permitted activity rules;
  - (b) The extent to which the contaminants in the discharge result from the activities of the applicant;
  - (c) Trends in the quality of the receiving water relative to the Schedule 15 standards;
  - (d) Any adverse effects of the discharge on the maintenance of natural and human use values;
  - (e) The extent to which the risk of potentially significant, adverse effects arising from the activity may be adequately managed through review conditions;
  - (f) The value of the investment in infrastructure; and
  - (g) The use of industry best practice.
- 7.D.7** The duration of a resource consent for a discharge, which breaches any relevant Schedule 16 or nitrogen leaching limit, 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.



# 12

## Rules: Water Take, Use and Management



**12.0 Applications for taking water** *[no change]*

**12.1 The taking and use of surface water** *[no change]*

**12.2 The taking and use of groundwater** *[no change]*

**12.3 The damming or diversion of water** *[no change]*

12.4.1.1 *[Rule moved to 12.B.1.8]*

12.4.1.2 *[Rule moved to 12.B.1.9]*

12.4.2.1 *[Rule moved to 12.B.3.1]*

**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.

12.A.A.2 The discharge rules in sections 12.A and 12.B apply where a discharge:

- (a) Contains both human sewage and a contaminant provided for in section 12.B; or
- (b) Contains human sewage and is from an industrial or trade premises, or a consented dam.

<p>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.</p>
--

**12.6.1 to 12.6.2** *[no change]*

## 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 sections 12.A and 12.B apply where a discharge:
- (a) Contains both human sewage and a contaminant provided for in section 12.B; or
  - (b) Contains human sewage and is from an industrial or trade premises, or a consented dam.

### 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 *[Moved from 12.8.1.5]* 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;* and
- (d) Any discharge of nitrogen also complies with Rule 12.C.1.3.

12.B.1.6 *[Moved unchanged from 12.11.2.1]* 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 [Moved unchanged from 12.11.2.2] 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 [Moved unchanged from 12.4.1.1] 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 *[Moved unchanged from 12.4.1.2]* 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 *[Moved substantially unchanged from 12.12.1.1]* 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 [*Moved unchanged from 12.12.1.2*] Except as provided for by Rule 12.12.1.1, 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 [*Moved unchanged from 12.11.3.1*] 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 [*Moved unchanged from 12.4.2.1*] Except as provided for by Rules 12.B.1.8 to 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 to water or to land is a **discretionary** activity, unless it is permitted by Rule 12.B.1.6 or 12.B.1.7.

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.

12.8.1.5 *[Rule moved to 12.B.1.5]*

12.11.2.1 [Rule moved to 12.B.1.6]

12.11.2.2 [Rule moved to 12.B.1.7]

12.11.3.1 [Rule moved to 12.B.2.1]

12.12.1.1 [Rule moved to 12.B.1.10]

12.12.1.2 [Rule moved to 12.B.1.11]

## 12.C Other discharges

### 12.C.A General Rules for section 12.C

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.

### 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 or Regionally Significant Wetland; or
- (iii) Bore or sump,  
is a **prohibited** activity.

12.C.0.2 The discharge of any contaminant from an animal waste system, silage storage or a composting process:

- (i) To any lake, river or Regionally Significant Wetland; or
- (ii) To any drain or water race that connects to a lake, river or Regionally Significant Wetland; or
- (iii) To the bed of any lake, river or Regionally Significant Wetland;  
or
- (iv) To any bore or sump; or
- (v) To land within 50 metres of:
  - (a) Any lake, river or Regionally Significant Wetland; or
  - (b) Any bore or sump; or
- (vi) To saturated land; or
- (vii) 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 or Regionally Significant Wetland,

where no measure is taken to mitigate sediment runoff, is a *prohibited* activity.

### 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 that 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) Where the discharge first enters water in any lake, river, wetland, or any open drain or water race that flows to a lake, river or wetland, the discharge:
  - (1) From 01 April 2020, does not exceed the relevant limits given in Schedule 16A, when, at the representative flow monitoring site, the water flow is at or below the reference flow indicated in Schedule 16B; and
  - (2) Does not contain sediment that results in:
    - a. A visual change in colour or clarity; or
    - b. Noticeable local sedimentation, in the receiving water; and
  - (3) Does not have an odour, oil or grease film, scum or foam; and
  - (4) Does not have floatable or suspended materials, other than inorganic sediment; and
- (e) Any discharge of nitrogen also complies with Rule 12.C.1.3.

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

- (i) A water race that does not convey irrigation runoff; 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 that flows to a lake, river or wetland, is a *permitted* activity, providing:
    - (a) The race or dam operator has not caused the 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; and
      - (2) Result in a conspicuous change in colour or clarity; and

(3) Have floatable or suspended materials.

12.C.1.3 The discharge of nitrogen<sup>1</sup> onto or into land in circumstances which may result in nitrogen entering groundwater, is a *permitted* activity, providing:

- (a) From 01 April 2020, the nitrogen leaching rate does not exceed:
  - (i) 10 kgN/ha/year on that area of the landholding located over the relevant Nitrogen Sensitive Zone identified in Maps H5 and H6; and
  - (ii) 20 kgN/ha/year on that area of the landholding located over the relevant Nitrogen Sensitive Zone identified in Maps H1 to H4; and
  - (iii) 30 kgN/ha/year on that area of the landholding located outside any Nitrogen Sensitive Zone identified in Maps H1 to H6, as calculated using OVERSEER<sup>®</sup> version 6.0; and
- (b) From 1 May 2014, the landholder will:
  - (i) Maintain a record of all necessary data to run OVERSEER<sup>®</sup> version 6.0; and
  - (ii) Provide Council upon request with:
    - 1) An OVERSEER<sup>®</sup> version 6.0 output and input parameter report prepared by an accredited OVERSEER<sup>®</sup> version 6.0 user; or
    - 2) All necessary data to run OVERSEER<sup>®</sup> version 6.0.

## 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 that contaminant entering water, 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 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.

---

<sup>1</sup> For the purpose of Rule 12.C.1.3, nitrogen comprises of organic nitrogen, ammoniacal nitrogen, nitrite nitrogen and nitrate nitrogen forms.

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 that contaminant entering water,
- 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 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 nitrogen onto or into land in circumstances which may result in nitrogen entering groundwater 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 of the discharge; and
  - (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 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 changes to infrastructure and the staging of implementation of those changes; and
- (g) Any adverse effects on water quality, including cumulative effects; and
- (h) Any adverse effect of the discharge on any natural or human use values; and
- (i) The extent to which the contaminant results from the activities of the applicant; and
- (j) Any effect on any Regionally Significant Wetland or on any regionally significant wetland value; and
- (k) Any erosion, land instability, sedimentation or property damage resulting from the discharge; and
- (l) Any financial contribution for any Regionally Significant Wetland or on any regionally significant wetland value; and
- (m) The information and monitoring requirements; and
- (n) The duration of the resource consent; and
- (o) The review of conditions of the resource consent.

### **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 that 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.

# 13

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



## 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
- (ba) Measures are taken to avoid animal waste entering the lake, river or Regionally Significant Wetland; and
- (c) 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
- (ab) Any measures to avoid animal waste entering the lake, river, or Regionally Significant Wetland; and
- (b) The duration of the resource consent; and
- (c) The information and monitoring requirements; and
- (d) Any insurance or other appropriate means of remedying the effects of failure; and
- (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.

## 13.2 The erection or placement of a structure

### 13.2.1 Permitted activities: No resource consent required

13.2.1.1 – 13.2.1.6 [no change]

13.2.1.7 The erection or placement of any single span bridge over the bed of a lake or river, or any Regionally Significant Wetland, is a **permitted** activity, providing:

- (b) 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



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

- (d) There is no reduction in the flood conveyance of the lake, river or Regionally Significant Wetland; and
- (e) The bridge soffit is no lower than the top of the higher river bank; and
- (f) The bridge and its abutments are secured against bed erosion, flood water and debris loading; and
- (g) Where the bridge is intended for use by stock, measures are taken to avoid animal waste entering the lake, river or Regionally Significant Wetland.

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 2 metres above the lowest part of the bed where it is located; and
- (c) The crossing does not exceed 12 metres along the length of the lake or river; and
- (ca) 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 secured against bed erosion, flood water and debris loading; and
- (f) Fish passage is not impeded; 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.

13.2.1.8 [no change]

### 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;
  - (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
- (aa) *Any effect on any Regionally Significant Wetland or on any regionally significant wetland value; and*
- (b) Flow and sediment processes; and
- (c) Any adverse effect on a defence against water; and
- (d) Any adverse effect on existing public access; and
- (e) Fish passage; and
- (f) The method of construction; and
- (fa) Any measures to avoid animal waste entering the lake, river, or Regionally Significant Wetland; 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.

### 13.2.3 [no change]

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

### 13.3.1 [no change]

### 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;
  - (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
- (aa) Any effect on any Regionally Significant Wetland or on any regionally significant wetland value; and*
- (b) Flow and sediment processes; and
- (c) Any adverse effect on a defence against water; and
- (d) Any adverse effect on existing public access; and
- (e) The method of construction; and
- (f) The duration of the resource consent; and
- (g) The information and monitoring requirements; and
- (h) Any existing lawful activity associated with any affected water body; and
- (i) Any insurance or other appropriate means of remedying the effects of failure; and
- (j) Any bond; and
- (k) A financial contribution if the structure is a dam, or for regionally significant wetland values or Regionally Significant Wetlands that are adversely affected; and*
- (l) The review of conditions of the resource consent; and
- (m) 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.

#### **13.4 Demolition or removal of a structure [no change]**

#### **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.

<p>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.</p>
--

### 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) The bed *or wetland* disturbance is limited to the extent necessary to undertake the work; and
- (d) The bed *or wetland* disturbance does not cause any flooding or erosion; and
- (e) 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
- (f) 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 250 metres downstream of the disturbance; and
- (g) No lawful take of water is adversely affected as a result of the bed *or wetland* disturbance; and
- (h) The site is left tidy following completion of the activity; *and*
- (i) *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*
- (j) *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

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

- (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 250 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
  - (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 250 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 250 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.

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 [no change]

*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*

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

- (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 maintained, showing vegetation cover; and*
  - (ii) *Dimensions (longitude and cross-section) of the drain immediately before and after maintenance.*

13.5.1.6 – 13.5.1.7 [no change]

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:

- (a) Involve feeding out; 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.

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, and there is no suitable site for the erection or placement of a structure, to avoid bed disturbance; 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
- (c) The activity does not occur in the wet bed; and
- (d) The site is left tidy following completion of the activity.

13.5.2 – [no change]

### **13.5.3 Discretionary activities: Resource consent required**

13.5.3.1 *[unchanged]*

*13.5.3.2 Unless covered by Rules 13.5.1.1, 31.5.1.3, 13.5.1.5A, or 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.

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 *[no change]***

### **13.7 The removal of vegetation *[no change]***



# 15

## Methods other than Rules



**15.1 to 15.4** *[unchanged]*

**15.5 Codes of practice and environmental management systems**

**15.5.1 Development and implementation of codes of practice and environmental management systems**

15.5.1.1 The Otago Regional Council encourages and supports the development and use of codes of practice and environmental management systems that reduce adverse effects on water resources.

**15.6 to 15.9** *[unchanged]*

# 16

## Information Requirements



## INFORMATION REQUIREMENTS

**16.1 Introduction** *[no change]*

**16.2 General information required** *[no change]*

**16.3 Specific information requirements**

**16.3.1 to 16.3.2** *[no change]*

**16.3.4 to 16.3.13** *[no change]*

**16.4 Provision of further information** *[no change]*

# Schedules



## 15 Schedule of characteristics and numerical standards for good quality water in Otago lakes and rivers

**Table 15.1 Characteristics indicative of good quality water**

<b>Characteristic</b>	<b>Description</b>	<b>Contaminant effect</b>
<b>Clarity</b>	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 aquatic habitats.
<b>Colour</b>	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> .
<b>Sediment</b>	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 aquatic habitats, and can result in high concentrations of phosphorus, and allow <i>E coli</i> to persist.
<b>Smell</b>	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.
<b>Algae</b>	Healthy levels of algae: <ul style="list-style-type: none"> <li>▪ Do not cover more than 30% of the bed.</li> <li>▪ Strands are less than 20 mm in length.</li> <li>▪ No slime on the surface of the water.</li> </ul>	Excessive nitrogen and phosphorus contribute to algal growth which has an adverse effect on native fish habitat, amenity and recreation values, and angling opportunities.
<b>Bank appearance</b>	Functioning riparian margins: <ul style="list-style-type: none"> <li>▪ Vegetation is healthy.</li> <li>▪ Banks are stable.</li> <li>▪ No obvious livestock disturbance.</li> </ul>	Healthy riparian margins mitigate sediment and nutrient discharges.

**Table 15.2 Receiving water numerical standards and catchment timeframes for achieving good quality water**

The standards for Group 1, 2 and 3 are 5-year 80<sup>th</sup> percentile values when water flow is at or below median.

**Table 15.2.1: Receiving Water Group 1**

	Nitrate-nitrite nitrogen	Dissolved reactive phosphorus	Ammoniacal nitrogen	<i>Escherichia coli</i>	Turbidity
	<b>0.444 mg/l</b>	<b>0.026 mg/l</b>	<b>0.1 mg/l</b>	<b>260 cfu/100 ml</b>	<b>5 NTU</b>
<b>Catlins</b>	31 March 2025	31 March 2012	31 March 2012	31 March 2012	31 March 2025
<b>Carey's Creek</b>	31 March 2012				
<b>Kaikorai</b>	31 March 2012	31 March 2012	31 March 2012	31 March 2025	31 March 2012
<b>Leith</b>	31 March 2025	31 March 2025	31 March 2012	31 March 2025	31 March 2012
<b>Mokoreta</b> (within Otago)	31 March 2025	31 March 2025	31 March 2012	31 March 2025	31 March 2012
<b>Owaka</b>	31 March 2025	31 March 2025	31 March 2012	31 March 2025	31 March 2025
<b>Pomahaka</b> , downstream of Glenken	31 March 2025	31 March 2025	31 March 2012	31 March 2025	31 March 2025
<b>Tahakopa</b>	31 March 2012	31 March 2012	31 March 2012	31 March 2025	31 March 2025
<b>Tokomairiro</b>	31 March 2012	31 March 2012	31 March 2012	31 March 2025	31 March 2012
<b>Tuapeka</b>	31 March 2025	31 March 2012	31 March 2012	31 March 2012	31 March 2012
<b>Waitahuna</b>	31 March 2012	31 March 2012	31 March 2012	31 March 2025	31 March 2012
<b>Waitati</b>	31 March 2012	31 March 2012	31 March 2012	31 March 2025	31 March 2012
<b>Waiwera</b>	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 <b>Clutha/Mata-Au</b> , south of Judge Creek	31 March 2012				
Any unlisted tributary on the true left bank of the <b>Clutha/Mata-Au</b> , south of the Tuapeka catchment					
Any unlisted catchment that discharges to the <b>coast</b> , 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
<b>Cardrona</b>	31 March 2012				
<b>Clutha/Mata-Au</b> 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
<b>Fraser</b>	31 March 2012				
<b>Kakanui</b>	31 March 2025	31 March 2025	31 March 2012	31 March 2012	31 March 2012
<b>Kawarau</b> downstream of the Shotover confluence	31 March 2025	31 March 2012	31 March 2012	31 March 2012	31 March 2012
<b>Lake Dunstan</b>	31 March 2012				
<b>Lindis</b>	31 March 2025	31 March 2025	31 March 2012	31 March 2012	31 March 2012
<b>Luggate</b>	31 March 2012				
<b>Manuherikia</b>	31 March 2012	31 March 2025	31 March 2012	31 March 2012	31 March 2012
<b>Mill Creek</b> (tributary to Lake Hayes)	31 March 2025	31 March 2012	31 March 2012	31 March 2012	31 March 2012
<b>Pomahaka</b> , upstream of Glenken	31 March 2012				
<b>Shag</b>	31 March 2025	31 March 2012	31 March 2012	31 March 2012	31 March 2012
<b>Shotover</b>	31 March 2012	31 March 2012	31 March 2012	31 March 2012	Exempt
<b>Taieri</b>	31 March 2025	31 March 2025	31 March 2012	31 March 2025	31 March 2025
<b>Trotters</b>	31 March 2025	31 March 2012	31 March 2012	31 March 2012	31 March 2012
<b>Waianakarua</b>	31 March 2025	31 March 2012	31 March 2012	31 March 2012	31 March 2012
<b>Waikouaiti</b>	31 March 2012				
<b>Waipori</b>					
<b>Waitaki</b> 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				



**Table 15.2.3: Receiving Water Group 3**

	Nitrate-nitrite nitrogen	Dissolved reactive phosphorus	Ammoniacal nitrogen	<i>Escherichia coli</i>	Turbidity
	0.03 mg/l	0.005 mg/l	0.01 mg/l	10 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 2025	31 March 2012	31 March 2012	31 March 2025	Exempt
Tributaries to Lakes Hawea, Wakatipu, & Wanaka	31 March 2012				

The standards for Groups 4 and 5 are 5-year 80<sup>th</sup> percentile values at all times.

**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 & Waihola	31 March 2025	31 March 2025	31 March 2012	31 March 2012	31 March 2025

**Table 15.2.5: Receiving Water Group 5**

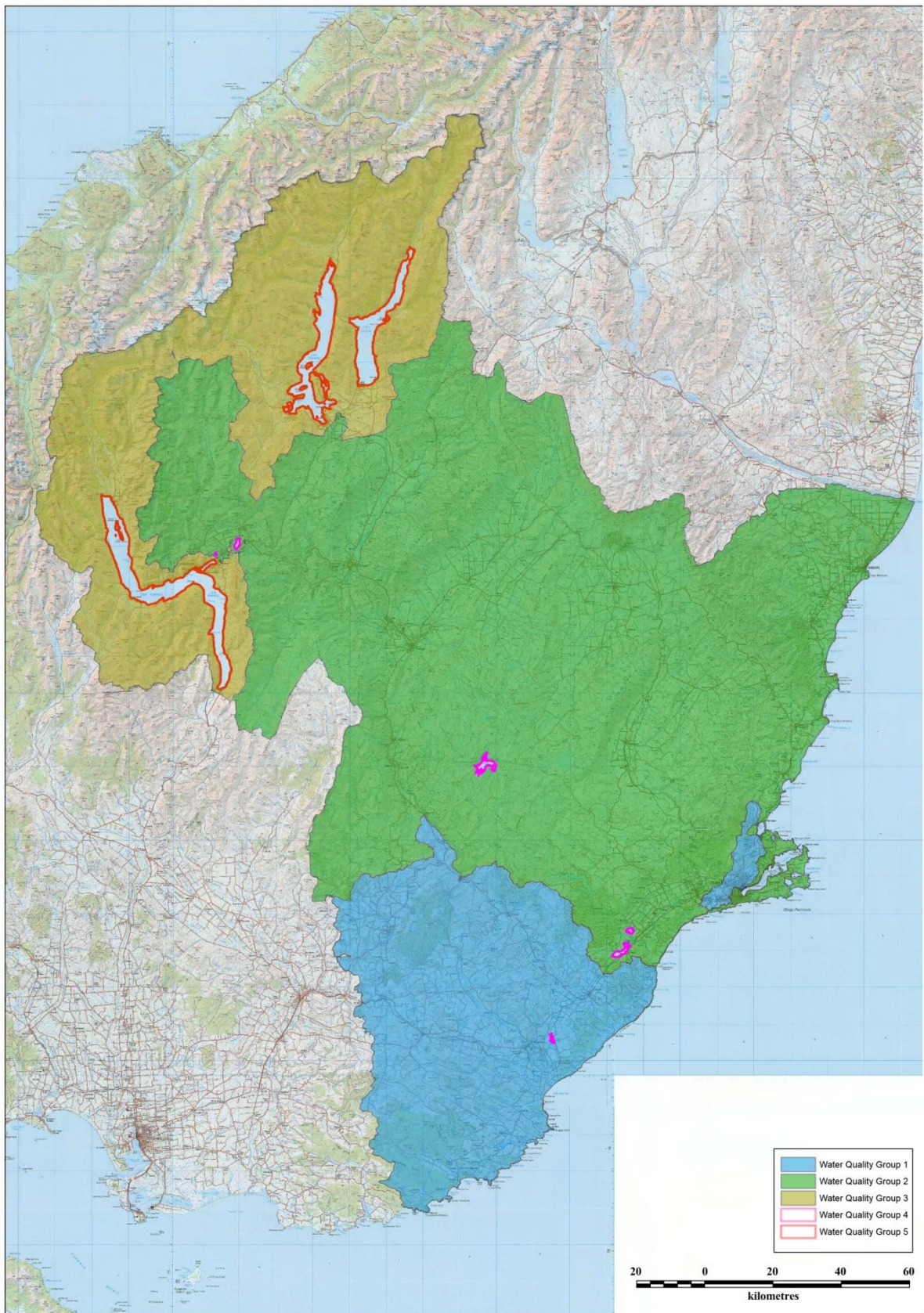
	Total Nitrogen	Total Phosphorus	Ammoniacal nitrogen	<i>Escherichia coli</i> <sup>3</sup>	Turbidity
	0.1 mg/l	0.005mg/l	0.01 mg/l	10 cfu/100 ml	3 NTU
Lake Hawea	31 March 2012				
Lake Wakatipu	31 March 2012	31 March 2025	31 March 2012	31 March 2012	31 March 2012
Lake Wanaka	31 March 2012				

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 16 Schedule of discharge limits for water quality**

Schedule 16 describes the contaminant concentration limits that are applicable to discharges to the lakes, rivers, wetlands and drains or races flowing to the lakes, rivers or wetlands, in the catchments of each discharge limit area. Discharge Limit Areas 1 and 2 catchments are shown on the J-series Maps. Discharges of contaminants described in this Schedule are permitted under Rule 12.C.1.1(d)(1) as long as the concentration limits are not exceeded when, at the representative monitoring site, the water flow is at or below reference flow.

**16A Discharge limits for water quality by discharge limit area**

Discharge Limit Area 1 Catchments	Nitrate-nitrite nitrogen	Dissolved reactive phosphorus	Ammoniacal nitrogen	<i>Escherichia coli</i>
<b>Timeframe</b>	1 April 2020			
<ul style="list-style-type: none"> <li>▪ <b>Catlins</b></li> <li>▪ <b>Carey’s Creek</b></li> <li>▪ <b>Kaikorai</b></li> <li>▪ <b>Leith</b></li> <li>▪ <b>Mokoreta</b> (within Otago)</li> <li>▪ <b>Owaka</b></li> <li>▪ <b>Pomahaka</b>, downstream of Glenken</li> <li>▪ <b>Tahakopa</b></li> <li>▪ <b>Tokomairiro</b></li> <li>▪ <b>Tuapeka</b></li> <li>▪ <b>Waitahuna</b></li> <li>▪ <b>Waitati</b></li> <li>▪ <b>Waiwera</b></li> <li>▪ Any unlisted tributary on the true right bank of the <b>Clutha/Mata-Au</b>, south of Judge Creek</li> <li>▪ Any unlisted tributary on the true left bank of the <b>Clutha/Mata-Au</b>, south of the Tuapeka</li> <li>▪ Any unlisted catchment that discharges to the <b>coast</b>, south of Taieri Mouth</li> </ul>	3.6 mg/l	0.045 mg/l	0.2 mg/l	550 cfu/100 ml

SCHEDULE 16: DISCHARGE LIMITS

Discharge Limit Area 2 Catchments	Nitrate-nitrite nitrogen	Dissolved reactive phosphorus	Ammoniacal nitrogen	<i>Escherichia coli</i>
<b>Timeframe</b>	1 April 2020			
<ul style="list-style-type: none"> <li>▪ <b>Cardrona</b></li> <li>▪ <b>Clutha/Mata-Au</b> (above Luggate)</li> <li>▪ <b>Clutha/Mata-Au</b> and any unlisted tributary (Luggate to mouth, including Lake Roxburgh, and excluding tributaries described in Discharge Limit Catchment Area 1)</li> <li>▪ <b>Fraser</b></li> <li>▪ <b>Kakanui</b></li> <li>▪ <b>Kawarau</b></li> <li>▪ <b>Lake Dunstan</b></li> <li>▪ <b>Lake Hayes</b></li> <li>▪ <b>Lake Hawea</b> and any tributary</li> <li>▪ <b>Lake Johnson</b></li> <li>▪ <b>Lake Onslow</b></li> <li>▪ <b>Lake Tuakitoto</b></li> <li>▪ <b>Lake Waipori &amp; Waihola</b></li> <li>▪ <b>Lake Wakatipu</b> and any tributary</li> <li>▪ <b>Lake Wanaka</b> and any tributary</li> <li>▪ <b>Lindis</b></li> <li>▪ <b>Luggate</b></li> <li>▪ <b>Manuherikia</b></li> <li>▪ <b>Mill Creek</b> (tributary to Lake Hayes)</li> <li>▪ <b>Pomahaka</b>, upstream of Glenken</li> <li>▪ <b>Shag</b></li> <li>▪ <b>Shotover</b></li> <li>▪ <b>Taieri</b></li> <li>▪ <b>Trotters</b></li> <li>▪ <b>Waianakarua</b></li> <li>▪ <b>Waikouaiti</b></li> <li>▪ <b>Waipori</b></li> <li>▪ <b>Waitaki</b> tributaries within Otago</li> <li>▪ Any unlisted catchment that discharges to the <b>coast</b>, north Taieri Mouth</li> </ul>	1.0 mg/l	0.035 mg/l	0.2 mg/l	550 cfu/100 ml

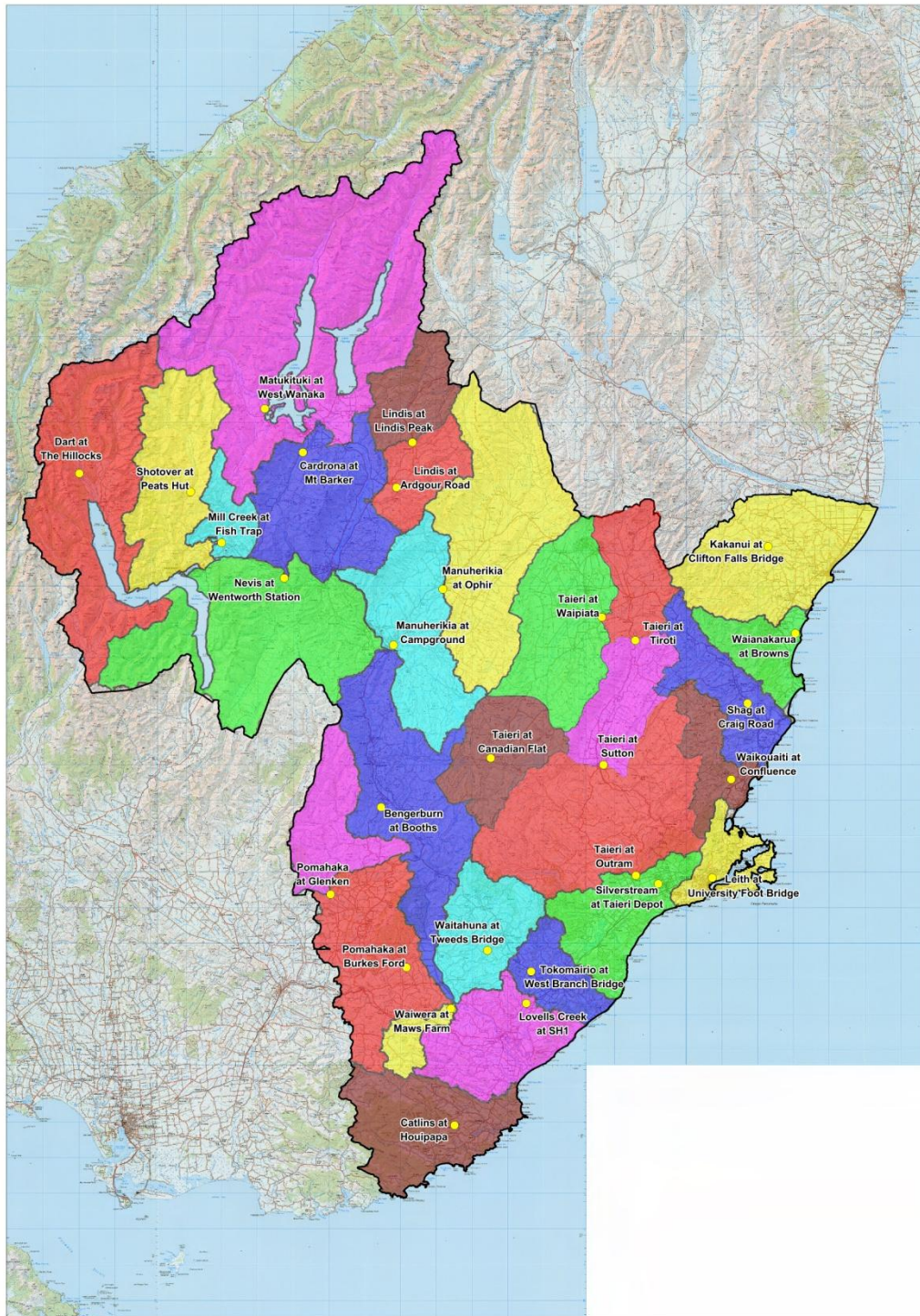
mg/l = milligrams per litre

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 LIMITS

**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 Taieri Depot	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
Waianakarua at Browns	0.78
Waikouaiti at Confluence	1.34
Waitahuna at Tweeds Bridge	1.55

SCHEDULE 16: DISCHARGE LIMITS

Monitoring Flow Site	Reference flow (cumecs)
Waiwera at Maws Farm	1.58





# **Glossary**

## G L O S S A R Y

*Add the following definitions to the glossary:*

**Animal waste system**            Includes collection, storage, treatment, disposal or application of liquid or solid animal waste.

*Amend the following definition in the glossary:*

**Fertiliser**                    Any proprietary substance specifically manufactured for use in increasing the nutrient status of land. Excludes compost, effluent or seaweed.

**Regional Plan: Water for Otago**

# **Maps**