# Regional Plan: Water for Otago

**Proposed Plan Change 8** (Discharge management)

**Partially Operative** 



4 June 2022

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This is a true and correct copy of Plan Change 8 to the Regional Plan: Water for Otago.

Plan Change 8 to the Regional Plan: Water is deemed to be partially operative on Saturday, 4 June 2022

The Common Seal of the Otago Regional Council was hereto affixed in the presence of:

COREGIONAL COUNCE

Cr Andrew Noone Chairperson

Cr Gretchen Robertson

Co-Chairperson, Strategy and Planning Committee

#### Introduction

The Otago Regional Council has prepared Proposed Plan Change 8 (Discharge management) to the Regional Plan: Water for Otago. Proposed Plan Change 8 amends existing, and introduces new provisions for:

- Managing, through enhanced policy direction, decision-making on stormwater, wastewater and rural discharges;
- o Effluent storage and application to land through new minimum standards;
- Promoting good farming practices, including better managing contaminant loss from intensive grazing and stock access to water bodies as well as incentivising the use of small in-stream sediment traps;
- Improving management of sediment loss from earthworks for residential development, and
- Clarifying provision for nationally and regionally significant infrastructure in wetlands.

This document should be read in conjunction with:

- Section 32 Evaluation Report; and
- Regional Plan: Water for Otago (operative as at 1 January 2004).

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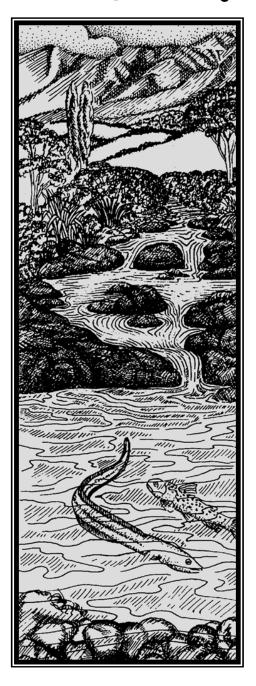
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### Part A: Discharge policies

#### **Relevant provisions:**

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# 7 Water Quality



- 7.1 Introduction [Unchanged]
- 7.2 Issues in general [Repealed 1 May 2014]
- 7.3 Issues related to point source discharges to water [Repealed 1 May 2014]
- 7.4 Issues related to non-point source discharges to water [Repealed 1 May 2014]
- **7.5 Objective** [*Repealed* 1 *May* 2014]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** [Unchanged]
- 7.B Policies general [Unchanged]
- 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 7.C.4 [*Unchanged*]
  - 7.C.5 <u>Minimise the adverse environmental effects of discharges</u> With respect to discharges from any new stormwater reticulation system, or any extension to an existing stormwater reticulation system, to require: by requiring:
    - (a) The separation of sewage and stormwater; and
    - (b) Measures to prevent contamination of the receiving environment by industrial or trade waste; and
    - (c) The use of techniques to trap debris, sediments and nutrients present in runoff.

#### **Explanation**

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

#### Principal reasons for adopting

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

Rules: 12.B.3.1

Other methods: 15.2.5.1, 15.4.2.1, 15.4.2.2.

- 7.C.6 Reduce the adverse environmental effects from existing stormwater reticulation systems by:
  - (a) Requiring the progressive upgrade of stormwater reticulation systems to minimise the volume of sewage entering the system and the frequency and volume of sewage overflows; and
  - (b) To promote Promoting the progressive upgrading of the quality of water discharged from existing stormwater reticulation systems, including through:
    - (i) The separation of sewage and stormwater; and
    - (ii) Measures to prevent contamination of the receiving environment by industrial or trade waste; and
    - (iii) The use of techniques to trap debris, sediments and nutrients present in runoff.

#### **Explanation**

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

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

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

#### Principal reasons for adopting

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

Rules: 12.B.3.1

Other methods: 15.2.5.1, 15.4.2.1, 15.4.2.2.

7.C.7 – 7.C.11 [*Unchanged*]

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

- (a) Requiring reticulated wastewater systems to be designed, operated, maintained and monitored in accordance with recognised industry standards; and
- (b) Requiring the implementation of measures to:
  - (i) Progressively reduce the frequency and volume of wet weather overflows; and
  - (ii) Minimise the likelihood of dry weather overflows occurring; and
- (c) Preferring discharges to land over discharges to water, unless adverse effects associated with a discharge to land are greater than a discharge to water; and
- (d) Having particular regard to any adverse effects on cultural values.

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

7.**D.1** – 7.**D.4** [*Unchanged*]

- 7.D.5 When considering any discharge under section 12.C, have regard to:
  - (a) The effects, including cumulative effects, of the discharge on water quality, ecosystem health and natural and human use values, including Kāi Tahu cultural and spiritual beliefs, values and uses; and
  - (b) The physical characteristics of the land and the sensitivity of the receiving water; and
  - (c) The quality and performance of the discharge management system to be used, and in particular,
    - (i) options to be employed to reduce any adverse environmental effects of the discharge; and
    - (ii) monitoring of the performance of the discharge management system; and
  - (d) Any staged timeframe and any environmental management plan to achieve:
    - (i) Compliance with the permitted activity rules and Schedule 16 discharge thresholds for the duration of the consent; or
    - (ii) The demonstrable reduction of adverse environmental effects of the discharge over the duration of the consent; and
  - (e) Trends in the quality of the receiving water relative to the Schedule 15 freshwater characteristics, limits, and targets and relative to any national bottom lines specified in Appendix 2A and 2B of the NPS-FM; and

- (f) The extent to which potentially significant, adverse effects arising from the discharge are avoided; and
- (g) The value of the existing investment in infrastructure; and
- (h) The current state of technical knowledge and the use of industry best practice for managing environmental effects; and
- (i) The extent to which co-ordinating the discharges across multiple landholdings enables water quality objectives to be more effectively met: and
- (j) The social, cultural and economic value of the use of land and water that gives rise to the discharge.
- 7.D.6 When considering applications for resource consent for discharges of nitrogen onto or into land in circumstances where it may enter water under Rule 12.C.3.2:
  - (a) Restrict the duration of resource consents to a term of no more than 10 years; and
  - (b) Have particular regard to:
    - (i) The water quality of the receiving water body; and
    - (ii) Any adverse effects on the natural or human use values of the receiving water body as set out in Schedule 1; and
    - (iii) Any adverse effects on Kāi Tahu cultural and spiritual beliefs, values and uses; and
    - (iv) Any measures proposed to reduce nitrogen discharged over the term of the resource consent, including any changes to land management practices or infrastructure; and
    - (iv) The benefits of aligning the expiry date with other resource consents for the same activity in the surrounding area or catchment.

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7.D.7 – 7.D.8 [New Part – Part B]
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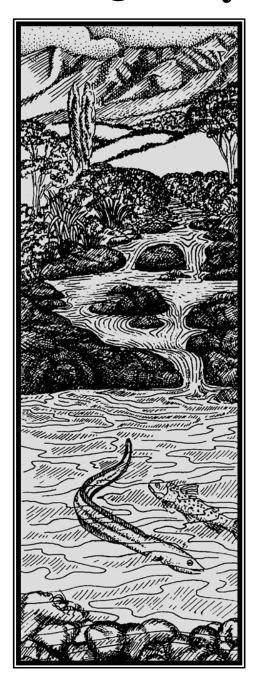
- 7.6 Policies for the enhancement of water quality [Repealed 1 May 2014]
- 7.7 Policies for point source discharges [Repealed 1 May 2014]
- 7.8 Policies for non-point source discharges [Repealed 1 May 2014]
- 7.9 Anticipated environmental results [Repealed 1 May 2014]

### Part B: Animal waste storage and application

#### **Relevant provisions:**

New Policy 7.D.7	18
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Amended Rule 12.C.0.2	22
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# 7 Water Quality



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7.C.1 – 7.C.4 [Unchanged]
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**7.C.5** – **7.C.6** [Amended - Part A]

7.C.7 – 7.C.11 [*Unchanged*]

**7.C.12** [New - Part A]

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

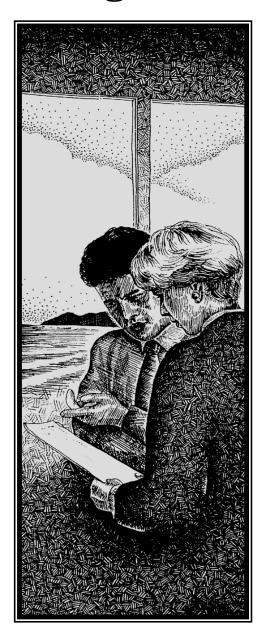
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7.D.1 – 7.D.4 [Unchanged]
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- 7.D.7 Ensure the appropriate management and operation of animal effluent systems and management of the application of animal effluent to land by:
  - (a) Requiring animal effluent systems to be designed, constructed and located appropriately and in accordance with good management practice; and
  - (b) Ensuring that all animal effluent systems:
    - (i) Have sufficient storage capacity to ensure that the disposal of effluent to land does not occur under conditions that will result in contaminants entering into water; and

- (ii) Include contingency measures to prevent discharges of effluent to a water body, an artificial watercourse, or the coastal marine area, either directly or indirectly; and
- (iii) Are operated in accordance with a management plan for the purpose of preventing the unauthorised discharge of liquid or solid effluent to water; and
- (c) Avoiding the discharge of liquid and solid animal effluent to:
  - (i) water bodies, artificial watercourses, bores and soak holes, and the coastal marine area; and
  - (ii) land in a manner that results in ponding or overland flow to water; and
  - (iii) land when the soil moisture exceeds field capacity;
- (d) Requiring effluent application to be in accordance with good management practice; and
- (e) Granting resource consents for discharges of animal effluent for a maximum duration of up to 10 years in order to facilitate an efficient and effective transition from the operative freshwater planning framework towards a new integrated regional planning framework.
- 7.D.8 Provide for the upgrading of existing animal effluent storage facilities that do not meet the standards in Rule 14.7.1.1 by:
  - (a) Granting resource consents only where consent applications contain a timebound action plan for upgrading the existing animal effluent storage facility so that it meets the standards in Rule 14.7.1.1 as soon as possible; and
  - (b) Staging implementation of performance standards based on risk in accordance with Rule 14.7.1.2 and Schedule 19.
  - **7.D.9** [*New Part Part C*]
  - **7.D.10** [*New Part Part G*]
- 7.6 Policies for the enhancement of water quality [Repealed 1 May 2014]
- 7.7 Policies for point source discharges [Repealed 1 May 2014]
- 7.8 Policies for non-point source discharges [Repealed 1 May 2014]
- 7.9 Anticipated environmental results [Repealed 1 May 2014]

# 12

## Rules: Water Take, Use and Management



#### **12.0 - 12.B**[*Unchanged*]

#### 12.C Other discharges

- 12.C.A.1 Discharge rules in section 12.C apply to any discharge not provided for in sections 12.A, 12.B or 13.5.
- 12.C.A.2 Within section 12.C, prohibited activity rules prevail over any permitted, controlled, restricted discretionary and discretionary activity rules.

Note: Rules applying to plantation forestry:

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

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

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

- 12.C.0.1 [Unchanged]
- 12.C.0.2 The discharge of any contaminant from silage storage or a composting process:
  - (i) To any lake, river or Regionally Significant Wetland; or
  - (ii) To any drain or water race that goes to a lake, river, Regionally Significant Wetland or coastal marine area; or
  - (iii) To the bed of any lake, river or Regionally Significant Wetland; or
  - (iv) To any bore or soak hole; or
  - (v) To land in a manner that results in overland flow entering any:
    - (a) Lake, river, Regionally Significant Wetland or coastal marine area that is not permitted under Rule 12.C.1.1 or 12.C.1.1A; or
    - (b) Drain or water race that goes to any lake, river, Regionally Significant Wetland or coastal marine area

that is not permitted under Rule 12.C.1.1 or 12.C.1.1A; or

- (vi) To land within 50 metres of:
  - (a) Any lake, river or Regionally Significant Wetland; or
  - (b) Any bore or soak hole; or
- (vii) To saturated land; or
- (viii) That results in ponding,

is a *prohibited* activity.

#### 12.C.0.3 [Unchanged]

- 12.C.0.4 The discharge of liquid animal effluent from an animal effluent system:
  - (i) To any lake, river or Regionally Significant Wetland; or
  - (ii) To any drain or water race that goes to a lake, river, Regionally Significant Wetland or coastal marine area; or
  - (iii) To the bed of any lake, river or Regionally Significant Wetland; or
  - (iv) To any bore or soak hole; or
  - (v) To land within 50 metres of:
    - (a) Any lake, river or Regionally Significant Wetland; or
    - (b) Any bore or soak hole; or
  - (vi) To land in a manner that results in ponding or overland flow to water; or
  - (vii) To land when the soil moisture exceeds field capacity; or
  - (viii) Where liquid animal effluent is distributed through the same infrastructure as water from a bore with no back flow prevention installed,

is a *prohibited* activity.

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

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

12.C.1.1 - 12.C.1.3 [Unchanged]

- 12.C.1.4A The discharge of solid animal effluent (excluding any discharge directly from an animal to land), or vegetative material containing solid or liquid animal effluent, into or onto land including in circumstances where a contaminant may enter water is a permitted activity provided:
  - (a) the material does not contain any hazardous substance or hazardous waste,
  - (b) the material does not include any waste from a human effluent treatment process,
  - (c) the material is not discharged:
    - (i) onto the same area of land more frequently than once every two months; or
    - (ii) onto land where solid animal effluent, or vegetative material containing liquid or solid animal effluent, from a previous application is still visible on the land surface; or
    - (iii) onto land when the soil moisture exceeds field capacity; or
    - (iv) within 20 metres of the bed of a lake, river, the coastal marine area, Regionally Significant Wetland, water supply used for human consumption, bore, soak hole, or a landholding boundary.
- 12.C.1.4B The discharge of liquid animal effluent, or water containing liquid animal effluent, onto or into land is a permitted activity providing:
  - a) The volume of the discharge is not more than 35m³ per landholding in any consecutive 12 month period; and
  - b) The discharge is not prohibited under Rule 12.C.0.4; and
  - c) The discharge does not occur within 20 metres of the boundary of the landholding on which the liquid animal effluent is being discharged, or beyond that boundary; and
  - d) There is no discharge to land when the soil moisture exceeds field capacity.
- 12.C.1.4 Notwithstanding any other rule in this Plan, the discharge of liquid animal effluent, or water containing liquid animal effluent, from an animal effluent system onto or into land is a *permitted* activity providing:

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

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

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

12.C.2.1 – 12.C.2.4 [*Unchanged*]

- 12.C.2.5 The discharge of liquid animal effluent, or water containing liquid animal effluent, from an animal effluent system onto or into land is a *restricted discretionary* activity provided:
  - (a) The discharge is not prohibited under Rule 12.C.0.4; and
  - (b) The discharge is not permitted under Rule 12.C.1.4;

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

- (i) The extent to which the application depth and rate is consistent with industry agreed good management practice;
- (ii) Size and location of the disposal area, including separation distances from lakes, rivers, natural wetlands, bores, soak holes, the coastal marine area, water supply for human consumption and dwellings;
- (iii) Adverse effects on water quality, taking into account the nature and sensitivity of the receiving environment, and any measures to avoid, remedy or mitigate these adverse effects;
- (iv) Adverse effects on Kāi Tahu cultural and spiritual beliefs, values and uses, and any measures to avoid, remedy or mitigate these adverse effects;
- (v) Duration of consent and any review conditions;

- (vi) Quality and content of, and compliance with, a management plan for the purpose of preventing the unauthorised discharge of liquid or solid animal effluent to water that is prepared in accordance with Schedule 21;
- (vii) Any information and monitoring requirements, and
- (viii) The value of existing investment in the animal effluent system.

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

#### 12.C.3 Discretionary activities: Resource consent required

12.C.3.1 & 12.C.3.2 [Unchanged]

# 14

### Rules: Land Use other than in Lake or River Beds



**14.1 - 14.4** [Unchanged]

#### **14.6** [New – Part D]

#### 14.7 Animal Waste Systems

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

#### 14.7.1 Permitted activities: No resource consent required

- 14.7.1.1A The use of land for the construction, use and maintenance of a component of an animal effluent system that is not an animal effluent storage facility is a *permitted* activity providing:
  - (a) for a component with a volume of less than 35,000 litres, the component does not have any visible cracks, holes or defects that would allow effluent to leak from the component;
  - (b) for a component with a volume of 35,000 litres or above, the component is certified by a Suitably Qualified Person, as defined in Schedule 20, within the last five years as having no visible cracks, holes or defects that would allow effluent to leak from the component;
  - (c) the component (excluding conveyance pipes) is not located:
    - (i) within 20 metres of any lake, river, Regionally Significant Wetland, water supply used for human consumption, bore or soak hole; or
    - (ii) above subsurface drainage (excluding a leak detection system); and
  - (d) where the total volume of the animal effluent system exceeds 35,000 litres, a management plan for the purpose of preventing the unauthorised discharge of liquid or solid animal effluent to water is prepared and implemented in accordance with Schedule 21.
- 14.7.1.1 The use of land for the use and maintenance of an animal effluent storage facility that was constructed prior to 25 March 2020 is a *permitted* activity providing:
  - (a) The animal effluent storage facility is sized in accordance with the 90<sup>th</sup> percentile as calculated by the Dairy Effluent Storage Calculator, and where relevant using a conversion factor for animals other than dairy cows determined by a Suitably Qualified Person as defined in Schedule 20;
  - (b) The animal effluent storage facility is certified by a Suitably Qualified Person as defined in Schedule 20, within the last five years as:

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

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

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

#### 14.7.2 Controlled activities: Resource consent required

- 14.7.2.1 The use of land for the construction, use and maintenance of an animal effluent storage facility constructed after 25 March 2020 is a *controlled* activity provided the following conditions are met:
  - (a) The animal effluent storage facility is sized in accordance with the 90<sup>th</sup> percentile as calculated by the Dairy Effluent Storage Calculator and where relevant using a conversion factor for animals other than dairy cows determined by a Suitably Qualified Person as defined in Schedule 20; and
  - (b) The animal effluent storage facility is either:
    - (i) Fully lined with an impermeable synthetic liner and has a leak detection system that underlies the animal effluent storage facility; or
    - (ii) Of concrete construction; or
    - (iii) An above-ground tank; or
    - (iv) Sealed with a clay liner; and
  - (c) The design of the animal effluent storage facility, and any leak detection system has been certified by a Chartered Professional Engineer as being in accordance with the relevant

parts of IPENZ Practice Note 21<sup>1</sup> and IPENZ Practice Note 27;<sup>2</sup> and

- (d) The animal effluent storage facility is not located:
  - (i) Within 50 metres of any lake, river or Regionally Significant Wetland; or
  - (ii) Within 90 metres of any water supply used for human consumption; or
  - (iii) Within 50 metres of any bore or soak hole; or
  - (iv) Above subsurface drainage (other than a leak detection system); and
- (e) A management plan for the purpose of preventing the unauthorised discharge of liquid or solid animal effluent to water is prepared and implemented in accordance with Schedule 21.

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

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

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

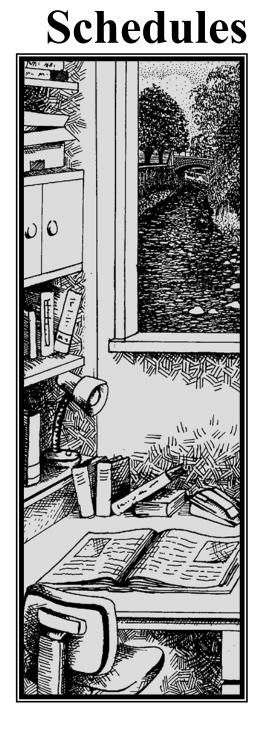
<sup>&</sup>lt;sup>2</sup> Available from https://www.dairynz.co.nz/publications/environment/ipenz-practice-note-27-dairy-farm-infrastructure/

#### 14.7.3 Discretionary activities: Resource consent required

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

RULES: LAND USE OTHER THAN IN LAKE OR RIVER BEDS

# adules



### **Schedules 1 - 17** [Unchanged]

### 18. Schedule of pond drop test requirements and criteria

This schedule outlines the requirements for undertaking pond drop tests on animal effluent storage facilities that are part of an animal effluent system and the pass criteria for drop test results.

### Requirements

- A minimum of 24 hours of accurate data within a single test period.
- Total test error of less than  $\pm 1$ mm.
- Continuous readings are to be taken over the entire test period at not more than 10 second intervals.
- Any change in pond fluid level over the test period needs to be accounted for.
- Ponds must be at or over 75% design depth (excluding freeboard) before a test can be undertaken.
- The level of sludge or crust on the pond during the test should be minimal so that it does not impact on test results.
- The pond surface is not frozen during any part of the testing.
- An anemometer is installed for the duration of the test and only data obtained when the wind speed does not exceed 50 kilometres per hour (14 m per second) at the test site is used in the test results.

#### Table 18.1 Maximum allowable pond level change

When tested in accordance with the requirements above, the animal effluent storage facility is considered to meet the pond drop test criteria if the maximum pond level change does not exceed the following:

Maximum design depth of pond (m)	Maximum allowable pond level
excluding freeboard	change (mm per 24 hours)
< 0.5	1.2
0.5 to 1.0	1.4
1.0 to 1.5	1.6
1.5 to 2.0	1.8
>2.0	2.0

# 19. Schedule of progressive implementation of animal effluent storage requirements

Many animal effluent storage facilities in Otago will need to be upgraded to meet the requirements of this Plan. The intent of this Schedule is to stage implementation of the Plan's requirements according to the environmental risk posed by existing animal effluent storage facilities. To assess this risk, Schedule 19 provides two calculations that will determine the current storage volume available on a landholding (in days) as follows:

- Schedule 19A sets out the calculations required to determine days of storage available on a landholding.
- Schedule 19B sets out the date by which a complete resource consent application must be lodged with the Otago Regional Council under Rule 14.7.3.1 (and correspondingly Rule 14.7.1.2 ceases to apply). A complete application is one that is not determined as being incomplete by the Otago Regional Council pursuant to section 88 of the Resource Management Act 1991.

For clarity, this calculation under Schedule 19A does not determine the volume of the storage facility under section 14.7, it only determines the date that applications must be received.

### 19A Storage calculation

Two calculations are required to determine the current minimum number of days of animal waste storage available on a landholding. These are set out below.

#### Step One: Daily waste volume

To calculate the daily waste volume per farm, use the following formula:

Daily waste volume (m<sup>3</sup>)
$$= \begin{array}{c} \text{Maximum} \\ \text{number of cows} \\ \text{milked per day} \end{array} x \begin{array}{c} \text{0.05}^{\wedge} \\ \text{0.05}^{\wedge} \end{array} x \begin{array}{c} \text{Maximum} \\ \text{number of times} \\ \text{per day that} \\ \text{cows are milked} \\ \text{during milking} \\ \text{season} \end{array}$$

For example:

During milking season, Farm A milks 500 cows twice per day. Using the formula above:

Daily waste volume 
$$(m^3)$$
 = 500 x 0.05 x 2

<sup>^</sup> being 0.05 cubic metres (50 litres per cow per day)

Daily waste volume 
$$(m^3)$$
 = 50

#### **Step Two:**

To calculate the minimum number of days of storage available, use the following formula:

Days of storage available = Actual storage volume 
$$(m^3)^{\hat{}}$$
 Daily waste volume  $(m^3)$ 

^ determined assuming that the storage facility is empty.

#### For example:

As calculated above, Farm A has a daily waste volume of 50 m<sup>3</sup>. The farm has a storage pond with a storage volume of 1000 m<sup>3</sup>. Using the formula above:

Using the table in Schedule 19B, Otago Regional Council must receive a complete resource consent application under Rule 14.7.3.1 from Farm A no later than two years from the date Plan Change 8 is made operative.

## 19B Application dates

The following table sets out the dates by which complete resource consent applications must be received under Rule 14.7.3.1 (and correspondingly Rule 14.7.1.2 ceases to apply). The "application date" is the date Plan Change 8 is made operative, plus the number of years in the "year" column below.

Days of storage available as calculated in accordance with Schedule 19B	Year
0-10	0.5
11 - 40	2
41+	3

### 20. Schedule defining Suitably Qualified Persons

A suitably qualified person for the purposes of this schedule is a person who has been certified by the Otago Regional Council as being appropriately qualified and experienced in accordance with the requirements below.

#### Requirements – Animal Effluent systems

For the purposes of Rules 14.7.1.1A(b), 14.7.1.1(b) and Schedule 21(j), a Suitably Oualified Person has either:

- (a) A relevant tertiary qualification in agricultural engineering, natural resources engineering or civil engineering and at least five years' professional experience in designing and constructing effluent management systems; or
- (b) A relevant equivalent qualification (for example, international qualifications) and at least five years' professional experience in designing and constructing effluent management systems; or
- (c) At least ten years' professional experience in designing and constructing effluent management systems.

#### Requirements – Calculations using the Dairy Effluent Storage Calculator

For the purposes of Rules 14.7.1.1(a) and Rule 14.7.2.1(a), a Suitably Qualified Person has:

- (a) For undertaking a calculation using the Dairy Effluent Storage Calculator, at least five years' relevant professional experience in designing effluent management systems, and
- (b) For determining a conversion factor for animals that are not dairy cows, a relevant scientific tertiary qualification or relevant research experience.

### 21. Schedule of management plan requirements

- (1) A management plan for the purpose of preventing the unauthorised discharge of liquid or solid animal effluent to water is:
  - (a) prepared by the landholding owner or their agent and retained on the landholding, identifying the matters set out in clause 2 below;
  - (b) reviewed at least once every 12 months by the landholding owner or their agent, and the outcome of the review documented; and
  - (c) provided to the Otago Regional Council upon request, and
- (2) The management plan must contain the following:
  - (a) physical address of where the animal effluent system is located, and the land where liquid or solid animal effluent is to be applied,
  - (b) a description of the landholding ownership, and the contact details of the owner and the person in charge,
  - (c) legal description(s) of the landholding,
  - (d) a list of all the relevant resource consents held for the landholding and their expiry dates,
  - (e) a map(s) or aerial or satellite photograph(s) showing the locations of:
    - (i) the boundaries of the landholding,
    - (ii) the location of any dairy shed, animal effluent storage facilities, and any other components of an animal effluent system,
    - (iii) lakes, rivers, natural wetlands, bores, soak holes, the coastal marine area, water supply for human consumption and dwellings within the landholding,
    - (iv) the area of land where liquid or solid animal effluent is to be applied, and in relation to this area:
      - soil types and their risk profile,
      - any critical source areas and the locations of known subsurface drains.
  - (f) Operational procedures for using and maintaining the animal effluent system and for managing the discharge of animal effluent,
  - (g) Inspection, monitoring and reporting requirements and timeframes,
  - (h) The records of pond drop tests of the animal effluent storage facility undertaken at least every five years (excluding above-ground tanks, bladders, solid animal effluent storage facilities and an animal effluent storage facility with a leak detection system),
  - (i) Contingency measures to prevent the discharge of liquid or solid animal effluent to a water body, an artificial watercourse, or the coastal marine area, either directly or indirectly,
  - (j) Identification of measures to be taken to respond to a leak and the timeframe for response; including, for animal effluent storage facilities with a leak detection system where a leak is detected, a requirement for

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an assessment by a Suitably Qualified Person to be undertaken as soon as practicable and no later than two months of the detection to determine whether the leak is within the normal operating parameters of the pond, and

(k) Responses to any other system failures or emergencies, including timeframes for response.

Footnote 1: A digital soil map for New Zealand can be found online at https://smap.landcareresearch.co.nz/

# 21 Glossary

Animal effluent storage facility

A pond, tank, or structure primarily used for the containment or storage of animal effluent, but excludes any ancillary structures for the collection, conveyance or treatment of liquid or solid animal effluent, such as sumps, stone traps and weeping walls.

Animal effluent system

Means the collection, storage, or treatment, of liquid or solid animal effluent.

Dairy Effluent Storage Calculator

Means the Dairy Effluent Storage Calculator available from http://www.dairynzdesc.co.nz

Liquid animal effluent

Faeces and urine from land-based animals, including associated process water, wash-down water, contaminants and sludge but excluding solid animal effluent. For the purposes of this definition, it does not include incidental animal effluent present in livestock processing waste streams.

Solid animal effluent

Solid excreta from land-based animals that cannot be pumped and sprayed, including bedding material and manure, but does not include dead animals or animal parts.

**Suitably Qualified Person** 

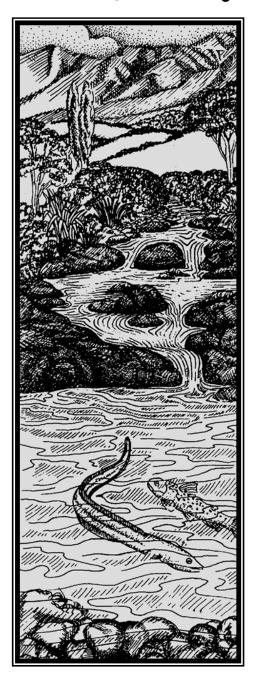
Has the meanings set out in Schedule 20.

# Part C: Good farming practices

# **Relevant provisions:**

New Policy 7.D.9	46
New Definition: Critical source area	50

# 7 Water Quality



- 7.1 Introduction [Unchanged]
- 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** [Unchanged]
- **7.B** Policies general [Unchanged]
- 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

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7.C.1 – 7.C.4 [Unchanged]
7.C.5 – 7.C.6 [Amended - Part A]
7.C.7 – 7.C.11 [Unchanged]
```

**7.C.12** [New - Part A]

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

```
7.D.1 – 7.D.4 [Unchanged]
7.D.5 [Amended - Part A]
7.D.6 [New - Part A]
7.D.7 – 7.D.8 [New - Part B]
```

- 7.D.9 Enable farming activities while reducing their adverse environmental effects by:
  - (a) Promoting the implementation of good management practices (or better) to reduce sediment and contaminant loss to water bodies; and
  - (b) Managing the risk of sediment and contaminants in run off entering water as a result of farming activities by:
    - (i) Implementing setbacks from rivers, lakes, drains (excluding sub-surface drains), natural wetlands or the coastal marine area and establishing or maintaining riparian vegetation,

- (ii) Limiting areas and duration of exposed soil,
- (iii) Managing stock access to water bodies to avoid significant adverse effects on water quality, bed and bank integrity and stability, Kai Tahu cultural and spiritual beliefs, values, and uses, and river and riparian ecosystems and habitats,
- (iv) Setting interim minimum standards for intensive winter grazing; and
- (v) Managing critical source areas.
- **7.D.10** [*New Part Part G*]
- 7.6 Policies for the enhancement of water quality [Repealed -1 May 2014]
- 7.7 Policies for point source discharges [Repealed 1 May 2014]
- 7.8 Policies for non-point source discharges [Repealed 1 May 2014]
- 7.9 Anticipated environmental results [Repealed 1 May 2014]

# 21 Glossary

The table below only contains the Plan's definitions which are particularly relevant for this plan change

# Critical source area

Means a landscape feature such as a gully, swale, or depression that accumulates runoff from adjacent flats and slopes and delivers contaminants to surface water bodies such as rivers, lakes, and artificial watercourses (excluding subsurface drains, and artificial watercourses that do not connect to natural water bodies).

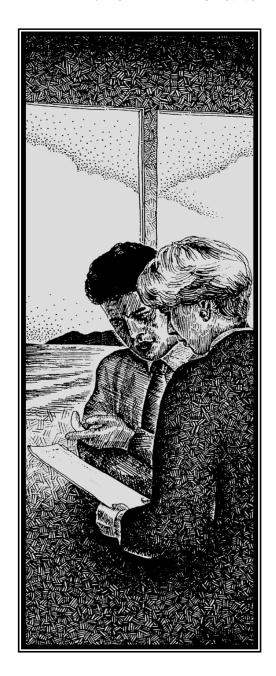
# Part D: Intensive grazing

# **Relevant provisions:**

New Rule 14.6.1.1 (land use – permitted)	54
New Rule 14.6.2.1 (land use – discretionary)	54
New Definition – Intensive grazing	58

# 14

# Rules: Land Use other than in Lake or River Beds



## **14.1 - 14.4** [*Unchanged*]

**14.5** [New – Part G]

#### 14.6 Rural land uses

#### 14.6.1 Permitted activities: No resource consent required

- 14.6.1.1 Until Regulations 26 and 27 of the Resource Management (National Environmental Standards for Freshwater) Regulations 2020 or equivalent regulations come into force, the use of land for intensive winter grazing is a *permitted* activity providing:
  - (a) Land on the farm was used for intensive winter grazing between 1 July 2014 and 30 June 2019 (inclusive); and
  - (b) At all times, the area of the farm that is used for intensive winter grazing is no greater than the maximum area of the farm that was used for intensive winter grazing between 1 July 2014 and 30 June 2019 (inclusive); and
  - (c) A vegetated strip of at least 5 metres is maintained between the intensively grazed area and any river, lake, wetland or drain (excluding sub-surface drains), and all stock are excluded from this strip during intensive winter grazing; and
  - (d) The intensive winter grazing does not occur in a natural wetland; and
  - (e) There is no intensive winter grazing in any critical source area unless contaminants are prevented from entering a surface water body.

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

#### 14.6.2 Discretionary activities: Resource consent required

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

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

Resource Management (National Environmental Standards for Freshwater) Regulations 2020.

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

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

Any resource consent granted under Regulation 30 must be for a term that ends before 1 January 2031.

**14.7** [New – Part B]

# 21 Glossary

The table below only contains the Plan's definitions which are particularly relevant for this plan change

Intensive winter grazing

Has the same meaning as defined in the Resource Management (National Environmental Standards for Freshwater) Regulations 2020.

# Part E: Stock access to water

Relevant provisions:	
Amended Rule 13.5.1.8A	.62

# 13

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



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

### 13.1 - 13.4 [*Unchanged*]

# 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 [Unchanged]
- 13.5.1 Permitted activities: No resource consent required

13.5.1.1 - 13.5.1.7 [Unchanged]

13.5.1.8 [Repealed – 1 May 2014]

- 13.5.1.8A The disturbance of the bed of any lake or river, or any Regionally Significant Wetland by livestock, excluding intentional driving of livestock, and any resulting discharge or deposition of bed material, is a *permitted* activity, providing it does not:
  - (a) Involve feeding out on that bed or wetland; or
  - (b) Cause or induce noticeable slumping, pugging or erosion; or
  - (c) Result in a visual change in colour or clarity of water; or
  - (d) Damage fauna, or New Zealand native flora, in or on any Regionally Significant Wetland.

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

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

13.5.1.8B [*Unchanged*]

13.5.1.9 *[Unchanged]* 

13.5.1.10 [New Part F]

13.5.2 & 13.5.3 [*Unchanged*]

13.6 & 13.7 [Unchanged]

# Part F: Sediment traps

<b>D</b> 1	
Relevant	provisions:
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New Rule .5.1.10	68
New Definition – Sediment trap	72

# 13

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



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

### 13.1 - 13.4 [*Unchanged*]

# 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 [Unchanged]
- 13.5.1 Permitted activities: No resource consent required

13.5.1.1 - 13.5.1.7 [Unchanged]

13.5.1.8 [Repealed – 1 May 2014]

13.5.1.8A [Amended – Part E]

13.5.1.8B [*Unchanged*]

13.5.1.9 *[Unchanged]* 

- 13.5.1.10 The disturbance of the bed of any ephemeral or intermittently flowing river for the purpose of constructing or maintaining a sediment trap and any associated deposition of bed material is a *permitted* activity providing:
  - (a) The construction or maintenance of the sediment trap is undertaken solely for sediment control purposes or to maintain the capacity and effective functioning of the sediment trap; and
  - (b) The construction or maintenance does not result in destabilisation of any lawfully established structure or cause increased risk of flooding or erosion; and
  - (c) No works occur in flowing water; and
  - (d) Any build-up of sediment and other debris (including vegetation) within the sediment trap is removed to maintain the effectiveness of the sediment trap; and
  - (e) All reasonable steps are taken to minimise the release of sediment during the disturbance and there is no conspicuous change in the colour or clarity of the water body beyond a distance of 200 metres downstream of the disturbance; and
  - (f) No lawful take of water is adversely affected as a result of the disturbance; and

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

- (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.

# 21 Glossary

The table below only contains the Plan's definitions which are particularly relevant for this plan change

#### **Sediment trap**

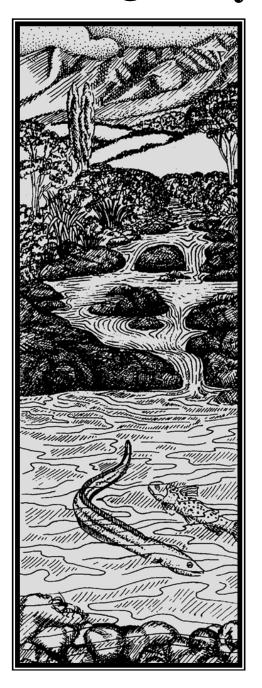
An excavated or bunded area in the bed of an ephemeral or intermittently flowing river designed and constructed solely for the purpose of allowing sediment to drop from the water column.

### **Part G:** Sediment from earthworks for residential development

#### **Relevant provisions:**

New Policy 7.D.10	76
New Rule 14.5.1.1 (land use and discharge – permitted)	80
New Rule 14.5.2.1 (land use and discharge – restricted discretionary)	81
New Definition – earthworks	84

### 7 Water Quality



- 7.1 Introduction [Unchanged]
- 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** [Unchanged]
- **7.B** Policies general [Unchanged]
- 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

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    7.C.1 – 7.C.4 [Unchanged]
    7.C.5 – 7.C.6 [Amended - Part A]
    7.C.7 – 7.C.11 [Unchanged]
    7.C.12 [New - Part A]
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7.D Policies for discharges of water and contaminants, excluding those discharges provided for in 7.C

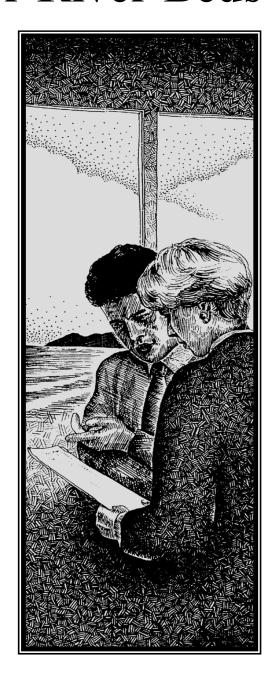
```
7.D.1 – 7.D.4 [Unchanged]
7.D.5 [Amended - Part A]
7.D.6 [New - Part A]
7.D.7– 7.D.8 [New Part B]
7.D.9 [New Part – Part C]
```

- 7.D.10 The loss or discharge of sediment from earthworks is avoided or, where avoidance is not achievable, best practice guidelines for minimising sediment loss are implemented.
- 7.6 Policies for the enhancement of water quality [Repealed 1 May 2014]
- **7.7 Policies for point source discharges** [Repealed 1 May 2014]

- 7.8 Policies for non-point source discharges [Repealed 1 May 2014]
- **7.9** Anticipated environmental results [Repealed 1 May 2014]

## 14

# Rules: Land Use other than in Lake or River Beds



#### **14.1 - 14.4** [*Unchanged*]

#### 14.5 Earthworks for residential development

Note: 1.	The rules in Section 14.5 do not apply to earthworks or soil disturbances
	covered by the Resource Management (National Environmental Standards
	for Plantation Forestry) Regulations 2017.
2.	Discharges resulting from earthworks are addressed only through rules in
	section 14.5.

#### 14.5.1 Permitted activities: No resource consent required

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

#### 14.5.2 Restricted discretionary activities: Resource consent required

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

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

- (a) Any erosion, land instability, sedimentation or property damage resulting from the activities; and
- (b) Effectiveness of the proposed erosion and sediment control measures in reducing discharges of sediment to water or to land where it may enter water; and
- (c) Compliance with the Erosion and Sediment Control

  Guidelines for Land Disturbing Activities in the Auckland

  Region 2016 (Auckland Council Guideline Document

  GD2016/005); and
- (d) Any adverse effect on water quality, including cumulative effects, and consideration of trends in the quality of the receiving water body; and
- (e) Any adverse effect on any natural or human use value, and on use of the coastal marine area for contact recreation and seafood gathering; and
- (f) Measures to avoid, remedy or mitigate adverse effects on Kāi

  <u>Tahu cultural and spiritual beliefs, values and uses.</u>
- **14.6** [New Part D]
- **14.7** [New Part B]

# 21 Glossary

The table below only contains the Plan's definitions which are particularly relevant for this plan change

#### **Earthworks**

Means the alteration or disturbance of land, including by moving, removing, placing, blading, cutting, contouring, filling or excavation of earth (or any matter constituting the land including soil, clay, sand and rock); but excludes gardening, cultivation, and disturbance of land for the installation of fence posts.

### **Part H:** Nationally or regionally important infrastructure

Relevant provisions:	
Amended Policy 10.4.2	88

# 10 Wetlands



- **10.1 Introduction** [Repealed 1 October 2013]
- **10.2 Issues** [*Repealed 1 October 2013*]
- **10.3** Objectives [Unchanged]
- 10.4 Policies
  - **10.4.1 & 10.4.1A** [Unchanged]
  - 10.4.2 Avoid the adverse effects of an activity on a Regionally Significant Wetland or a regionally significant wetland value, but allow remediation or mitigation of an adverse effect only when the activity:
    - (a) Is lawfully established; or
    - (b) Is nationally or regionally <u>significant</u> important infrastructure, and has specific locational constraints; or
    - (c) Has the purpose of maintaining or enhancing a Regionally Significant Wetland or a regionally significant wetland value.
  - 10.4.2A [Unchanged]
  - **10.4.3 10.4.5** [Repealed 1 October 2013]
  - **10.4.6** [*Unchanged*]
  - **10.4.7** [Repealed 1 October 2013]
- **10.5** Anticipated Environmental Results [Repealed 1 October 2013]