

Proposed Plan Change 6A (Water Quality)

to the Regional Plan: Water for Otago

Decisions of Council

Otago Regional Council resolved to adopt the recommendations of the Hearing Committee on Proposed Plan Change 6A (Water Quality) at its meeting on Wednesday 27 March 2013, as follows:

That Council:

1. *Adopt the recommendations of the Hearing Committee on Proposed Plan Change 6A (Water Quality) to the Regional Plan: Water for Otago with tabled amendments as its decision;*
2. *Publicly notify its decisions on Proposed Plan Change 6A (Water Quality) to the Regional Plan: Water for Otago on Saturday 20 April 2013; and*
3. *Notify submitters of its decision.*

All references to the recommendations of the Hearing Committee must now be read as being the decisions of Council in the following report.

Abbreviations

NPSFW	National Policy Statement for Freshwater Management 2011
ORC	Otago Regional Council
Proposed plan change / plan change	Proposed Plan Change 6A (Water Quality) to the Regional Plan: Water for Otago
RMA	Resource Management Act 1991
Section 32 report	The report assessing alternatives, benefits and costs for proposed plan change 6A to the Water Plan as required by Section 32 of the RMA
SOE	State of the Environment (monitoring undertaken in accordance with Section 35(2) RMA)
Water Plan	Regional Plan: Water for Otago

Scientific abbreviations

DRP	Dissolved reactive phosphorus
<i>E coli</i>	<i>Escherichia coli</i>
mg/l	Milligrams per litre
N	Nitrogen
NH ₄	Ammoniacal nitrogen
NNN	Nitrate-nitrite nitrogen
NTU	Nephelometric turbidity units
TN	Total nitrogen
TP	Total phosphorus
cfu/100 ml	Colony forming units per 100 millilitres
KgN/ha/yr	Kilogram of Nitrogen per hectare per year (annual nitrogen leaching rate)

Note: use of section/Section:

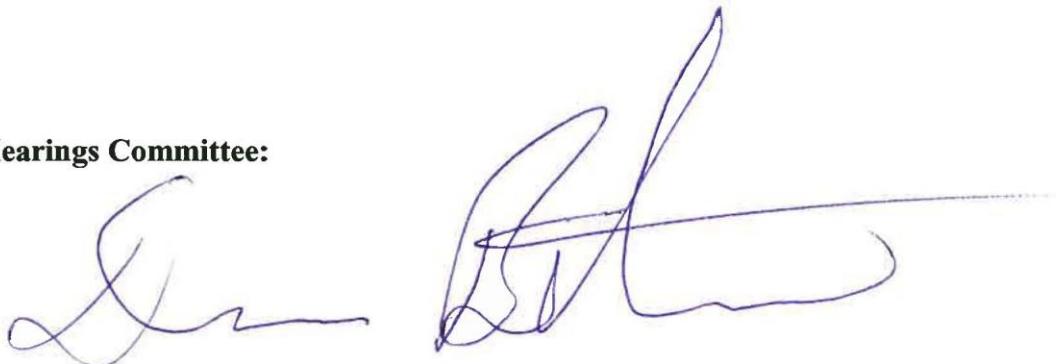
section	A reference to another section in this report.
	A reference to a section of the Water Plan.
Section	A Section of the RMA.

Note: text marking

<u>Operative word / notified word</u>	Notified change, showing change proposed from the Water Plan
<u>Notified word/amended word</u>	Amendment recommended in this report
<i>blue italics</i>	Changes to the operative Water Plan made by Proposed Plan Change 2 (Regionally Significant Wetlands)

This report presents the recommendations of the Hearing Committee to the Otago Regional Council on submissions and further submissions to Proposed Plan Change 6A (Water Quality) to the Regional Plan: Water for Otago.

Hearings Committee:

Two handwritten signatures in blue ink. The signature on the left appears to be 'D. Butcher' and the signature on the right appears to be 'David Shepherd'.

D. Butcher

David Shepherd

Councillor Duncan Butcher

Chairperson

Councillor David Shepherd



Clive Geddes

Clive Geddes (Independent commissioner)

20 March 2013

Background

Proposed Plan Change 6A (Water Quality) proposes an effects-based approach to managing rural discharges to water, with a focus on controlling contaminant discharges, rather than the land use activities that create them. Discharge limits are set for common rural contaminants, and discharges which meet those limits are permitted. Land managers have the flexibility to meet the discharge limits in the way that best suits their operation.

The proposed plan change was publicly notified in the Otago Daily Times on Saturday 31 March 2012, and submissions closed on Tuesday 2 May 2012. A total of 334 submissions were received, seven of which were received after the formal submission period. Three submissions were deemed invalid in their entirety as they were not on the plan change.

The *Summary of Decisions Requested* and request for further submissions was notified on Saturday 2 June 2012, with further submissions closing on Monday 18 June 2012. There were 77 further submissions received, two of which were received after the formal further submission period. Time limits were waived for all late submissions and further submissions, under delegated authority.

The *Officer's Report on Decisions Requested*, which evaluated decisions requested by submitters and further submitters, and made recommendations to the Hearing Committee, was released on 22 August 2012. Further technical information supporting the plan change was released on 29 August 2012.

The Hearing Committee heard evidence from 171 submitters and their representatives over 22 days between Monday 10 September 2012 and Thursday 25 October 2012 at Dunedin, Balclutha, Wanaka, Alexandra, and Oamaru.

Table of contents

Chapter 1 – Executive summary.....	1
1.1 Introduction	1
1.2 Key messages	1
1.3 Recommendations.....	4
Chapter 2 – Objectives and policies for water quality	5
2.1 Objectives for water quality	5
2.2 Schedule 15 and “good quality water”.....	7
2.3 General policies that apply to all discharges.....	15
2.4 Policies for other discharges, typically of a rural nature	18
2.5 Policies for urban and industrial discharges.....	22
Chapter 3 – Water and contaminant discharges.....	24
3.1 A revised structure for the rules	24
3.2 Rules in section 12.C	27
3.3 Prohibiting objectionable activities (section 12.C.0).....	29
3.4 The permitted activity rule framework (section 12.C.1).....	33
3.5 Permitted sediment discharges	35
3.6 Schedule 16 contaminants.....	38
3.7 Discharges from dams and water races.....	45
3.8 Inter-catchment transfers and discharges to Regionally Significant Wetlands	46
3.9 Nitrogen loading	48
3.10 Discharge consent options.....	52
3.11 Rules in section 12.B	57
Chapter 4 – Land use on lake or river beds or Regionally Significant Wetlands	63
4.1 Structures.....	63
4.2 Activities in the beds of lakes and rivers and Regionally Significant Wetlands	67
4.3 Livestock disturbance	69
Chapter 5 – Recommendations on Other plan change matters	73
5.1 Providing for capture of contaminated water	73
5.2 Simplification and streamlining	74
5.3 Compliance, enforcement and education	75
5.4 Consent notification	77
5.5 Minor and consequential amendments.....	78
Chapter 6 – Matters not addressed in this plan change.....	79
6.1 Beyond the scope of the plan change.....	79

CHAPTER 1 – EXECUTIVE SUMMARY

1.1 Introduction

We thank all of those people who have participated in this plan change process. We have spent considerable time reading submissions, listening to evidence presented at the hearing, questioning submitters and deliberating on matters raised.

In preparing our recommendations we have been mindful of the Otago Regional Council's statutory responsibilities under the Resource Management Act 1991 (RMA), the National Policy Statement on Freshwater Management 2011 (NPSFW) and the Regional Policy Statement for Otago (RPS). The vires of the plan change was challenged directly and indirectly by submitters. Legal advice was taken and we consider that the arguments raised are matters of merit rather than law.

The matters raised by submitters on plan change 6A broadly related to:

- Achieving good quality water;
- The scope of the plan change;
- The merits of the effects-based approach;
- The permitted-prohibited rule structure;
- Contaminant discharge limits;
- The time needed to make changes to land management practices;
- Consent options;
- Discharges that involve “passing water” through;
- Compliance and enforcement; and
- Working collaboratively to achieve water quality objectives.

We considered each of these matters before making detailed recommendations.

1.2 Key messages

- **Achieving good quality water**

Good quality water is fundamental to our economical, environmental, social and cultural wellbeing. Submitters consistently voiced support for the general principle of having good quality water. However, they voiced different views about the value of the proposed narrative description and scientific standards, the appropriateness of those standards for different catchments and whether good quality water should be achieved in Otago.

We consider that the narrative description is useful in providing a common understanding of what constitutes good quality water. This helps people monitor water quality for themselves. We clarify how these characteristics are assessed and provide a better link with the contaminant discharge limits in the rules.

- **The scope of the plan change**

A number of submitters were concerned that this plan change would set a precedent for their point source discharge activities. The operative Water Plan already regulates discharges of human sewage, pesticides, herbicides and other specified contaminants, and water from reticulated stormwater systems and roads. Generally, these matters were not the subject of this plan change, and it is inappropriate to speculate on the nature and form of any future plan change.

- **Retain and improve the effects-based approach**

The effects-based approach set out in the notified plan change is broadly supported by the community. However some submitters preferred land use activity regulation, or taking a whole-catchment approach to discharge management.

We consider that the alternative approaches are more complex, are likely to involve greater costs for all parties, and may involve the community dictating to land managers how they will manage their landholdings.

The effects-based approach fosters individual responsibility for discharges. It encourages land managers to become more aware of the effects of their land management practices on water quality, and to change those practices where needed. Land managers can manage their activities as they wish, as long as they do not breach the limits set within the Plan. The changes we recommend build on this approach.

- **Clarify the permitted - prohibited rule framework**

A number of submitters opposed the use of prohibitions, preferring that activities be permitted or subject to consent.

We consider that there are gross discharges which are so objectionable that they would never be granted resource consent. We have re-classified some discharges as permitted, subject to conditions, and reduced the number of permitted activity rules. We are satisfied the operative provisions provide for capture dams.

- **Review the contaminant discharge limits**

The proposed plan change focuses on the most common contaminants in rural discharges, their different transport mechanisms from land to water, and the interactions between those contaminants. We received a large number of submissions on the contaminant limits proposed. Those opposing considered that the science was not good enough, and that more research was required at both property and catchment level, before setting limits. They also considered that use should be made of mixing zones and the assimilative capacity of the receiving water.

We recommend changes to Schedule 16 contaminant discharge limits and set these relative to river median flows rather than rainfall events. This provides for some contaminant assimilation where the contaminant enters water.

- **Allow time for land managers to change their land management practices**

The timeframes for compliance with the contaminant discharge and nitrogen leaching limits have been extended to allow landholders to change their management practices.

We acknowledge that some activities, such as forestry, will need to change their discharge management practices, and re-assess their industry best management practices to achieve environmental outcomes.

- **Provide clear consent options**

The notified plan change did not explicitly provide for all the consent options where the permitted rules were not satisfied.

We describe the consent options and also give consenting guidance through the policies and discretions listed. We recommend consent durations which will encourage land managers to meet permitted activity conditions.

- **Clarify the “passing through” provisions**

We consider that where a race or dam operator has not caused the contaminant to be discharged into the race or dam from which he/she discharges, that water should be able to be “passed through” without meeting contaminant discharge limits. We also consider that for large consented dams, which were not the focus of this plan change, the operative provisions are satisfactory and should be retained.

- **Compliance and enforcement**

Although compliance and enforcement is not a matter that this committee can direct, we advise that for this plan change to be successful, a pragmatic approach to the enforcement of the plan change is needed. The cooperation between the Council and the community will be essential.

The contaminant discharge limits and the nitrogen leaching limits cannot be enforced before those limits come into force in 2020. However, compliance and enforcement action may continue to be taken for discharges with gross effects.

- **Collaboration is crucial to achieving water quality objectives**

Many submitters recognised that for this plan change to be effective in achieving water quality objectives, the community and the Otago Regional Council must work together.

Collaboration is crucial to the success of the plan change. We recommend that the Otago Regional Council consider the adoption of the implementation programme attached as Appendix 3.

We also recommend that an “Oversight Group” should be created. This will help the Otago Regional Council determine appropriate education programmes and enforcement actions, given the water quality challenges in different areas of Otago.

The Otago Regional Council should immediately update educational material and brochures on the plan change provisions, and on land management practices that help to achieve good water quality.

The Otago Regional Council should also provide information on sampling methods, materials, and suppliers of these materials. Continuing cooperation between land managers and the involvement of landcare groups should be encouraged.

The Otago Regional Council should continue water quality monitoring, and strengthen the programme to clearly identify water quality trends and assess aquifers’ sensitivity.

1.3 Recommendations

- (a) To amend Proposed Plan Change 6A (Water Quality) in order to give better effect to the intent of maintaining and improving water quality.
- (b) To make changes as recommended in this report and as shown in Appendix 1.
- (b) That the Otago Regional Council considers the adoption of an implementation strategy for Proposed Plan Change 6A (Water Quality), as shown in Appendix 3.

CHAPTER 2 – OBJECTIVES AND POLICIES FOR WATER QUALITY

The notified objectives and policies clarified the outcomes sought by the Otago Regional Council. They set the freshwater objectives for Otago relative to water quality, and the overall approach that was adopted to meet these objectives. Specific policies were notified to guide the consenting process.

2.1 Objectives for water quality

The first two notified objectives focused on attaining good water quality in Otago lakes, rivers, wetlands and groundwater. The third objective covered the role of the community in this achieving this.

We have considered the submissions and recommend that the notified objectives be amended in order to provide clarity.

2.1.1 Recommendations

(a) Amend notified Objective 7.A.1, in order to clarify the intent of Plan Change 6A:

7.5.17.A.12 To enable the discharge of water or contaminants to water or land, in a way that maintains maintain or enhance the have good water quality of water in Otago's lakes and rivers water bodies that so that it is suitable to and supports their natural and human use values and people's use of water.

(b) Amend notified Objective 7.A.2, in order to provide more clarity:

7.A.21 To maintain good quality water in Otago's water bodies, water quality in Otago lakes, rivers, wetlands, and groundwater, but and enhance water quality where necessary it is degraded.

(c) Amend notified Objective 7.A.3, in order to provide more clarity:

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

2.1.2 Reasons

- **Maintaining or enhancing water quality**

New Objectives 7.A.1 and 7.A.2 emphasise that existing water quality will be maintained or improved where it is degraded. This gives effect to Section 69(3) RMA, Objective A2 NPSFW, and Objective 6.4.4 and Policy 6.5.5 RPS.

Schedule 15 describes in narrative terms and as numerical standards “good quality water”. See section 2.2 of this report .This phrase does not need to be stated in the Objectives.

The term “degraded” in new Objective 7.A.1 provides more guidance than the notified wording. Water is considered degraded when Schedule 15 standards are not met.

- **Enabling discharges with acceptable effect**

Using water to dispose of waste has socio-economic benefits. However such disposal must be done in a way that is compatible with the other uses and values of water.

- **Freshwater values and sustainable management of resources**

In Chapter 5, Policy 5.4.2, the Water Plan uses the concept of “natural and human use values” and prioritises avoidance of adverse effect on those values. Policy 5.4.3 prioritises avoidance of adverse effects on existing lawful uses.

The freshwater values in the NPSFW are consistent with the maintenance of Otago’s natural and human use values.

- **Responsibility for good quality water**

Under Section 17 RMA every person has a duty to control the adverse effects of their activity on the environment. Amendment of Objective 7.A.3 clarifies these responsibilities for individuals and communities.

ORC’s actions for enhancing water quality in Otago are set out in ORC’s Annual Plan. These actions include monitoring and enforcement. These are included as ORC’s duties under Section 30 RMA, and do not need to be specified in an Objective.

- **Scope of objectives**

Schedule 15, short-term discharges, and the effect of abnormal flows, are better dealt with in policies and rules, rather than in the objectives.

- **Coastal water**

This plan change gives effect to the NZ Coastal Policy Statement 2010 to the extent that it addresses contaminant discharges which may affect coastal water quality.

- **Clarity**

The phrases “recognise and manage” in notified Policy 7.A.3 and “where necessary” in notified Policy 7.A.1 have been clarified.

The phrase “lakes, rivers, wetlands, and groundwater” is clearer than the phrase “water bodies”, and those words are commonly used in the Water Plan.

The order of notified Objectives 7.A.1 and 7.A.2 has been reversed to be more logical.

2.2 Schedule 15 and “good quality water”

Notified Schedule 15 set the water quality objectives for Otago, and the target dates by which those objectives were to be achieved. Reference to Schedule 15 was made in Policy 7.B.1.

We considered the submissions and evidence received and recommend that Policy 7.B.1 and Schedule 15 be amended in order to clarify the purpose of Schedule 15.

2.2.1 Recommendations

- (a) Amend Policy 7.B.1, in order to clarify the purpose of Schedule 15:

<p><u>7.B.1 Ensure water is of good quality by the target dates described in Schedule 15, to support natural and human use values, by:</u></p> <p class="list-item-l1">(a) <u>Avoiding discharges of contaminants with noticeable effects on natural and human use values; and</u></p> <p class="list-item-l1">(b) <u>Allowing discharges of contaminants that cumulatively have minor effects, or are short term; and</u></p> <p class="list-item-l1">(c) <u>Minimising disturbance of the beds of rivers and lakes.</u></p>
<p><u>7.B.1 Manage the quality of water in Otago lakes, rivers, wetlands and groundwater by:</u></p> <p class="list-item-l1">(a) <u>Recognising the differences in the effects and management of point and non-point source discharges; and</u></p> <p class="list-item-l1">(b) <u>Defining, in Schedule 15, characteristics and standards that describe good quality water; and</u></p> <p class="list-item-l1">(c) <u>Maintaining, from the dates specified in Schedule 15, good quality water; and</u></p> <p class="list-item-l1">(d) <u>Enhancing water quality where it does not meet Schedule 15 standards; and</u></p> <p class="list-item-l1">(e) <u>Recognising discharge effects on groundwater.</u></p>
...

- (b) Amend the title of Schedule 15, in order to clarify the purpose of this Schedule:

<p><u>15 Schedule of characteristics and numerical standards for good quality water in Otago lakes and rivers</u></p>
--

- (c) Amend Table 15.1, in order to clarify the purpose of this Schedule:

<u>Table 15.1 Characteristics indicative of good quality water</u>		
<u>Characteristic</u>	<u>Description</u>	<u>Contaminant effect</u>

	<u>Clarity</u>	<u>Water is clear; able to easily and clearly see the bed w</u> <u>When standing in knee-deep water, the bed is easily and clearly seen. Naturally occurring scums and foams only.</u>	<u>Sediment reduces the clarity of water, and has an adverse effect on aquatic habitats.</u>
	<u>Colour</u>	<u>Water is colour free, is not altered by contamination.</u> <u>however, s</u> <u>Some rivers have natural colour such as are naturally tannin-stained e.g. The Catlin, Taieri, Waitahuna and Tokomairiro Rivers.</u>	<u>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 E coli.</u>
	<u>Algae</u>	<u>Healthy levels of algae:</u> <ul style="list-style-type: none"><u>Do not cover more than 30% of the bed.</u><u>Strands are less than 20 mm in length.</u><u>No slime on the surface of the water.</u>	
	<u>Sediment</u>	<u>Riffles and runs free of obvious clay mud and silt deposits.</u> <u>Walking across a riffle or run should not produce an obvious plume.</u> <u>However, s</u> <u>Some rivers are naturally high in sediment e.g. the Dart and Shotover Rivers.</u>	<u>Sediment affects the colour of water, and has an adverse effect on aquatic habitats, and can result in high concentrations of phosphorus, and allow E coli to persist.</u>
	<u>Smell</u>	<u>Water is odourless, however, water in some wetlands may have a naturally earthy smell.</u>	<u>Smell can be indicative of contamination, from a source high in ammoniacal nitrogen or E coli or the decay of excessive amounts of algae which limits people's opportunity to appreciate water.</u>
	<u>Algae</u>	<u>Healthy levels of algae:</u> <ul style="list-style-type: none"><u>Do not cover more than 30% of the bed.</u><u>Strands are less than 20 mm in length.</u><u>No slime on the surface of the water.</u>	<u>Excessive nitrogen and phosphorus contribute to algal growth which has an adverse effect on native fish habitat, amenity and recreation values, and angling opportunities.</u>
	<u>Bank appearance</u>	<u>Healthy Functioning riparian margins:</u> <ul style="list-style-type: none"><u>Vegetation is healthy not stripped bare.</u><u>Banks are stable.</u><u>No obvious livestock disturbance.</u>	<u>Healthy riparian margins mitigate sediment and nutrient discharges.</u>

(d) Amend Table 15.2, in order to clarify the standards and provide more robust protection for Otago lakes and rivers:

Table 15.2 Receiving water numerical standards and catchment timeframes for catchments to meet specified measures of good receiving water quality for achieving good quality water

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

Table 15.2.1: Receiving Water Group 1

<u>Receiving water</u> <u>Group 1</u>	<u>Nitrate-nitrite nitrogen</u> ⁺	<u>Dissolved reactive phosphorus</u> ⁺	<u>Ammoniacal nitrogen</u> ²	<u>Escherichia coli</u> ³	<u>Turbidity</u> ⁴
	<u>0.444 mg/L</u>	<u>0.026 mg/L</u>	<u>0.1 mg/L</u>	<u>426 260 cfu/100 ml</u>	<u>5 NTU</u>
<u>Catlins</u>	<u>31 March 2012</u> <u>31 March 2025</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u> <u>31 March 2025</u>
<u>Carey's Creek</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>
<u>Fleming</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>
<u>Kaikorai</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2017</u> <u>31 March 2025</u>	<u>31 March 2012</u>
<u>Leith</u>	<u>31 March 2012</u> <u>31 March 2025</u>	<u>31 March 2012</u> <u>31 March 2025</u>	<u>31 March 2012</u>	<u>31 March 2017</u> <u>31 March 2025</u>	<u>31 March 2012</u>
<u>Mokoreta</u> (within Otago)	<u>31 March 2017</u> <u>31 March 2025</u>	<u>31 March 2017</u> <u>31 March 2025</u>	<u>31 March 2017</u> <u>31 March 2012</u>	<u>31 March 2017</u> <u>31 March 2025</u>	<u>31 March 2012</u>
<u>Owaka</u>	<u>31 March 2017</u> <u>31 March 2025</u>	<u>31 March 2012</u> <u>31 March 2025</u>	<u>31 March 2012</u>	<u>31 March 2017</u> <u>31 March 2025</u>	<u>31 March 2012</u> <u>31 March 2025</u>
<u>Pomahaka,</u> <u>downstream of</u> <u>Glenken</u>	<u>31 March 2012</u> <u>31 March 2025</u>	<u>31 March 2012</u> <u>31 March 2025</u>	<u>31 March 2012</u>	<u>31 March 2017</u> <u>31 March 2025</u>	<u>31 March 2012</u> <u>31 March 2025</u>
<u>Tahakopa</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2017</u> <u>31 March 2025</u>	<u>31 March 2012</u> <u>31 March 2025</u>
<u>Tautuku</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>
<u>Tokomairiro</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2025</u>	<u>31 March 2012</u>
<u>Tuapeka</u>	<u>31 March 2025</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>
<u>Waitahuna</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2025</u>	<u>31 March 2012</u>
<u>Waitati</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u> <u>31 March 2025</u>	<u>31 March 2012</u>
<u>Waiwera</u>	<u>31 March 2017</u> <u>31 March 2025</u>	<u>31 March 2012</u> <u>31 March 2025</u>	<u>31 March 2017</u> <u>31 March 2012</u>	<u>31 March 2012</u> <u>31 March 2025</u>	<u>31 March 2012</u>

<u>Any other unlisted tributary on the true right bank of the Clutha/Mata-Au, south of Judge Creek</u>	<u>31 March 2012</u>				
<u>Any unlisted tributary on the true left bank of the Clutha Mata-Au, south of the Tuapeka catchment</u>			<u>31 March 2012</u>		
<u>Any other unlisted catchment that discharges to the coast, south of Taieri Mouth the Matau Branch of the Clutha River/Mata Au</u>	<u>31 March 2012</u>				

Table 15.2.2: Receiving Water Group 2

<u>Receiving water Group 2</u>	<u>Nitrate-nitrite nitrogen[‡]</u>	<u>Dissolved reactive phosphorus[‡]</u>	<u>Ammoniacal nitrogen[‡]</u>	<u>Escherichia coli[§]</u>	<u>Turbidity[¶]</u>
	<u>0.075 mg/L</u>	<u>0.006 0.01 mg/L</u>	<u>0.1 mg/L</u>	<u>126 260 cfu/100 ml</u>	<u>5 NTU</u>
<u>Arrow</u>					
<u>Cardrona</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>
<u>Clutha/Mata-Au and any other unlisted tributary (Luggate to mouth, including Lakes Dunstan and Roxburgh, and excluding tributaries described in Area 1)</u>					
	<u>31 March 2025</u>	<u>31 March 2012, except Lake Dunstan which has until 31 March 2017 to comply with nitrate/nitrite nitrogen</u>			<u>31 March 2025</u>
<u>Fraser</u>	<u>31 March 2017 31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>
<u>Kakanui</u>	<u>31 March 2017 31 March 2025</u>	<u>31 March 2017 31 March 2025</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>
<u>Kawarau downstream of</u>	<u>31 March 2025</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>

<u>the Shotover confluence</u>					
<u>Lake Dunstan</u>	<u>31 March 2012</u>				
<u>Lindis</u>	<u>31 March 2017</u> <u>31 March 2025</u>	<u>31 March 2017</u> <u>31 March 2025</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>
<u>Luggate</u>	<u>31 March 2017</u> <u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>
<u>Manuherikia</u>	<u>31 March 2017</u> <u>31 March 2012</u>	<u>31 March 2012</u> <u>31 March 2025</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>
<u>Mill Creek</u> (tributary to Lake Hayes)	<u>31 March 2017</u> <u>31 March 2025</u>	<u>31 March 2017</u> <u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>
<u>Pomahaka</u> upstream of Glenken	<u>31 March 2012</u>				
<u>Shag</u>	<u>31 March 2017</u> <u>31 March 2025</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>
<u>Shotover</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>Exempt</u>
<u>Taieri</u>	<u>31 March 2017</u> <u>31 March 2025</u>	<u>31 March 2017</u> <u>31 March 2025</u>	<u>31 March 2012</u>	<u>31 March 2012</u> <u>31 March 2025</u>	<u>31 March 2012</u> <u>31 March 2025</u>
<u>Tokomaro</u>	<u>31 March 2017</u>	<u>31 March 2017</u>	<u>31 March 2012</u>	<u>31 March 2017</u>	<u>31 March 2012</u>
<u>Trotters</u>	<u>31 March 2012</u> <u>31 March 2025</u>	<u>31 March 2017</u> <u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>
<u>Waianakarua</u>	<u>31 March 2017</u> <u>31 March 2025</u>	<u>31 March 2017</u> <u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>
<u>Waikouaiti</u>	<u>31 March 2017</u> <u>31 March 2012</u>	<u>31 March 2017</u> <u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>
<u>Waitahuna</u>	<u>31 March 2017</u>	<u>31 March 2017</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>
<u>Waipori</u>	<u>31 March 2017</u> <u>31 March 2012</u>	<u>31 March 2017</u> <u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>
<u>Waitaki</u> tributaries within Otago	<u>31 March 2025</u>	<u>31 March 2025</u>	<u>31 March 2012</u>	<u>31 March 2025</u>	<u>31 March 2012</u>
<u>Any other unlisted catchment that discharges to the coast, north of Taieri Mouth the Matau Branch of the Clutha River/Mata Au</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>

Table 15.2.3: Receiving Water Group 3

<u>Receiving water Group 4</u>	<u>Nitrate-nitrite nitrogen⁴</u>	<u>Dissolved reactive phosphorus⁴</u>	<u>Ammoniacal nitrogen²</u>	<u>Escherichia coli³</u>	<u>Turbidity⁴</u>
--------------------------------	---	--	--	-------------------------------------	------------------------------

	<u>0.03 mg/L</u>	<u>0.005 mg/L</u>	<u>0.01 mg/L</u>	<u>10 cfu/100 ml</u>	<u>3 NTU</u>
<u>Clutha/Mata-Au (above Luggate)</u>					
<u>Kawarau upstream of the Shotover confluence</u>	<u>31 March 2012</u>				
<u>Any tributaries to Lakes Hawea, Wakatipu, and Wanaka</u>					
<u>Dart</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>Exempt</u>
<u>Matukituki</u>	<u>31 March 2025</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2025</u>	<u>Exempt</u>

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

Table 15.2.4: Receiving Water Group 4

<u>Receiving water Group 3</u>	<u>Total nitrogen[‡]</u>	<u>Total phosphorus[‡]</u>	<u>Ammoniacal nitrogen[‡]</u>	<u>Escherichia coli[§]</u>	<u>Turbidity[¶]</u>
	<u>0.725 0.55 mg/L</u>	<u>0.043 0.033 mg/L</u>	<u>0.1 mg/L</u>	<u>126 cfu/100 ml</u>	<u>5 NTU</u>
<u>Lake Hayes</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>
	<u>31 March 2025</u>				
<u>Lake Johnson</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>
	<u>31 March 2025</u>				
<u>Lake Onslow</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>
	<u>31 March 2025</u>				<u>31 March 2025</u>
<u>Lake Tuakitoto</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>
	<u>31 March 2025</u>				<u>31 March 2025</u>
<u>Lake Waipori & Waihola</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>
	<u>31 March 2025</u>				<u>31 March 2025</u>

Table 15.2.5: Receiving Water Group 5

<u>Receiving water Group 5</u>	<u>Total Nitrogen</u>	<u>Total Phosphorus</u>	<u>Ammoniacal nitrogen[‡]</u>	<u>Escherichia coli[§]</u>	<u>Turbidity[¶]</u>
	<u>0.157 mg/L</u>	<u>0.009 0.005 mg/L</u>	<u>0.01 mg/L</u>	<u>10 cfu/100 ml</u>	<u>3 NTU</u>
<u>Lake Hawea</u>				<u>31 March 2012</u>	
<u>Lake Wakatipu</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>
	<u>31 March 2025</u>				
<u>Lake Wanaka</u>				<u>31 March 2012</u>	

mg/l = milligrams per litre

cfu/100 ml = colony-forming units per 100 millilitres
NTU = nephelometric turbidity units

- ¹ Promotes periphyton growth
- ² Indicates effluent contamination
- ³ Indicator of pathogens present
- ⁴ Measure of clarity

- (e) Add new Map 15.1, in order to visually describe Receiving Water Groups 1, 2 and 3:

Map 15.1 Receiving Water Groups

(refer to the Map in Appendix 1)

2.2.2 Reasons

- **Schedule 15 does not allow degradation of water quality**

The purpose of Schedule 15 has been further clarified in amended Policy 7.B.1. Where existing water quality is better than Schedule 15 it will be maintained at that standard.

Where catchments breach Schedule 15.2 standards, ORC will seek to achieve compliance with those standards by the target dates set in that Schedule.

Schedule 15 replaces the policies in section 7.6 of the operative Water Plan that specifically target catchments with degraded water quality.

- **Schedule 15 and good quality water**

Schedule 15 is composed of two tables. Table 15.1 sets narrative standards of good quality water, while Table 15.2 contains numerical standards and target dates for good quality water. The narrative standards in Table 15.1 of Schedule 15 are preliminary indicators of water quality. Meeting these narrative standards does not guarantee good quality water, therefore compliance with the numerical standards in Table 15.2 is also required. This has been clarified in the heading of Table 15.1.

The narrative characteristics in Table 15.1 have been clarified, and as well, their relationships with the key contaminants and their adverse effects targeted in Table 15.2 and their adverse effects. The added description of these characteristics and adverse effects better define what is meant by “good quality water”.

These characteristics allow a good assessment of the water quality in lakes and rivers, without there being any need for additional criteria. The selected key indicators are highly correlated to other indicators, such as periphyton growth, dissolved oxygen, and chlorophyll-a. The Macroinvertebrate Community Index (MCI) is a better indicator of habitat rather than water quality.

Schedule 15 standards are based on recognised water quality guidelines such as ANZECC 2000, Periphyton Guidelines (Biggs, 2000), MfE Guidelines (2002), and

Trophic Lakes Guidelines (Burns, 2000). Standards for ammoniacal nitrogen reflect a low tolerance for effluent entering lakes, rivers, wetlands and groundwater. The standards for *E coli* in the large lakes and their tributaries protect the current very high water quality of the large lakes.

Schedule 15 standards were originally developed as median values. Median values allow for large variations in water quality. We recommend that Schedule 15 standards be set as 80th percentile values. In rivers, compliance with the standards will be sought at or below median flow. The new standards are more stringent than median values. Standards for *E coli* and DRP have been adjusted accordingly.

Schedule 15 standards, as notified, did not give an adequate degree of protection to the lakes. The standards for TN and TP for small lakes were placed at the border between high nutrient enrichment, eutrophic grade, and the very high nutrient, supertrophic grade. For the large pristine lakes the standards were at the border of low nutrient enrichment, oligotrophic grade, and the medium nutrient enrichment, mesotrophic grade. The new recommended standards equate to 50% of the eutrophic band scale for small lakes, and to 25% of the oligotrophic band scale for large lakes (from Burns, 2000).

- **Schedule 15 and water quality variability**

Target dates have been set for those catchments that currently breach the Schedule 15 standards. These have been set at 1 April 2025. This is appropriate, as compliance with the standards is assessed based on a 5-year data set. In all the other catchments, water quality is expected to be maintained as a result of the plan change. The standards and categories in Table 15.2 are based on accrual time for rivers and on trophic conditions for lakes.

The Waianakarua and Kakanui catchments have low flows in summer and gravel substrate, and therefore belong in Group 2. By contrast, the Tokomairiro, Tuapeka and Waitahuna catchments along with unnamed adjacent catchments belong in Group 1, because of their similarity with the catchments on the south west of the Clutha River. The catchments discharging to the Waitaki River have been included in Group 2, while the Matukituki River has been exempted from turbidity standards, for consistency with the Shotover. Finally, as a eutrophic lake, Lake Onslow belongs in the Receiving Water Group 3.

The Pomahaka catchment has been split into two to recognise the very good water quality of the upper catchment and its high angling values.

- **The practical implications of Schedule 15**

The reference to Schedule 15 in Policy 7.B.1 does not preclude the granting of consents in the catchments that breach Schedule 15 standards. Consent applications will be assessed against a large set of variables. The potential impact of discharges on the achievability of the standards in the receiving water body is only one of the variables that will be considered.

Schedule 15 standards are 80th percentile values based on 5-year data. A one-off sample will only give an indication of whether the receiving water meets Schedule 15 standards.

- **Clearer wording**

Headings in Schedule 15 have been reviewed and amended to clarify the scope and content of Schedule 15. The description of catchments has been amended and a map has been added to avoid any ambiguity about the areas covered by each receiving water group.

2.3 General policies that apply to all discharges

The notified plan change split the policies on water quality into 3 separate sections: 7.B for all discharges, 7.C for industrial and urban discharges, and 7.D for rural discharges.

We considered the submissions and we recommend that 7.B be amended to clarify ORC's approach to managing water quality, and to remove any internal inconsistencies between policies.

2.3.1 Recommendations

- Replace notified Policy 7.B.1 with three new policies, in order to provide greater support for the rule framework and better guidance for consent decisions:

<p><u>7.B.1 Ensure water is of good quality by the target dates described in Schedule 15, to support natural and human use values, by:</u></p> <p class="list-item-l1">(a) <u>Avoiding discharges of contaminants with noticeable effects on natural and human use values; and</u></p> <p class="list-item-l1">(b) <u>Allowing discharges of contaminants that cumulatively have minor effects, or are short term; and</u></p> <p class="list-item-l1">(c) <u>Minimising disturbance of the beds of rivers and lakes.</u></p>
<p><u>7.B.1 Manage the quality of water in Otago lakes, rivers, wetlands and groundwater by:</u></p> <p class="list-item-l1">(a) <u>Recognising the differences in the effects and management of point and non-point source discharges; and</u></p> <p class="list-item-l1">(b) <u>Defining, in Schedule 15, characteristics and standards that describe good quality water; and</u></p> <p class="list-item-l1">(c) <u>Maintaining, from the dates specified in Schedule 15, good quality water; and</u></p> <p class="list-item-l1">(d) <u>Enhancing water quality where it does not meet Schedule 15 standards; and</u></p> <p class="list-item-l1">(e) <u>Recognising discharge effects on groundwater.</u></p>
<p><u>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.</u></p>
<p><u>7.B.3 Allow discharges of water or contaminants to Otago lakes, rivers,</u></p>

wetlands and groundwater that have minor effects or are short-term.

- (b) Delete notified Policy 7.B.2, in order to avoid inconsistencies with notified Policy 7.B.3:

~~7.B.2 [Moved from 7.7.1] To promote discharges of contaminants to land in preference to water, where appropriate.~~

- (c) Amend and renumber notified Policy 7.B.3, in order to clarify the intent of this policy:

~~7.B.43 [Moved from 7.7.2] When considering the any discharge of water or any contaminants to land, to have regard to:~~

- (a) ~~The ability of the land to assimilate the discharge contaminant water or contaminants; and~~
- (b) ~~Any potential for soil contamination; and~~
- (c) ~~Any potential for land instability Any potential land instability; and~~
- (d) ~~Actual or Any potential adverse effects on water quality bodies.~~

- (d) Amend notified Policy 7.B.5, in order to recognise the risk of introduction of new species resulting from inter-catchment transfers:

~~7.B.5 Recognise the values of Iwi when water is discharged from one catchment to another.~~

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.

- (e) Amend Policy 7.7.8 and move this policy to become 7.B.6, in order to provide greater clarity:

~~7.B.6 [Moved from 7.7.8] To require, as appropriate, that any resource consent for discharging water or contaminants contains a review condition provision be made for review of the conditions of any resource consent for discharging a contaminant.~~

- (f) Amend and renumber notified Policy 7.B.4, in order to clarify the intent of this Policy:

7.B.84 Encourage adaptive management and innovation that reduces the level of discharge and impact of contaminants in discharges on water quality.

- (g) Add a new Policy 7.B.7 that focuses on land management practices, in order to clarify the intent of Plan Change 6A:

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

2.3.2 Reasons

- **Giving effect to the objectives**

Notified Policy 7.B.1 described the overall approach adopted by ORC to achieve the Plan’s objectives with regard to Otago lakes and rivers. In order to provide more clarity, this policy has been split into three separate policies. These better support the proposed rule framework and outline the criteria against which consent applications for discharges will be considered.

As amended, Policy 7.B.1 makes a clear distinction between point source and non-point source discharges and gives better recognition to the effects of discharges on wetlands and groundwater. Notified Policy 7.B.1(c) has been deleted, as the impacts of bed disturbance on water quality are sufficiently covered by the objectives and policies in Chapter 8 of the Water Plan.

New Policies 7.B.2 and 7.B.3 provide support for the permitted and prohibited rules in section 12.C of the plan change. See section 3.3 of this report.

New Policy 7.B.7 recognises that the adverse effects of discharges can also be reduced through changes in land management practices.

Amended Policy 7.B.8, notified as Policy 7.B.4, is aligned with Objective 7.A.3 by requiring landholders to adjust their operations to meet discharge standards, through “adaptive management and innovation”. Industry best practices do not necessarily address the adverse effects of discharges on water quality.

- **Policies that address all discharges**

Managing water quality across the region requires an integrated approach that cuts across all economic sectors and applies to all sources of pollution. The policies in section 7.B provide a consistent and transparent policy framework that applies to rural as well as urban discharges. This section is complemented by sections 7.C and 7.D, which set specific policies for industrial and rural discharges.

The notified plan change focused on rural diffuse discharges. Most of the policies in section 7.B already apply to industrial and urban discharges under the operative plan including recommended Policy 7.B.6, which has been moved from section 7.C because it is relevant to all discharges.

Policies in section 7.B will be used when considering consent applications for rural, industrial or urban discharges. New Policy 7.B.2 promotes the avoidance of objectionable discharges that result in the degradation of the natural and human use values. The effects of industrial discharges that are not objectionable can still be remedied or mitigated under the Water Plan. See Policy 7.7.3 in section 7.C of the Water Plan.

Notified Policy 7.B.4 and new Policy 7.B.8 promote the principle that landholders are responsible for monitoring the effects of their activities on water quality. This principle is also expressed through the permitted activity rule framework in section 12.C.

- **Protection of freshwater values, and consistency with the RMA and NPSFW**

The amended policy framework protects the natural and human use values of the region's rivers, lakes, wetlands and groundwater. They provide for freshwater's economic values, and allow discharges that have minor effects on natural and human use values.

The recognition of "tangata whenua" values instead of "Iwi" values is consistent with the NPSFW and the RMA. The risk of introducing new species by discharging water from one catchment to water in another catchment is recognised.

- **Promoting discharges to land**

Policy 7.B.2, as notified, promoted discharges of contaminants to land in preference to water under any circumstances. This is inconsistent with Policy 7.B.3 which recognises the risks of soil contamination resulting from discharges to land. Therefore it is recommended to delete notified Policy 7.B.2.

In Policy 7.B.4, the condition on the risk of land instability has been reinstated, as it gives effect to Objective 5.3.8 of the Water Plan. However, the word "actual" is deleted, because discharges of contaminants to land have only potential effects on water, and the regard to actual effect was not necessary for the achievement of the plan's objective. There is no need for specifying within this policy what the potential effects of discharges to land on water bodies may be.

- **Clearer wording**

The terminology in Policy 7.B.1 has been reviewed to offer a clearer framework to the rules. The term "noticeable effects" has been used, while the term "good quality water" has been adopted for consistency with Schedule 15.

Terms such as "minor effects" and "short-term" are commonly used in the Water Plan and Policy 7.D.7 defines what is meant by "short-term" for rural discharges. See section 2.4.2 of this report.

2.4 Policies for other discharges, typically of a rural nature

The notified policies in section 7.D described how discharges, typically of a rural nature, are to be managed.

We considered the submissions and recommend a redraft of these policies. This will provide better guidance for consenting, and will improve certainty in implementing the rules.

2.4.1 Recommendations

- (a) Amend the heading of section 7.D, in order to clarify the scope of this section:

~~7.D Policies for discharges of water and contaminants, excluding those discharges provided for in 7.C nitrogen, phosphorus, *Escherichia coli* and sediment (excluding in human sewage, hazardous wastes and stormwater, and from industrial and trade premises)~~

- (b) Add new Policy 7.D.1, in order to promote innovation and information sharing:

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.**

- (c) Delete notified Policy 7.D.1 and add new Policy 7.D.2, in order to provide more certainty and clarity:

7.D.1 Apply limits on contaminants in discharges where they are about to enter water.

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.

(d) Add new Policy 7.D.3, in order to support the use of prohibitions:

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.

(e) Replace notified Policies 7.D.2 and 7.D.3 with new Policy 7.D.4, in order to clarify consent options:

7.D.2 Provide for the consenting of discharges, that first occurred prior to 31 March 2012, for a limited time period beyond the timeframe specified in Schedule 16, where:

- (a) Changes to land management practices or infrastructure to minimise the discharge have been implemented; and**
- (b) Additional changes to management practices or infrastructure are needed to achieve the limits; and**
- (c) An expeditious path to compliance with Schedule 16 is identified.**

7.D.3 Provide for the consenting of discharges that exceed Schedule 16 limits as part of the development of technology or innovative practices associated with improving water quality.

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.**

(f) Add new Policy 7.D.5, in order to provide better policy guidance for consent decisions:

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.**

- (g) Add new Policies 7.D.6 and 7.D.7, in order to provide better policy guidance for consent duration:

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.**

2.4.2 Reasons

- Scope of section 7.D**

Notified section 7.D set the policies that specifically provide for “rural” discharges. The heading, as amended, recognises that “rural” discharges are not restricted to discharges of nitrogen, phosphorus, *E coli*, and sediment. It also ensures that the scopes of sections 7.D and 12.C of the plan change are aligned.

- Sharing of responsibilities**

Section 7.D now includes a new Policy 7.D.1 that sets out the shared responsibilities of ORC and individuals in monitoring trends in the quality of the region’s surface and groundwater resources.

- The assimilative capacity of water**

In the notified plan change, Policy 7.D.1 was intended to provide clarity around the matter of reasonable mixing and the use of assimilative capacity of water in relation to rural diffuse discharges. The new Policy 7.D.2 now clarifies how the assimilative capacity of water is used in relation to discharges of contaminants listed in Schedule

16. Contaminant limits must be met when the receiving water is at or below median flow.

- **Practicality of issues**

Notified Policy 7.D.1 provided clarity around the point where compliance with the discharge limits was required. It is appropriate to delete notified Policy 7.D.1 as the amended rules in 12.C now adequately address issues around the application of discharge limits at a particular point.

- **A policy framework that supports the prohibitions**

New policy 7.D.3 provides support for the use of prohibitions in section 12.C.0, and describes which discharges should not occur under any circumstances.

The term objectionable refers to discharges that are significant in terms of their effects on the receiving environment or where no attempt has been made to mitigate these effects.

- **Discharges not attributable to activities of the discharger**

Plan Change 6A is based on the principle that landholders should take responsibility for the effects and costs of their discharge activities, not the wider community. However, it is unreasonable for them to be held accountable for discharges that they have no control over, or that do not arise from their activities.

The policy framework in Section 7.D has been amended to give better recognition to this principle and allow consent decision-makers to give due consideration to this matter.

- **Consent Guidance**

New Policies 7.D.5, 7.D.6 and 7.D.7 provide consent decision making guidance for discharges to water or to land in circumstances that may result in contaminant entering water.

Landholders are required to do the best they can to meet the permitted activity conditions. The consent duration is limited to five years, to ensure that every effort will be made to manage activities so that they have no more than minor effects on water quality. New Policy 7.D.7 defines “short term”.

Notified Policy 7.D.2 did not provide consenting guidance for all the activities that were discretionary or restricted discretionary. New policies 7.D.5 and 7.D.6 cover all discharges for which a consent application can be made. The list of matters for consideration is extended to provide for a more balanced assessment of specific situations.

2.5 Policies for urban and industrial discharges

Notified provisions for industrial and urban discharges remained largely unchanged from the operative Water Plan, apart from the deletion of Policy 7.7.5.

We recommend that the scope of policies be clarified to cover discharges from large dams, including hydro-electricity dams.

2.5.1 Recommendations

- (a) Amend the heading of section 7.C, in order to clarify the scope of this section:

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

2.5.2 Reasons

- **Scope of section 7.C**

The notified plan change did not explicitly provide for discharges from large dams. The amendment of section 7.C's heading removes any uncertainty over what policies apply to those discharges. The rules applying to those discharges are discussed in section 3.11 of this report.

CHAPTER 3 – WATER AND CONTAMINANT DISCHARGES

The notified discharge rules sought to improve on those in the existing Water Plan by using an effects-based rather than an activity-based approach. Effects that would always be considered intolerable were proposed to be prohibited, while discharges with no more than minor adverse effect would be permitted.

Submitters identified a number of issues with the notified rules, and we have taken their concerns on board in proposing a redraft of the discharge rules in this chapter.

3.1 A revised structure for the rules

The notified plan change amended the structure of discharge rules.

Provisions in sections 12.A and 12.B for discharges including discharges of human sewage, hazardous substances, and discharges from industrial or trade premises, were retained largely unchanged. Section 12.C sets general discharge rules that focus on the effects of discharges on water quality.

The notified introductory note box for sections 12.A to 12.C explained how the discharge rule framework worked. The note box had no regulatory effect.

We considered the submissions presented, and recommend making changes that improve clarity and consistency.

3.1.1 Recommendations

- Turn the note boxes under section “12A – 12.C Introduction...” and section 12.C into Rules 12.A.A.1, 12.B.A.1, 12.C.A.1 and 13.5.A.1, in order to give legal effect to these note boxes:

12.A – 12.C Introduction to discharges of contaminants or water

How the rule framework applies:

Section 12.A applies to any discharge that contains human sewage.

Section 12.B applies to any discharge that contains a hazardous substance, hazardous waste or other contaminant specified in the rules, including:

- Herbicides, pesticides, fertiliser.
- Tracer dye.
- Sullage, cooling water, water supplies, pools, water used for holding live organisms.
- Stormwater (runoff from impervious surfaces).
- Discharges from industrial and trade premises.

If a discharge contains both human sewage and a hazardous substance, waste or specified contaminant, then rules in both 12.A and 12.B must be met.

Section 12.C applies to any other discharge not specifically provided for in

Sections 12.A or 12.B.

12.6A 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.

12.7B Discharge of pesticides, hazardous substances, hazardous wastes, other specified contaminants, and stormwater; and discharges from industrial and 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.C Other discharges

Note: 1. Section 12.C applies to any discharge not specifically provided for in

Sections 12.A or 12.B.

2. Under the Regional Plan: Water, reclamation and deposition of cleanfill associated with works in the bed of a lake or river, or wetland, are addressed through disturbance rules in Section 13.5, and not through discharge rules in Section 12.C.

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.

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

13.5.A General rules for Section 13.5

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

Note: Alteration includes any disturbance, and the associated remobilisation (discharge) and redeposition (deposit) of bed material sediments already present, reclamation or deposition of cleanfill associated with works in the bed. Under the Regional Plan: Water, reclamation and deposition of cleanfill associated with works in the bed of a lake or river, or wetland, are addressed through disturbance rules in Section 13.5, and not through discharge rules in Section 12.C.

- (b) Amend the heading to 12.B in order to explicitly include discharges from consented dams in this section:

12.7B Discharge of pesticides hazardous substances, hazardous wastes, other specified contaminants, and stormwater; and discharges from industrial and or trade premises and consented dams

- (c) Add new rule 12.C.A.2 in order to clarify the priority between the rules in section 12.C:

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

activity rules.

3.1.2 Reasons

- **How the sections work together**

Turning the note box under the header for “12A – 12.C Introduction...” into general rules gives legal weight to the content of the note box and ensures that the framework is applied consistently.

Discharge rules have also been placed in the relevant section and made consistent with the header of each section. This reduces uncertainty over the scope of each section.

- **Remobilisation**

Section 4.2.2 of this report describes the changes to the section 13.5 note box.

- **Priority between rules**

To avoid confusion over which rule prevails the activity status of a particular activity should be made clear with new Rule 12.C.A.2.

- **Consented dams**

Section 3.11.2 of this report describes the inclusion of discharges into section 12.B.

3.2 Rules in section 12.C

The rules in section 12.C focus on the effects of those discharges not covered in sections 12.A or 12.B. They address “rural discharges”, and translate the effects based approach into a regulatory framework. Appendix 2 provides flowcharts of how the rules apply.

We recommend a variety of changes to rule numbering and content in this chapter. The table below identifies the contaminant or matter of interest, the adverse effects of that matter, the revised rules that we recommend addressing the matter, and which sections of this report discuss the matter.

Matter	Description of adverse effects	New rule	Section of this report
Oil, grease film, scum or foam and objectionable odour in water	These effects are seen as gross and prevent people from enjoying water	12.C.0.1 (prohibited)	3.3
		12.C.1.1 (permitted)	3.3
		12.C.2 (restricted discretionary)	3.10
Floatale or suspended material other than	These effects are seen as gross and prevent people from enjoying water	12.C.1.1 (permitted)	3.3

Matter	Description of adverse effects	New rule	Section of this report
sediment		12.C.1.2 (permitted)	3.7
		12.C.2.1 (restricted discretionary)	3.10
Sediment and visual change in receiving water's clarity	Sediment has an adverse effects on aquatic habitats	12.C.0.3 (prohibited)	3.3
		12.C.1.1 (permitted)	3.5
		12.C.1.2 (permitted)	3.7
		12.C.2.1 12.C.2.2 (restricted discretionary)	3.10
Nutrients: NNN, DRP, ammoniacal nitrogen, and bacteria: <i>E coli</i>	<ul style="list-style-type: none"> - Phosphorus and nitrogen can contribute to algal growth. This has an adverse effect on fish habitat, amenity and recreation values - Ammoniacal nitrogen is toxic to aquatic life - <i>E coli</i> is a measure that indicates toxicity, and therefore adversely affects contact recreation - Animal waste systems, silage storage and composting are important sources of those contaminants 	12.C.0.2 (prohibited)	3.3
		12.C.1.1 (permitted) Schedule 16	3.6
		12.C.1.3 (permitted)	3.9
		12.C.2.1 12.C.2.2 (restricted discretionary)	3.10
		12.C.2.3 (restricted discretionary)	3.10
Flooding, erosion, land instability or property damage	- Can cause or exacerbate hazards, adversely affecting people and their environment	12.C.1.1 (permitted)	3.3
		12.C.1.2 (permitted)	3.3
		12.C.3.1 (discretionary)	3.10
Discharges of water to water in another catchment	<ul style="list-style-type: none"> - Species may be introduced to areas where they are not already present - Water quality in the receiving catchment may be reduced - The mauri of the water may be adversely affected 	12.C.1.1 (permitted)	3.8
		12.C.1.2 (permitted)	3.8
		12.C.3.1 (discretionary)	3.10
Changes to the water level range or hydrological function of a regionally significant wetland	- This can adversely affect the hydrological and habitat values.	12.C.1.1 (permitted)	3.8
		12.C.1.2 (permitted)	3.8
		12.C.3.1 (discretionary)	3.10

3.3 Prohibiting objectionable activities (section 12.C.0)

Notified section 12.C.0 prohibited discharges that were considered so objectionable that a resource consent would never have been granted.

We considered the submissions presented. We recommend changes that improve clarity and practicality, but ensure that inappropriate discharges continue to be prohibited.

3.3.1 Recommendations

- (a) Delete notified Rule 12.C.0.1 and replace it with a permitted activity condition, in order to avoid prohibiting discharges with minor effects:

~~12.C.0.1 Any discharge of contaminants, where the discharge is about to enter water, that:~~

- (i) Has an odour; or
- (ii) Contains an oil or grease film, scum or foam, or floatable material, is a **prohibited** activity.

~~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:~~

...
~~(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:~~

...
~~(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~~

...

- (b) Amend notified Rule 12.C.0.2 in order to increase clarity and avoid prohibiting discharges with minor effects:

~~12.C.0.21 Any The discharge of any contaminants to water, that results in water produces:~~

- (i) Increasing in colour; or
- (ii) Reducing in visual clarity; or
- (iii) an objectionable Developing an odour; or
- (iv) Developing an 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.

- (c) Delete notified Rule 12.C.0.3 and replace it with a permitted activity condition, in order to avoid prohibiting discharges with minor effects:

~~12.C.0.3 Any discharge of water or contaminants to water, that results in flooding, erosion, land instability or property damage, is a prohibited activity.~~

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

...

12.C.1.6.2 Notwithstanding Rules 12.C.1.1, 12.C.1.2 and 12.C.1.5, the discharge of water or any contaminants listed in Schedule 16 from:

(i) A water race that does not convey irrigation runoff; or

(ii) A dam:

(1) Permitted under Rule 13.2.1.3 ~~12.3.2.1~~; and ~~or~~

(2) Not for the purpose of the storage of contaminants,

(ii) water supply transport system,

to any lake, river, wetland or any water race that flows to a lake, river or wetland water, or to a Regionally Significant Wetland, is a permitted activity, providing:

...

(d) The discharge does not:

(1) Result in flooding, erosion, land instability or property damage; and ...

- (d) Amend notified Rule 12.C.0.4 in order to increase clarity, and to avoid prohibiting unpreventable sediment mobilisation:

12.C.0.43 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 ~~has been~~ is taken to ~~avoid~~ mitigate sediment runoff, is a prohibited activity.

- (e) Amend notified Rule 12.C.0.5 and delete notified Rule 12.C.1.4 in order to increase clarity and prohibit high risk activities:

12.C.0.52 Any The discharge of any contaminants from an animal waste system, silage

storage or a composting process:

(i) To any lake, river or Regionally Significant Wetland ~~a water body~~, 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 saturated land; or

(v) To any bore or sump, ~~a conduit to water, or the bed of any lake or river, or Regionally Significant Wetland~~; or

(vi) That enters water from land ~~To land within 50 metres of;~~ or

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

(b) Any bore or sump; or

(vii) That results in ponding;
is a **prohibited** activity.

12.C.1.4 The discharge of contaminants from any animal waste system to land, is a permitted activity, providing:

(a) The discharge occurs more than 50 metres from any bore used to supply water for domestic needs or drinking water for livestock; and

(b) There is no discharge onto any other person's property without the other person's agreement.

3.3.2 Reasons

- **Use of the prohibited activity**

The prohibitions give effect to new Policies 7.B.2 and 7.D.3, and amended Objectives 7.A.1 and 7.A.2. They apply to discharges which are so objectionable that they would never be granted resource consents.

The prohibited activity rules as notified could have prohibited some discharges with no more than minor effects. As a result, the matters notified in 12.C.0.1 and 12.C.0.3 are incorporated as conditions to the permitted activity rules. Discharges that are not permitted but may not be objectionable now have a consent option available. See section 3.10 of this report. The qualifiers “objectionable” and “conspicuous” from Section 107 RMA have been added to new Rule 12.C.0.1.

Amended rules 12.C.0.2 and 12.C.0.3 target practices that have a high risk of adverse effects on water quality, and that would never be granted a consent. The prohibited activity status is therefore appropriate for those discharges.

- **Avoiding conflicts between rules**

Deleting notified Rule 12.C.0.1 removes any confusion with notified Rule 12.C.0.2.

Deleting notified rule 12.C.0.2(i) increasing in colour, and (ii) reducing in visual clarity also removes the inconsistency with new rules 12.C.0.3 and 12.C.1.1, both of which allow sediment to discharge to water.

New rule 12.C.A.2 clarifies that a prohibited activity rule prevails over any permitted, restricted discretionary or discretionary activity rule.

- **Scope of the prohibitions**

The objective of the plan change is to maintain or enhance water quality in Otago lakes, rivers, wetlands and groundwater. Therefore, it is appropriate to restrict the scope of the prohibited activity rules to discharges of contaminants that are likely to enter one of those water bodies, including Regionally Significant Wetlands.

The provisions in section 12.B address urban stormwater discharges and discharges from impervious road surfaces, that may or may not be through reticulated systems. The prohibited activity rules do not apply to these discharges. However, they apply to irrigators, forestry companies or operators of permitted dams. Under the effects based approach, it is not appropriate to discriminate between different land uses.

- **Exceptional circumstances and emergencies**

Finally, the RMA provisions in Sections 18, 330, 330A, 330B, 341, 341A, 341B provide protection for people who breach the prohibited rules in emergency situations.

- **Discharges of sediment**

Notified Rule 12.C.0.4 prohibited the discharge of sediment to water if no measure had been taken to prevent that discharge. It is recommended that amended Rule 12.C.0.3 replaces “avoid” with “mitigate” and “if” with “where”.

It is at the discretion of those undertaking activities which disturb land to choose a measure that mitigates sediment discharge to water. Any measure will need to ensure sediment discharges do not breach the permitted activity Rule 12.C.1.1, unless a consent has been obtained.

Chapter 13 of the Water Plan covers rules for land use on lake or river beds or Regionally Significant Wetlands. Any sediment release resulting from the disturbance of the bed of a lake or river or of a Regionally Significant Wetland is covered by these rules and is not subject to this prohibited activity rule. This is clarified by new Rule 13.5.A.1. See sections 3.1 and 4.2 of this report.

- **Discharges from animal waste systems, silage storage, or composting processes**

In the notified plan change, discharges from animal waste systems, silage storage or composting processes were addressed in two rules: 12.C.0.5 and 12.C.1.4. It is recommended to incorporate these two rules into amended Rule 12.C.0.2. Condition

(b) of notified Rule 12.C.1.4 is deleted as it is a civil matter that is not required to be addressed in the Water Plan.

Other amendments to Rule 12.C.0.2 are made to increase clarity as to when these types of discharges will be prohibited. The word “conduit” is better defined.

Definitions of the terms “saturated land” and “ponding” are not included because it is sufficient to interpret words by their common meaning. Prohibited discharges have a high risk of adverse effects on lakes, rivers, Regionally Significant Wetlands and groundwater. Land management practices can prevent these discharges.

Discharges from offal pits and farm waste dumps to water are not covered in new Rule 12.C.0.2, but are addressed in Rules 12.C.0.1 and 12.C.1.1 (see notified consequential change to section 11.3.3.3). They are also covered in the Regional Plan: Waste for Otago.

- **Timeframes for prohibitions to take effect**

Section 87B(1)(c) of the RMA treats prohibited rules as discretionary until they become operative. The current operative Water Plan rules already strictly control various gross discharges, as conditions of permitted activities, and no consent has been granted for these activities in the past.

3.4 The permitted activity rule framework (section 12.C.1)

Section 12.C.1 of the notified plan change sought to permit any discharge to water that had no more than minor adverse effect on water quality. This was done in six permitted rules, which addressed various discharges.

We considered the submissions presented, and recommend the following:

- The permitted activity rule framework be made easier to follow by clarifying how the rules work together; and using the wording of the RMA; and
- The scope of the permitted rules be changed, to cover all the undesirable effects of discharges.

3.4.1 Recommendations

(a) Delete notified Rules 12.C.1.1, 12.C.1.2 and 12.C.1.5, and incorporate their content into new Rule 12.C.1.1 in order to clarify the meaning of the permitted rules and set a comprehensive general permitted discharge rule:

12.C.1.1 The discharge of sediment to water is a **permitted** activity, providing:

...

12.C.1.2 The discharge of a contaminant listed in Schedule 16 to:

(i) Water; or

(ii) Land in a manner that may enter water.

...

~~12.C.1.5 The discharge of water to water, or water to a Regionally Significant Wetland, that:~~

...

~~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:~~

...

- (b) Add new Rule 12.C.1.1, and amend notified Rules 12.C.1.3 and 12.C.1.6 in order to clarify the meaning of the permitted rules and the interaction between them:

~~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:~~

...

~~(e) Any discharge of nitrogen also complies with Rule 12.C.1.3.~~

~~12.C.1.6.2 Notwithstanding Rules 12.C.1.1, 12.C.1.2 and 12.C.1.5, the discharge of water or any contaminants listed in Schedule 16 from:~~

~~(i) A water race that does not convey irrigation runoff; or~~

~~(ii) A dam:~~

~~(1) Permitted under Rule 13.2.1.3 ~~12.3.2.1~~; and or~~

~~(2) Not for the purpose of the storage of contaminants.~~

~~(ii) water supply transport system,~~

~~to any lake, river, wetland or any water race that flows to a lake, river or wetland water, or to a Regionally Significant Wetland, is a permitted activity, providing:~~

...

~~12.C.1.3 The discharge of nitrogen¹ from onto or into land in circumstances which may result in nitrogen entering to groundwater, is a permitted activity, providing:~~

...

3.4.2 Reasons

- **Creating a comprehensive general permitted discharge rule**

New Rule 12.C.1.1 is a catch-all rule for discharges that are not covered by sections 12.A or 12.B, and highlights that the conditions of this permitted activity work together. This makes the rule framework easier to apply.

- **Using RMA wording**

Section 15(1) RMA precludes any person from discharging water or contaminants to water, or contaminants onto or into land in circumstances which may result in those contaminants entering water, unless expressly allowed by a rule in a regional plan, a resource consent, or regulations.

Using the wording of the RMA in the rules provides more certainty, as these words have been interpreted in case-law.

- **Clarifying interactions between the permitted activity rules**

The relationship between amended Rule 12.C.1.1, and Rule 12.C.1.3, which deals with nitrogen leaching to groundwater, is clarified through the addition of a condition to 12.C.1.1.

Amended Rule 12.C.1.2 provides an exception to amended Rule 12.C.1.1 and allows the discharge of contaminants already in water through a permitted activity dam or a water race. See section 3.7.2 for further discussion on this issue.

- **Discharges of water and discharges of contaminant**

Contaminant includes any substance, energy or heat that when discharged into water, changes the physical, chemical or biological condition of the water (Section 2 RMA).

In the plan change as notified, discharges of water and of contaminants were addressed in separate rules. However, water and contaminants are usually bound together: discharges of water can contain contaminants, and contaminants are often carried by water.

The merging of Rules 12.C.1.1, 12.C.1.2 and 12.C.1.5 into new rule 12.C.1.1 avoids confusion between discharges of contaminants and discharges of water.

3.5 Permitted sediment discharges

In addition to the notified prohibited activity Rules 12.C.0.2 and 12.C.0.4 (see section 3.3 of this report), the notified plan change permitted the discharge of sediment, providing a number of conditions were met.

We considered the submissions presented on the rules permitting sediment discharges. We recommend changes to make the permitted rule on sediment more workable and better aligned with the prohibited rules.

3.5.1 Recommendations

- (a) Delete notified Rule 12.C.1.1 and add its conditions into new Rule 12.C.1.1 in order to provide for the discharge of sediment as part of the general permitted activity rule:

12.C.1.1 The discharge of sediment to water is a <i>permitted</i> activity, providing:

- ~~(i) After the cessation of rainfall on the site, the discharge does not cause sedimentation.~~
- ~~(ii) From 31 March 2017:~~
- ~~(a) More than one hour after rain ceases on the site the discharge shall not exceed water clarity of 40 nephelometric turbidity units, where the discharge is about to enter water.~~
- ~~(b) More than twelve hours after rains ceases on the site the discharge shall not exceed water clarity of 5 nephelometric turbidity units, where the discharge is about to enter water.~~

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:

...

- (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:
- ...

- (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
- ...

3.5.2 Reasons

- **Conflict between rules**

The conditions on colour or clarity in notified prohibited Rule 12.C.0.2 have been incorporated into the new permitted activity rule. This avoids conflict between these two rules. This also recognises that discharges of sediment with less than minor effect need to be provided for as a permitted activity.

- **Sediment limit relative to receiving water**

It is appropriate to measure the effect of sediment in the receiving water, rather than in the discharge before it enters water, as was the case in the notified rule. This allows the background quality of the receiving water to be considered.

People undertaking activities that result in a discharge of sediment to water are responsible for the effect their discharge has on receiving water. If there is a visual change in the receiving water, then the discharge is not permitted. If receiving water is already turbid and the discharge does not result in a visual change, then the discharge is permitted.

The test of changes in visual clarity permits some sedimentation to occur. Research has demonstrated that, under optimum conditions, “the median threshold for the detection of change in visual clarity is about 10-15%”, and that “almost all people can detect a change of about 30%”. (*MfE Water Quality Guidelines N°2: Colour and Clarity, 1994*)

Assessing sediment when the discharge enters water is easier than measuring the discharge before it enters water. This will make the rule simpler to apply for those undertaking activities, and for those enforcing the rules.

- **Narrative standard**

Changing numerical limits to narrative limits makes it easier for people undertaking activities to determine if they are meeting the permitted activity conditions. They can assess the change in clarity or colour by eye-sight, rather than assessing the water clarity in nephelometric turbidity units.

- **Protecting the water quality**

The plan change seeks to protect water quality in all Otago lakes, rivers, wetlands and groundwater. The permitted activity sediment control applies to discharges to lakes, rivers, wetlands, or to open drains or races that flow into one of those water bodies.

- **Reasonable mixing**

Reasonable mixing is not explicitly allowed for in this rule. The concerns behind requests for reasonable mixing are addressed through permission of some sedimentation to occur.

- **When should the standard apply?**

Deletion of the rainfall condition increases certainty about when the rule applies. The term “rain” is uncertain and can refer to anything from mist to storms. The standard on sediment discharges now applies during rain events. However, because lakes and rivers can be turbid after significant rain events, sediment discharges relative to the receiving water can be less stringently controlled during rain events.

It is not appropriate to apply the sediment standard only when rivers are below median flow, as is the case for other contaminants. See section 3.6 of this report. Sediment is unlike other contaminants that are flushed out at high flows. The effects of discharges of sediment are felt throughout the year.

- **Timeframe**

Existing Water Plan rules already strictly control sediment discharge, so application of these clearer rules must apply immediately. The notified rule which prohibited discharges resulting in water changing in visual clarity or reducing in colour would have had immediate effect.

- **Prohibiting and consenting sediment discharges**

See sections 3.3 and 3.10 of this report for discussion on sediment discharges which are prohibited or require consent.

3.6 Schedule 16 contaminants

The notified plan change permitted the discharge of nitrogen, phosphorus, ammoniacal nitrogen and *E coli* under Rule 12.C.1.2, provided they met limits specified in Schedule 16. Additionally, the input of these contaminants to water was controlled through notified Rules 12.C.0.5 and 12.C.1.4.

We considered the submissions presented on notified Rule 12.C.1.2 and Schedule 16, and recommend changes to make the rules on Schedule 16 contaminants more achievable, workable and clear; while still achieving Schedule 15 standards. These changes include amending the time when Schedule 16 limits apply: instead of applying “twelve hours after rain ceases on site”, the limits will apply when the flows are at or below a reference flow based on median.

3.6.1 Recommendations

- (a) Incorporate notified Rules 12.C.1.2 and 12.C.1.5 into amended Rule 12.C.1.1 and clarify where and when Schedule 16 limits apply:

<p><u>12.C.1.2</u> The discharge of a contaminant listed in Schedule 16 to:</p> <p class="list-item-l1">(i) Water; or</p> <p class="list-item-l1">(ii) Land in a manner that may enter water;</p> <p>is a permitted activity, providing that more than twelve hours after rain ceases on the site, the quantity of contaminant in the discharge does not exceed the limits given in Schedule 16, where the discharge is about to enter water.</p>
<p><u>12.C.1.5</u> The discharge of water to water, or water to a Regionally Significant Wetland, that:</p> <p class="list-item-l1">(i) Does not discharge water from one catchment to another; and</p> <p class="list-item-l1">(ii) Where it contains any of the contaminants listed in Schedule 16, the quantity of contaminant in the discharge does not exceed the limits given in Schedule 16;</p> <p>is a permitted activity, providing:</p> <p class="list-item-l2">(a) There is no change to the water level or hydrological function, or no damage to fauna, or New Zealand native flora in or on any Regionally Significant Wetland.</p>
<p><u>12.C.1.1</u> 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:</p> <p>...</p> <p class="list-item-l1">(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:</p> <p class="list-item-l2">(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</p>

...

- (b) Amend the structure of Schedule 16, identify reference flow sites in a map (see Appendix 1) and representative flows at these flow sites, in order to clarify when Schedule 16 limits apply:

Schedule 16 Schedule of discharge limits for water quality

Schedule 16 describes the contaminant concentration limits that are applicable to discharges to lakes, rivers, wetlands and drains or races flowing to 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

....

16B Representative monitoring sites and reference flows

Map 16B Representative flow monitoring sites for every part of Otago

[see map in Appendix 1]

Representative flow monitoring sites are shown on the Water Info website (<http://water.orc.govt.nz/WaterInfo/Default.aspx>).

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>).

<u>Monitoring Flow Site</u>	<u>Reference flow (cumecs)</u>
<u>Bengerburn at Booths</u>	<u>0.37</u>
<u>Cardrona at Mt Barker</u>	<u>1.95</u>
<u>Catlins at Houipapa</u>	<u>2.34</u>
<u>Dart at The Hillocks</u>	<u>51.49</u>
<u>Kakanui at Clifton Falls Bridge</u>	<u>1.29</u>

<u>Leith at University Foot Bridge</u>	<u>0.34</u>
<u>Lindis at Ardgour Road</u>	<u>3.50</u>
<u>Lindis at Lindis Peak</u>	<u>3.51</u>
<u>Lovells Creek at SH1</u>	<u>0.14</u>
<u>Manuherikia at Campground</u>	<u>11.60</u>
<u>Manuherikia at Ophir</u>	<u>8.01</u>
<u>Matukituki at West Wanaka</u>	<u>44.99</u>
<u>Mill Creek at Fish Trap</u>	<u>0.35</u>
<u>Nevis at Wentworth Station</u>	<u>7.25</u>
<u>Pomahaka at Burkes Ford</u>	<u>15.48</u>
<u>Pomahaka at Glenken</u>	<u>7.00</u>
<u>Shag at Craig Road</u>	<u>0.65</u>
<u>Shotover at Peats</u>	<u>18.12</u>
<u>Silverstream at Taieri Depot</u>	<u>0.30</u>
<u>Taieri at Canadian Flat</u>	<u>2.45</u>
<u>Taieri at Outram</u>	<u>15.86</u>
<u>Taieri at Sutton</u>	<u>10.52</u>
<u>Taieri at Tiroiti</u>	<u>7.88</u>
<u>Taieri at Waipiata</u>	<u>6.02</u>
<u>Tokomairiro at West Branch Bridge</u>	<u>0.44</u>
<u>Waianakarua at Browns</u>	<u>0.78</u>
<u>Waikouaiti at Confluence</u>	<u>1.34</u>
<u>Waitahuna at Tweeds Bridge</u>	<u>1.55</u>
<u>Waiwera at Maws Farm</u>	<u>1.58</u>

- (c) Amend Schedule 16 in order to revise the Schedule 16 limits, areas and timeframes:

Schedule 16 Schedule of discharge limits for water quality

<u>Discharge Limit Area 1⁴</u> <u>Catchments</u>	<u>Nitrate-nitrite</u> <u>nitrogen</u>	<u>Dissolved reactive</u> <u>phosphorus</u>	<u>Ammoniacal</u> <u>nitrogen</u>	<u>Escherichia</u> <u>coli</u>
<u>Timeframe</u>	<u>31 March 2019</u> <u>01 April 2020</u>		<u>31 March 2017</u> <u>01 April 2020</u>	

<ul style="list-style-type: none"> ▪ <u>Carey's Creek</u> ▪ <u>Catlins</u> ▪ <u>Fleming</u> ▪ <u>Kaikorai</u> ▪ <u>Leith</u> ▪ <u>Mokoreta (within Otago)</u> ▪ <u>Owaka</u> ▪ <u>Pomahaka, downstream of Glenken</u> ▪ <u>Tahakopa</u> ▪ <u>Tautuku</u> ▪ <u>Tokomairiro</u> ▪ <u>Tuapeka</u> ▪ <u>Waitahuna</u> ▪ <u>Waitati</u> ▪ <u>Waiwera</u> ▪ <u>Any other unlisted tributary on the true right bank of the Clutha/Mata-Au, south of Judge Creek</u> ▪ <u>Any unlisted tributary on the true left bank of the Clutha/Mata-Au, south of the Tuapeka</u> ▪ <u>Any other unlisted catchment that discharges to the coast, south of the Matau Branch of the Clutha River/Mata Au</u> <p>Taieri Mouth</p>				
--	--	--	--	--

<u>Discharge Limit Area 2⁺ Catchments</u>	<u>Nitrate-nitrite nitrogen</u>	<u>Dissolved reactive phosphorus</u>	<u>Ammoniacal nitrogen</u>	<u>Escherichia coli</u>
<u>Timeframe</u>	<u>31 March 2019</u> <u>01 April 2020</u>		<u>31 March 2017</u> <u>01 April 2020</u>	
<ul style="list-style-type: none"> ▪ <u>Arrow</u> ▪ <u>Cardrona</u> ▪ <u>Clutha/Mata-Au (above Luggate)</u> ▪ <u>Clutha/Mata-Au and any other unlisted tributary (Luggate to mouth, including Lakes Dunstan and Roxburgh, and excluding tributaries described in Discharge Limit Area 1 catchments)</u> ▪ <u>Fraser</u> ▪ <u>Kakanui</u> ▪ <u>Kawarau upstream of the Shotover confluence</u> ▪ <u>Lake Dunstan</u> 	0.45 <u>3.6 mg/l</u>	0.03 <u>0.045 mg/l</u>	0.4 <u>0.2 mg/l</u>	<u>426 550 cfu/100 ml</u>

<ul style="list-style-type: none"> ▪ <u>Lake Hawea</u> and any tributary ▪ <u>Lake Hayes</u> ▪ <u>Lake Johnson</u> ▪ <u>Lake Onslow</u> ▪ <u>Lake Tuakitoto</u> ▪ <u>Lake Waipori & Waihola</u> ▪ <u>Lake Wakatipu</u> and any tributary ▪ <u>Lake Wanaka</u> and any tributary ▪ <u>Lindis</u> ▪ <u>Luggate</u> ▪ <u>Manuherikia</u> ▪ <u>Mill Creek</u> (tributary to Lake Hayes) ▪ <u>Pomahaka</u>, upstream of Glenken ▪ <u>Shag</u> ▪ <u>Shotover</u> ▪ <u>Taieri</u> ▪ <u>Tokomairiro</u> ▪ <u>Trotters</u> ▪ <u>Waianakarua</u> ▪ <u>Waikouaiti</u> ▪ <u>Waitahuna</u> ▪ <u>Waipori</u> ▪ <u>Waitaki</u> tributaries within Otago ▪ Any other unlisted catchment that discharges to the coast, north of Taieri Mouth the Matau Branch of the Clutha River/Mata Au ▪ Any tributaries to Lakes Hawea, Wakatipu, and Wanaka ▪ <u>Dart</u> 			
--	--	--	--

mg/l = milligrams per litre

cfu/100 ml = colony-forming units per 100 millilitres

*Areas 1 and 2 are shown in Maps J1-J9.

- (d) Amend the J-Series maps in order to reflect the changes to Schedule 16 discharge limit areas, as shown in Appendix 1, attached.

3.6.2 Reasons

- **The use of “reference flows” to determine when Schedule 16 limits apply**

River flows are considered a better indicator of environmental conditions than rainfall, as flows relate to both rainfall and the receiving environment’s assimilative properties. Recreational contact and the risk of algal bloom are at their highest at low flows.

Land managers are given more certainty when Schedule 16 limits apply by attributing to every part of Otago a representative flow monitoring site in Map 16B.1 and defining a reference flow for each of these sites in Table 16B.1. The reference flows are fixed and are calculated using median flow data collected from 2007 to 2013.

Map 16B.1 and Table 16B.1 will also be available on the Water Info website, which already makes river flow data available.

- **Where the discharge limits apply**

Plan Change 6A seeks to protect water quality in all of Otago lakes, rivers, wetlands and groundwater. Schedule 16 limits therefore only apply to discharges to lakes, rivers, wetlands, or to open drains or races that flow in one of those water bodies, where the discharge first enters water in any one of those water courses. The limits apply to the discharge before any assimilation with the receiving water, and compliance is assessed at the point which gives the best indication of the discharge’s contaminant concentration where the discharge is occurring.

- **Nitrogen and phosphorus**

Setting limits for nutrient concentrations in rivers and streams is complex. The concentrations at which nitrogen or phosphorus begin to have an adverse effect is highly site and catchment specific, and depends on many factors. The notified limits for nitrite-nitrogen (NNN) and dissolved reactive phosphorus (DRP) were equivalent to the notified receiving water standards in Schedule 15. This lessened the need to protect against cumulative effects. However receiving waters have assimilative capacity and therefore the discharge limits should be reconsidered in terms of effects and achievability.

The amended limits are based on the sampling data collected by ORC as part of its Pomahaka study and used by AgResearch (McDowell et al. 2011): sampling results indicate that where discharges exceed the recommended values, it can usually be linked to poor management practices.

Setting the NNN limit at 3.6 mg/l for discharges in area 1 and at 1 mg/l for discharges in area 2 is considered appropriate. The toxicity guidelines (Hickey, C.W, Martin, M.L., 2009) assesses that a NNN concentration of 3.6 mg/l in lakes and rivers offers a 80% species protection, while a concentration in NNN of 1 mg/l in lakes and rivers offers a 99% species protection, from long term effects due to long term exposure.

The amended limits for DRP are derived from the 95th percentile of the SOE monitoring data, collected from July 2006 to June 2011, on Schedule 15 Water Quality Groups 1 and 2. The use of the 95th percentile keeps the limits within the

values known to occur most of the time in the main water body, including assimilative factors.

Drainage sampling results show that these limits are achievable.

- **Ammoniacal nitrogen**

At high concentrations, ammoniacal nitrogen can be toxic and contributes to eutrophication. In farmed catchments, elevated concentrations generally arise from stock effluent reaching water through direct discharge, paddock run-off, or stock access to stream banks and beds. The effects are intensified when stream flows are low, or when stock are frequently near water bodies. Run-off and leaching of urea fertiliser can also contribute.

The notified limits for ammoniacal nitrogen were equivalent to the notified receiving water standards in Schedule 15. This lessened the need to protect against cumulative effects. However receiving waters have assimilative capacity and therefore the discharge limits have been reconsidered in terms of effects and achievability.

Again, the sampling results collected by ORC shows that the amended results are achievable under good management practices and will allow Schedule 15 targets to be met.

- **E coli**

Faecal contamination of water bodies poses a health risk to people and livestock. Faecal material reaches streams from effluent run-off and stock defecating directly into water. The risk of illness is primarily associated with recreational activities where water may be ingested through fish and other aquatic food. *E coli* is the indicator bacteria commonly used to assess presence of all bacterial, viral and protozoal pathogens that occur in faecal material.

The notified limits for *E coli* were equivalent to the notified receiving water standards in Schedule 15. This lessened the need to protect against cumulative effects. Limits for *E coli* need to protect against cumulative effects, but can allow for the use of some receiving water assimilative capacity, as long as contact recreation values are maintained. As such the discharge limits should be reconsidered in terms of effects and achievability.

The recommended amended discharge limit is 550 cfu/100ml. Sampling data show that this limit is achievable. It is also based on the MfE/MoH 2002 Microbiological water quality guidelines, and offers good protection to the secondary recreation values, even at the point of discharge.

- **Transition times**

The timeframe for meeting Schedule 16 limits has been extended from the notified dates to 1 April 2020. An eight-year transition time is considered appropriate for land managers to implement changes to their land management practices to meet the permitted discharge limits.

- **Catchment classification**

Catchments in Schedule 16 are classified into 2 areas, based on the frequency of higher flows that strip algae growth from its substrate. Area 1 has more of these flows, while Area 2 has less. As such, Schedule 16 discharge limits for nitrogen and phosphorus in Area 1 are higher. There is no difference in Schedule 16 discharge limits for ammoniacal nitrogen and *E coli* as those contaminants have adverse effects regardless of high flow frequency.

The catchment classification has been adjusted based on the Water Groups identified in Schedule 15. Those changes are discussed in section 2.2 of this report. The J-series maps have been adjusted accordingly, and have been amended to show the areas' boundaries.

3.7 Discharges from dams and water races

The notified plan change provided an exemption from the discharge limits, and permitted discharges of water to water, where the water was “passing through” water supply transport systems and permitted dams.

We considered the submissions presented, and recommend the scope of the “passing-through” rule be clarified.

3.7.1 Recommendations

(a) Amend notified Rule 12.C.1.6 in order to clarify the scope of the rule:

12.C.1.6.2 Notwithstanding Rules 12.C.1.1, 12.C.1.2 and 12.C.1.5, the discharge of water or any contaminants listed in Schedule 16 from:

(i) A water race that does not convey irrigation runoff; or

(ii) A dam:

(1) Permitted under Rule 13.2.1.3 ~~12.3.2.1~~; and ~~or~~

(2) Not for the purpose of the storage of contaminants,

(iii) water supply transport system, to any lake, river, wetland or any water race that flows to a lake, river or wetland ~~water~~, or to a Regionally Significant 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

(ab) There is no discharge of water from one catchment to water in another catchment; and

(fc) There is no change to the water level range or hydrological function of, or no damage to fauna, or New Zealand native flora in or on 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.

- | |
|---|
| <p>(b) The dam is not used for the storage of contaminants; and</p> <p>(c) The presence of contaminants does not result from the damming activity or the activities of the dam operator; and</p> <p>(d) The presence of contaminants does not result from the water transporting activity, or the activities of the water transporter; and</p> <p>(e) The water supply transport system does not convey irrigation runoff; and</p> <p style="text-align: center;">...</p> |
|---|

3.7.2 Reasons

- **Water being “passed through”**

Where a race or dam operator has not caused the contaminant to be discharged into the race or dam from which it is discharged, it is appropriate to permit the water to be “passed through”. This applies to discharges from small permitted activity dams that are not used for the storage of contaminants, and to the surplus of water diverted for irrigation water supply. Note that a similar provision for discharges from larger consented dams is in section 12.B of the Water Plan. See section 3.11 of this report.

In the notified rule, permitted activity dams were defined in reference to rule 12.3.2.1, which permits the damming of water. They are now defined in reference to rule 13.2.1.3, which permits the building of dams on the bed of a lake or a river. This does not change the meaning of re-numbered Rule 12.C.1.2.

The term “water supply transport system” has been clarified and is now any water race that diverts and transports water without catching irrigation runoff.

Moving notified conditions (b) and (e) into the description of the activity clarifies that discharges from dams used for the storage of contaminants or from water races catching irrigation runoff need to meet the conditions of new Rule 12.C.1.1 to be permitted, or such discharges will require consent.

Conditions are added to the notified rule to ensure compliance with Section 70 RMA. The condition on flooding, erosion and property damage also results from the deletion of notified Rule 12.C.0.3 See section 3.3 of this report.

3.8 Inter-catchment transfers and discharges to Regionally Significant Wetlands

The notified plan change permitted discharges of water to water providing adverse effects on Regionally Significant Wetlands were no more than minor, and the discharges did not transfer water from one catchment to another.

We considered the submissions and evidence received and we recommend that these conditions be transferred to the permitted activity rules, and aligned with the wording in Plan Change 2: Regionally Significant Wetlands.

3.8.1 Recommendations

- (a) Delete notified Rule 12.C.1.5 and incorporate its content into new Rule 12.C.1.1:

~~12.C.1.5 The discharge of water to water, or water to a Regionally Significant Wetland, that:~~

- ~~(i) Does not discharge water from one catchment to another; and~~
 - ~~(ii) Where it contains any of the contaminants listed in Schedule 16, the quantity of contaminant in the discharge does not exceed the limits given in Schedule 16,~~
- ~~is a **permitted** activity, providing:~~
- ~~(a) There is no change to the water level or hydrological function, or no damage to fauna, or New Zealand native flora in or on any Regionally Significant Wetland.~~

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:

- ...
- (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

...

- (b) Amend notified Rule 12.C.1.6(f):

~~12.C.1.6.2 Notwithstanding Rules 12.C.1.1, 12.C.1.2 and 12.C.1.5, the discharge of water or any contaminants listed in Schedule 16 from:~~

- ~~(i) A water race that does not convey irrigation runoff; or~~
 - ~~(ii) A dam:~~
 - ~~(1) Permitted under Rule 13.2.1.3 +2.3.2.1; and or~~
 - ~~(2) Not for the purpose of the storage of contaminants,~~
- ~~(ii) water supply transport system, to any lake, river, wetland or any water race that flows to a lake, river or wetland water, or to a Regionally Significant Wetland, is a **permitted** activity, providing:~~
- ...
- ~~(ab) There is no discharge of water from one catchment to water in another catchment; and~~
 - ~~(fc) There is no change to the water level range or hydrological function of, or no damage to fauna, or New Zealand native flora in or on any Regionally Significant Wetland; and~~

...

3.8.2 Reasons

- **Effects of discharges of water to Regionally Significant Wetlands**

Condition (a) of notified Rule 12.C.1.5 and Condition (f) of notified Rule 12.C.1.6 required “no” change to the water level or hydrological function, and “no” damage to fauna, or NZ native flora in a Regionally Significant Wetland. This condition originated from notified Proposed Plan Change 2: Regionally Significant Wetlands. It is now appropriate to use the wording from the ORC Decisions on Proposed Plan Change 2: Regionally Significant Wetlands. The “hydrological function” and “water level range” of such a wetland should not be changed.

- **Inter-catchment transfers**

Issue 6.2.5 of the Water Plan recognises the possible adverse effects of inter-catchment transfers of water. It is consistent with the rest of the Water Plan not to permit those discharges, but to give them a consent option. See section 3.10 of this report.

3.9 Nitrogen loading

The notified plan change included a number of provisions that sought to manage nitrogen leaching to groundwater. Notified Rule 12.C.1.3 permitted the discharge of nitrogen to groundwater provided specified calculated leaching rates were not exceeded. These applied in various nitrogen sensitive zones, and in the rest of Otago, as shown in the notified I-series of the maps. Notified Rule 12.B.1.5 permitted the discharge of fertiliser, as long as the requirements of notified Rule 12.C.1.3 were met. See section 3.11 of this report.

We considered the submissions presented, and recommend amendments that increase the clarity of the relevant provisions and maps, and that relax the nitrogen leaching limits for specific areas within Otago.

3.9.1 Recommendations

(a) Amend Rule 12.C.1.3 in order to provide more clarity, and to revise the nitrogen leaching rates:

12.C.1.3 The discharge of nitrogen¹ from onto or into land in circumstances which may result in nitrogen entering to groundwater, is a permitted activity, providing:

(i) From 31 March 2019 to April 2020, calculated nitrogen the nitrogen leaching rate by the Council using OVERSEER® version 6.0, does not exceed:

(a) 10 kilograms nitrogen per hectare per year kgN/ha/year on that area of the landholding located over the relevant any Nitrogen Sensitive Zone identified in Maps H1 to H6; and

(b) 20 kgN/ha/year on that area of the landholding located over the relevant Nitrogen Sensitive Zone identified in Maps H1 to H4; and

- (b) ~~30 kilograms nitrogen per hectare per year kgN/ha/year on that area of the landholding located outside any Nitrogen Sensitive Zone identified in Maps H1 to H6, elsewhere in Otago;~~
~~as calculated using OVERSEER® version 6.0; and~~
- (ii) From 1 May 2014, the landholder ~~Upon request, the person with responsibility for the management of the land supplies the will:~~
- (i) ~~Maintain a record of all necessary data to run OVERSEER® version 6.0; and~~
 - (ii) ~~Provide Council upon request with :~~
 - (1) ~~An OVERSEER® version 6.0 output and input parameter report prepared by an accredited OVERSEER® version 6.0 user; or~~
 - (2) ~~All necessary annual input data to run OVERSEER® version 6.0.~~

¹ For the purpose of Rule 12.C.1.3, ~~N~~nitrogen comprises of organic nitrogen, ammoniacal nitrogen, nitrite nitrogen and nitrate nitrogen forms.

(c) Amend the notified I-series maps, as shown in Appendix 1, by:

- (i) Changing the labels of the notified I-series of the Maps to refer to the H-series;
- (ii) Changing the legend of amended Maps H1-H6 to provide more clarity;
- (iii) Adjusting the boundaries of the Ettrick and Roxburgh aquifers on amended Map H4;
- (iv) Removing Taieri Aquifer Recharge Zone from notified Map I3; and
- (v) Moving Wakatipu Aquifer from notified Map I5 to new Map H3.

3.9.2 Reasons

- **Transition times**

From 1 May 2014, landholders are required to make OVERSEER data available to the ORC. This data will only be requested for education and monitoring purposes until 1 April 2020.

The timeframe for meeting the nitrogen leaching limits has been extended to 1 April 2020. This is considered adequate time for landholders to reduce their nitrogen leaching loss by utilising recognised and proven management techniques. If landholders do not meet the leaching limits in the permitted activity rule by 1 April 2020, they may apply for consent which would allow more time to comply with the permitted rule.

- **Clarity and consistency**

Rule 12.C.1.3 has been amended to clarify the area over which the nitrogen leaching limits apply. The limits apply to the average value calculated over the entire landholding. Where the landholding is located over two different nitrogen leaching zones, a separate calculation will be required for each one.

The words “landholding” and “landholder” are defined in the glossary of the operative Water Plan.

Further amendments to the wording of Rule 12.C.1.3 achieve greater consistency with the RMA terminology and with the wording of the wider suite of rules in the amended section 12.C.

- **Nitrogen leaching limits and areas**

It is appropriate to change the notified nitrogen leaching limits, based on ORC’s further modelling of nitrogen accumulation. The nitrogen leaching limit for the Kakanui-Kauru Aquifer, Shag Alluvium Aquifer, Ettrick and Roxburgh Aquifers, and the Wakatipu Aquifer should be raised from 10 kgN/ha/yr to 20 kgN/ha/yr. The nitrogen leaching limit for the Taieri Aquifer recharge zone should be brought in line with the 30 kgN/ha/yr limit that applies to the rest of Otago.

No further changes to the notified nitrogen leaching limits for specific areas in Otago are appropriate. It is not desirable to raise these limits on the nitrogen-sensitive zones identified on notified maps I5 and I6, as the current limit of 10 kgN/ha/yr is necessary to protect the pristine state of the lakes in this area.

Due to the potential for land use intensification in the Waitaki Plains area, it is appropriate to retain the notified leaching limit at 30 kgN/ha/yr. In the long term this will protect water quality.

The Hawea Aquifer is not identified as a nitrogen sensitive zone. Modelling of nitrate indicates that if the leaching limit of 30 kgN/ha/yr were adopted, land use intensification would not degrade water quality in the aquifer.

The notified I-Series of the Maps should be amended to incorporate the above changes.

- **H-series of the Water Plan Maps (notified I-series)**

Reducing the areas of the Ettrick, Roxburgh and the Wakatipu Aquifers on notified Map I4 on notified Maps I4 and I5, and removing the Taieri Aquifer Recharge Zone from notified Map I3 is based on a re-evaluation by ORC’s resource science team.

The labels of the notified I-series of the Maps have been amended to refer to the H-series, as the “I” can be easily misread as the numerical value “1”.

Additional amendments to the notified maps, such as the inclusion of a new Map H3 for the Wakatipu Basin Aquifer (previously shown on notified Map I5) and minor changes to the layout of the maps and the information displayed in the legend, make the maps easier to use.

The resolution of the maps does not need to be changed. Once they are operative, they will be moved into the Regional Plan: Water Maps, presented in A3 size. GIS data or supporting maps, such as aerial photographs, can be requested from ORC if there is doubt about the exact extent of nitrogen sensitive zones.

- **Future research**

We recommend that ORC should undertake further research into the properties of individual aquifers, their connectivity with other water bodies, and the hydrological characteristic of overlaying soils. Where necessary, aquifer boundaries and relevant nitrogen loading limits will be reviewed and incorporated into the Water Plan through future plan changes.

- **Land uses**

In order for the Water Plan to be effective and ensure good environmental outcomes, all land uses, whether intensive or extensive, need to be subject to the rule framework. Currently not all land uses are equally well provided for in OVERSEER, especially horticulture and cropping. We understand that OVERSEER modules for these sectors are being developed. However, each of these land-uses produces nitrogen leachate, and there is currently no alternative means of calculating nutrient leaching for horticulture and cropping. Therefore no land uses should be excluded from Rule 12.C.1.3.

- **Use of OVERSEER in a regulatory context**

Given the practical difficulties with scientifically measuring nitrogen leachate, it is appropriate to use a nutrient budget model to calculate nitrogen losses to groundwater. The use of OVERSEER as a management tool within a regulatory context has been endorsed by the Environment Court.

- **Reference to OVERSEER Version 6.0 in Rule 12.C.1.3**

Schedule 1, Part 3 of the RMA allows for the incorporation of documents by reference in plans and proposed plans. The version number for OVERSEER must be stated within the rule to provide certainty about which version is referred to. There will need to be future plan changes to allow future versions of OVERSEER to be incorporated into the Water Plan.

- **The information provision requirement**

The amendments to the wording of the information requirement provide clarification but do not change the meaning of the requirement.

The amendments also give landholders the choice to either submit baseline data, or an OVERSEER input and output report. This will reduce the administrative burden for landholders, and will also reduce the risk of inconsistencies between the OVERSEER reports provided by landholders, and those prepared by ORC staff.

The information requirement applies from 1 May 2014, while compliance with the nitrogen leaching limits is not required until 1 April 2020. Any information required before 1 April 2020 will only be used to monitor trends in land use, to investigate the relationship between land uses and water quality trends, and to assist landholders in their efforts to reduce nitrogen leaching rates from their properties and meet the standards.

After 1 April 2020, received OVERSEER data will be the main instrument for Council to determine compliance with the relevant nitrogen leaching limits. It is at the discretion of ORC to determine compliance with the rule. It is recognised that a suitably qualified person will be required to undertake OVERSEER work within ORC. It is not seen necessary to state this within the rule.

- **Consent options**

See section 3.10 of this report for discussion on nitrogen leaching to groundwater that requires consent.

3.10 Discharge consent options

The notified plan change was largely based on a permitted/prohibited rule framework. The rules in section 12.C only provided limited consent options. Where no consent option was specified, Section 87B(1)(a) RMA would apply, and any application for consent would be treated as an application for a resource consent for a discretionary activity.

We considered the submissions presented, and recommend amending the notified rules to provide clarity on activity status, to ensure different discharges have the appropriate activity status, and to encourage those who need consents to progressively work towards achieving permitted activity standards.

3.10.1 Recommendations

- (a) Replace notified Rule 12.C.2.1 with new Rules 12.C.2.1, 12.C.2.2 and 12.C.2.3:

12.C.2.1: The discharge of contaminants listed in Schedule 16 to land:

- (i) Where changes to land management or infrastructure have been unsuccessful in meeting the limits in Schedule 16, and the discharge first occurred prior to 31 March 2012; or
- (ii) Where the discharge results from a short term activity with a short term adverse effect,
is a restricted discretionary activity.

...

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

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.

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.

- (b) Replace the list of discretions in notified Rule 12.C.2.1 with an extended new Rule 12.C.2.4 in order to provide greater consent guidance:

12.C.2.1: The discharge of contaminants listed in Schedule 16 to land.

.....

The matters to which the Council will restrict its discretion are:

- (a) The nature, type, volume, frequency, concentration of contaminants in the discharge; and
- (b) In the case of applications made under (i), how discharge limits in Schedule 16 will be achieved within a set timeframe; and
- (c) Any quality management practices to be implemented; and
- (d) Any changes to infrastructure; and
- (e) Addressing any adverse effects on water quality, including cumulative effects; and
- (f) Any effect on any Regionally Significant Wetland or on any regionally significant wetland value; and
- (g) The likelihood of erosion, land instability, sedimentation or property damage resulting from the discharge; and
- (h) Any financial contribution for any Regionally Significant Wetland or on any regionally significant wetland value; and
- (i) The information and monitoring requirements; and
- (j) The duration of the resource consent; and
- (k) 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.

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.

- (c) Delete notified Rule 12.C.2.2 and add new Rule 12.C.3.1 in order to change the activity status of discharges of water from one catchment to water in another:

12.C.2.2: The discharge of water from one catchment to another catchment is a restricted discretionary activity.

The matters to which the Council will restrict its discretion are:

- (a) Concerns of Iwi; and
- (b) The nature, volume, rate and method of the discharge; and
- (c) The location of the discharge; and
- (d) Any introduction of new or pest species; and
- (e) Any contaminants in the discharge; and
- (f) The likelihood of erosion, land instability, sedimentation or property damage resulting from the discharge; and
- (g) Any effect on any Regionally Significant Wetland or on any regionally significant wetland value; and
- (h) Any financial contribution for any Regionally Significant Wetland or on any regionally significant wetland value; and
- (i) The duration of the resource consent; and
- (j) The information and monitoring requirements; and
- (k) 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.

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

- (d) Add a new catch-all discretionary Rule 12.C.3.2:

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

- (i) To water;
- (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 12.C.2.

3.10.2 Reasons

- **Scope of the restricted discretionary activity rules**

Discharges of Schedule 16 contaminants that exceeded the limits, from a short-term activity or an existing activity, were restricted discretionary under notified Rule 12.C.2.1.

Under new restricted discretionary Rules 12.C.2.1, 12.C.2.2 and 12.C.2.3, any discharge that breaches the permitted activity conditions relating to the level of contaminants in the discharge is restricted discretionary. Setting a specific regime for existing uses is inappropriate. The provisions for short-term activities with short-term adverse effects remain.

New Rule 12.C.1.4 provides guidance when considering resource consent applications for activities that fall under the new restricted discretionary activity rules 12.C.2.1, 12.C.2.2 and 12.C.2.3. It is appropriate to amend this to reflect recommended changes to the policies and rules discussed elsewhere in this report:

- See sections 2.3 and 2.4 for further detail regarding policy for consenting.
- See sections 3.5, 3.6, 3.7 for further detail regarding discharges of Schedule 16 contaminants, sediment and water.
- See section 3.9 for further detail regarding discharges of nitrogen to groundwater.

- **Working towards permitted activity standards**

The plan change aims to achieve good quality water in Otago by encouraging progress towards meeting the permitted activity rules.

The consenting rules recognise that for some land users the transition times in the permitted rules may not be long enough to comply with relevant discharge limits or conditions. However practices which detract from achieving good quality water in Otago should not be encouraged through the consenting regime.

The recommended amendments address this by:

1. Restricting the duration of resource consents for discharges that fail to meet the permitted activity conditions to 5 years. See section 2.4 of this report.
2. Making discharges that have previously been authorised by a resource consent under new Rules 12.C.2.1 and 12.C.2.3, discretionary rather than restricted discretionary.

3. Requiring consent applicants to demonstrate how they will work towards achieving compliance with the permitted rules. See section 2.4 of this report on the policy framework.

Note that these amendments do not apply to discharges that result from a short-term activity with short-term adverse effects.

- **Catch all rule 12.C.3.2**

The discretionary consent option in new Rule 12.C.3.2 explicitly provides for all other discharges, so reference back to Section 87 of the RMA is not required.

- **Reviewing existing consents**

Existing discharge permits can continue to operate until they expire. Once the plan change becomes operative and there are rules relating to minimum standards of water quality, these may be reviewed under Section 128(1)(b) RMA.

- **Clarity and consistency**

The new rules in sections 12.C.2 and 12.C.3 have been drafted to achieve consistency with the RMA terminology and with the wording of the wider suite of rules in the amended sections 12.C.0 and 12.C.1.

- **Notification and discharges with wider impact**

See section 5.4 of this report.

3.11 Rules in section 12.B

Section 12.B of the notified plan change retained, largely unchanged, most of the operative provisions from sections 12.4 to 12.13. These covered discharges including human sewage, hazardous substances, and discharges from industrial or trade premises.

We considered the submissions presented at the hearings and recommend amendments, and the reinstatement of certain rules.

3.11.1 Recommendations

- (a) Amend the heading to 12.B in order to include explicitly discharges from consented dams in section 12.B:

12.7B Discharge of pesticides hazardous substances, hazardous wastes, other specified contaminants, and stormwater; and discharges from industrial and or trade premises and consented dams

- (b) Move operative Water Plan Rules 12.12.1.1 and 12.12.1.2 (deleted in notified the plan change) into section 12.B as new Rules 12.B.1.10 and 12.B.1.11 respectively, and amend new Rule 12.B.1.10 in order to provide certainty to consented dam owners:

~~12.12.1.1 The discharge of any contaminant, excluding settled sediment, present in water impounded by a dam, to water in a lake or river, is a **permitted** activity, providing:~~

- ~~(a) The dam is not used for the storage of contaminants; and~~
- ~~(b) The presence of the contaminant does not result from the damming activity or the activities of the dam operator; 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.~~

~~12.12.1.2 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.~~

Principal reasons for adopting

~~Rule 12.12.1.1 recognises that a dam operator is not always able to control what enters and leaves a dam. Environmental safeguards are contained in Condition (d) and the discharge must cease if requested by an enforcement officer for containment and clean-up operations.~~

~~Rule 12.12.1.2 recognises that minute amounts of contaminants may be discharged from hydro-electric facilities during normal operations without any measurable adverse effect on the environment.~~

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 used for the storage of contaminants; and~~
- ~~(b) The presence of the contaminant does not result from the damming activity or the activities of 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.

- (c) Amend notified Rules 12.B.4.1 and 12.B.4.2, in order to provide consistency in wording and format:

12.B.4.1 Any ~~The discharge of water (excluding stormwater) or any contaminant from an industrial or trade premises to land or to water or to land is a discretionary activity, unless it complies with is permitted by Rules 12.B.1.6 or 12.B.1.7, is a discretionary activity.~~

12.B.4.2.3 Unless covered by Rule 12.B.4.1, a ~~The discharge that does not comply with Rules 12.B.1.1 to 12.B.1.7 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 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.,~~

- (d) Add new Rule 12.B.4.2 that covers any hazardous substance in section 12.B:

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,~~

- (e) Amend notified Rule 12.B.1.5 in order to clarify the relationship with Rule 12.C.1.3:

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) It meets the provisions of Any discharge of nitrogen also complies with Rule 12.C.1.3.

- (f) Adopt the notified Glossary definition of Fertiliser;
- (g) Amend notified Rules 12.B.1.1 and 12.B.1.4 in order to update the reference to Growsafe certificates:

12.B.1.1 ~~12.7.1.1~~ 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 ~~Growsafe Registered Applicator Certificate of Qualification~~; and
- (c) ...

12.B.1.4 ~~12.7.1.4~~ Except as provided for by Rule ~~12.7.1.3~~ **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 ~~Growsafe Pilots' Agrichemical Rating Certificate of Qualification~~; and
- (c) ...

3.11.2 Reasons

- **Consented dams**

It is appropriate to clarify that 12.B covers discharges from consented dams, including hydro-electricity dams. The water in these dams is recognised in the operative Water Plan as being vulnerable to contamination, while the discharge from the dam itself is not considered the source of any contamination.

Rules 12.B.1.10 and 12.B.1.11 are recommended to be reinstated to retain the present status of these discharges. Discharges through permitted activity dams are permitted by Rule 12.C.1.2 if contaminants do not result from the dam operator's activities.

- **Addition of Rule 12.B.4**

The addition of Rule 12.B.4.2 gives legal weight to the fact that section 12.B addresses discharges of hazardous substances. A discretionary activity needs to be provided for any discharge of a hazardous substance not covered by a permitted activity.

- **Consistency in wording**

The provisions in section 12.B.4 have been worded for internal consistency.

- **Fertiliser definition and permitted Rule 12.B.1.5 Condition (d) requirement for nitrogenous fertilisers**

Discharges covered in section 12.B are not subject to the rules in section 12.C. Without the reference to Rule 12.C.1.3 in Condition (d) of Rule 12.B.1.5, people discharging fertiliser that contains nitrogen would not be subject to meeting the nitrogen leaching limits identified within Rule 12.C.1.3.

It is appropriate to retain the definition of Fertiliser as notified. The definition builds on that in the operative plan, but explicitly excludes compost, effluent or seaweed. Fertilisers are classified as a hazardous substance so fall within the scope of the 12.B rules. Compost, effluent and seaweed are not hazardous substances, and discharges are covered by 12.C rules.

The definition as notified is not inconsistent with other definitions, such as the Code of Practice for the Sale of Fertilisers (Fertmark, 2002) and the Code of Practice for Nutrient Management (NZFMR, 2007), and can be properly understood by all plan users.

- **Reference to Growsafe programmes for certain chemical applications**

The reference to Growsafe certification programmes in Rules 12.B.1.1 and 12.B.1.4 is out-of-date and is updated as a minor change. A reference to AIRCARE™ accreditation is not made as such a change could not be considered minor, and is beyond the scope of this plan change.

- **The need to exempt discharges in urban environments from the 12.C prohibitions**

The provisions in section 12.B address urban stormwater discharges and discharges from reticulated systems. They are not covered by the 12.C provisions.

- **Stormwater discharges**

Rules 12.B.1.8 and 12.B.1.9 relate to stormwater that results from impervious surfaces discharging from a reticulated stormwater system, and to stormwater discharging from

any road not connected to a reticulated stormwater system. A plan change is required to make any change to provisions relating to the discharge of stormwater.

- **Odourless or colourless toxins**

The Hazardous Substances and New Organisms Act 1996 and provisions in section 12.B regulate the discharge of odourless and colourless toxins.

CHAPTER 4 – LAND USE ON LAKE OR RIVER BEDS OR REGIONALLY SIGNIFICANT WETLANDS

This chapter addresses the construction and use of structures, and stock movement on the bed of a lake, river or Regionally Significant Wetland. Chapter 13 of the Water Plan sets out the rules relating to such activities.

4.1 Structures

The notified plan change added new provisions to address the use, construction and maintenance of structures on or over the beds of lakes, rivers, and Regionally Significant Wetlands. It made the construction of crossing structures, such as culverts, single span bridges, easier in order to promote their use and reduce the effects of bed disturbance by livestock.

We considered the submissions presented, and recommend some changes to the notified rules. These are intended to increase flexibility for land managers and to avoid some practical issues that arose with the notified rules.

4.1.1 Recommendations

- (a) Amend notified Rules 13.1.1, 13.2.1.7 and 13.2.1.7B, in order to prevent animal waste from entering water:

13.1.1.1	The use of any structure that is fixed in, on, under, or over the bed of any lake or river, <u>or any Regionally Significant Wetland</u> , is a permitted activity, providing: <u>(ba) Measures are taken to avoid animal waste entering the lake, river or Regionally Significant Wetland water body; and</u>
13.2.1.7	The erection or placement of any <u>single span</u> bridge or culvert in, on or over the bed of a lake or river, <u>or any Regionally Significant Wetland</u> , is a permitted activity, providing: <u>(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.</u>
<u>13.2.1.7B</u>	<u>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 Regionally Significant Wetland, is a permitted activity, providing:</u> <u>(g) Movement of bed material is not impeded; and</u> <u>(h) Where the crossing is intended for use by stock, measures are taken to avoid animal waste entering the lake, river, or Regionally Significant</u>

Wetland.

(b) Amend Rule 13.1.2.1 and notified Rule 13.2.1.7B, in order to provide consistent protection for Regionally Significant Wetlands:

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.

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, or river, or Regionally Significant Wetland, or property damage; and

.....

(c) Amend notified Rule 13.2.1.7A, in order to provide greater clarity:

13.2.1.7A The erection or placement of any boardwalk in, on or over a Regionally Significant Wetland, is a **permitted** activity, providing:

(a) The erection or placement, or the boardwalk, does not cause any flooding, nor any erosion.

(d) Amend notified Rule 13.2.1.7B, in order to facilitate the construction of crossings:

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:

....

(b) The top of the crossing is no higher than 1.5 2 metres above the lowest part of the bed where it is located; and

(c) The crossing does not exceed 40 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, or river, or Regionally Significant Wetland; and

.....

(e) Adopt a new generic discretion, which applies to restricted discretionary activity Rules 13.1.2.1, 13.2.2.1 and 13.3.2.1, in order to allow for the consideration of measures to avoid animal waste entering the lake, river or Regionally Significant Wetland:

(x) Any measures to avoid animal waste entering the lake, river or Regionally Significant Wetland.

(f) Amend Rule 13.2.2.1 as a consequential change:

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, 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:

4.1.2 Reasons

- **Use and placement of structures – “avoid animal waste”**

The prevention of animal waste getting into water is a condition of notified Rule 13.1.1.1. The notified condition was intended to encourage the use of crossings that effectively direct animal waste away from lakes, rivers and Regionally Significant Wetlands. The amendment to the condition better recognises that there may be circumstances where it is not technically or practically feasible to prevent all animal waste from entering the water body. However where crossing structures are being used by livestock measures must be taken to manage animal waste.

A new condition has been added to the notified Rules 13.1.2.7 and 13.1.2.7B to ensure that such measures are incorporated in the design of bridges and crossings that are intended for use by livestock.

The relationship that exists between Rules 13.1.1.1, 13.2.1.7B and 13.5.1.8B means that the construction and use of crossings for livestock movement may be undertaken as permitted activities, providing measures are taken to avoid animal waste entering water or, in the case of low standard design-type fords or crossings, the requirements of Rule 13.5.1.8B are met.

- **Better protection of Regionally Significant Wetlands**

The use of structures under notified Rule 13.1.1.1 extends protection from animal waste to Regionally Significant Wetlands. Where the permitted activity conditions of Rule 13.1.1.1 cannot be met, resource consent will be required. An appropriate

discretion is added to Rule 13.1.2.1. RMA Section 9 provides the legal basis for extending coverage of this rule to Regionally Significant Wetlands.

Notified Rule 13.2.1.7B has been amended to the same effect.

- **Restricted discretionary activity considerations**

Measures proposed to avoid animal waste entering water bodies need to be considered in consent applications. This is therefore included in the generic matters of discretion that apply to Rules 13.1.2.1, 13.2.2.1 and 13.3.2.1.

- **Width of crossings**

The permitted crossing width (along the river) for permitted activities in notified Rule 13.2.1.7B(c) can be increased from 10 metres to 12 metres to allow for low risk crossings in a wider range of situations. Due to the direct correlation between the length of a crossing and the height to which the structure can be safely constructed, the recommended amendment also allows for a limited increase of the maximum crossing height allowance without triggering any safety risks.

- **Height of crossings**

The maximum height standard for the top of crossings in Rule 13.2.1.7B(b) can be raised from 1.5 metres to 2 metres, because its other conditions adequately address adverse effects. It is not appropriate to allow for the construction of crossings higher than 2 metres as a permitted activity, because crossings are not regulated under the Building Act and it would be overly complex to specify construction standards, for safety, as part of a permitted activity rule. Furthermore, the height to which crossings can be safely constructed is controlled by the crossing length under condition (c). Where local topography requires the construction of a crossing that exceeds the maximum height specified in the permitted activity condition, a consenting option is available.

- **Structures and forestry activities**

We recognise the concerns of the forestry industry and other rural land users that some of the permitted activity conditions may restrict their ability to operate on steeper terrain. However we do not think it is appropriate to impose as rules industry codes that are developed for specific industry groups. The permitted activity conditions in Rule 13.2.1.7 have been relaxed to address some of these concerns. Where the permitted activity conditions cannot be met, landholders can apply for a consent.

- **Minimum distance requirement between crossings**

The recommended minimum distance requirement between crossings strengthens the notified provisions and reduces the loss of natural character and instream ecological values when crossings are too close together. Recommended new condition (ca) of Rule 13.2.1.7B will avoid significant adverse effects, while providing for any situation where physical constraints or legal boundaries require closer proximity among crossings. Where condition (ca) cannot be met, the options are to install a bridge and a crossing, or apply for a consent.

- **Use of flood conveyance or flood event criteria**

Consideration of specific flood event criteria is appropriate when designing crossings that exceed a certain scale or in a challenging physical environment or local climate. However, the combination of the permitted activity conditions in amended Rule 13.2.1.7B implicitly limits the scale of the permitted crossing installations and catchment size, thereby minimising the need for technically complex assessments of potential flood hazards. Therefore it is appropriate to retain the term “flood conveyance”, as it provides a quick means of determining the suitability of the proposed crossings in low hazard-risk environments, while acting as an incentive to undertake more robust hydrological and flood hazard assessment in less certain situations.

- **Making the plan easier to read**

The minor change to notified Rule 13.2.1.7A makes this provision easier to read.

- **Definition of “crossing”**

Notified Rule 13.2.1.7 covers single span bridges, while Rule 13.2.1.7B covers all other crossings, including culverts and fords. There is no need to define the word “crossing” in the Glossary of the Water Plan. Defining it could result in some crossing types not being identified and being unintentionally excluded from the permitted activity rule. The word “crossing” in these rules is broad but sufficiently certain to be understood, applied consistently and enforced.

- **Retention of structure repair and maintenance provisions**

Activities on lake or river beds or Regionally Significant Wetlands related to the maintenance or repair of structures are sufficiently covered by Rules 13.3.1 and 13.5.1.3, which were not changed by the proposed plan change.

4.2 Activities in the beds of lakes and rivers and Regionally Significant Wetlands

Section 13.5 of the Regional Plan: Water contains rules that relate to a variety of activities that cause alteration of the beds of lakes and rivers and Regionally Significant Wetlands. The notified plan change amended section 13.5 in order to provide more flexibility for those undertaking these activities, while also reducing the effects of the associated disturbances and alterations on water quality.

We considered the submissions and recommend some changes to the notified rules.

4.2.1 Recommendations

- (a) Add new Rule 13.5.A.1 and amend the note box at the start of section 13.5, in order to provide greater clarity and certainty:

13.5 Alteration of the bed of a lake or river, <i>or of a Regionally</i>

Significant Wetland

13.5.A General rules for Section 13.5

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

Note: Alteration includes any disturbance, and the associated remobilisation (discharge) and redeposition (deposit) of bed material sediments already present, reclamation or deposition of cleanfill associated with works in the bed. Under the Regional Plan: Water, reclamation and deposition of cleanfill associated with works in the bed of a lake or river, or wetland, are addressed through disturbance rules in Section 13.5, and not through discharge rules in Section 12.C.

- (b) Insert in notified Rules 13.5.1.1 and 13.5.1.2, and in operative Rules 13.5.1.5 and 13.5.1.9, and Rule 13.5.1.5B, the following wording after “The disturbance of the bed of ...”, in order to provide clarity and consistency:

and any resulting discharge or deposition of bed material.

- (c) Insert in notified Rules 13.5.1.3 and 13.5.1.4 the following wording after “The disturbance or reclamation of, or the deposition of ...”, in order to provide more clarity and certainty:

and any resulting discharge of bed material.

- (d) Adopt the generic permitted activity condition relating to the time requirement for undertaking and completing works and which applies to notified Rules 13.5.1.1 to 13.5.1.4.

- (e) Re-instate the “250 metres downstream” permitted activity condition to notified Rules 13.5.1.1, 13.5.1.2, 13.5.1.3 and 13.5.1.4, in order to provide greater flexibility:

(x) All reasonable steps ... beyond a distance of 250 100 250 metres downstream of the activity; and

4.2.2 Reasons

- **Remobilisation and redeposition of bed material**

Amending the notified note box providing a definition for alteration gives certainty by clarifying the activity status of rules under Sections 13 and 15 RMA so the permitted activities can be understood, applied consistently, and enforced.

Adding a new rule to the start of section 13.5 and amending Rules 13.5.1.1 to 13.5.1.5, 13.5.1.9 and 13.5.1.5B clarifies that the provisions in section 13.5 address all matters relating to the disturbance, reclamation, deposition and any resulting discharge of bed material.

- **Limiting duration of discolouration**

The removal of “consecutive” in the notified rule conditions requiring completion of work within 10 hours and the addition of “within the wetted bed” provides more flexibility than is in the current operative Water Plan. The non-consecutive 10 hour requirement relates only to work within the wetted bed and does not cover the time taken to prepare or undertake work on the bed or banks where they are dry. There is a consent pathway for those who are unable to complete work in wetted bed areas within this period.

- **Limiting downstream effects of discolouration**

The distance within which significant changes in the colour or visual clarity of the receiving water caused by instream works or activities are allowed can be relaxed. The 100 m distance standard as proposed in the notified rules may be overly restrictive in swift rivers, which are often naturally characterised by high levels of sediment transport. Furthermore, there is no known instance where the 250 m standard in the operative Plan has caused any significant issue for water quality immediately beyond the zone of disturbance.

4.3 Livestock disturbance

The notified plan change proposed new rules relating to the disturbance the bed of any lake, river or Regionally Significant Wetland by livestock. It notably prohibited intentional driving of stock on the bed of lakes, rivers or Regionally Significant Wetlands.

We considered the submissions relating to livestock disturbance and recommend that the rules be clarified, and that a consent option be made available for intentional driving of livestock on the bed of a lake, river or Regionally Significant Wetland.

4.3.1 Recommendations

- (a) Amend notified Rule 13.5.1.8A, in order to provide more certainty and clarity:

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

(b) Expose soil; or

(c) Involve feeding out; or

(d) Increase the colour or reduce the Result in a visual change in colour or clarity of water; or

(e) Damage fauna, or New Zealand native flora, in or on any Regionally Significant Wetland.

- (b) Delete the note box below notified Rule 13.5.1.8A:

Note: This rule does not authorise any discharge to water or discharge to land in circumstances where contaminants may enter water. Sections 15(1)(a) and 15(1)(b) of the Act apply.

- (c) Delete notified section 13.5A and amend notified Rule 13.5.1.8B, in order to clarify the rules for bed disturbance where livestock is being intentionally driven across the bed of a lake, river, or Regionally Significant Wetland:

13.5A Entering onto or passing across the bed of a lake or river, or a Regionally Significant Wetland

13.5A.0 Prohibited activities: No resource consent will be granted

13.5A.0.1 The entering onto or passing across the bed of any lake or river, or any Regionally Significant Wetland by livestock, for the purpose of moving livestock from one location to another:

(a) Excluding the use of any authorised structure over water and the bed of any lake or river, or any Regionally Significant Wetland; and

(b) Excluding seasonal muster,
Is a prohibited activity.

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 due to seasonal muster, and any resulting discharge or deposition of bed material, is a permitted activity, providing there is no: it does not cause or induce slumping, pugging or erosion.

- (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.

- (d) Amend Rule 13.5.3.2, in order to clarify the activity status for livestock crossing Regionally Significant Wetlands:

13.5.3.2 Unless covered by Rules 13.5.1.1, 13.5.1.3, 13.5.1.5A, 13.5.1.8A, 13.5.1.8B or 13.5.2.1, the alteration of any Regionally Significant Wetland, is a *discretionary* activity.

- (e) Amend the Principal reasons for adopting under section 13.5.3, in order to remove the references to provisions that are recommended to be deleted:

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)).

~~In relation to Rule 13.5.1.8, Conditions (a) to (d) of the rule address Section 13(1) of the Resource Management Act and Conditions (d) and (e) address Section 13(2)(b) of the Resource Management Act.~~ 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. ...

4.3.2 Reasons

- **Animal waste entering water**

Providing for discharge and deposition directly associated with livestock disturbance in notified Rules 13.5.1.8A and 13.5.1.8B and removing the note box below Rule 13.5.1.8A gives more certainty by clarifying the activity status of rules.

- **Replacing “increase or reduce” with “visual change” in water**

Replacing the word “conspicuous” and amending notified Rule 13.5.1.8A to “visual change” in relation to clarity or colour effectively aligns the livestock disturbance

rules with recommended amendments to notified Rule 12.C.1.2 regarding sediment. The use of the narrative qualifier “visual” as opposed to numerical qualifiers allows for on-the-spot assessment with no need for the use of technical instruments or measuring tools.

- **Intentional driving of stock and random stock access to lakes, rivers and Regionally Significant Wetlands**

Amendments to notified Rules 13.5.1.8A and 13.5.1.8B clearly distinguish intentional movement of livestock from roaming stock, and avoid any conflict between rules.

These recommended changes also ensure greater consistency between the permitted activity conditions of notified Rules 13.5.1.8A and 13.5.1.8B and better alignment with the proposed standard for sediment discharges included in section in 12.C.

- **Stock access to lakes, rivers and Regionally Significant Wetlands**

The deletion of notified Rule 13.5A.0 and subsequent amendments to notified Rules 13.5.1.8A and 13.5.1.8B clarify the original intent of the rules, which was to avoid frequent stock crossings through water bodies while still allowing stock access to, and through, water infrequently. The reference to “seasonal muster” is removed as it was seen as uncertain. The amendments to the conditions of the permitted activity rules are considered sufficient to control effects on in-stream values that are more than minor and minimise risk of damage to the beds of lakes, rivers and Regionally Significant Wetlands.

Rule 13.5.1.8A still allows for some light grazing of riparian margins as a means of weed control as long as the rule conditions are met. The requirement to meet all conditions in the rule in order to be allowed stock access to the bed of a lake or river still places a high expectation on landholders to protect water quality by managing stock access.

- **Fencing**

There is no rule explicitly requiring the fencing of lake or river beds due to the practicality and effectiveness of a single approach for all situations. However, in areas where the permitted activity conditions in livestock bed disturbance rules are difficult to meet and the installation of a crossing and/or fencing is possible, landholders are encouraged to consider these as measures to achieve compliance. A consenting option is available for situations where the conditions cannot be met.

- **Principal reasons for adopting**

The principal reasons for adopting are amended as Rule 13.5.1.8 is being deleted.

CHAPTER 5 – RECOMMENDATIONS ON OTHER PLAN CHANGE MATTERS

5.1 Providing for capture of contaminated water

To meet the notified contaminant discharge limits in Schedule 16, some people will need to contain and treat discharges. “Capture dams” are one method of doing this.

We considered the submissions presented on “capture dams” and are of the opinion that no change is needed. The reuse of capture dam water is already adequately provided for in the Water Plan.

5.1.1 Recommendations

- (a) Make no amendment to the plan change to address “capture dams”.

5.1.2 Reasons

The installation and use of capture dams comprise several activities: the building of the structure, the damming of water, the take of water and the discharge of water or contaminant to water, or to land in circumstances which may result in that contaminant entering water.

- **The building of the dam**

The building of a dam outside of the bed of a lake or river is not controlled by the Water Plan. It can be carried out as-of-right if consistent with the provisions on structures in district plans and the Building Act 2004.

Rule 13.2.1.3 of the Water Plan permits the erection of small dams in or on the bed of lakes and rivers. The erection of larger dams on the bed of a lake or a river is discretionary.

The erection of any dam in the Waitaki catchment needs a consent, as required by the Waitaki Catchment Water Allocation Regional Plan.

- **The damming of water**

Rule 12.3.2.1 of the Water Plan permits small scale damming of water where the upstream catchment is less than 50 hectare, the reservoir is less than 3 metres deep and 20,000 cubic metres in volume. Restrictions on the damming of water in the Water Plan do not apply to water that has lawfully been taken for use, and is still under the authorisation for that use.

The damming of water in the Waitaki catchment needs a consent, as required by the Waitaki Catchment Water Allocation Regional Plan.

The authorisation for any diversion of water that occurs along with the damming activity is also under Rule 12.3.2.1.

- **The taking of water**

The taking of water from an “artificial lake” resulting from the damming of water is a permitted activity, providing that damming meets the conditions of Rule 12.3.2.1, and the take is authorised by the owner of the dam.

Section 12.1.2 of the Water Plan permits other taking of water, with restrictions on the volume taken. The taking or diversion of water for the purpose of land drainage is permitted without volume restriction (Rules 12.1.2.6 and 12.3.2.2).

Any other taking of water needs a consent. The taking of water from a lake, when the water has been delivered to this lake for the purpose of this taking, is a controlled activity. All consents are granted with conditions controlling the quantity that can be sustainably taken.

- **Discharges of water or contaminant from a dam**

Discharges from a capture dam are recommended if the discharge does not enter a lake, river, wetland, or a drain or race flowing to a lake, river or wetland. If the discharge enters such water, then the discharge must meet the conditions of amended Rule 12.C.1.1 to be permitted. Where a water body is artificial and specifically provided as part of a contaminant discharge treatment system, e.g. it is a sediment settling pond or a polishing wetland, it is the discharge from the system that is required to meet that rule when it enters the water specified in the rule.

Discharges of contaminants to land are permitted, unless the discharge is from an industrial or trade premises, or is discretionary under the Waste Plan.

5.2 Simplification and streamlining

The notified plan change removed the introduction, issues, explanations, principal reasons for adopting, cross-referencing, anticipated environmental results and some methods and information requirements in those parts of the Water Plan affected by this plan change. This was been done to streamline the Plan in line with the amended RMA (2005).

Submitters raised concerns regarding the removal of these provisions.

We considered the submissions and recommend a limited reinstatement of one method.

5.2.1 Recommendations

- (a) Delete the introduction, issues, explanations, principal reasons for adopting, cross-referencing and anticipated environmental results, Method 15.5.1.2 and Information Requirement 16.3.3 as notified, in order to simplify the Water Plan.

- (b) Reinstate an amended version of Method 15.5.1.1, in order to clarify the intent of the plan change:

~~15.5.1.1 The Otago Regional Council will encourage and assist agricultural, recreational and industry groups to prepare codes of practice and environmental management systems for various land use activities, in order to reduce adverse effects on water.~~

15.5.1.1 The Otago Regional Council ~~will encourage and assist agricultural, recreational and industry groups to prepare codes of practice and environmental management systems for various land use activities, in order to reduce adverse effects on water~~ encourages and supports the development and use of assist agricultural, recreational and industry groups to prepare codes of practice and environmental management systems that for various land use activities, in order to reduce adverse effects on water resources.

5.2.2 Reasons

- **Consistency with the RMA Amendment Act 2005**

In August 2005, Section 67(1) RMA was amended to require a regional plan contain only objectives, policies and rules. Other provisions, such as issues and explanations, became optional under Section 67(2).

- **Creating a user-friendly plan**

It is easier to read and use the Water Plan if the regulatory and consent guiding provisions are self-explanatory.

- **Providing guidance through supporting information**

ORC will continue to produce a range of supporting documents, including the SOE reports, brochures and guidelines on using the Water Plan and website material.

Information requirements for consent applications can be found on ORC consent application forms.

- **Continuing cooperation with industry groups**

The reinstatement of amended Method 15.5.1.1 emphasises that ORC will continue to work with industry groups and organisations on the development and use of codes of practice and environmental management systems that reduce adverse effects on water resources. Such interaction will encourage consistency between industry codes of practice and the water quality objectives promoted in the Water Plan.

5.3 Compliance, enforcement and education

ORC promotes continued monitoring and education to support the plan change to drive changes in land management practices which will maintain or improve water quality in Otago.

We considered the submissions received and recommend that an education and compliance strategy is described outside the Water Plan.

5.3.1 Recommendations

- (a) Make no amendment to the plan change on matters of compliance, enforcement or education.

5.3.2 Reasons

- **Self monitoring**

There is no need to prescribe in a regulatory plan, how landholders or managers should monitor contaminant discharges to water from their land. Guidelines on procedures will be included in other, non-statutory documents, such as information brochures and guides. These will be distributed via the website, or by hard copy, and will be updated regularly without the need to go through the statutory plan change process. Real-time information on representative river flows will be made available on the Water Info website.

- **Catchment education**

ORC undertakes a range of catchment-based education programmes, aimed at assisting land managers to better understand the effects of their activities on water quality. The programmes include sharing information on sampling and monitoring practices, interpretation of data and guidance for land managers on changes that may be required on their properties. ORC also undertakes research and monitoring to identify the high-risk areas and activities in Otago, as well as the practices that help reduce adverse effects of land uses on water quality.

- **Compliance monitoring and enforcement**

ORC may undertake compliance monitoring at any time, and it is inappropriate to constrain its statutory responsibility in any way. Therefore the compliance and enforcement strategy is not set out within the Water Plan. The budget and targets for this function are set through the annual planning process under the Local Government Act 2002.

Those parts of the permitted activity Rules 12.C.1.1 (Schedule 16 contaminants) and 12.C.1.3 (nitrogen loading) which take effect from 2020 can only be enforced from that time. Until 2020, such monitoring may be used for education purposes, but not for compliance or enforcement purposes.

We recommend that ORC establish an oversight group. Compliance and enforcement activities undertaken are reported to ORC's Regulatory Committee and in the Annual Report.

5.4 Consent notification

The RMA Amendment Act 2009 repealed Sections 93 and 94(1) RMA relating to notification of a consent application and introduced Sections 95 and 95F. The plan change provided an opportunity to update those clauses.

Various submitters raised the concern that the notification clause proposed under the notified plan change would have an impact on participation in the consent decision-making process.

5.4.1 Recommendations

- (a) Adopt the wording of the notification clause as included in notified Rules 12.C.2.1, 12.C.2.2 and 13.3.2.1.
- (b) Make consequential amendments in order to include the notification provisions in new restricted discretionary activity Rules 12.C.2.1, 12.C.2.2 and 12.C.2.3 and amended Rules 13.1.2.1, 13.2.2.1 and 13.3.2.1.

5.4.2 Reasons

- **Coverage by the matters of discretion**

The notification clause attached to the restricted discretionary rules in sections 12.C, 13.1, 13.2 and 13.3 states that the consent authority is precluded from giving public notification of an application. It is appropriate for activities covered by these restricted discretionary rules to be considered without full public notification, because their effects are sufficiently covered through the amended matters of discretion. However, the notification clause attached to the restricted discretionary rules in sections 12.C, 13.1, 13.2 and 13.3 does not preclude limited notification. This will ensure that those directly affected by a proposal still have opportunity to have input to consent decision making processes.

- **Ability to notify where special circumstances exist or where activities may affect the wider public**

Regardless of the notification clause in the restricted discretionary rules, a consent authority may publicly notify an application under Section 95A(4) of the RMA, if it decided special circumstances exist in relation to the application.

Discharges that may have effects extending far beyond the immediate discharge area, such as discharges of water from one catchment to another or discharges that cause flooding or erosion, will be given discretionary activity status. For these discharges limited notification is not appropriate because there should be adequate opportunities for public input to assess broader environmental, social, cultural or economic impacts on the wider community. Therefore, the consent authority is not precluded from giving public notification for activities considered under the rules in section 12.C.3.

- **Consistency**

While amendments to RMA notification provisions made in 2009 do not affect an operative plan's non-notification and non-service clauses, the plan change provides an opportunity to amend the notification clause, in a manner that better reflects amendments to the RMA and provides for ongoing and consistent administration of the Plan.

5.5 Minor and consequential amendments

The plan change proposes a number of minor and consequential changes, including changes to the table of contents, page numbering, and headers and footers.

We considered the submissions and recommend that all minor and consequential amendments resulting from the recommendations set out in this report be made.

5.5.1 Recommendations

- (a) Make any consequential amendments necessary in order to give effect to proposed or recommended changes.
- (b) Amend the text in the note box at the bottom of the introduction in order to explain the relationship between Chapter 7 with other parts of the Water Plan and change the location of the text:

~~Note: 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.~~

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.

5.5.2 Reasons

- **Minor change to the note box at the start of Chapter 7**

Stating the interconnection between the chapters of the Water Plan as the introduction will make these connections more obvious to plan users.

- **Other minor and consequential amendments**

Clause 10(2) of Schedule 1 RMA provides for any necessary consequential alterations.

CHAPTER 6 – MATTERS NOT ADDRESSED IN THIS PLAN CHANGE

6.1 Beyond the scope of the plan change

Matters that were raised during the submissions and hearing process and that are considered beyond the scope of Plan Change 6A include requests relating to policies and rules for discharges that were not notified in the original plan change.

We considered the submissions and recommend amending the notified rules 12.B.1.1 and 12.B.1.4 to update the existing references to certificates for the handling and use of agrichemicals.

6.1.1 Recommendations

- (a) Amend Rules 12.B.1.1 and 12.B.1.4 as discussed in Section 3.10 of this report.
- (b) Make no amendment to address matters beyond the scope of this plan change

6.1.2 Reasons

- **Section 7.C policies and rules in section 12.B**

Policies in section 7.C have been renumbered and repositioned but are otherwise unchanged. Most rules in section 12 B remain unchanged.

Rules 12.B.1.1 and 12.B.1.4 have references updated to ensure that all individuals and organisations involved in the discharge of herbicides to water and aerial application of herbicides onto land are operating to best practice in terms of both flight and environmental safety.

- **Better protection for wetlands**

The notified plan change intended to manage the adverse effects from discharges considered under Section 12.C by extending the scope of the rule framework to all water, including water in wetlands. The amended rules in section 12.C continue to protect wetlands against the adverse effects from these discharges.

While the amended rule framework in section 12.C applies to all wetlands, Chapter 13 rules only apply to Regionally Significant Wetlands.

Amending the rules in Chapter 13 to extent their scope to all wetlands would require a variation to the plan change, or a new plan change, to ensure persons potentially affected by these matters are consulted, notified and heard.

Note that Plan Change 2: Regionally Significant Wetlands addresses some matters raised by submitters.