

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## **7.2 Issues in general** *[Repealed – 1 May 2014]*

## **7.3 Issues related to point source discharges to water** *[Repealed – 1 May 2014]*

## **7.4 Issues related to non-point source discharges to water** *[Repealed – 1 May 2014]*

## **7.5 Objective** *[Repealed – 1 May 2014]*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.C.5 With respect to discharges from any new stormwater reticulation system, or any extension to an existing stormwater reticulation system, to require:**
- (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.**

#### **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 To promote the progressive upgrading of the quality of water discharged from existing stormwater reticulation systems.**

**Explanation**

The Otago Regional Council will encourage 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.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.**
- 7.D.5 When considering any discharge under section 12.C, including the duration of any consent, have regard to:**
- (a) **The effects, including cumulative effects, of the discharge on water quality and natural and human use values, including Kāi Tahu values; and**
  - (b) **The physical characteristics of the land; and**
  - (c) **The discharge management system used, or proposed to be used, in particular, options to be employed to reduce any adverse environmental effects of the activity; and**

- (d) Any staged timeframe and any environmental management plan to achieve:**
  - (i) Compliance with the permitted activity rules and Schedule 16 discharge thresholds during the duration of the consent; or**
  - (ii) The reduction of adverse environmental effects of the discharge, where the permitted activity rules and Schedule 16 discharge thresholds cannot be met; and**
- (e) Trends in the quality of the receiving water relative to the Schedule 15 freshwater characteristics, limits, and targets; and**
- (f) The extent to which the risk of potentially significant, adverse effects arising from the activity may be adequately managed through review conditions; and**
- (g) The value of the 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) Recognising the social, cultural and economic value of the use of land and water that gives rise to the discharge.**

## **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]*



