

**Proposed Plan Change 6A
(Water Quality)**

to the

Regional Plan: Water for Otago

**Officers' Report on
Decisions Requested**

Introduction

Key aspects of the proposed plan change

The Otago Regional Council has prepared Proposed Plan Change 6A (Water Quality) to the Regional Plan: Water for Otago. The proposed plan change seeks to maintain water quality, or improve it as necessary, through control of contaminants discharging from land to water. Key aspects of the proposed plan change are:

- Targets for good quality water in Otago.
- Removal of policy that gives regard to the assimilative capacity of water bodies.
- A new suite of provisions for non point source discharges that:
 - Prohibit discharges of contaminants:
 - That have an obvious adverse effect in receiving water bodies.
 - To water, that damage property.
 - From disturbed land to water, where no mitigation measures are taken to avoid sediment runoff.
 - To water from animal waste systems, silage storage or a composting process.
 - Permit discharges that meet specified limits for nitrogen, phosphorus, Escherichia coli, and sediment.
 - Provide a consenting option for discharges that do not meet specified limits.
- Amendment of provisions for river and lake beds, and Regionally Significant Wetlands to:
 - Address bed disturbance.
 - Provide a more permissive approach for construction of single span bridges and other crossings.
 - Prohibit the use of the beds water bodies as regular stock crossings.
- Streamlining of provisions, including removing Issues, Methods and Explanations for Objectives, Policies and Rules.

Notification process

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 (7 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*, which requested further submissions, was notified on Saturday 2 June 2012, with further submissions closing on Monday 18 June 2012. There were 77 further submissions received (2 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 purpose of this report

This report considers decisions requested by submitters and further submitters, and recommends amendment of certain plan change provisions to the Hearing Committee to

give better effect to the plan change intent of maintaining and improving water quality. Provisions with amendments that did not receive submissions are not discussed, so these changes should be approved as proposed, unless a consequential amendment is required from an amendment elsewhere.

Documents referred to in this report

This report should be read in conjunction with the following documents:

- *Proposed Plan Change 6A (Water Quality) to the Regional Plan: Water for Otago (31 March 2012).*
- *Summary of Decisions Requested by Provision, including Submitters and Further Submitters (22 August 2012).*

Reasoning for the proposed plan change, and consideration of alternatives, benefits and costs, is detailed in *Section 32 Report – Consideration of alternatives, benefits and costs (31 March 2012).*

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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

cfu/100 ml	Colony forming units per 100 millilitres
DRP	Dissolved reactive phosphorus
<i>E coli</i>	<i>Escherichia coli</i>
mg/l	Milligrams per litre
NH ₄	Ammoniacal nitrogen
NNN	Nitrate-nitrite nitrogen
NTU	Nephelometric turbidity units
TN	Total nitrogen
TP	Total phosphorus

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

Operative word / <u>notified word</u>	Notified change, showing change proposed from the Water Plan
Notified word / <u>amended word</u>	Amendment recommended in Officers' report

CHAPTER 1 – OVERALL APPROACH TO WATER QUALITY

Introduction

In 2010 the Otago Regional Council (ORC) released the Rural Water Quality Strategy. The strategy proposes an effects-based approach to managing rural discharges to water, with a focus on directly controlling contaminants discharging from land to water, instead of controlling land use activities. Maximum discharge limits are set for common rural contaminants, and discharges from land achieving those limits are permitted. The land manager has the flexibility to implement whatever changes are needed to meet the discharge limits that best suit their land management regime.

The National Policy Statement on Freshwater Management (NPSFW), released by Government in May 2011, requires ORC to establish freshwater objectives and set freshwater quality limits, amongst other matters.

A review of the Regional Plan: Water for Otago (Water Plan) was undertaken in light of the Rural Water Quality Strategy and NPSFW, which showed the need to amend the plan. At the same time, opportunity has been taken to simplify and streamline plan provisions, in line with the 2005 and 2009 amendments to the Resource Management Act 1991 (RMA).

1.1 Amend or withdraw the whole plan change

The first section of this report addresses requests made relating to the whole plan change. For detail of the submissions received relating to this matter, refer to:

<i>Provision Code</i>	<i>Provision</i>	<i>Page(s) of Proposed Plan Change 6A</i>	<i>Page(s) of Summary of Decisions Requested</i>
201	<i>Support whole plan change</i>	<i>Whole plan change</i>	<i>559 – 564</i>
202	<i>Oppose whole plan change</i>	<i>Whole plan change</i>	<i>564 – 579</i>
219	<i>Overall strategic approach</i>	<i>Whole plan change</i>	<i>601 – 613</i>
220	<i>Process</i>	<i>N/A</i>	<i>613</i>

1.1.1 Main Issues

While many submitters supported the overall intent of the plan change and its effects-based approach, the main issues identified by submitters requesting its withdrawal included:

- Whether the proposed plan change is consistent with the RMA, NPSFW and Regional Policy Statement for Otago and not contrary to sound resource management.
- Whether the limits proposed are lawful, workable and achievable.
- Whether land use controls should be used instead.
- Whether there is a need to improve water quality in all parts of Otago, or address water quality catchment by catchment.

- Whether dams for hydroelectricity generation are industrial and trade premises, and accordingly, how this plan change may affect such activities.
- A need to undertake a more collaboratively based process for addressing water quality.
- A need to undertake a more substantive Section 32 analysis of alternatives, and their benefits and costs.

1.1.2 Recommendations

- (a) Amend Proposed Plan Change 6A (Water Quality) to give better effect to the strategic intent of improving rural water quality, as recommended in the remainder of this Officers' Report.
- (b) Continue with the programme of further plan changes to better address water quality issues and achieve good quality water in relation to discharges of urban stormwater, human sewage, hazardous substances and industrial and trade waste.

1.1.3 Reasons

▪ Proposed plan change

The plan change has been prepared lawfully, using the process specified in RMA Schedule 1: Preparation, change and review of policy statements and plans. There is no basis in law to undertake a collaborative process as requested and being promoted by the non-statutory Land and Water Forum.

The plan change is founded in science and the overall effects-based approach has strong community support. It may be amended through the RMA Schedule 1 processes as requested by submitters to give better regulatory effect to ORC's Rural Water Quality Strategy and the achievement of good water quality throughout Otago.

Extensive consultation has been undertaken with the regional community, including meetings with iwi, two series of water fora in 2010 and 2011, and public meetings across the region in 2011. ORC has been active in water quality education for more than 10 years, and there have been further meetings to discuss recent catchment water quality studies over the past 3 years. ORC have met regularly with rural sector leaders and agricultural scientists to test and refine the proposed approach.

Withdrawal of the plan change, to start again using a different approach, would be costly for all parties, and there is no guarantee that any better plan change would be developed. There are risks of ongoing degradation to water quality in the meantime, and that any collaborative process may not resolve critical water quality issues.

▪ Further plan changes

While the Water Plan has been important in achieving far better quality discharges from point sources, through the resource consenting process, there are still issues to address with regards to discharges of human sewage, urban stormwater, hazardous

waste and industrial and trade waste. ORC report 2011/1033 details the investments and changes to discharge quality that are being made through resource consents.

Dams for hydroelectric power production and the full site of meat processing plants are industrial and trade premises. The plan provisions on water quality related to their activities will be addressed through a future plan change. However, canals and open race systems that supply water to such dams are addressed through this plan change, as similar structures are common within rural irrigation schemes.

Undertaking a sequence of separate plan changes makes it possible to engage more fully with those who may be directly affected by each proposal. Further plan changes will also improve the effectiveness of the Water Plan.

The general principles underpinning this plan change will be considered for each identified contaminant. For example, providing for discharges as permitted activities is preferred for those discharges where individual or cumulative effects are minor. Consenting is available for discharges which are unable to comply with contaminant standards for permitted status.

CHAPTER 2 – PLAN CHANGE 6A PRINCIPLES

Introduction

This chapter provides a background to the underlying principles of the proposed plan change, prior to detailed consideration of the various parts. There are no recommendations in this chapter. They are made through subsequent chapters, as the principles are applied to specific situations.

2.1 Engaging the community to achieve good quality water

The proposed plan change seeks to maintain water quality, or improve it as necessary, through control of contaminants discharging from land to water. It addresses discharges from point and non-point sources typically found in rural situations. The change gives effect to the RMA, the NPSFW and the RPS.

The plan change draws predominantly from Section 15(1) RMA, which precludes any person from discharging contaminants or water to water, or onto or into land in circumstances which may result in contaminants entering water, unless expressly allowed by a rule in a regional plan, a resource consent or a national environmental standard or other regulation. The plan change includes rules that permit specified discharges, prohibit specified discharges and enable consenting of other discharges.

Water comprises water in all its forms (excluding water in any pipe, tank, or cistern), while discharge “includes emit, deposit and allow to escape” (Section 2 RMA).

Point source discharges enter water directly, at a definable point such as a pipe or drain, while non-point discharges enter water directly or indirectly, from a diffuse source such as land runoff or infiltration.

The plan change recognises that every person has a duty to avoid, remedy, or mitigate any adverse effect on the environment arising from an activity (Section 17 RMA) and that no person may use land in a manner that contravenes a regional rule, unless expressly allowed by a resource consent or is allowed as a certain existing lawful activity (Section 9(2) RMA). The plan change is within ORC’s statutory function to control the discharge of contaminants into or onto land or water, discharges of water into water, and the capacity of water to assimilate a discharge of a contaminant (Section 30(1)(f) and (fa) RMA). It also gives effect to the NPSFW and the RPS, as discussed in subsequent chapters of this report.

The plan change has been based on the sharing of responsibilities for managing water quality across all levels, from the individual, through territorial authorities and regional councils, to central government. Rather than controlling land use, this plan change establishes effects-based standards for discharges and allows land use activities to be undertaken in any way that will reduce discharge adverse effects on water quality.

2.2 Enabling economic, social and cultural wellbeing

Valuing good quality water

From many perspectives, good quality water is fundamental to our wellbeing, economically, environmentally, socially and culturally, for now and the future. The national values of fresh water, identified in the NPSFW, cover both natural and human use values and apply just as much nationally as they do within Otago. This was illustrated at the first water quality forum at Cromwell in 2010, where a number of presenters spoke on the value of water:

- From Mr Keith Cooper, Chief Executive of Silver Fern Farms:

In one way or another, water underpins many different aspects of our business and is crucial for success in our export markets...

The challenge in this whole water management debate is to decide how we can best utilise it without damaging the environment on the way through. The fact that we are environmentally friendly helps us achieve premiums in the global market...

We can't afford to get water management wrong.

- From Mr Mike Hide, Sustainable Dairying Specialist for Fonterra:

All the surveys and communications we do generally show that the community accepts dairying as an acceptable land use; they love what it brings in terms of benefits to the economy; and the jobs it creates. However, this always comes with the proviso that it should not be at the expense of the environment.

- From Mr Edward Ellison, Chairman of the Otakou Runanga:

Undoubtedly, water is a treasure to our people...

It is an underlying feature of our culture. We relate strongly to our water and its many categories in Otago. It is, in its most precious form, at the tops of the mountains...

The key thing for us is the retention of mahika kai and the enhancement of those opportunities. If we lose that, we lose a large part of our identity and our relationship with our land and water.

Over the past two years, people attending public meetings on rural water quality have consistently voiced support for the general principle of having good quality water. However, there was debate over specific situations and the relative importance of the value of “cleaning, dilution and disposal of waste” in relation to water’s intrinsic values and values for human uses. Uses include drinking water, food production and harvesting, electricity generation, recreational activities and commercial and industrial processes. This is discussed in more detail in Chapter 3 on objectives and policies for water quality.

Developing a water quality strategy

Over the past ten years, ORC has actively engaged with the farming community on matters of discharge management and water quality. The Water Plan, originally

notified in 1998 and made operative in 2004, proposed the overall framework for managing water quality. This included the use of permitted activities with conditions for many rural discharge activities and required consents for many point source discharges, notably for contaminant discharge of industries and municipal waste. Standards set for permitted activities derive from a variety of sources, New Zealand standards, system models and data collected throughout Otago.

For non-point source discharges, the approach initially taken was to promote best practice, by making information available and undertaking catchment education programmes. A state of the environment monitoring programme was established, and the first State of the Environment (SOE) report was prepared in 2007. The results of the past five years of data collected were reported in 2012.

As a consequence of the 2007 SOE report, and in response to ongoing work in central government relating to water quality, ORC recognised that promotion of good practice alone was not enough to improve areas of degraded water quality (addressed in ORC report 2008/328). A strategic approach was developed, for both rural and urban communities, which identified the need for plan changes to address non-point source contamination of water. This approach was first reported in 2009 (ORC report 2009/593). The Rural Water Quality Strategy was subsequently adopted by ORC in 2010 (refer to ORC report 2010/0977).

Catchment specific research has been undertaken, together with field days, and learnings from these have informed this plan change. The consultation programme has been used to share information, listen to concerns, and look at ways to better address plan provisions to achieve good water quality.

Encouraging good farm stewardship

One of the key messages from the farming community was the strong desire to exercise good stewardship over their own properties, without undue regulatory restriction. The following concepts were discussed with the community, as part of plan change consultation in 2011, and received support in principle:

- By having a common statement of the features of good quality water, any person can check water quality for themselves. Note that some scientific tests are needed to underpin that statement and ensure quality is sustained over the long term.
- The permitted activity approach fosters individual responsibility for discharges, whilst ensuring that appropriate enforcement action may be taken against anyone failing to exercise good stewardship. A land manager needs to become more aware of the effects of their practices on water quality, and self correct where needed.
- Some of the contaminant limits have a transition time, to enable land managers to change discharge practices before the limits come into effect. Costs of improving discharge practices may be spread over five or more years.
- After the initial transition period has ended, a consent option remains available for those who are making changes, but require more time to meet permitted limits for their specific situation.

- A consent option remains open for trialling innovative solutions to improve discharge management solutions.
- ORC continues to provide ongoing support and information to help implement the Water Plan.

2.3 Applying the latest knowledge

The plan change has been developed using up to date scientific knowledge:

- The Guidelines adopted in Schedule 15 have utilised both national and local published research. National reference material includes ANZECC water quality Guidelines; Biggs, 2000 New Zealand Periphyton guidelines; and, MfE/MoH, 2002 Microbiological water quality guidelines for marine and freshwater recreational areas.
- ORC SOE monitoring for water quality is carried out at over 70 sites throughout the region and has records spanning more than 10 years. From this record, some catchments were identified as having degraded water quality and trending further downwards. Further detailed catchment studies have also been carried out, allowing a greater understanding of the effect of different land use on local water quality.
- Understanding local environmental effects is enhanced by locally appropriate data. Therefore the combination of SOE monitoring and detailed catchment monitoring has allowed more accurate environmental reference conditions to be set for Otago rivers.
- Further in-depth reporting on aspects of Otago water quality data by AgResearch has also been commissioned by the ORC (McDowell RW, Monaghan RM, Muirhead, RW, 2011). This work has shown that the greatest impact on water quality results from poor land management practices. Land use management and mitigation measures to reduce the effects of land use on water quality, specific to the south and west of Otago, were included in their report.
- Groundwater sensitivity to nitrogen sensitive loading limits requires local understanding of soil conditions and aquifer characteristics. Detailed modelling has been carried out by the ORC on some key aquifers and generic modelling on others to determine theoretical maximum leachate limits for sustainable maintenance of groundwater quality.
- Landcare Research Ltd has been commissioned by the ORC to develop a soil water (leachate) capture system. Leachate samples are being taken and analysed from two different dairy farmed locations in Otago. This research will provide local evidence of the environmental footprint of dairy farming, results of which will also be relevant to many other similar locations throughout the region.

Limited work has been undertaken on the economic costs and benefits. One of the key conclusions made by AgResearch, from reviewing data from Otago and Southland studies, was that taking land out of production permanently, such as fencing off land from productive use, had the highest long term costs.

Economic impact is a difficult matter to assess with certainty, as there are so many different farm situations and implementation of improved practices will depend on the individual and their circumstances. In part, the transition times before limits apply, and the effects base of the plan change, are intended to recognise this matter.

2.4 Focusing on the effects of activities

Fundamental re-think of regulatory approach to water quality

The Water Plan promotes the avoidance, remediation, or mitigation of adverse effects of the increased runoff of nutrients and sediment caused by various land use activities, including agriculture. Measures must be taken to reduce adverse effects for consented activities. There are no specific rules relating to diffuse discharges from general farming activities.

Most regional councils have addressed diffuse discharge of contaminants from rural land through land use rules targeted at farm type, stock numbers, fertiliser regime, fencing provisions and the like. This approach assumes a single performance code is both appropriate and acceptable as a means of managing impacts of land use on water quality. In contrast, this change seeks to set standards for discharges while allowing land management decisions to be made within the context of individual rural enterprises, be they farms, orchards or forests.

This different approach calls for a greater understanding of farm practices and their impacts on discharge quality rather than compliance with preset activity controls such as prescriptive rules requiring riparian planting and fencing of water bodies.

From basic RMA principles

The RMA is an effects-based statute, meaning that controls should be focused on avoiding, remedying or mitigating adverse effects rather than directly controlling activities as a surrogate for any effects. The RMA incorporates a permitted baseline of effects which, described by land use provisions in the Water Plan, are less than minor, and individually or cumulatively these effects are permitted. Consenting discharges which may have greater effects will be appropriate where those greater effects are acceptable.

Informed by science

This proposed plan change recognises various contaminants, different transport mechanisms from land to water, and interactions between those contaminants. Sediment is carried in over-land flow into rivers and lakes, and phosphorus is largely bound to sediment. *E Coli* and other organisms also travel in over-land flow. Sediment and organisms can also travel through breaks in the soil to subsurface drains and then quickly to rivers and lakes. In contrast nitrogen, which is water soluble, can travel in overland flow and by leaching through the soil profile to groundwater. The rules in this plan change recognise these basic soil contaminant transport mechanisms.

Work by AgResearch in the Pomahaka catchment has reinforced these processes and shown that much of the contaminant entering surface water is attributable to poor land

management, land management that with modification could greatly reduce the level of contaminants transported to water.

Sufficient information to introduce discharge management regulations

Hydrological knowledge of similarity within Otago lakes and rivers has allowed catchment grouping for common management provisions. SOE reporting shows where individual lakes and rivers vary from the accepted descriptions of good water quality. This plan change sets conditions for diffuse discharges, for catchment groups, by defining conditions for contaminants which can be discharged as a permitted activity.

Generally, the proposed plan change sets limits for discharges of contaminants to reduce the effect of those discharges on water quality. In setting these limits, it is important to note the difference between having complete scientific knowledge and sufficient information for discharge management purposes.

Direct controls on land management activities are only used where there is an unacceptably high risk of adverse effect of discharges on water quality. As a consequence, a land manager is able to manage their activities in whatever way they choose, as long as they achieve the specified discharge conditions. This approach means that land management will change to directly address adverse effects on water quality, rather than change to comply with land management rules. Where limits cannot be achieved a consenting regime is available.

2.5 Using a permitted/prohibited rule framework

Use of permitted activity status with conditions

A permitted activity may be undertaken without the need for resource consent if it complies with all the requirements, conditions and permissions specified in the RMA, regulations, plan or proposed plan (Section 87A RMA). Before a regional council includes a rule as a permitted activity, it must be satisfied that a number of “bottomline” adverse effects are not likely to arise (described in Section 70 RMA).

The use of permitted activities with conditions, rather than requiring consents, has been supported in principle by farmers across the region. This approach places the responsibility for maintaining discharge standards on the discharger. The discharger is able to monitor the effects of their activities on the quality of discharges from their site, and can quickly identify and address any discharge that exceeds permitted limits. They may take whatever measures are appropriate to reduce the effects of their activities on discharge quality, having regard to their individual circumstances. In addition, they are able to allocate funding towards practical improvements rather than to the cost of gaining resource consent.

Use of prohibited activity status

Prohibited activity rules are proposed for those discharges for which it would never be appropriate to grant resource consent as such effects stand in the way of achieving good quality water and do not promote sustainable management of the water resource. The legal test is whether it can be rationally concluded, after applying the RMA

processes, that prohibited activity status is the most appropriate status (*Coromandel Watchdog of Hauraki Inc v Ministry of Economic Development* [2008] 1 NZLR 562).

The operative Water Plan identifies a number of such matters and describes them as conditions on permitted activities. ORC has not issued consents for these types of contaminant discharges in the past, and has no intention of doing so in future as it is no longer considered acceptable to discharge in such a manner. Accordingly, the prohibited activity status is appropriate for these situations.

The prohibited activity status sends a clear message to the community that gross discharges will not be tolerated.

Certainty and enforceability

Rules must be understandable and enforceable. They should be certain enough so that in reading rules, an interested party is able to determine what can be undertaken as a permitted activity, what requires consent, and what is prohibited. The community and applicants also need to be certain that rules will be applied in a consistent manner.

This does not mean there cannot be some uncertainty within rules: *“it can be quite sufficient for planning purposes to establish and regulate general proportions, accepting borderline grey areas. In some situations, approximations may be unavoidable, and must suffice as a matter of realism.”* (*AR & MC McLeod Holdings Ltd v Countdown Properties* [1990] 14 NZTPA 362).

Within the proposed plan, prohibited activity rules are written differently to rules for all other classes of activity, providing certainty that no part of the activity may be undertaken.

Assimilative capacity of water and reasonable mixing

Water has a natural capacity to assimilate contaminants which is recognised in the RMA, the NPSFW, the Regional Policy Statement and the Water Plan. Reasonable mixing, and discharge limits which apply before discharge entry into receiving water, are both ways of managing the use of the assimilative capacity of water.

The RMA does not expressly require reasonable mixing to be explicitly incorporated into regional plans. Section 15 does not incorporate this concept. Sections 69, 70, 107 incorporate reasonable mixing as part of bottom line “standards” for permitted activity discharge rules and consenting. The concept of reasonable mixing is inherent within the consenting process through the operation of Section 107.

The plan change proposes discharge limits before the contaminant enters water and just as the contaminant has entered water (where the contaminant causes an effect in water), recognising the assimilative capacity of water.

Compliance monitoring

From a compliance and enforcement perspective, the allocation of ORC staff resources to monitor discharges is similar, regardless of whether it is for monitoring compliance with permitted activity or resource consent conditions.

Pulling the regulatory framework together

The use of a permitted/prohibited framework, with a consenting option, means that people may go about their daily lives without undue intervention, providing any discharge meets the requirements in the Water Plan. The focus is appropriately placed on reducing adverse effects on water quality to achieve good quality water in Otago.

CHAPTER 3 – OBJECTIVES AND POLICIES FOR WATER QUALITY

Introduction

Chapter 3 addresses the objectives and policies for water quality. The first section deals with the Water Plan’s objectives for water quality, the second section addresses the policy describing the ORC’s approach for achieving those objectives, and the final sections address more specific policies.

3.1 Objectives for water quality

The first two objectives establish the concept of “good quality water” supporting the natural and human use values of Otago lakes and rivers. The third objective concerns everyone’s role in achieving good water quality.

For detail of the proposed objectives and the submissions received relating to this matter, refer to:

<i>Provision code</i>	<i>Provision</i>	<i>Page(s) of Proposed Plan Change 6A</i>	<i>Page(s) of Summary of Decisions Requested</i>
14	Section 7.5/7.A	6-7	6-12
15	Objective 7.5.1/7.A.1	6	12-28
16	Objective 7.A.2	7	28-41
17	Objective 7.A.3	7	41-48

3.1.1 Main Issues

While many submitters supported the overall objective of protecting water quality in Otago, the main issues identified were:

- The concept of “good quality water” and how it will be achieved.
- The way in which the objectives recognise freshwater values, promote the sustainable management of resources and give effect to the RMA, NPSFW and the NZ Coastal Policy Statement 2010.
- The responsibilities of the ORC, individuals and communities in managing the effects of their activities on water quality.
- The need to clarify the intent of terms used in the objectives.

3.1.2 Recommendations

(a) Amend Objective 7.A.1 as follows:

~~7.5.17.A.1~~ To maintain or enhance the have good quality of water in Otago’s lakes and rivers water bodies lakes and rivers that so that it is suitable to supports their natural and human use values and people’s use of water, for present and future generations.

(b) Amend Objective 7.A.2 as follows:

7.A.2 To maintain ~~good water quality water~~ in Otago's lakes and rivers ~~water~~
~~bodies~~, and enhance water quality where ~~necessary~~ it has been degraded.

(c) Amend Objective 7.A.3 as follows:

7.A.3 To have individuals and communities ~~recognise and~~ manage the effects of
~~their activities to achieve good quality water in Otago water bodies on water~~
~~quality, including cumulative effects.~~

3.1.3 Reasons

▪ Good quality water

The phrase “good quality water” is a generic term for water which describes water that supports natural and human use values well. It includes water described as “outstanding” in the NPSFW. It applies to lakes and rivers, as objectives for groundwater quality and the condition of wetlands are covered in Chapters 9 and 10 of the Water Plan. Indicative characteristics of good quality water are described in Schedule 15 and achieved through implementation of the water quality policies and rules.

Within Schedule 15, lakes and rivers of exceptional quality are listed in receiving water groups 4 and 5. Therefore, the objective of “good quality water” is consistent with NPSFW Objective A2.

▪ Freshwater values and sustainable management of resources

The Water Plan already uses the concept “natural and human use values” (in Chapter 5) and prioritises avoidance of adverse effect on those values (Policy 5.4.2). This provides for the widest range of water-related opportunities for Otago’s present and future generations. Objective 7.A.2 emphasises that existing water quality will be maintained (except where it is degraded i.e. where the natural and human use values are not supported), and therefore gives effect to Section 69(3) RMA, NPSFW Objective A2 and RPS Objective 6.4.4 and Policy 6.5.5.

The freshwater values which are recognised in the NPSFW (e.g. cleaning, dilution and disposal of waste, irrigation, commercial and industrial processes, food production and harvesting, intrinsic values) are consistent with Otago’s natural and human use values.

In addition, this plan change gives effect to the NZ Coastal Policy Statement 2010 to the extent that it addresses contaminant discharges affecting water quality before water enters coastal water (at which point the Regional Plan: Coast for Otago assumes that regulatory function).

- **Responsibility for good quality water**

As discussed in section 2.1, under Section 17 RMA, every person has the 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, including Iwi, businesses and organisations, in line with the principle of encouraging good water stewardship. In this way, each land manager may adopt the most appropriate approach to their receiving environment.

The ORC’s own action plans for enhancing water quality in Otago are set in ORC’s Annual Plan, prepared under the Local Government Act 2002.

- **Clearer wording**

The phrases “recognise and manage” and “where necessary” have been clarified.

3.2 General policy for achieving good quality water

Policy 7.B.1 describes ORC’s overall regulatory approach to water quality management. It also links to the description of “good quality water” in Schedule 15.

For detail of the proposed policy changes and the submissions received relating to this matter, refer to:

<i>Provision code</i>	<i>Provision</i>	<i>Page(s) of Proposed Plan Change 6A</i>	<i>Page(s) of Summary of Decisions Requested</i>
19	<i>Policy 7.B.1</i>	7	53-76
125	<i>Schedule 15</i>	56-59	490-503
126	<i>Table 15.1</i>	56	503-515
127	<i>Table 15.2</i>	56-59	515-527

3.2.1 Main Issues

The main issues identified by submitters were:

- The relationship between Policy 7.B.1 and the objective of achieving good quality water.
- The way in which Policy 7.B.1 and Schedule 15 recognise freshwater values, promote the sustainable management of resources and give effect to the RMA, NPSFW and RPS.
- How Schedule 15 recognises the diversity and variability of water quality between different catchments and in the same catchments, and how temporary variations are taken into account.
- The implications of Policy 7.B.1, Schedule 15 and Schedule 16 on the rule framework, and on the consenting of rural and industrial discharges.
- The need to clarify the intent of terms used in the Policy and Schedule.

3.2.2 Recommendations

(a) Amend Policy 7.B.1 as follows:

<p>7.B.1 Achieve <u>Ensure water is of good quality water, as by the target dates</u> described in Schedule 15, in Otago lakes and rivers to support natural and human use values, by:</p> <p>(a) Avoiding discharges of contaminants with noticeable effects on that risk <u>natural and human use values not being maintained;</u> and</p> <p>(b) Allowing discharges of contaminants that cumulatively have minor effects, or are short-term; <u>and</u></p> <p>(c) Minimising disturbance of the beds of rivers and lakes and rivers; <u>and;</u></p> <p>(d) Promoting discharges of contaminants to land in preference to water; <u>and</u></p> <p>(e) Encouraging adaptive management and innovation to reduce the discharge and impact of contaminants on water quality.</p>

(b) Amend Title in Schedule 15 as follows:

<p>15 <u>Schedule of good quality water in Otago lakes and rivers</u></p>

(c) Amend Table 15.1 as follows:

<u>Table 15.1 Indicative Characteristics of good quality water</u>	
<u>Characteristic</u>	<u>Description</u>
<u>Bank</u>	<p>Healthy <u>Functioning riparian margins:</u></p> <ul style="list-style-type: none"> ▪ <u>Vegetation is healthy and not stripped bare.</u> ▪ <u>Banks are stable.</u> ▪ <u>No obvious livestock disturbance.</u>

(d) Amend Table 15.2 as follows:

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

<u>Receiving water Group 1</u>	<u>Nitrate-nitrite nitrogen</u> ¹	<u>Dissolved reactive phosphorus</u> ¹	<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>126 cfu/100 ml</u>	<u>5 NTU</u>
<u>Catlins</u>	<u>31 March 2012</u>				
<u>Carey's Creek</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 2012</u>
<u>Leith</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2017</u>	<u>31 March 2012</u>
<u>Mokoreta within Otago</u>	<u>31 March 2017</u> <u>2019</u>	<u>31 March 2012</u> <u>31 March 2017</u>	<u>31 March 2012</u> <u>31 March 2017</u>	<u>31 March 2017</u>	<u>31 March 2012</u>
<u>Owaka</u>	<u>31 March 2017</u> <u>2019</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2017</u>	<u>31 March 2012</u>
<u>Pomahaka</u>	<u>31 March 2019</u> <u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u> <u>31 March 2017</u>	<u>31 March 2012</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 2012</u>
<u>Tokomairiro</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2017</u>	<u>31 March 2012</u>
<u>Tuapeka</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2017</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 2017</u>	<u>31 March 2012</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>Waitati</u>	<u>31 March 2012</u>				
<u>Waiwera</u>	<u>31 March 2017</u> <u>2019</u>	<u>31 March 2017</u> <u>31 March 2012</u>	<u>31 March 2012</u> <u>31 March 2017</u>	<u>31 March 2017</u> <u>31 March 2012</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 other unlisted catchment that discharges to the coast, south of</u>	<u>31 March 2012</u>				

<u>the Matau</u> <u>Branch of the</u> <u>Clutha</u> <u>River/Mata-Au</u> <u>Taieri Mouth</u>	
<u>Any other</u> <u>unlisted tributary</u> <u>on the true left</u> <u>bank of the</u> <u>Clutha/Mata-Au,</u> <u>south of the</u> <u>Tuapeka</u> <u>catchment</u>	

<u>Receiving water</u> <u>Group 2</u>	<u>Nitrate-nitrite</u> <u>nitrogen</u> ¹	<u>Dissolved reactive</u> <u>phosphorus</u> ¹	<u>Ammoniacal</u> <u>nitrogen</u> ²	<u>Escherichia</u> <u>coli</u> ³	<u>Turbidity</u> ⁴
	<u>0.075 mg/l</u>	<u>0.006 mg/l</u>	<u>0.1 mg/l</u>	<u>126 cfu/100</u> <u>ml</u>	<u>5 NTU</u>
<u>Arrow</u>					
<u>Cardrona</u>	<u>31 March 2012</u>				
<u>Fraser</u>	<u>31 March 2017</u> <u>2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March</u> <u>2012</u>	<u>31 March</u> <u>2012</u>
<u>Kakanui</u>	<u>31 March 2017</u> <u>2019</u>	<u>31 March 2012</u> <u>31 March 2017</u>	<u>31 March 2012</u>	<u>31 March</u> <u>2012</u>	<u>31 March</u> <u>2012</u>
<u>Kawarau</u> <u>downstream of</u> <u>the Shotover</u> <u>confluence and</u> <u>Clutha/Mata-Au</u> <u>and any other</u> <u>unlisted tributary</u> <u>(Luggate to</u> <u>mouth, including</u> <u>Lakes Dunstan</u> <u>and Roxburgh,</u> <u>and excluding</u> <u>tributaries</u> <u>described in</u> <u>Area Group 1)</u>	<u>31 March 2012, except Lake Dunstan which has until 31 March 2017 2019 to comply with</u> <u>nitrate-nitrite nitrogen</u>				
<u>Lindis</u>	<u>31 March 2017</u> <u>2012</u>	<u>31 March 2017</u> <u>2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March</u> <u>2012</u>
<u>Luggate</u>	<u>31 March 2012</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>31 March</u> <u>2012</u>
<u>Manuherikia</u>	<u>31 March 2012</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>31 March</u> <u>2012</u>

<u>Mill Creek (tributary to Lake Hayes)</u>	<u>31 March 2017 2019</u>	<u>31 March 2017</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>
<u>Shag</u>	<u>31 March 2017 2019</u>	<u>31 March 2017</u> 31 March 2012	<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 2012</u> 31 March 2017	<u>31 March 2017</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>
<u>Tokomairiro</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 2019</u>	<u>31 March 2012</u> 31 March 2017	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>
<u>Waianakarua</u>	<u>31 March 2017 2019</u>	<u>31 March 2017</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>
<u>Waikouaiti</u>	<u>31 March 2012</u> 31 March 2017	<u>31 March 2012</u> 31 March 2017	<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 2012</u> 31 March 2017	<u>31 March 2012</u> 31 March 2017	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>
<u>Waitaki tributaries within Otago</u>	<u>31 March 2019</u>	<u>31 March 2017</u>	<u>31 March 2012</u>	<u>31 March 2012</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>Receiving water Group 3</u>	<u>Total nitrogen ¹</u>	<u>Total phosphorus ¹</u>	<u>Ammoniacal nitrogen ²</u>	<u>Escherichia coli ³</u>	<u>Turbidity ⁴</u>
	<u>0.725 mg/l</u>	<u>0.043 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>Lake Johnston</u>					
<u>Lake Onslow</u>					
<u>Lake Tuakitoto</u>					
<u>Lake Waipori & Waihola</u>					

<u>Receiving water Group 4</u>	<u>Nitrate-nitrite nitrogen</u> ¹	<u>Dissolved reactive phosphorus</u> ¹	<u>Ammoniacal nitrogen</u> ²	<u>Escherichia coli</u> ³	<u>Turbidity</u> ⁴
	<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>31 March 2012</u>				
<u>Kawarau upstream of the Shotover confluence</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 2019</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>31 March 2012</u>	<u>Exempt</u>

<u>Receiving water Group 5</u>	<u>Total Nitrogen</u>	<u>Total Phosphorus</u>	<u>Ammoniacal nitrogen</u> ²	<u>Escherichia coli</u> ³	<u>Turbidity</u> ⁴
	<u>0.157 mg/l</u>	<u>0.009 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>Lake Wanaka</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 a map to visually describe receiving water groups 1, 2 and 4:

Map 15.1 Visual description of Receiving Water Groups

(refer to the Map in Appendix 1)

3.2.3 Reasons

- **Policy 7.B.1 and good quality water**

Policy 7.B.1 describes the approach adopted by the ORC to achieve the Plan's objectives with regard to Otago lakes and rivers: it sets the principles which underlie the plan change's rule framework, and the criteria by which discharges are addressed within the plan. These criteria have regard to contaminant discharges' individual and cumulative impact on natural and human use values, good quality water being the water that supports natural and human use values.

However, ORC's overall approach is broader than what appears in the notified Policy 7.B.1, and includes Policies 7.B.2 and 7.B.4 as notified. Hence, for better integration of the multiple components of the ORC's approach on water quality, Policies 7.B.1, 7.B.2 and 7.B.4 have been merged.

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

As discussed in section 3.1.3, natural and human use values encompass the freshwater values recognised in the NPSFW.

Schedule 15 standards have been based on recognised water quality guidelines such as ANZECC 2000, Periphyton Guidelines (Biggs, 2000), MfE Guidelines (2002), and Trophic Lakes Guidelines (Burns, 2000). Variations from these guidelines are explained by the necessity of protecting the outstanding character of the water bodies in the Lakes area (Groups 4 and 5 standards), of protecting trout habitat (turbidity standard of 5 Nephelometric turbidity units (NTU), and of protecting waterways from animal effluent (ammoniacal nitrogen standards). As evidenced through the SOE monitoring programme, the median values in each group meet these standards.

Schedule 15 standards were discussed with the Otago community during the consultation process. They provide an adequate degree of protection to the outstanding water bodies, by grouping them together into specific water groups. Upper catchments currently have good quality water and the Water Plan requires these standards to be maintained.

The numerical standards represent key indicators allowing a satisfactory assessment of river and lake water quality, without any additional criteria (e.g. macroinvertebrate index, total nitrogen, total phosphorus, periphyton growth, temperature) being needed. For narrative standards however, the description of healthy riparian margin has been reviewed to better reflect the intended outcome.

- **Schedule 15 and water quality variability**

Schedule 15 is composed of two tables: Table 15.1 sets narrative standards of good quality water; Table 15.2, numerical standards that underpin the narrative standards, and target dates for good quality water. The narrative standards are preliminary indicators of water quality and as meeting them does not guarantee good water quality, meeting the numerical standards is required for compliance. This has been clarified in the heading of Table 15.1.

The narrative and numerical standards represent the receiving water quality the ORC seeks to achieve in the catchments currently in breach with these standards. For those catchments, target dates have been aligned with Schedule 16 timeframes, hence recognising that the standards will only be met after the full enforcement of this plan change. In all the other catchments, water quality is expected to be maintained as a result of the plan change. Hence, the diversity of Otago lakes and rivers is fully recognised.

The standards and categories in Table 15.2 have been based on the nature of the water body (lake or river), on the rivers' accrual time (i.e. frequency of higher flows that strip algal growth from its substrate), and on the lake condition, in order to reflect different levels of sensitivity to contaminant loading.

With an environment conducive to algal growth (low flows in summer and gravel substrate), the Waianakarua and Kakanui catchments 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 to 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.

Table 15.2 standards will be reported as five-year median values, as part of the State of the Environment Monitoring Programme. They therefore allow for temporary variations in water quality.

▪ **The practical implications of Policy 7.B.1 and Schedule 15**

Policy 7.B.1, by setting the overall water quality management approach in this plan change, justifies the set of notified permitted and prohibited rules. For example, the prohibited activity rules describe what discharges are targeted in Policy 7.B.1(a). The policy will also be used when considering consent applications for rural and industrial or urban discharges, along with the other relevant policies and rules. Although not explicitly provided for in Policy 7.B.1, the remediation or mitigation of discharges' adverse effect on water quality is recognised in Policy 7.7.3 for industrial discharges, and in Policy 7.B.3 and Rule 12.C.2.1 for rural discharges. Similarly, the use of mixing zone is allowed by Policy 7.7.6 for industrial discharges, and the assimilative capacity of water has been recognised in this plan change on rural discharges (see section 2.5 and chapters 4 and 5).

The reference to Schedule 15 in Policy 7.B.1 does not preclude the granting of consents in the catchments in breach with Schedule 15 standards. Consent applications will be assessed with regard to a large set of variables, the discharge's possible impact on achieving Schedule 15 standards on the long term being only one of these variables. Consent applicants will not be required to assess the effects of discharges on the achievement of Schedule 15 standards.

The impact of Schedule 15 on industrial discharges is minimal: Policy 7.7.7 requires that all relevant standards and guidelines be considered when granting a consent, and Schedule 15 is based on these particular standards.

- **Clearer wording**

The terminology in Policy 7.B.1 has been reviewed to offer a clearer framework to the rules: “noticeable effects” has been specified, and “good quality water” has been adopted for consistency with the Objectives, and Schedule 15. However, such terms as “minor effects”, “short-term” or “minimise” are commonly used in the Water Plan, and include a common relativity concept.

Headings in Schedule 15 have been reviewed so that its scope (lakes and rivers) and nature (standards and target dates) are more apparent. The description of catchments has been clarified and a map has been added to avoid any ambiguity about the areas covered by each Receiving Water Group.

3.3 General policies for discharges

Policies on water quality have been split into 3 sections to distinguish general policies applying to all discharges of contaminants, the policies applying to industrial discharges only, and the policies applying to rural discharges only. Sections 7.B was developed as part of this plan change and applies to all discharges.

For detail of the proposed changes and the submissions received relating to this matter, refer to:

<i>Provision code</i>	<i>Provision</i>	<i>Page(s) of Proposed Plan Change 6A</i>	<i>Page(s) of Summary of Decisions Requested</i>
18	<i>Section 7.B</i>	7	48-53
34	<i>Section 7.D</i>	14	111-115
20	<i>Policy 7.B.2</i>	7	76-89
21	<i>Policy 7.B.3</i>	7	89-95
22	<i>Policy 7.B.4</i>	7	95-103
23	<i>Policy 7.B.5</i>	7	103-107

3.3.1 Main Issues

The main issues identified by submitters were:

- How the notified policies adequately justify the rules and provide a consistent framework for all industrial and rural discharges.
- The way in which section 7.B policies recognise all freshwater values, provide sufficient protection of those values, and is consistent with the RMA and NPSFW.
- How these policies enable the achievement of objectives, and fit into the overall plan change.
- The practical implications of these policies for rural and urban discharges.

3.3.2 Recommendations

- (a) Amend section 7.D headings as follows:

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

- (b) Integrate 7.B.2 and 7.B.4 into 7.B.1 as follows:

7.B.1 Achieve ~~Ensure water is of good quality water, as by the target dates described in Schedule 15, in Otago lakes and rivers to support natural and human use values, by:~~

(a) Avoiding discharges of contaminants with noticeable effects on that risk natural and human use values not being maintained;
and

(b) Allowing discharges of contaminants that cumulatively have minor effects, or are short-term; and

(c) Minimising disturbance of the beds of rivers and lakes and rivers; and;

(d) Promoting discharges of contaminants to land in preference to water; and

(e) Encouraging adaptive management and innovation to reduce the discharge and impact of contaminants on water quality.

~~7.B.2 To promote discharges of contaminants to land in preference to water, where appropriate.~~

~~7.B.4 Encourage adaptive management and innovation to reduce the discharge and impact of contaminants on water quality.~~

- (c) Amend and renumber Policy 7.B.3 as follows:

7.B.23 ~~When considering the discharge of any contaminant to land, to have~~ regard to:

(a) The ability of the land to assimilate the discharge contaminant;

(b) Any potential for soil contamination; and

(c) ~~Any potential for land instability~~ Actual or potential effects on water bodies.

- (d) Amend and renumber Policy 7.B.5 as follows:

7.B.53 ~~When water is discharged from one catchment to another,~~
Recognise the tangata whenua values of Iwi when water is

discharged from one catchment to another and prevent adverse effects from introducing aquatic species to new catchments.

(e) Move Policy 7.7.8 to become 7.B.4, as follows:

7.B.4 [Moved from 7.7.8] To require, as appropriate, that provision be made for review of the conditions of any resource consent for discharging a contaminant.

3.3.3 Reasons

▪ Policy Framework

Managing water quality across the region requires an integrated approach that cuts across all economic sectors and applies to all sources of pollution. Consequently, it has been the ORC's intention to provide for a consistent and transparent policy framework that applies to rural as well as urban discharges, through the development of section 7.B. This section is complemented by sections 7.C and 7.D, which set specific policies for industrial and rural discharges. It is recommended to change the heading of section 7.D for clarity.

Because the notified plan change has focused on rural diffuse discharges and the consultation process has been lead accordingly, it has been the ORC's intention to minimise the impact of the plan change on industrial and urban discharges: most of the policies in section 7.B apply to industrial discharges under the operative plan (notified Policies 7.B.2, 7.B.3, 7.B.5) including recommended Policy 7.B.4, which has been moved from section 7.C because it is relevant to all discharges. The specific consent guiding policies have been included in the sections dedicated to each type of discharges. The impact of Policy 7.B.1 on industrial discharges has been discussed in section 3.2.3.

Industrial discharges are here understood as including discharges from "Industrial and Trade premises", as defined in Part 1, Section 2 of the RMA. They therefore include infrastructure-related activities and electric power generation activities.

The amended Policies of this section, and Policy 7.B.1(a) and (b) in particular, provide adequate support for the permitted and prohibited rules in section 12C of the plan change. Finally, section 7.B does not include a policy describing ORC's action plans regarding water quality management, these action plans are described in the ORC's Annual Plan and Long Term Plan.

▪ Protection of freshwater values, and consistency with the RMA and NPSFW

The amended policy framework for managing water quality protects the ecosystem values of the region's water bodies, as part of their natural and human use values. As explained in section 3.1.3, they also provide for freshwater's economic values, implicitly.

The recognition of “tangata whenua” values instead of “Iwi” values is recommended, for consistency with the NPSFW and the RMA.

- **How these policies fit into the overall plan change**

Section 3.2.3 explains how Policy 7.B.1 seeks to achieve good quality water. Policy 7.B.2, as notified, also contributes to this goal by seeking to maximise the use of the assimilative capacity of land, and accordingly, to reduce the discharge of contaminants to water and consequent impact on water quality. As for Policy 7.B.4, it is aligned with Objective 7.A.3 by requiring landholders to adjust their operations to the sensitivity of their environment, through “adaptive management and innovation”. This last concept is broader than “best management practices”, involves a degree of precaution, and requires monitoring appropriate to the circumstances. Because the notified Policies 7.B.2 and 7.B.4 form part of ORC’s strategy on water quality management, they have been included into Policy 7.B.1.

The notified Policy 7.B.3 refers to land’s assimilative capacity only: maximising the use of land’s assimilative capacity is consistent with ORC’s intent of minimising the use of water’s assimilative capacity, and participates to the overall objective of protecting waterways from pollution. However, the word “actual” has been deleted from this policy because, discharges of contaminants to land have only potential effects on water, the regard to actual effect was not necessary for the achievement of the plan’s objective.

- **The practical implications of these policies**

Policy 7.B.2 as notified does not imply that no contaminant discharge to water will be allowed, as the word “promote” is used. Discharges to water are allowed when they have no more than minor effects, through the permitted rules, and can be otherwise consented if discharging to land is not practicable.

The principle underlying the notified Policy 7.B.4 is inherent to the set of rules in this plan change, in that they require landholders to monitor the effects of their activities on the environment, taking the sensitivity of their environment into account, and identifying the most appropriate mitigation measures.

Policy 7.B.3 as notified and its implication has sufficient clarity, without the need for specifying what the potential effects of discharges to land on water bodies

3.4 Policies for other discharges

Policies in section 7.D have been developed as part of this plan change and set the principles underlying the notified rules on rural discharges.

A number of submitters supported, opposed or requested change to the notified policies. For detail of the proposed changes and the submissions received relating to this matter, refer to:

<i>Provision code</i>	<i>Provision</i>	<i>Page(s) of Proposed Plan Change 6A</i>	<i>Page(s) of Summary of Decisions Requested</i>
34	Section 7.D	14	111-115

35	Policy 7.D.1	14	115-129
36	Policy 7.D.2	14	129-140
37	Policy 7.D.3	14	140-148

3.4.1 Main issues

The main issues identified by submissions were:

- The way in which the assimilative capacity of water and the concept of reasonable mixing are recognised in those policies.
- The certainty of these policies, with regard to the practicable difficulties related to identify and measure diffuse discharges.
- How the notified consenting guidance enables the achievement of objectives, limits the discretion of the consenting authority, and ensures a balanced consideration of all the costs and benefits attached to discharges.

3.4.2 Recommendations

- (a) Delete Policy 7.D.1

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

- (b) Rewrite and renumber Policy 7.D.2 and integrate Policy 7.D.3.

~~7.D.1 When considering the discharge of water or any contaminant to water, or to land in circumstances where it may enter water, have regard to:~~

~~(a) The nature, scale and intensity of the effect of the discharge, including on natural and human use values;~~

~~(b) The implementation of adaptive management to address any adverse effect of the discharge on water quality;~~

~~(c) The timeframe required to implement changes to discharge management or infrastructure;~~

~~(d) Trialling innovative practices or new technologies for improving discharge quality.~~

~~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~~

3.4.3 Reasons

- **The assimilative capacity of water**

The issues relating to the assimilative capacity of water were included within Policy 7.D.1 as notified, and are addressed in sections 4.3.3 in relation to discharges of contaminants listed in Schedule 16.

- **Practical issues**

The practical issues arising from the application of discharge limits were included within Policy 7.D.1 as notified and are addressed in section 4.3.3 in relation to the relevant rule.

- **Consent Guidance**

Policy 7.D.2 has been reviewed to provide better guidance in consent decision making, including for sediment discharges and nitrogen leaching, and for discharges first occurring after 31 March 2012. It focuses on discharges to water or to land in circumstances that may result in contaminant entering water, because discharges to land are provided for in the recommended Policy 7.B.2.

Where limits might not be achievable, landholders are required to do the best they can to minimise the adverse effects of their discharges on water quality through the adoption of “adaptive management”. There is no limit on the consent period, to avoid any impact in property values and encourage the development of new technologies aiming at reducing discharges of contaminants.

Wording has been clarified with the removal of words such as “expeditious path”, “limited period” or “minimise”. However, it still leaves discretion to the consent authority to grant or decline consents. This discretion is inherent within restricted discretionary or discretionary activity status rules, and is necessary to allow a balanced consideration of specific situations. The primary consideration when considering a consent application will remain the achievement of objectives and the protection of natural and human use values.

3.5 Other policies

Section 7.C, which focuses on industrial discharges, is almost unchanged, apart from re-numbering and deletion of Policy 7.7.5.

For detail of the proposed changes and the submissions received relating to this matter, refer to:

<i>Provision code</i>	<i>Provision</i>	<i>Page(s) of Proposed Plan Change 6A</i>	<i>Page(s) of Summary of Decisions Requested</i>
24	Section 7.6	8-10	107-109
29	Section 7.7	11-12	109

31	Policy 7.7.5	12	110-111
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3.5.1 Main Issues

The main issues identified by submissions were:

- The way in which the assimilative capacity of water and the concept of reasonable mixing are recognised in the Water Plan and the plan change.
- The protection offered to those catchments which were specifically targeted in the operative plan.

3.5.2 Recommendation

- (a) Make no further amendment to the notified policies.

3.5.3 Reasons

- **Assimilative capacity**

The recognition of the assimilative capacity of water in the plan change is discussed in section 2.5, and in section 4.3.3.

- **Protection of specific catchments**

The catchments targeted in Policies 7.6 are dealt with in a more comprehensive way in Schedule 15.

CHAPTER 4 – WATER AND CONTAMINANT DISCHARGES

Introduction

The notified discharge rules sought to improve on those in the existing Water Plan’s Chapter 12, through a framework of effects-based rather than prescriptive activity-based rules, principally focusing on drainage water and animal waste system discharges. Land disturbance effects could thus be considered as well. Effects that would always be considered intolerable were proposed to be prohibited, while anything with no more than minor adverse effect would be permitted.

Chapter 4 discusses how the rules in sections 12.A, 12.B and 12.C work, then discusses managing the effects of discharges of various contaminants and water. Recommendations to amend some rules are made in various sections of this Chapter. Where this occurs, the full recommendations to amend a rule are summarised in sections 4.8 and 4.9.

4.1 Rule framework

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

For detail of the proposed changes and the submissions received relating to this matter, refer to:

<i>Ref no</i>	<i>Provision</i>	<i>Page(s) of Proposed Plan Change 6A</i>	<i>Page(s) of Summary of Decisions Requested</i>
52	<i>12A – 12C Introduction to discharges2</i>	20	150-152
92-97	<i>All 12.C prohibited activity rules</i>	37	184-274
227	<i>Prohibited activities– general requests</i>	37	623-640
98-103	<i>All 12.C permitted activity rules</i>	37-39	274-367

4.1.1 Main Issues

The main issues identified by submissions were:

- While the guidance in the note box is useful, it would be an advantage if it was clearer and had legal weight.
- Where rules have the potential to overlap, especially in section 12.C, with permitted and prohibited activities, it is not clear which rules have priority.

4.1.2 Recommendations

- (a) Amend the header for “12A – 12.C Introduction...”, delete the note box immediately under it, and rewrite the notes as rules 12.AA.1 – 12.AA.5, as shown below:

~~**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.AA General rules for discharges

12.AA.1 Discharge rules in Section 12.A apply to any discharge that contains human sewage.

12.AA.2 Discharge rules in Section 12.B apply to any discharge that contains a contaminant specified in those rules.

12.AA.3 Where a discharge contains both human sewage and a contaminant specified in rules in Section 12.B, then rules in both Sections 12.A and 12.B must be met.

12.AA.4 Discharges of bed material resulting from disturbance of the bed of a lake or river, or Regionally Significant Wetland are addressed only through rules in Section 13.5.

12.AA.5 Discharge rules in Section 12.C apply to any other discharge not specifically provided for in Sections 12.A, or 12.B, or 13.5.

(b) Add new rule 12.AA.6, as shown below:

12.AA.6 Within each Section of this Plan, prohibited activity rules prevail over any permitted, controlled, restricted discretionary and discretionary activity rules.

4.1.3 Reasons

- **Legal weight of note box**

Turning the note box into general rules avoids confusion over the legal weight of the content of the note box and ensures that the framework is applied consistently.

- **Priority between rules**

Which rule applies can sometimes be a complex legal matter. To avoid confusion over which rule prevails the activity status of a particular activity should be made clear with recommended Rule 12.AA.6.

4.2 Sediment

Sediment is considered to be the most problematic contaminant in surface waters, due to effects on aquatic ecosystems and impact on human uses. Sediment can clog gills of aquatic animals and cause water to appear turbid. When sediment settles out of suspension it can smother habitat on lake and river beds, which can negatively affect aquatic invertebrates and fish spawning.

Discharges of sediment to water are managed by a number of provisions within the plan change. Rule 12.C.1.1 permits the discharge of sediment, providing the discharge meets a number of conditions. The rule works in conjunction with prohibited Rules 12.C.0.2 and 12.C.0.4. Rule 12.C.0.2 prohibits discharges that results in water increasing in colour or reducing in visual clarity. Rule 12.C.0.4 requires some measure to avoid sediment runoff from disturbed land must be in place.

For detail of the proposed changes and the submissions received relating to this matter, refer to:

<i>Ref no</i>	<i>Provision</i>	<i>Page(s) of Proposed Plan Change 6A</i>	<i>Page(s) of Summary of Decisions Requested</i>
94	<i>Rule 12.C.0.2</i>	37	196-218
96	<i>Rule 12.C.0.4</i>	37	231-257
98	<i>Rule 12.C.1.1</i>	37-38	274-301
228	<i>Permitted contaminant discharges - general</i>	N/A	640-645

4.2.1 Main Issues

The main issues identified by submissions were:

- Misunderstanding that Rule 12.C.1.1 applied to the turbidity of the receiving water. The rule applied to the discharge of sediment prior to entering water.
- Uncertainty on how to determine compliance with rule, i.e. how to sample prior to discharge, where to sample discharge, and how to measure compliance with limits on NTUs.

- Achievability of the NTU limits without use of reasonable mixing, and within specified timeframes.
- Uncertainty regarding what is rain, determining when rain has ceased, and determining timeframes from when rain has ceased.
- Conflict between Rules 12.C.0.2, 12.C.0.4, 12.C.1.1 and stormwater rules in section 12.B. Rules 12.C.0.4 and 12.C.1.1 allow for discharges of sediment, however any discharge that results in an increase in colour or reduction in visual clarity is prohibited. This will be impossible for many activities to comply with, including activities that result in minor effects.
- Rule 12.C.0.2 does not allow for reasonable mixing and removes the qualifier “conspicuous”.
- Allowing for no sedimentation following cessation of rainfall. Literally interpreted means no sediment can discharge into water following the cessation of rainfall.
- Rule 12.C.0.4 focuses on land managers having in place a measure to avoid sediment discharges entering water. There was concern about what is a measure, what would be considered adequate, and the discretion of the ORC to determine compliance.
- Disturbed land is not defined in Rule 12.C.0.4. Very small discharges with minor effects will require measures in place to avoid sediment runoff entering water.
- Submitters were concerned that they were unable to mitigate sediment runoff in extreme weather events, e.g. flooding.
- Land covered by water is land, so Rule 12.C.0.4 potentially prohibits sediment being disturbed on the bed or banks of a lake or river.
- Immediate legal effect of rules, so many current activities vulnerable to legal challenge.
- No consenting option is provided.

4.2.2 Recommendations

(a) Amend and renumber Rule 12.C.0.2 as shown below:

<p><u>12.C.0.21 Any discharge of contaminants to water, that results in water:</u></p> <p>(i) Increasing in colour; or</p> <p>(ii) Reducing in visual clarity; or</p> <p><u>(i) Causes:</u></p> <p>(iii)(a) Developing an An objectionable odour; or</p> <p>(iv)(b) Developing an A conspicuous oil or grease film, scum or foam= <u>to develop on water; or</u></p> <p><u>(ii) Has floatable material,</u> <u>is a <i>prohibited</i> activity.</u></p>

(b) Amend and renumber Rule 12.C.0.4 as shown below:

12.C.0.42 Any discharge of sediment from disturbed land to water, where if no measure has been taken to ~~avoid~~ prevent sediment runoff, is a **prohibited** activity.

(c) Provide for the discharge of sediment as part of a revised permitted activity rule, as shown below (see section 4.8.1(a) for full detail):

12.C.1.1 The discharge of ~~sediment~~ water or any contaminant to water is a **permitted** 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.~~

(a) Any sediment in the discharge does not result in:

(i) A noticeable visual change in colour or clarity in receiving water;

or

(ii) Noticeable local sedimentation in receiving water, after rain has ceased on the site; and ...

(d) Provide a consent option for sediment by amending Rule 12.C.2.1 as shown below: (see section 4.9.2(a) for full detail):

12.C.2.1 The discharge of ~~contaminants listed in Schedule 16 to land:~~
(i) Sediment to water; or ...

4.2.3 Reasons

▪ Effect measured in receiving water

People undertaking activities that result in a discharge of sediment to water are responsible for the effect their discharge has on receiving water, i.e. if the discharge results in a noticeable visual change of clarity or colour of receiving water. If receiving water is already turbid and their discharge does not result in a noticeable change then they are not breaching the permitted activity rule.

For ease of farm management the discharge of sediment will be measured when the discharge enters water, rather than prior to the discharge entering water. This allows the background quality of the receiving water to be taken into consideration.

Changing numerical standards to a narrative standard makes it easier for a land manager to determine if they are meeting the permitted activity conditions. If there is

a noticeable visual change in clarity or colour from the background receiving water then the discharge is not permitted, providing it is not raining. Changing to a narrative standard also allows those undertaking activities to choose how they assess a change in visual clarity or colour. It could be by eye sight, clarity tube or by black disk.

- **Reasonable mixing**

Reasonable mixing is taken into consideration within Rule 12.C.1.1. During rainfall when the risk of sediment discharging to water is high, the discharge is allowed to mix within the receiving water. However once rainfall has ceased, a mixing zone will not be allowed and mitigation measures must be able to perform to a standard where the discharge does not breach the permitted rule, i.e. create a noticeable change.

- **Rainfall**

The timeframe in Rule 12.C.1.1 has been reduced to when rain ceases on site. It is recognised there will be discharges occurring during rain events. Mitigation measures will be needed during a rain event as required by Rule 12.C.0.4. Mitigation measures must be in place following a rainfall event to prevent more than a noticeable visual change in clarity or colour of the receiving water from the background water quality. This adds more certainty as to what is expected for compliance with the rule as if it is not raining, the rule applies.

- **Conflict between rules**

Removing Rule 12.C.0.2 (i) increasing in colour and (ii) reducing in visual clarity removes the inconsistency with Rules 12.C.0.4 and 12.C.1.1, both of which allow sediment to discharge to water. It is recognised that there needs to be allowance for minor discharges of sediment to water. These will be provided for by the permitted activity rule and the amended restricted discretionary Rule 12.C.2.1.

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 stormwater discharging from any road not connected to a reticulated stormwater system. While 12.B rules currently allow for reasonable mixing, a future plan change will allow for consistency with section 12.C.

- **Sedimentation**

Adding the narrative threshold “noticeable local” before sedimentation has allowed for some sedimentation to occur. Any noticeable sedimentation cannot occur at or near where the discharge enters water.

- **Timeframe**

The timeframe of 31 March 2017 has been removed, which means the sediment provisions in Rule 12.C.1.1 will apply once decisions are released on this plan change. This aligns with the notified version of the plan that prohibited discharges resulting in water changing in visual clarity or reducing in colour.

- **Consenting option**

The restricted discretionary Rule 12.C.2.1 has been amended to include discharges that breach the permitted rule (see section 4.9.2(a) for full detail).

- **Clarity**

It is recommended only minor amendments are made to Rule 12.C.0.4 for clarity. It was misunderstood that the rule prohibits the discharge of sediment to water. The rule allows for a discharge of sediment to water. It is prohibited to not have in place a measure to help avoid sediment discharging to water. For clarity it is recommended that 12.C.0.4 have a few minor word changes, “prevent” to replace “avoid”, and “if” replaces “where”.

It is at the discretion of those undertaking activities which disturb land, where there is a risk that sediment could discharge to water, to choose that measure. It is the discretion of the ORC to enforce only if there has been no measure put in place to avoid the discharge to sediment. Any measure put in place, however, will need to ensure sediment discharges do not breach the permitted activity Rule 12.C.1.1.

The onus is on the ORC to prove that there was never any measure in place to avoid the discharge, should measures be washed away in a flood.

Chapter 13 of the Water Plan covers rules for land use on lake or river beds. If an activity results in sediment release within the bed of a lake or river, it is covered by these rules. Chapter 13 rules have a number of conditions that must be met for an activity to be permitted. Any measures employed to comply with these rules would ensure that the activity would not be prohibited under Rule 12.C.0.4.

4.3 Schedule 16 contaminants

Common contaminants in rural diffuse discharges are nitrogen, phosphorous, ammoniacal nitrogen and *E coli*. Elevated levels of nitrogen and phosphorus in water can result in algae growth, while ammoniacal nitrogen and *E coli* are indicators of effluent contamination. Ammoniacal nitrogen is toxic to aquatic life, while *E coli* is a measure that can indicate potential toxicity to humans.

The proposed plan change permits the discharge of these contaminants under Rule 12.C.1.2, provided they meet limits specified in Schedule 16. Schedule 16 also specifies timeframes when the limits apply. Rule 12.C.2.1 provides a restricted discretionary consenting option, where additional time to meet the permitted discharge limits can be provided.

For detail of the proposed changes and the submissions received relating to this matter, refer to:

<i>Provision code</i>	<i>Provision</i>	<i>Page(s) of Proposed Plan Change 6A</i>	<i>Page(s) of Summary of Decisions Requested</i>
99	<i>Rule 12.C.1.2</i>	38	302-318
104	<i>Rule 12.C.2.1</i>	39	374-390

128	Schedule 16	60-61	527-552
138-147	J series maps	N/A	559
228	Permitted contaminant discharges - general	N/A	640-645
236	Transition times	N/A	645

4.3.1 Main issues

The main issues identified by submissions were:

- General support for the permitted approach of the rule, subject to specified limits.
- Classification of specific catchments into discharge areas 1 and 2, provision for pristine catchments.
- Amending the discharge limits in Schedule 16 to ensure they are practical and achievable, that they recognise seasonality and natural causes, and that they are set in consultation with the community. Alternatively, that the discharge limits are set using a catchment loading approach.
- Practicality of sampling a discharge before it enters water, and provision for reasonable mixing before the discharge limits apply.
- Identifying when the discharge limits apply: use of rainfall as measure, and amending the time period after rainfall, recognition of natural events.
- The timeframe for meeting the discharge limits.
- Clarification of the relationship of the permitted rule with consenting rules and prohibitions, and the widening of consent options.

4.3.2 Recommendations

- (a) Provide for the discharge of contaminants listed in Schedule 16 to water as part of a revised permitted activity rule, as shown below (see section 4.8.1(a) for full details):

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

(b) Any contaminant listed in Schedule 16 does not exceed the limits given in that schedule, more than twelve hours after rain has ceased on the site, where the contaminant is about to enter water; and ...

- (b) Provide for the discharge of contaminants listed in Schedule 16 to land, as follows:

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

~~(i) Water; or~~

~~(ii) Land in a manner that may enter water;~~

is a *permitted* activity, ~~providing that more than twelve hours after rains 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.~~

(c) Amend Schedule 16 as shown below:

Schedule 16 Schedule of discharge limits for water quality				
<u>Discharge Limit Area 1¹</u>	<u>Nitrate-nitrite nitrogen</u>	<u>Dissolved reactive phosphorus</u>	<u>Ammoniacal nitrogen</u>	<u>Escherichia coli</u>
<u>Timeframe</u>	31 March 2019	31 March 2017		
<ul style="list-style-type: none"> ▪ <u>Catlins</u> ▪ <u>Carey's Creek</u> ▪ <u>Fleming</u> ▪ <u>Kaikorai</u> ▪ <u>Leith</u> ▪ <u>Mokoreta (within Otago)</u> ▪ <u>Owaka</u> ▪ <u>Pomahaka</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 other unlisted catchment that discharges to the coast, south of the Matau Branch of the Clutha River/Mata Au Taieri Mouth</u> ▪ <u>Any other unlisted tributary on the true left bank of the Clutha/Mata-Au, south of the Tuapeka catchment</u> 	0.45 <u>2</u> mg/l	0.03 <u>0.045</u> mg/l	<u>0.1</u> mg/l	126 <u>260</u> cfu/100 ml
<u>Discharge Limit Area 2¹</u>	<u>Nitrate-nitrite nitrogen</u>	<u>Dissolved reactive phosphorus</u>	<u>Ammoniacal nitrogen</u>	<u>Escherichia coli</u>
<u>Timeframe</u>	31 March 2019	31 March 2017		
<ul style="list-style-type: none"> ▪ <u>Arrow</u> ▪ <u>Cardrona</u> ▪ <u>Kawarau downstream of the</u> 	0.08 <u>0.5</u> mg/l	0.006 <u>0.035</u> mg/l	<u>0.1</u> mg/l	126 <u>260</u> cfu/100 ml

<p><u>Shotover confluence and Clutha/Mata-Au and any other unlisted tributary (Luggate to mouth, including Lakes Dunstan and Roxburgh, and excluding tributaries described in Area 1)</u></p> <ul style="list-style-type: none"> ▪ <u>Fraser</u> ▪ <u>Kakanui</u> ▪ <u>Lindis</u> ▪ <u>Luggate</u> ▪ <u>Manuherikia</u> ▪ <u>Mill Creek (tributary to Lake Hayes)</u> ▪ <u>Shag</u> ▪ <u>Shotover</u> ▪ <u>Taieri</u> ▪ <u>Tekomairiro</u> ▪ <u>Trotters</u> ▪ <u>Waianakarua</u> ▪ <u>Waikouaiti</u> ▪ <u>Waitahuna</u> ▪ <u>Waitaki tributaries within Otago</u> ▪ <u>Waipori</u> ▪ <u>Any other unlisted catchment that discharges to the coast, north Taieri Mouth the Matau Branch of the Clutha River/Mata-Au</u> ▪ <u>Lake Hayes</u> ▪ <u>Lake Johnson</u> ▪ <u>Lake Onslow</u> ▪ <u>Lake Tuakitoto</u> ▪ <u>Lake Waihola</u> ▪ <u>Clutha/Mata-Au (above Luggate)</u> ▪ <u>Kawarau upstream of the Shotover confluence</u> ▪ <u>Any tributaries to Lakes Hawea, Wakatipu, and Wanaka</u> ▪ <u>Dart</u> ▪ <u>Lake Hawea</u> ▪ <u>Lake Wakatipu</u> ▪ <u>Lake Wanaka</u> 				
<p><u>Discharge Limit</u> <u>Area 3¹</u></p>	<p><u>Nitrate-nitrite nitrogen</u></p>	<p><u>Dissolved reactive phosphorus</u></p>	<p><u>Ammoniacal nitrogen</u></p>	<p><u>Escherichia coli</u></p>
<p><u>Timeframe</u></p>	<p><u>31 March 2019</u></p>	<p><u>31 March 2017</u></p>		

<ul style="list-style-type: none"> ▪ <u>Any tributaries to Lakes Hawea, Wakatipu, and Wanaka</u> ▪ <u>Lake Hawea</u> ▪ <u>Lake Wakatipu</u> ▪ <u>Lake Wanaka</u> 	<u>0.08 mg/l</u>	<u>0.006 mg/l</u>	<u>0.1 mg/l</u>	<u>126</u> <u>cfu/100 ml</u>
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mg/l = milligrams per litre
cfu/100 ml = colony-forming units per 100 millilitres

¹Areas 1, ~~and~~ 2 and 3 are shown on the J series index map, and in Maps J1-~~J9~~ J12.

(d) Amend Rule 12.C.2.1 as follows:

<p><u>12.C.2.1 The discharge of contaminants listed in Schedule 16 to land: ...</u></p> <p><u>(2) Contaminants listed in Schedule 16 to water, where the discharge:</u></p> <p><u>(i) First occurred prior to 31 March 2012, and 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</u></p> <p><u>(ii) Where the discharge rResults from a short-term activity with a short-term adverse effects; or</u></p> <p>...</p> <p><u>is a <i>restricted discretionary</i> activitys; unless:</u></p> <p>...</p> <p><u>The matters to which the Council will restrict its discretion are:</u></p> <p>...</p> <p><u>(ea) Any adverse effect of the discharge on any natural or human use value;</u> <u>and</u></p> <p>...</p>

(e) Amend J-Series index maps to show new discharge Area 3, and amended Area 2 (see Appendix 1, attached).

(f) Replace notified Maps J1 – J9 with new maps, J1 - J12, detailing the boundaries between discharge areas (see Appendix 1, attached).

4.3.3 Reasons

- **Relationship of the rules and consenting options**

There was confusion with a number of rules that relate to the discharge of contaminants listed in Schedule 16 and from animal waste systems, composting and silage storage.

The discharge of any contaminant listed in Schedule 16 to water, as a permitted activity, is now addressed in amended Rule 12.C.1.1. Provided the discharge is not

prohibited by any rule in section 12.C.0, if it can meet the discharge limits in Schedule 16, where the contaminant is about to enter water 12 hours after rainfall ceases on the site, then it is permitted. If the discharge to water is unable to meet the discharge limits in Schedule 16, then a consent is required. Rule 12.C.2.1 provides a restricted discretionary consenting option for those discharges requiring more time to meet the permitted discharge limits, or for short-term activities.

The discharge of any contaminant listed in Schedule 16 to land is permitted, under amended Rule 12.C.1.2, provided that it does not breach Rule 12.C.0.5 (which is discussed further in section 4.4). Amended Rule 12.AA.6 clarifies that a prohibited activity rule prevails over any permitted, controlled, restricted discretionary or discretionary activity rules.

Any other discharge is discretionary under Section 87B(1)(a) RMA. This is clarified through the addition of new discretionary activity Rule 12.C.3.1 (see section 4.9.2(b)).

▪ **Where the discharge is about to enter water, and reasonable mixing**

Water has capacity to assimilate contaminants. Tailoring discharge limits to apply after reasonable mixing, or where the discharge is about to enter water, are both ways of managing use of the assimilative capacity of receiving water. The notified Schedule 16 discharge limits utilise the assimilative capacity of the receiving water, in relation to the receiving water standards. Greater use of assimilative capacity (amending the discharge limits) may be appropriate, which can be done while still protecting receiving water against adverse effects.

Nothing in the RMA expressly requires reasonable mixing to be explicitly incorporated into regional plans. Section 15 does not incorporate this concept. Sections 69, 70, 107 set bottom line “standards” for discharge rules and consenting, which incorporate reasonable mixing. While the notified rules do not utilise reasonable mixing, the ORC is satisfied that requirements of Section 70(1) are met. However, the concept of reasonable mixing is inherent within the consenting process through the operation of Section 107.

The Schedule 16 permitted discharge limits apply “where the discharge is about to enter water”, and accepts the concept of assimilative capacity. With reasonable mixing, the point of measurement is some point downstream in the receiving water. Measuring a discharge before it enters water means that only the effects caused by the discharger will be assessed. If effects are measured in receiving water, the discharger may be penalised for poor water quality caused by other people.

Measuring a discharge before it enters water is within the scope of the RMA. Section 30(1)(f) gives the ORC control of discharges of contaminants. The phrase “about to enter water” is intended to describe the point of discharge for entry of contaminants to water. In making a rule, the ORC must have regard to the effects on the environment of activities Section 68(3). These effects include any future effect, and any potential effect (Section 3). The permitted discharge limits for contaminants are based on the expected effects in the receiving water. Clearly the ORC has the ability under the RMA, to control contaminant levels in discharges where they are about to enter water.

▪ **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 (less than 30 days between high flows), while Area 2 has less (more than 30 days between high flows). As such, Schedule 16 discharge limits for nitrogen and phosphorus in Area 1 are higher. There was no difference in Schedule 16 discharge limits for ammoniacal nitrogen and *E coli* as those contaminants have adverse effects regardless of flows.

Catchments to the south-east of the Taieri River mouth, including the Tokomairiro, Tuapeka and Waitahuna are moved from Area 2 to Area 1, based on the similarity of their climate to those on the south west of the Clutha River (Area 1). In addition, these catchments generally have fine sediment substrate which deters prolific algal growth, and high flows in these catchments sit around the 30 day limit.

Area 3, comprising Lakes Hawea, Wakatipu and Wanaka, and tributaries to them, has excellent water quality. More stringent limits are appropriate, to avoid any degradation in water quality.

▪ **Nitrogen and phosphorus**

Aquatic plants and algae form an important part of a healthy stream ecosystem, and nitrogen and phosphorus are essential nutrients for their growth. However, high concentrations can lead to proliferations of growth that can compromise a range of in-stream values such as amenity, native fish conservation and recreation.

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 e.g:

- Streams with variable fast flows to an open coastline may be able to support higher nutrient concentrations without nuisance growth.
- Streams flowing to lakes or estuary may require lower nutrient concentrations to avoid accumulation.
- Streams with sandy bottoms may be more resistant to nuisance blooms than a rock or cobble-bottomed streams, given similar concentrations of nutrients.

The plan change as notified contains discharge limits for nitrate-nitrogen (NNN) and dissolved reactive phosphorus (DRP) equivalent to the proposed receiving water standards (in Schedule 15). Receiving water standards are median values designed to protect lakes and rivers from widespread nuisance algal growth, and do not directly relate to individual discharges throughout a catchment. Schedule 16 discharge limits as notified lessen the need to protect against cumulative effects, but receiving waters have assimilative capacity and as such the discharge limits should be reconsidered in terms of effects and achievability.

The Periphyton Guidelines (Biggs, 2000) suggest thresholds for nitrogen and phosphorus to control periphyton growth, related to flow conditions. The ANZECC Guidelines (2000) provide default trigger values for nitrogen and phosphorus for

assessing the risk of adverse effects in slightly disturbed ecosystems. These guidelines emphasise the best reference conditions are set by locally appropriate data.

NNN is very soluble and easily leached from saturated soils, more so than phosphorus which readily binds to soils. In wetter Otago catchments NNN is generally elevated, so phosphorus is the limiting factor for periphyton growth.

The ORC has used locally appropriate data (sourced from SOE monitoring July 2006 – June 2011) to derive statistics for the three areas (Areas 1, 2 and 3, discussed above). The amended recommended discharge limits for Areas 1 and 2 are set at the 95th percentile of local monitoring data, which are less stringent than the ANZECC (2000) default trigger values for lowland rivers and upland rivers, respectively.

Area		NNN discharge limit	NNN local data 95 th percentile	DRP discharge limit	DRP local data 95 th percentile
1		2	2	0.045	0.041
2		0.5	0.45	0.035	0.036
3		0.075	0.06	0.006	0.008
ANZECC (2000)	Lowland	0.444		0.01	
	Upland	0.167		0.009	
Periphyton Guidelines (2000)		0.075		0.006	

All units in mg/l

For Area 3, the amended recommended discharge limit is that recommended by the Periphyton Guidelines (Biggs, 2000) which is more stringent than the ANZECC (2000) default trigger values for upland rivers.

The intended discharges to which these limits apply are intermittent, over a limited area of the catchment. 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. Algal blooms would not be expected from the recommended nutrient levels, from intermittent local diffuse pollution.

▪ Ammoniacal nitrogen

At high concentrations, ammoniacal nitrogen can be toxic to fish and other aquatic life, and contributes to eutrophication. In farmed catchments, elevated concentrations generally arise from stock effluent reaching water via direct discharge, paddock run-off or direct 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 plan change as notified contains discharge limits for ammoniacal nitrogen equivalent to the proposed receiving water standards (in Schedule 15). A zero tolerance stance is taken on effluent entering water bodies (see prohibited Rule 12.C.0.5, discussed in section 4.4).

Total ammonia generally becomes more toxic at higher pH values. The concentration at which ammoniacal nitrogen becomes toxic is also dependent on stream water temperature. ANZECC (2000) recommends adopting a trigger value of 0.9 mg/l ammonia nitrogen for pH 8 and 20°C to adequately protect 95% of species. The

guidelines do not specify a particular statistic to apply to the total ammonia guideline, but relate to chronic toxicity (e.g. over a 96-hour period). A median or average value may be appropriate to use.

The notified discharge limit for all areas is set at 0.1 mg/l. This is more stringent than the default ANZECC 2000 guideline of 0.9 mg/l, but based on local data is less stringent than the 95th percentile. No amendment to the notified discharge limit is recommended.

- ***E coli***

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

The plan change as notified contains discharge limits for *E coli* equivalent to the proposed Schedule 15 receiving water standards. The receiving water standard for *E coli* is a median contact recreational value, and does not directly relate to individual discharges throughout a catchment. Schedule 16 discharge limits need to protect against cumulative effects, but can allow for some assimilative capacity in receiving waters as long as contact recreation values are maintained. As such the discharge limits should be reconsidered in terms of effects and achievability.

For contact recreation, the MfE/MoH Guidelines (2003) set limits based on the 95th percentile of a set of reference samples, while the ANZECC Guideline (1992) is based on the seasonal median.

The recommended amended discharge limit for Areas 1 and 2 is 260 cfu/100ml, based on the MfE/MoH (2003) single sample “alert” threshold, which is more stringent than local data 95th percentile.

Area	<i>E coli</i> discharge limit (cfu/100 ml)	<i>E coli</i> local data 95 th percentile
1	260	3135
2	260	514
3	126	36
MfE/MoH (2003)	Single sample “alert”	260
	Single sample “action”	550
ANZECC (1992) contact recreation		126

It is recommended that Area 3 have a discharge limit of 126 cfu/100ml, equivalent to the ANZECC (1992) values, to reflect the very low values of local data. This is more stringent than the MfE/MoH (2003) thresholds, but less stringent than the local data 95th percentile.

- **When the discharge limits apply**

The discharge limits in Schedule 16 only apply to discharges, where they are about to enter water, 12 hours after rainfall has ceased on site. The limits apply discharges that enter water on a falling hydrograph and there is consequently no flushing flow. The prohibited activity rules and permitted activity conditions reduce the quantity of contaminants in the first flush.

- **Transition times**

The Schedule 16 discharge limits apply after 31 March 2017, except for NNN, which applies after 31 March 2019. A 5-7 year transition time is considered appropriate for land owners to implement changes to their land management practices to meet the permitted discharge limits. Based on conversations with land managers, this timeframe is achievable and there is a clear message to address the issue now, and not delay making improvements.

4.4 Effluent discharges from animal waste systems, silage and composting

Animal effluent, silage and composting leachate contains high levels of nutrients. When they enter water they break down and use large amounts of oxygen in the process. This results in significant adverse effects on aquatic life as it starves them of oxygen.

The proposed plan change prohibits the discharge of contaminants from animal waste systems, silage storage or a composting process to water, or to land in situations where it is likely to get to water (Rule 12.C.0.5). Rule 12.C.1.4 provides for the discharge of contaminants from animal waste systems only to land. Rule C.1.2, which addresses the main contaminants in effluent, is addressed above, in section 4.3.

For detail of the proposed changes and the submissions received relating to this matter, refer to:

<i>Provision code</i>	<i>Provision</i>	<i>Page(s) of Proposed Plan Change 6A</i>	<i>Page(s) of Summary of Decisions Requested</i>
97	<i>Rule 12.C.0.5</i>	37	257-274
99	<i>Rule 12.C.1.2</i>	38	302-318
101	<i>Rule 12.C.1.4</i>	38	351-359

4.4.1 Main Issues

In addition to the concerns that apply to the broad approach of using the prohibited activity status, submitters raised the following issues in relation to Rule 12.C.0.5 and 12.C.1.4:

- There is conflict between Rules 12.C.0.5, 12.C.1.4, and 12.C.1.2. All conditions relating to discharges from animal waste systems should be included within the same rule to avoid misunderstanding.

- Concerns that Rule 12.C.0.5 captures minor effects such as effluent leaching to groundwater. A small amount of effluent will inevitably leach to groundwater, therefore the application of effluent to land is prohibited.
- Conditions within Rule 12.C.0.5 are not effects-based, especially discharges to saturated land, to a conduit to water, and those that result in ponding. Rule should focus on effects of discharges on the receiving environment. Including a conduit to water possibly results in the application of effluent to land with tile drains being prohibited. This doesn't allow for low risk effluent management systems.
- Definitions for “ponding”, “saturated land”, “conduit to water”, and “animal waste system” to provide more certainty.
- Provision of a discretionary activity for properties with Regionally Significant Wetlands.
- The need for exemptions under the criteria listed in S107(2) RMA e.g. exceptional circumstances, temporary discharges, and necessary maintenance work, or in emergency situations for Rule 12.C.0.5. Land managers have no control on contaminants getting to water during adverse weather events, even with mitigation measures in place.
- Rules should address discharges from offal pits and farm waste dumps. Rule 12.C.1.4 should include silage and composting to be consistent with Rule 12.C.0.5.
- Addition of other performance standards, e.g. a requirement to be at least 50 m from a surface water body; any collection or storage system be sealed.
- The requirement in Rule 12.C.1.4 to be at least 50 m from a bore used for domestic or livestock drinking water is not effects-based. Discharging effluent 50 m from a bore could still result in a public health risk. A discharge loading limit that is based on soil types, topography, etc should be used. Activity possibly needs consent so effects can be assessed on a case-by-case basis.
- Provision of a consent option if Rule 12.C.1.4 cannot be complied with

4.4.2 Recommendations

(a) Amend and renumber Rule 12.C.0.5 as shown below:

<p><u>12.C.0.53 Any discharge of contaminants from an animal waste system, silage storage or a composting process:</u></p> <p><u>(i) Directly to To a water body; or</u></p> <p><u>(ii) To saturated land; or</u></p> <p><u>(iii) To a conduit to water; or</u></p> <p><u>(iv) The bed of any lake or river, or Regionally Significant Wetland; or</u></p> <p><u>(iv) Within 50 metres of any surface water body; That enters surface water from land; or</u></p> <p><u>(vi) Within 50 metres of any bore used to supply water for domestic drinking needs or drinking water for livestock; or</u></p> <p><u>(vii) That results in ponding;</u></p>

is a *prohibited* activity.

(b) Delete Rule 12.C.1.4 as shown below:

~~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.~~

4.4.3 Reasons

▪ Relationship of the rules and consenting options

There was confusion with a number of rules that relate to the discharge of contaminants listed in Schedule 16 and from animal waste systems, composting and silage storage.

The discharge of any contaminant listed in Schedule 16 to land is permitted, under amended Rule 12.C.1.2, provided that it does not breach Rule 12.C.0.5. Amended Rule 12.AA.6 clarifies that a prohibited activity rule prevails over any permitted, controlled, restricted discretionary or discretionary activity rules.

It is now clearly permitted to discharge to land contaminants from animal waste systems, silage storage or composting processes, as long as the discharge is not to saturated land; a conduit to water; the bed of a lake or river or a Regionally Significant Wetland; within 50 metres of any surface water body or bore used to supply water for drinking; or that results in ponding. There is no consent option available.

Any subsequent remobilisation of any contaminant listed in Schedule 16 to water is a permitted activity if it meets the conditions of amended Rule 12.C.1.1 (see section 4.8.1(a)). If subsequent remobilisation doesn't meet these conditions, amended Rule 12.C.2.1 provides a restricted discretionary consenting option.

▪ Aligning Rules 12.C.1.4 and 12.C.0.5

It is recommended to move Condition (a) in Rule 12.C.1.4 to Rule 12.C.0.5, and Condition (b) of Rule 12.C.1.4 be deleted as it is a civil matter that is not required to be addressed within the Water Plan.

Submitters were concerned that if they met the discharge limits in Schedule 16 associated with Rule 12.C.1.2 they could still breach Rule 12.C.0.5. Rule 12.C.0.5 addresses discharges that are directly to water, or high risk activities that could result in contaminants entering water and for which no resource consent would be granted.

- **Minor effects captured**

Rule 12.C.0.5 addresses discharges of contaminants from animal waste, silage storage and composting systems. These processes usually take place in “controlled” environments and various measures can be taken to prevent contaminants entering water either directly, or by overland flow paths, or situations of high risk of contaminants entering water. It is recognised that the notified rule prohibits discharges with minor effects. The recommended amendments to Rule 12.C.0.5 address this concern.

Submitters were concerned that Rule 12.C.0.5 prohibited effluent getting to groundwater. It is inevitable that components of effluent in some form will eventually make its way to groundwater. This is provided for by Rule 12.C.1.3 that permits some nitrogen to get to groundwater. It is recommended that item (i) apply to direct discharges to water and that (iv), as notified, be removed from the rule, so that the rule does not apply to indirect discharges to groundwater.

- **Effects-based rules**

Conditions about discharges to saturated land and those that result in ponding are not effects-based. The same applies to discharging to dry drains. These discharges, however, have a high risk of potential adverse effects. Land managers have the ability to control location of discharge, application rates and timing, and the size of effluent storage ponds. Appropriate on-farm management practices can prevent these conditions being breached by avoiding risky behaviour.

It is not necessary to include definitions of terms used within the rule as it is seen as sufficient to interpret words by their common meaning (see *Otago Regional Council v Burnbrae Holdings Ltd* DC Dunedin CRN11005500086, 29 June 2012).

- **Regionally Significant Wetlands**

The protection of Regionally Significant Wetlands is a high priority for the Water Plan. The discharge of contaminants from animal waste systems, silage storage or composting processes to these wetlands is prohibited. In no circumstance would the ORC consider granting consent.

- **Circumstances outside land managers control**

The provisions in the RMA (Sections 18, 330, 330A, 330B, 341, 341A, 341B), along with a pragmatic enforcement regime, provide sufficient protection for people who breach the rules in emergency situations.

- **Offal pits, farm waste dumps**

Discharges from offal pits and farm waste dumps to water are covered by 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. Silage storage and composting processes are also covered within the Waste Plan, however rules are consistent with the notified plan change.

- **Drinking water**

By moving Condition (a) of Rule 12.C.1.4 to Rule 12.C.0.5, discharges from both silage storage and composting processes are prohibited within 50 m of any bore for drinking water purposes. The same distance factor should also apply to surface water, because of the risk to water quality.

- **Consent option**

Land managers are able to apply effluent to land provided they do not breach the conditions within Rule 12.C.0.5. There is no ability to apply for consent if people cannot comply with prohibitions.

4.5 Nitrogen loading

Nitrogen in groundwater can lead to health and environmental effects. Excessive nitrates in drinking water have been linked with blood disease in infants. Groundwater high in nitrates can also elevate nutrient levels in any surface water it enters resulting in excessive algal growth.

A number of provisions seek to manage nitrogen leaching to groundwater. Notified Rule 12.C.1.3 permits the discharge of nitrogen to groundwater provided the calculated leaching rate using OVERSEER does not exceed specified limits. The I-series maps outline nitrogen sensitive zones. Rule 12.B.1.5 (formerly 12.8.1.5) permits the discharge of fertiliser, subject to an extra condition (as notified) that the requirements of Rule 12.C.1.3 be met. A revised definition of fertiliser was notified.

For detail of the proposed changes and the submissions received relating to these matters, refer to:

<i>Provision code</i>	<i>Provision</i>	<i>Page(s) of Proposed Plan Change 6A</i>	<i>Page(s) of Summary of Decisions Requested</i>
100	Rule 12.C.1.3	38	318-351
130	I series maps	Maps	557-558
59	Rule 12.B.1.5	22-23	163-169
132	Glossary definition – Fertiliser	64	552-554
236	Transition times	N/A	645

4.5.1 Main issues

The main issues identified by submissions were:

- Nitrogen loading limits are arbitrary and unachievable. One-size-fits-all approach is inappropriate. Nitrogen from border dyke irrigation is unlikely to ever meet the proposed limits, so the limits should be increased especially in the Waitaki Plains.
- Loading limits need to be based on the receiving water quality. Some catchments have no environmental issues. Nitrogen sensitive zones should be based on risk to human drinking water. They should be expanded to include water that feeds back into the Hawea aquifer.

- Reference to OVERSEER version 6.0 is inappropriate. It is currently unavailable, future versions will outdate version 6.0 by 2019, it has been shown to be unreliable, and has not been subject to peer review within Otago. Evidence of nitrogen discharging to groundwater should be used to determine non-compliance, not modelling by OVERSEER.
- Clarification that limits apply as a whole property average. As the rule is currently written, wintering is not permitted.
- Problems with application of rule: inappropriate discretion by ORC to determine compliance; no guidance on data that is required to be supplied to the ORC; and does not specify if ORC staff will be qualified in the use of OVERSEER.
- Not all land uses are assessed in OVERSEER.
- Problems with maps: insufficient analysis on proposed boundaries; resolution not sufficient - scale is impossible to determine if an individual property is within boundaries.
- Rule 12.B.1.5: delete reference to Rule 12.C.1.3 - concern with limits and transition times associated with that rule; amend Condition (c); amend definition of fertiliser to align with the definition used in regulations of the Agricultural and Veterinary Medicines Act, Code of Practice for the Sale of Fertilisers, and the Code of Practice - this ensures national consistency with terms and definitions.
- Justification of seven year transition time. Needs to be longer, especially for nitrogen sensitive zones.
- Clarification on what the activity status is, where activities cannot meet permitted Rule 12.C.1.3, as no consenting option.

4.5.2 Recommendations

(a) Amend Rule 12.C.1.3 as shown below:

12.C.1.3 The discharge of nitrogen¹ from land to groundwater, is a *permitted* activity, providing:

(a) From 31 March 2019, nitrogen leaching calculated by the Council using OVERSEER® version 6.0, does not exceed an average of:

(i) 10 kilograms nitrogen per hectare per year over any nitrogen sensitive zone identified in Maps I4-5-I6; and

(ii) 20 kilograms nitrogen per hectare per year over any nitrogen sensitive zone identified in Maps I1-I4; and

(iii) 30 kilograms nitrogen per hectare per year elsewhere in Otago; and

(b) Upon request, the person with responsibility for the management of the land will supply the Council with all necessary annual input data to run OVERSEER® version 6.0.

¹ Nitrogen comprises of organic nitrogen, ammoniacal nitrogen, nitrite nitrogen and

nitrate nitrogen forms.

- (b) Amend the I-series maps as shown below (refer to Appendix 1 for changes):
- (i) Remove Taieri Aquifer Recharge Zone from Map I3.
 - (ii) Move Wakatipu Aquifer from Map I5 to I3.
- (c) Provide a consent option for discharges of nitrogen to groundwater by amending Rule 12.C.2.1 as shown below: (see section 4.9.2(a) for full detail):

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

...
(iii) Nitrogen from land to groundwater:
is a *restricted discretionary* activity, unless:
...

- (d) Adopt Rule 12.B.1.5 as notified.
- (e) Adopt Glossary definition of Fertiliser as notified.

4.5.3 Reasons

▪ Nitrogen leaching limits and areas

The nitrogen loading limit of 10 kgN/ha/yr over the sensitive nitrogen aquifers was seen as difficult to meet for many current land uses in the zones outlined in maps I1 to I4 and the Wakatipu Aquifer in map I5. The six aquifers were re-evaluated by subsequent modelling of nitrogen accumulation. Following re-evaluation it is recommended that the Taieri Aquifer recharge zone be removed from the nitrogen sensitive zone. It is recommended to have a nitrogen loading limit of 30 kgN/ha/yr in line with the rest of Otago. For the Kakanui-Kauru Aquifer, Shag Alluvium Aquifer, Ettrick and Roxburgh Aquifers, and the Wakatipu Aquifer it is recommended that the nitrogen loading limit be increased to 20 kgN/ha/yr. Wakatipu Aquifer will be moved from map I5 to I3. The lakes area in map I5 and I6 will remain at 10 kgN/ha/yr.

There is potential to increase land intensification in the Waitaki Plains area. It is recommended to keep the leaching limit at 30 kgN/ha/yr as this will protect water quality in the long term. If land managers breach the limit there is a consenting option available under the amended Rule 12.C.2.1 (see section 4.9.2(a)).

It is not recommended for the Hawea Aquifer to move into the nitrogen sensitive zones. Modelling of nitrate was carried out to assess the potential impact more intensive farming would have on the aquifer. Results indicate that if the leaching limit of 30 kgN/ha/yr is adopted, land use intensification would not significantly degrade water quality in the aquifer.

- **Overseer Version 6.0**

Schedule 1, Part 3 of the RMA allows for the incorporation of documents by reference in plans and proposed plans. The version number is required to be stated within the rule to provide certainty about which version is referred to within the rule. There will need to be future plan changes to keep up to date with future versions of OVERSEER. This will allow future versions to be incorporated into the Water Plan following the Schedule 1 process of the RMA. Version 6.0 of OVERSEER® is now available via the website www.overseer.org.nz.

There was concern with the use of OVERSEER within a regulatory context, however it has been endorsed by the Environment Court in regards to nitrogen.

An average of the specified leaching limit has been added to Rule 12.C.1.3. This recognises some uses of land will exceed the specified limits in certain areas, but over the whole property the average nitrogen leaching will not exceed the leaching limits.

It is at the discretion of the 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.

Information requirements will need to be adequate for the ORC to undertake any assessment.

- **Land uses**

Not all land uses are provided for in OVERSEER, especially fruit trees and horticultural crops. For those land uses that are not provided for it is recommended that a crop that is provided for in OVERSEER is used that best approximates the crop that a land manager grows. This will be undertaken with caution.

- **I-series maps**

The I-series maps do not require amendment regarding resolution, as once operative, they will be moved into the Regional Plan: Water Maps where they will be presented in A3 size. There will be some consequential renumbering.

The I-series maps are recommended to be updated to remove the Taieri Aquifer Recharge Zone from I3, and move the Wakatipu Aquifer from I5 to I3, which would avoid any confusion.

- **Fertiliser**

The reference to Rule 12.C.1.3 is recommended to remain within Rule 12.B.1.5. The 12.B rules stand alone. Without the reference to Rule 12.C.1.3, those discharging only fertiliser, and not discharging any contaminants that fall within 12.C rules, would not be subject to meeting the nitrogen leaching limits identified within Rule 12.C.1.3.

It is recommended that the definition of Fertiliser remains as notified. The definition is the same as the operative plan, with the notified change to exclude 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, so are covered by 12.C discharge rules.

- **Transition time**

The seven year transition time is seen as appropriate. This time will allow land managers to implement practices that will help reduce their nitrogen leaching loss. If they do not meet the leaching limits in the permitted activity rule by 31 March 2019, they have the option of applying for consent to allow more time to come into line with the permitted rule. Condition (d) in Rule 12.B.1.5 comes into effect on 31 March 2019, as specified in Rule 12.C.1.3, while the other conditions of Rule 12.B.1.5 have had effect for some years.

- **Consent option**

It is recommended that the restricted discretionary Rule 12.C.2.1 be amended to include discharges that breach the permitted Rule 12.C.1.3 (see section 4.9.2(a) for full detail).

4.6 Water discharges to water

The proposed plan change permits the discharge of water to water under Rule 12.C.1.5, provided any contaminants in the discharge meet the limits specified in Schedule 16. Rule 12.C.1.6 provides an exemption from the discharge limits, and permits discharges of water to water, where the water is “passing through” water supply transport systems and permitted dams. Inter-catchment discharges of water are provided for as restricted discretionary activities under Rule 12.C.2.2.

For detail of the proposed changes and the submissions received relating to this matter, refer to:

<i>Provision code</i>	<i>Provision</i>	<i>Page(s) of Proposed Plan Change 6A</i>	<i>Page(s) of Summary of Decisions Requested</i>
99	<i>Rule 12.C.1.5</i>	38	359-367
104	<i>Rule 12.C.1.6</i>	39	367-374
128	<i>Rule 12.C.2.2</i>	40	390-396
240	<i>Water discharges - general</i>	N/A	649

4.6.1 Main issues

The main issues identified by submissions were:

- Confusion between discharges of water to water, and contaminants to water.
- That Rule 12.C.1.6 be widened to apply to diversions of water and all dams, or that a new controlled activity be created for discharges from consented dams.
- The definition of “water supply transport system”.
- Allowance for some contaminants from system operation, including transport of potentially contaminated water within races/schemes.
- That the condition requiring “no” change or damage to Regionally Significant Wetlands doesn’t allow for minor effects and would never be able to be met.

- Add to the list of restricted discretions for Rule 12.C.2.2 “schedule 1 values” or more general “aquatic life, contact recreation, drinking, stock water”
- The notification clause for Rule 12.C.2.2.

4.6.2 Recommendations

(a) Delete Rule 12.C.1.5 as shown below:

~~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.~~

(b) Amend and renumber Rule 12.C.1.6 as shown below:

~~12.C.1.6~~ 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 dam permitted under Rule 12.3.2.1; or

(ii) A water supply ~~transport system~~ open race, to water, or to a Regionally Significant Wetland, is a *permitted* activity, providing:

(a) ~~There is no discharge of water~~ Water does not discharge from one catchment to water in another; and

(b) The dam is not used for the storage of contaminants; and

(c) The presence of contaminants does not result from the purpose and function of the damming activity ~~or the activities of the dam operator~~; and

~~(d) The presence of contaminants does not result from the water transporting activity, or the activities of the water transporter; and~~

~~(ed) The Any water supply open race transport system does not conveying irrigation runoff does not discharge to a water body; and~~

(e) It is no more than 3° Celsius warmer than the temperature of the receiving water; and

(f) ~~There is no change to the~~ No Regionally Significant Wetland has its water level range, or hydrological function, ~~or no damage to fauna, or New Zealand native flora~~, altered by the discharge in or on any Regionally Significant Wetland.

(c) Delete Rule 12.C.2.2 as shown below:

~~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.~~

- (d) Amend Rule 12.C.1.1 to include conditions for water discharges, as shown below (see section 4.8.1(a) for full detail):

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

- ~~(e) Water does not discharge from one catchment to water in another; and~~
- ~~(f) It is no more than 3° Celsius warmer than the temperature of the receiving water; and~~
- ~~(g) No Regionally Significant Wetland has its water level range or hydrological function altered by the discharge; and~~
- ~~(h) It is not from a dam:~~
 - ~~(i) Used for the storage of contaminants; or~~
 - ~~(ii) That requires consent under Rules 12.3.3.1, 12.3.4.1, 12.3.5.1 or 12.3.5.2.~~

- (e) Exclude inter-catchment discharges of water from the restricted discretionary rule, 12.C.2.1, as shown below:

12.C.2.1 The discharge of ...
is a **restricted discretionary** activity, unless:
...
~~(c) It discharges water from one catchment to water in another catchment.~~

4.6.3 Reasons

- **Avoiding confusion between water and contaminant discharges**

Section 15(1)(a) RMA states no person may discharge any contaminant or water into water unless the discharge is expressly allowed by regulations, rules in a plan, or a resource consent.

The RMA definition of contaminant includes any substance, energy or heat that when discharged into water, changes the physical, chemical or biological condition of the water.

Water itself may be a contaminant. The energy of a water discharge may change the physical condition of the receiving water. Water can contain contaminants and aquatic life, and tangata whenua consider mixing of waters a Wai Maori issue.

In the plan change as notified, contaminant discharges to water are addressed in Rules 12.C.1.1 (sediment) and 12.C.1.2 (contaminants listed in Schedule 16). Water to water was provided for mainly in Rule 12.C.1.5, provided any contaminants in the discharge met the Schedule 16 discharge limits.

To avoid confusion between discharges of contaminants and discharges of water, the rules should be merged. Rule 12.C.1.1 may then be expanded to address the physical effects of water discharge.

As notified, discharges that do not meet Rule 12.C.1.5 become restricted discretionary under Rule 12.C.2.2, provided they are not inter-catchment discharges. Given the recommendation that the distinction between “water” and “contaminant” is removed by merging the permitted rules, it would not be appropriate for the consenting rules to retain that distinction. As the other restricted discretionary rule allows an easier consenting pathway only for certain discharges of contaminants, it is not appropriate to incorporate discharges of water within this rule. Discharges of water to water, including contaminants, should default to a discretionary activity (see section 4.9.2(b) for full detail). All matters to which discretion is restricted in Rule 12.C.2.2 are still able to be considered if the activity is made discretionary.

- **Managing water discharge effects**

Temperature is a relevant consideration for discharges of water to water, and a limit is recommended to ensure receiving water is not adversely affected by temperature changes due to discharge.

Condition (g) recognises water discharges should not change the water level range in a Regionally Significant Wetland (RSW), and that the hydrological function should not be changed.

- **Water being “passed through”**

Rule 12.C.1.6 recognises that some discharges of water to water contain contaminants that are beyond the control of the discharger, and allow water to be “passed through” without restrictions on the levels of contaminants (sediment and those listed in Schedule 16 (and excluding those addressed by rules in sections 12.A and 12.B)) it

contains. The rule is limited to discharges from permitted dams, and water supply transport systems.

Discharges from large (consented) dams are not permitted, as they may have significant adverse effects on downstream flows. These effects should be addressed on a case-by-case basis during the consent process, and to implement existing Policy 6.5.4.

A *water supply open race* means any system (or network) that transports or diverts water for supply. The definition generally excludes drains, because these “diversions” get rid of water, rather than supplying it.

Some water supply open races result in the addition of contaminants, without adverse environmental effects, e.g. transport of already used irrigation water (bywash) within races/schemes. Provided there is no discharge to a water body, discharge to water within a scheme should be provided for. This is consistent with one of the aims of Plan Change 1C (water allocation and use), which encouraged collaborative approaches by water users.

Condition (f), as notified, 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 was included from Proposed Plan Change 2 (Regionally Significant Wetlands) and was changed to “water level range” when the ORC released its decision on that change. It is appropriate to use this term as no relevant appeals have been received. The hydrological function of such a wetland should not be changed. Damage to fauna and flora may be a consequential effect as a result of water level range change.

4.7 Other discharge matters

A number of submitters have supported, opposed or requested changes to the general approach of using the prohibited activity status as a means of addressing water quality issues in Otago. These broad issues have already been summarised and discussed in Chapter 2.

Various other submitters also expressed their support or concerns relating to more specific issues or to the implications of particular provisions included in section 12.C.0. This section discusses the general prohibitions in Rules 12.C.0.1, 12.C.0.2 and 12.C.0.3. Note that:

- Prohibition 12.C.0.4 relates specifically to sediment, and is discussed in section 4.2.3 of this report. Prohibition 12.C.0.2 is also discussed in part in this section.
- Prohibition 12.C.0.5 relates specifically to animal waste systems, composting and silage, and is discussed in section 4.4.3 of this report.
- Prohibition 13.5A.0 is discussed in relation to rules for the disturbance of beds of lakes, rivers and Regionally Significant Wetlands, in section 5.2 of this report.

For more detail of the proposed changes and the submissions received relating to prohibitions, and in particular 12.C.0.1, 12.C.0.2 and 12.C.0.3, refer to:

<i>Provision code</i>	<i>Provision</i>	<i>Page(s) of Proposed Plan Change 6A</i>	<i>Page(s) of Summary of Decisions Requested</i>
227	<i>Section 12.C.0 general comment</i>	37	177-183
93	<i>Rule 12.C.0.1</i>	37	184-196
94	<i>Rule 12.C.0.2</i>	37	196-218
95	<i>Rule 12.C.0.3</i>	37	218-231

4.7.1 Main issues

The main issues identified by submitters are described below.

- Insufficient justification for the use of prohibitions and requests to change the activity status of prohibited activities to non-complying or discretionary.
- Lack of consistency between prohibited rules, consistency with other provisions proposed under Plan Change 6A and with the wider the effects-based approach.
- Providing a consenting option for discharges with no more than minor effects.
- Providing certainty in terms of when and where the rules apply and how discharges should be monitored.
- Recognising reasonable mixing as provided for under the RMA, NPS Freshwater Management, and the RPS.
- Recognising the financial implications for landholders and requests for a transition period.
- The need for exemptions under the criteria listed in Section 107(2) RMA (e.g. exceptional circumstances, temporary discharges, and necessary maintenance work) or in emergency situations.
- Need for clarification of the used concepts and terminology.
- Need for greater consideration of climate events and varying local Conditions (e.g. soil type/profile).
- Need to exempt discharges in urban environments from the prohibitions.
- Need to address odourless or colourless toxins.
- Addressing the effects of temperature changes in the receiving water as a result of human activities on aquatic ecosystems and water quality.
- Providing for the operational needs of border dyke irrigators, dam operators and forestry companies.
- Restricting the rule to only address effects on land owned by a third party who does not consent to the effect.

As a consequence of matters raised above and in sections 4.1 and 4.3, the provisions of section 12.C.0 have been redrafted to improve the effectiveness and practical applicability of the proposed plan provisions.

4.7.2 Recommendations

(a) Delete Rule 12.C.0.1:

~~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.~~

(b) Amend and renumber Rule 12.C.0.2 as shown below:

~~12.C.0.2~~ 12.C.0.21 Any discharge of contaminants to water, that ~~results in water:~~
~~(i) Increasing in colour; or~~
~~(ii) Reducing in visual clarity; or~~
(i) Causes:
~~(iii)(a) Developing an~~ An objectionable odour; or
~~(iv)(b) Developing an~~ A conspicuous oil or grease film, scum or foam,
to develop on water; or
(ii) Has floatable material,
is a **prohibited** activity.

(c) Add the following conditions to amended Rule 12.C.1.1 (see section 4.8.1(a) for full details):

12.C.1.1 The discharge of ~~sediment~~ water or any contaminant to water is a **permitted** activity, providing:
...
(c) It does not have an odour, oil or grease, film, scum or foam where it is about to enter water; and
(d) It does not result in flooding, erosion, land instability or property damage; and
...

(d) Delete Rule 12.C.0.3:

~~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.~~

4.7.3 Reasons

▪ Justification for the use of prohibitions

The prohibitions give effect to amended Policy 7.B.1 and Objectives 7.A.1 and 7.A.2.

Further justification for the use of the prohibited activity status for discharges for which it would never be appropriate to grant resource consent as their impacts stand in the way of achieving good quality water is provided in section 2.5 of this report.

- **Consistency between provisions, and consistency with the effects-based approach**

No discharge is allowed if it exceeds the standards set out in Rule 12.C.0.1 prior to the discharge entering water, while the standards set out in Rule 12.C.0.2 only apply to the receiving water. The recommendation to delete proposed Rule 12.C.0.1 avoids there being any confusion around the relationship between Rules 12.C.0.1 and 12.C.0.2.

Rules 12.C.0.1, 12.C.0.3 and 12.C.0.4 are not effects-based. These discharges, however, have a high risk of potential adverse effects. The deletion of both prohibitions improves the consistency of the proposed provisions with the wider effects-based approach. Rule 12.C.1.1 (c) and (d) allow land managers to assess discharges with a high probability of significant adverse effects (e.g. discharges with high concentration of contaminants, or discharges that cause erosion, flooding, or property damage) on a case-by-case basis through applications for resource consent assessed by ORC.

- **Providing certainty**

Amendments are intended to improve clarity and transparency and provide greater certainty. They will provide better guidance for plan users and restrict the discretion that can be applied when interpreting or enforcing these provisions.

- **Exceptional circumstances and emergencies**

The provisions in the RMA (Sections 18, 330, 330A, 330B, 341, 341A, 341B), along with a pragmatic enforcement regime, provide sufficient protection for people who breach the rules in emergency situations.

- **Clarification of used terminology**

Amendments to the notified provisions have resulted in the removal of concepts that were perceived as being ambiguous or unclear (e.g. increasing in colour, reducing visual clarity). However, it is not necessary to include definitions for other terms used within the rules, as it is seen as sufficient to interpret words by their common meaning.

- **Need to exempt discharges in urban environments from the prohibitions**

The provisions in section 12.B address urban stormwater discharges and discharges from reticulated systems. They are not covered by the 12C provisions. A future plan change is required in relation to the discharge of industrial and trade wastes.

- **Providing for contour or border dyke irrigators, dam operators and forestry companies**

Plan Change 6A does not discriminate between different land-uses, and imposes the same discharge standard regardless of activity type or economic sector (note that some activities are not dealt with in the plan change, see section 1.1.3). However, recommended amendments to Rules 12.C.1.1, 12.C.1.2, and 12.C.1.6 (now 12.C.1.4) are proposed which ensure that if they have minimal effects, activities such as hydro-dams and contour irrigation or border-dyking are permitted. A consent option remains available.

Discharges of contaminants to land are permitted under Rule 12.C.1.2, and discharges of water to land are permitted under the RMA. Recommended amended Rule 12.C.1.1 contains a condition relating to flooding, erosion, land instability or property damage, however this rule only relates to discharges to water. See section 4.6.3 for discussion on the operation of consented dams.

- **Third party effects**

Rule 12.C.1.1 (d) is intended to address discharges that scour the banks and beds of water bodies – changing their natural course, affecting flood carrying capacity, and adversely affecting water quality. These effects can have wider impact than at the point of discharge, therefore the condition should apply beyond the discharger’s own property.

- **Recognising reasonable mixing**

Rule 12.C.0.2 allows for a limited degree of assimilation of discharged contaminants in the receiving water. Where the effects are developed in the receiving water could be at any point beyond where the discharge occurs.

- **Transition time and financial implications**

The proposed prohibited rules are treated as discretionary rules until they become operative (RMA Section 87B(1)(c)).

It is not appropriate to further delay the implementation of the recommended prohibited rules. The discharges prohibited have unacceptable and immediate environmental effect, or extremely high associated environmental risk. The transition times and consent options enable individual land managers to meet the new water quality standards in ways appropriate to their own situations.

- **Providing a consenting option for discharges with no effects or with no more than minor effects**

By using qualifiers in Rule 12.C.0.2 (i) and (ii) and an extra provision under Rule 12.C.0.2 (iii), discharges with minor adverse effects will not be prohibited and the rule will better align with Section 107 RMA.

Rule 12.C.2.1 allows the ORC to assess discharges with no more than minor effects on a case-by-case basis as applications for resource consent.

- **Effects of temperature changes in the receiving water**

Concerns regarding aquatic ecosystems are addressed in section 4.6.3.

- **Need for greater consideration of climate events and varying local conditions**

Concerns regarding the need for consideration of extreme climate events and varying local conditions are addressed above, in the discussion on discharges under exceptional circumstances and emergencies, as well as in section 4.3.3 of this report.

- **Odourless or colourless toxins**

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

4.8 Permitted discharges to water

In the notified plan change, Rules 12.C.1.1, 12.C.1.2, 12.C.1.5 and 12.C.1.6 permitted the discharge of certain contaminants, or water, to water. As a result of recommendations in relation to various contaminants, given in sections 4.2 - 4.7 above, the full amendments recommended to Rule 12.C.1.1 are shown below.

4.8.1 Recommendations

(a) To amend Rule 12.C.1.1 as follows:

<p>12.C.1.1 The discharge of sediment water or any contaminant to water is a <i>permitted</i> activity, providing:</p> <p>(i) After the cessation of rainfall on the site, the discharge does not cause sedimentation.</p> <p>(ii) From 31 March 2017:</p> <p>(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.</p> <p>(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.</p> <p><u>(a) Any sediment in the discharge does not result in:</u></p> <p><u>(i) A noticeable visual change in colour or clarity in receiving water; or</u></p> <p><u>(ii) Noticeable local sedimentation in receiving water, after rain has ceased on the site; and</u></p> <p><u>(b) Any contaminant listed in Schedule 16 does not exceed the limits given in that schedule, more than twelve hours after rain has ceased on the site, where the contaminant is about to enter water; and</u></p> <p><u>(c) It does not have an odour, oil or grease, film, scum or foam where it is about to enter water; and</u></p> <p><u>(d) It does not result in flooding, erosion, land instability or property damage; and</u></p>

<p><u>(e) Water does not discharge from one catchment to water in another; and</u></p> <p><u>(f) It is no more than 3° Celsius warmer than the temperature of the receiving water; and</u></p> <p><u>(g) No Regionally Significant Wetland has its water level range or hydrological function altered by the discharge; and</u></p> <p><u>(h) It is not from a dam:</u></p> <p><u>(i) Used for the storage of contaminants; or</u></p> <p><u>(ii) That requires consent under Rules 12.3.3.1, 12.3.4.1, 12.3.5.1 or 12.3.5.2.</u></p>

4.8.2 Reasons

Amendment of the first part of Rule 12.C.1.1, and Conditions (e) and (h) are discussed in section 4.6.

See section 4.2 for further detail regarding Condition (a).

See section 4.3 for further detail regarding Condition (b).

See section 4.7 for further detail regarding Conditions (c) and (d)

4.9 Discharge consent options

Certain discharges are prohibited by rules in section 12.C.0. Other discharges are permitted by rules in section 12.C.1. Limited consent options are provided in section 12.C.2. Where no consent option is specified, Section 87B(1)(a) RMA applies, and any application for consent must be treated as a discretionary activity.

Submissions made in relation to all of the permitted rules in section 12.C seek a clear consent pathway. Whether a consent option is appropriate for any given discharge is discussed in relation to each rule, in sections 4.2 to 4.7.

There were also submissions specific to the notified consent Rules 12.C.2.1 and 12.C.2.2. Matters specific to the discharges they provide for are discussed in section 4.4 and 4.7, respectively.

This section summarises broader submissions relating to consenting, and makes overall recommendations in relation to 12.C consent rules. For detail of the general submissions received on consenting, refer to:

<i>Provision code</i>	<i>Provision</i>	<i>Page(s) of Proposed Plan Change 6A</i>	<i>Page(s) of Summary of Decisions Requested</i>
91	Section 12.C	37 – 40	177-183
209	Chapter 12 General requests	18 – 40	586-593
239	Consented contaminant discharges, general requests	N/A	647-649

4.9.1 Main Issues

The main issues identified by submissions were:

- Clear consent options for discharges of sediment, and the nitrogen loading limits.
- A discretionary “catch-all” rule be provided.
- Clarification of how the plan change affects existing discharge consents.

4.9.2 Recommendations

(a) Amend Rule 12.C.2.1 as shown below:

<p><u>12.C.2.1 The discharge of contaminants listed in Schedule 16 to land:</u></p> <p><u>(i) Sediment to water; or</u></p> <p><u>(ii) Contaminants listed in Schedule 16 to land in circumstances which may result in that contaminant entering water, where the discharge:</u></p> <p><u>(1) First occurred prior to 31 March 2012, and (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</u></p> <p><u>(2) (ii) Where the discharge Results from a short-term activity with a short-term adverse effect; or</u></p> <p><u>(iii) Nitrogen from land to groundwater;</u> <u>is a restricted discretionary activity, unless:</u></p> <p><u>(a) It is prohibited by a rule in 12.C.0; or</u></p> <p><u>(b) It is permitted by a rule in 12.C.1; or</u></p> <p><u>(c) It discharges water from one catchment to water in another catchment.</u></p> <p><u>The matters to which the Council will restrict its discretion are:</u></p> <p><u>(a) The nature, type, volume, frequency, concentration of contaminants in the discharge; and</u></p> <p><u>(b) In the case of applications made under (ii), how discharge limits in Schedule 16 will be achieved within a set timeframe; and</u></p> <p><u>(ba) In the case of applications made under (iii), how calculated average nitrogen leaching limits described in Rule 12.C.1.3 will be achieved within a set timeframe; and</u></p> <p><u>(c) Any quality management practices to be implemented; and</u></p> <p><u>(d) Any changes to infrastructure; and</u></p> <p><u>(e) Addressing any adverse effects on water quality, including cumulative effects; and</u></p> <p><u>(ea) Any adverse effect of the discharge on any natural or human use value; and</u></p> <p><u>(f) Any effect on any Regionally Significant Wetland or on any regionally significant wetland value; and</u></p> <p><u>(g) The likelihood of erosion, land instability, sedimentation or property damage resulting from the discharge; and</u></p> <p><u>(h) Any financial contribution for any Regionally Significant Wetland or on any regionally significant wetland value; and</u></p> <p><u>(i) The information and monitoring requirements; and</u></p> <p><u>(j) The duration of the resource consent; and</u></p> <p><u>(k) The review of conditions of the resource consent.</u></p>

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

(b) Add new section 12.C.3 and new Rule 12.C.3.1 as shown below:

12.C.3 Discretionary activities: Resource consent required

12.C.3.1 The discharge of water or contaminants, to:

(i) Water;

(ii) A Regionally Significant Wetland, is a *discretionary* activity, unless:

(a) It is prohibited by a rule in 12.C.0; or

(b) It is permitted by a rule in 12.C.1.; or

(c) It is provided for by Rule 12.C.2.1.

4.9.3 Reasons

▪ **Restricted Discretionary Activity Rule 12.C.2.1**

The amended rule provides a more straightforward consenting option for discharges of sediment to water, and nitrogen to groundwater, in a manner similar to discharges of Schedule 16 contaminants.

See section 3.4 for further detail regarding policy for consenting.

See section 4.2 for further detail regarding sediment, and the addition of (i).

See section 4.5 for further detail regarding discharges of nitrogen to groundwater, and the addition of list item (iii) and matter (ba).

See section 4.3 for further detail regarding discharges of Schedule 16 contaminants, and the addition of (ea).

See section 4.6 for further detail regarding discharges of water to water, and the recommended addition of exception (c).

Rule 12.C.2.1 provides that the Consent Authority is precluded from giving public notification of a consent application. Limited notification is not precluded, and would be dealt with under the RMA. This recognises that there may be affected parties who wish to participate in the consenting process. This is also discussed in section 6.3.3.

▪ **Discretionary Activity Rule 12.C.3.1**

A discretionary consent option within section 12.C 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, or once the plan change becomes operative and there are rules relating to minimum standards of water quality, then they may be reviewed under Section 128(1)(b) RMA.

CHAPTER 5 – LAND USE ON LAKE OR RIVER BEDS OR REGIONALLY SIGNIFICANT WETLANDS

Introduction

The proposed plan change amends Chapter 13 Land Use on Lake or River Beds in relation to water quality and the remobilisation of bed material, construction and use of structures, the disturbance of the bed by livestock, and Regionally Significant Wetlands. The notified rules make the construction of structures easier in order to promote their use and reduce the effects of bed disturbance by livestock.

5.1 Structures

A number of rules relate to the construction and use of structures. For detail of the proposed changes and the submissions received relating to this matter, refer to:

<i>Provision code</i>	<i>Provision</i>	<i>Page(s) of Proposed Plan Change 6A</i>	<i>Page(s) of Summary of Decisions Requested</i>
106	<i>Rule 13.1.1.1</i>	42	397 – 400
107	<i>Rule 13.2.1.7</i>	42	400 – 408
108	<i>Rule 13.2.1.7A</i>	42	408 – 410
109	<i>Rule 13.2.1.7B</i>	42	410 – 419
111	<i>Rule 13.3.2.1</i>	43	420 – 425
243	<i>Chapter 13 general comments</i>	NA	649 - 652

5.1.1 Main Issues

The main issues identified by submissions were:

- The need for a definition of “crossing” in order to clarify, and give certainty around, what rules apply where.
- The permitted zone of disturbance, and the extent to which the effects of the disturbance are allowed e.g. 100 m or 250 m.
- Incorporation of forestry codes into the structure rule conditions to alleviate the unduly stringent effects on the forestry industry.
- Adequacy of the time allowed for undertaking and completing works within the bed, and the inclusion of “within the wetted bed”.
- The prescribed length and height of crossings from a practical point of view, and the adequacy, or not, of the notified requirements.
- Need for a minimum distance between crossings to reduce effects on in-stream ecosystems and habitats, and the character of water bodies.
- Use of flood conveyance as a permitted activity condition as opposed to the use of flood event criteria and the need for certainty around this.

- Inconsistency in the provision for “maintenance” within the structure rules.
- The effect of the animal waste condition effectively prohibiting the use of a structure without ensuring that animal waste will never get from the structure to water.
- The relationship between rules relating to the installation and use of a structure and crossings such as fords.

5.1.2 Recommendations

(a) Amend Rule 13.1.2.1 as shown below:

13.1.2.1 Except as provided for by Rule 13.1.1.1, ...
 (f) The review of conditions of the resource consent; and
 (g) How any animal waste will be prevented from entering the water body.
 ...

(b) Amend Rule 13.2.1.7B as shown below:

13.2.1.7B Unless covered by Rule 13.2.1.7 or 13.2.1.7A, ...
(ca) The crossing is not located within 300 metres of another crossing in or on the same lake, river or tributary; and...

5.1.3 Reasons

▪ Definition of “Crossing” needed

Notified Rule 13.2.1.7 covers bridges, while Rule 13.2.1.7B covers all other crossings including culverts and fords. By attempting to define crossings, there is a risk that some crossing types may not get identified and therefore get excluded. The notified rule is sufficiently certain to be understood, applied consistently, and enforced.

▪ Permitted zone of disturbance

The 100 m zone of permitted disturbance allows for easy assessment of potential and actual effects in-stream. The shift from 250 m in the operative Water Plan to notified 100 m distance was a reflection of concern about the potential for more than minor effects of such a long distance on a small water body. Retaining a single distance limit as opposed to an equation based on the magnitude of the water body was considered more certain for a permitted activity. Every water body is different however, it is considered that if a disturbance can still be seen at 250 metres distance then the effects are likely to be more than minor and consent needed in order for these potential effects to be assessed.

- **Use of forestry codes**

The permitted activity conditions in the notified rule align with the guidelines in the forestry standards and should therefore not impede the forestry industry's ability to operate. It is not appropriate to impose guidelines developed for one particular industry group in generic rules that relate to a wide variety of industry groups. While the concerns of the forestry industry are recognised, the notified rule conditions set the limit of what the ORC sees as permissible acceptable effects on the in-stream environment. As is the case with all the permitted rules there is a consenting pathway for any situations where permitted activity conditions may not be met.

- **Time requirement for undertaking and completing works**

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 out of the wetted bed or on the banks. This has effectively removed the requirement for completion of works within one working day. There is a consent pathway for those who are unable to complete work in wetted bed areas within this period.

- **Length of crossings**

Retaining the notified 10 m maximum crossing length sets a limit for permitted activities while still allowing for a range of situations and needs, including buffers to prevent animal waste entering water. This length is the minimum distance for single lane state highways and takes into account manufactured concrete pipe lengths noting that plastic piping can be cut to length, and is considered appropriate to allow standard, low risk, crossings to be installed. The notified distance works in conjunction with the allowed height as a permitted safe level above which the installation could have potential safety considerations that would need assessing, particularly in the case of urban installations. As with all the rules, there is a consent pathway available for installations that may not meet the permitted activity conditions.

- **Height of crossing**

Retaining the 1.5 m height limit allows minimum cover over the crossing and works in with culvert sizes (750-900 mm diameter) comfortable for permitted activity. Any increase in height allowance has a direct correlation to an increase of allowed catchment size and subsequent increased safety concerns. A consent can be sought for any crossing which exceeds the height condition during which any potential safety risks can be assessment.

- **Minimum distance requirement between crossings**

A minimum distance requirement between crossing installations is needed to strengthen the notified provisions and prevent the situation whereby a stream is effectively piped as a permitted activity. The recommended amendment to the notified rule requiring a 300 m distance between crossing installations on the same section of a

lake or river provides protection for riparian habitat and in-stream ecosystems, and addresses the cumulative effect of crossings. Where there is a situation requiring crossings to be closer together, the options are to install a bridge and a crossing, or apply for consent.

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

Retaining the term “conveyance” as notified, provides a quick means of determining the suitability of a structure on-the-spot without the need for complicated calculations or flood event criteria knowledge (e.g. 1 in 10 year event or. 1 in 50 year). The combination of conditions within the notified rules permit structures under a certain scale and catchment size and the flood potential associated with this should not require in depth assessment. If there is any doubt, discussion with the ORC is always encouraged. It is considered that the amended condition is sufficiently certain to be understood, applied consistently, and enforced.

- **Inconsistency in the treatment of “maintenance”**

There was concern expressed that the maintenance of structures had not been provided for. Maintenance is a permitted activity under operative Rule 13.3.1, which was not changed by the proposed plan change, and was therefore not shown in the notified document.

- **Ability to prevent animal waste ever getting to water**

The prevention of animal waste getting to water is a condition of the notified permitted activity condition for the use of a structure. The inclusion of the condition in the rule acts as a signpost for the need to install and use a crossing that directs animal waste away from water. A consent can be sought if this condition is unable to be met.

- **Installation and use of a crossing**

The relationship that exists between notified Rules 13.1.1.1 and 13.2.1.7B (installation of crossings) means that fords can be installed as structures but can only be used for the movement of stock providing animal waste is prevented from entering water from the ford. The nature of a ford makes this difficult to meet and therefore indicates the use of an alternative crossing or bridge, or consent. It is also important to consider Rule 13.5.1.8B (disturbance by livestock, see section 5.2).

- **Inclusion of Regionally Significant Wetlands in rules about the use of structures needing to be consistent**

Wetlands that are regionally significant should be protected from animal waste running off structures, by rules in section 13.1, just as lake and river beds are. Section 9 RMA provides the basis of a rule for land which is not lake or river bed. The recommended amendment to notified Rule 13.1.1.1 achieved this protection, with Condition (ba). If, for any reason, a condition of that permitted activity is not met, a resource consent is required. Accordingly, in order for that adverse effect to be controlled in the event of consent being needed for the use of the structure associated

with a regionally significant wetland, the restricted discretionary activity Rule 13.1.2.1 requires amendment.

5.2 Disturbance by livestock

For detail of the proposed changes relating to disturbances by livestock and the submissions received relating to this matter, refer to:

<i>Provision code</i>	<i>Provision</i>	<i>Page(s) of Proposed Plan Change 6A</i>	<i>Page(s) of Summary of Decisions Requested</i>
118	Rule 13.5.1.8A	47	459 – 468
119	Rule 13.5.1.8B	47	468 – 473
130	Rule 13.5A.0	47	473 – 490
243	Chapter 13 general comments	NA	649 - 652

5.2.1 Main Issues

The main issues identified by submissions were:

- The removal of “conspicuous” in relation to visual clarity and the effect of making the rules “prohibitions” because of the impossibility of meeting this requirement.
- Unreasonable restrictions placed on too many activities or situations by the notified rules.
- The uncertainty in the relationship between prohibition and permitted rules, and their priority over each other.

5.2.2 Recommendations

(a) Amend Rule 13.5.1.8A as shown below:

<p><u>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:</u></p> <p><u>(a) Cause or induce slumping, pugging or erosion; or</u></p> <p><u>(b) Expose soil; or</u></p> <p><u>(c) Involve feeding out; or</u></p> <p><u>(d) Increase the Result in a noticeable change in colour or reduce the visual clarity of water; or</u></p> <p><u>(e) Damage fauna, or New Zealand native flora, in or on any Regionally Significant Wetland.</u></p>

(b) Amend Rule 13.5.1.8B as shown below:

<p><u>13.5.1.8B The disturbance of the bed of any lake or river, or Regionally Significant Wetland, by livestock where they are being intentionally</u></p>

~~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; and~~
- ~~(b) Noticeable change in colour or clarity of water, beyond the disturbance duration; and~~
- ~~(c) Noticeable slumping, pugging or erosion; and~~
- ~~(d) Disturbance at a given location more than twice in any four-week period.~~

(c) Amend Rule 13.5.3.2 as shown below:

13.5.3.2 Unless covered by Rules 13.5.1.1, 31.5.1.3, 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.

(d) Delete Rule 13.5A as shown below:

~~**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.~~

(e) Delete Note box as shown below:

~~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.~~

- (f) Amend Principal reasons for adopting as shown below:

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. ...~~

5.2.3 Reasons

▪ **Removal of “conspicuous” in relation to visual clarity**

The removal of “conspicuous” in relation to visual clarity or colour in the notified rules effectively prohibits any effect, even where it is minor, by not allowing stock to cause any change. This was not the intent. Amending the rules to allow for “noticeable change” allows for inevitable and minor changes in colour and clarity and removes the prohibitive nature of the rule. This recommended amendment aligns with recommended amendments to notified Rule 12.C.1.1 regarding sediment (see section 4.2.2 and 4.8.1(a)). The use of the narrative qualifier “noticeable” as opposed to numerical qualifiers allows for on-the-spot assessment of the problem and the ability to mitigate effects immediately.

▪ **Unreasonably restricting too many activities or situations**

Amending the notified rules clarifies the original intent of the provisions, which was to discourage the use of lakes and rivers as stock crossing on a regular, even daily basis. By removing the prohibition and redrafting the notified permitted activities removes the need for definition of seasonal muster; captures the activity that is undesirable rather than all activities, by clarifying what situations the rules apply to such as intentional movement of livestock or roaming; and simplifies the rule structure. The recommended amendment to the principal reasons for adopting is required due to the notified deletion of Rule 13.5.1.8.

For Rule 13.5.1.8A, the values of riparian areas are protected through the permitted activity conditions without the need for another specific condition(s). There is still the

ability to lightly graze riparian areas as a means of weed control as long as these 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 (noting that the definition of river in the RMA is quite broad) still places a high expectation on landholders to management stock access and protect water quality.

For Rule 13.5.1.8B, the recommended amendments to the notified rule allow for the intentional driving of stock from one side of a water body to the other, with conditions, where circumstances do not allow for a practical alternative. These amendments remove the need for definition of terms such as “seasonal muster” and “authorised” and the ambiguity that existed around these. A transition period for stock access is inherent in the amendments as they allow for access without more than minor effect until an appropriate solution is put in place.

There is no rule explicitly requiring the fencing of water bodies due to practicality and effectiveness of a single approach for all situations. However, in areas where the installation of a crossing and/or fencing is possible, landholders may need to consider this as a solution.

There is a risk associated with allowing the intentional driving of stock however, the conditions of the permitted activity should control effects that are more than minor and therefore minimise risk of damage to the beds of lakes, rivers and Regionally Significant Wetlands.

▪ **Uncertainty of relationship between prohibition and permitted rules**

Deletion of the notified prohibition rule and subsequent recommended amendment of the notified permitted rules clarifies the original intent of the rules which was to prevent regular intentional stock crossing through water bodies in intensive farming situations while still allowing stock access to, and through, water in extensive operations or in situations where other solutions are problematic. The amendments to the permitted activity conditions are sufficient to capture any activity with adverse effects on the environment. The removal of notified Rule 13.5A.0 opens up a consenting option for situations where the conditions cannot be met. The amended rules are sufficiently certain to be understood, applied consistently, and enforced.

5.3 Remobilisation of bed material

For detail of the proposed changes and the submissions received relating to this matter, refer to:

<i>Provision code</i>	<i>Provision</i>	<i>Page(s) of Proposed Plan Change 6A</i>	<i>Page(s) of Summary of Decisions Requested</i>
112.1	Section 13.5	NA	425 – 426
112.1	Note box 13.5	44	426 – 427
113	Rule 13.5.1.1	44	427 – 436
114	Rule 13.5.1.2	45	436 – 442
115	Rule 13.5.1.3	45	442 – 451
116	Rule 13.5.1.4	45	451 – 459

5.3.1 Main Issue

The main issue identified by submitters was the adequacy of relying on the introductory note box (remobilisation, reclamation, deposition) to clarify the activity status of the rules in relation to other parts of the Water Plan.

5.3.2 Recommendations

- (a) Amend Note box as shown below:

Note: Alteration ~~of the bed or wetland~~ includes any ~~bed or wetland~~ disturbance, and the associated remobilisation (discharge) and redeposition (deposit) of bed material ~~sediments~~ already present, ~~and~~ 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. Process rules in section 12AA state that discharges resulting from bed disturbance are addressed only through rules in section 13.5.~~

- (b) Amend Rules 13.5.1.1, 13.5.1.2, 13.5.1.5, 13.5.1.5B and 13.5.1.9 by inserting in the main body of the rule the following wording after “The disturbance of the bed of ...”:

and any resulting discharge or deposition of bed material.

- (c) Amend Rules 13.5.1.3 and 13.5.1.4 by inserting in the main body of the rule the following wording after “The disturbance or reclamation of, or the deposition of ...”:

and any resulting discharge of bed material.

5.3.3 Reason

Amending the notified note box and providing for “discharge, reclamation, deposition” directly associated with disturbance in each rule gives the desired certainty by clarifying the activity status of rules (under RMA S13 and S15) and how they relate to the rules in sections 12A to C. The amended note box is sufficiently certain to be understood, applied consistently, and enforced.

5.4 Better provision for wetlands and significant aquatic habitat (spawning)

For detail of the proposed changes and the submissions received relating to this matter, refer to:

<i>Provision code</i>	<i>Provision</i>	<i>Page(s) of Proposed Plan Change 6A</i>	<i>Page(s) of Summary of Decisions Requested</i>
106	<i>Rule 13.1.1.1</i>	42	397 – 400
107	<i>Rule 13.2.1.7</i>	42	400 – 408
108	<i>Rule 13.2.1.7A</i>	42	408 – 410
109	<i>Rule 13.2.1.7B</i>	42	410 – 419
111	<i>Rule 13.3.2.1</i>	43	420 – 425
112.1	<i>Section 13.5</i>	44	425 – 426
112.2	<i>Note box 13.5</i>	44	426 – 427
113	<i>Rule 13.5.1.1</i>	44	427 – 436
114	<i>Rule 13.5.1.2</i>	45	436 – 442
115	<i>Rule 13.5.1.3</i>	45	442 – 451
116	<i>Rule 13.5.1.4</i>	46	451 – 459
118	<i>Rule 13.5.1.8A</i>	47	459 – 468
119	<i>Rule 13.5.1.8B</i>	47	468 – 473
120	<i>Rule 13.5.A</i>	47	473 – 490

5.4.1 Main issues

The main issues identified by submitters was:

- The need for inclusion of Significant Aquatic Habitat zones to protect spawning habitat.
- The inclusion of wetland value criteria schedule and requirements to further protect wetlands that are not currently identified as regionally significant but contain regionally significant wetland values.

5.4.2 Recommendation

- (a) Amend rules as shown in preceding sections 5.1 – 5.3.

5.4.3 Reasons

Plan Change 2 identifies Regionally Significant Wetland values, and provides for consideration of them where relevant in resource consent discussions. The relief sought is beyond the scope of the proposed plan change.

- **Inclusion of Wetland value criteria schedule and requirements**

The request for a new schedule of wetland value criteria and an associated condition requiring an ecological assessment of wetland values against these criteria to be undertaken in order to meet the permitted activity, is seen as going beyond the scope of the plan change. This is discussed in section 7.1. The inclusion of such a schedule goes against the aim of making the construction of structures easier in order to reduce the effects of bed disturbance by livestock. However, the recommended amendments address to some extent the issues behind this request e.g. Rule 13.1.1.1 for the use of a structure.

- **Inclusion of Significant Aquatic Habitat zones**

Requiring consent for activities undertaken within specified zones and the inclusion of schedules and maps identifying the zones has a number of implications and are addressed in section 7.1. However, the concerns and issues that underlie the requested amendments are acknowledged, and are addressed to some extent, in the amendments, e.g. the inclusion of a minimum distance between permitted structures.

CHAPTER 6 – OTHER PLAN CHANGE MATTERS

6.1 Providing for capture of contaminated water

To meet the contaminant discharge limits, submitters sought permitted provision for “capture dams”, to allow containment and treatment of potentially contaminated water. For detail of the submissions received relating to this matter, refer to:

<i>Provision code</i>	<i>Provision</i>	<i>Page(s) of Proposed Plan Change 6A</i>	<i>Page(s) of Summary of Decisions Requested</i>
237	<i>Dams for collection and treatment</i>	N/A	646 - 647

6.1.1 Recommendation

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

6.2.1 Reason

Where such “capture dams” are “dams”, or “damming water”, the Water Plan already provides for small scale damming of water, and dam structures in the beds of lakes and rivers. The permitted dam size limits within the Water Plan correspond to those of the Building Act 2004.

When the water containment structure is not in the bed of a lake or river:

- (1) The activity may not be “damming” under the RMA (depending on the form of the water containment structure); and
- (2) Water held in such a containment structure is not “water” under the RMA, therefore discharges to it are not required to meet the discharge limits.

If consented water taken for irrigation is being recycled through races and ponds as part of the application of that water, then those races and ponds are authorised through the original use component of the consent. Existing rules in section 12.1 of the Water Plan may allow minor takes of runoff water.

Amended Rule 12.C.1.4 (see section 4.6.2(b)) allows the discharge of water from small permitted dams and water supply open races, that do not meet the discharge limits in Schedule 16, provided the contaminants do not result from the damming activity itself. Note that a water supply open race may transport irrigation runoff, but only if it does not discharge to surface water.

6.2 Simplification and streamlining

The introduction, issues, explanations, principal reasons for adopting, cross-referencing, anticipated environmental results and some methods and information requirements are removed from those parts of Water Plan affected by this plan change. This has been done to streamline the Water Plan as provided for by amendments made to the RMA in 2005.

For detail of the proposed changes and the submissions received relating to this matter, refer to:

<i>Provision code</i>	<i>Provision</i>	<i>Page(s) of Proposed Plan Change 6A</i>	<i>Page(s) of Summary of Decisions Requested</i>
1	<i>Section 7.1 Introduction</i>	2	1-3
203	<i>Removal of issues – general requests</i>	3-6	579-581
2	<i>Section 7.2 Issues in general</i>	3	3-6
5	<i>Section 7.3 Issues relating to point source discharges to water</i>	3-5	6
6	<i>Issue 7.3.1</i>	3-4	6
11	<i>Issue 7.4.1</i>	5	6
38	<i>Section 7.9 Anticipated Environmental Results</i>	14-15	148-150
121	<i>Chapter 15 Methods other than rules</i>	49-51	486-490
124	<i>Chapter 16 Information requirements</i>	53-54	490

6.2.1 Main Issue

The main issue identified by submissions was regarding the value of these provisions in understanding and giving effect to water quality objectives, policies and rules.

6.2.2 Recommendation

- (a) Confirm deletion of the introduction, issues, explanations, principal reasons for Adopting, cross-referencing, and Anticipated Environmental Results from provisions amended by PC6A in the Water Plan, as notified.

6.2.3 Reasons

In August 2005, Section 67(1) RMA was amended to require a regional plan contain only objectives, policies and rules. The other provisions, for issues, explanations and so forth, became optional under Section 67(2).

It is easier to read and use the plan without these additional provisions, and avoids the risk of ambiguity between policies, rules and explanations. Care has been taken in drafting the plan change objectives, policies and rule to ensure that they are able to be read without the need for additional explanatory material.

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

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

6.3 Compliance, enforcement and education

ORC relies on compliance monitoring, enforcement and education to support the plan change and drive change in land management practices when managing water quality in Otago.

For more detail on the submissions received relating to this matter, refer to:

<i>Provision code</i>	<i>Provision</i>	<i>Page(s) of Proposed Plan Change 6A</i>	<i>Page(s) of Summary of Decisions Requested</i>
211	<i>Compliance, enforcement and education</i>	<i>N/A</i>	<i>593-601</i>

6.3.1 Main Issues

The main issues identified by submissions were:

- The need for better guidance for land managers on self monitoring and how to meet the Water Plan discharge provisions, including within their own catchments.
- The need for more clarity regarding ORC's compliance monitoring and enforcement strategy, including whether monitoring requirements should be compulsory or voluntary.

6.3.2 Recommendation

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

6.3.3 Reasons

▪ Self monitoring and catchment education

There is no need to prescribe how land managers should monitor contaminant discharges to water from their land. Guidelines regarding contaminant discharge testing procedures may be included in other, non-statutory documents, such as information brochures and guides. These can be distributed via the website, or by hard copy, and may be updated from time to time without the need to go through the statutory plan change process (which is necessary if a document is incorporated by reference).

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.

▪ 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 plan. The budget and targets for this function are set through the annual planning process under the Local Government Act 2002. Compliance and enforcement activities undertaken are reported to ORC's Regulatory Committee and in the Annual Report.

For information, since 2002 ORC has monitored every pig and dairy farm annually for compliance with the permitted activity rules in the Water Plan. ORC also responds to pollution complaints. The consequence of non-compliance generally consists of a warning letter or an infringement notice. However, where there are clear breaches or repeat offending, ORC has successfully taken prosecutions to the Environment Court.

A more compulsory approach to the monitoring of discharges is considered to be prescriptive and unnecessary.

6.4 Consent notification

The plan change provides an opportunity to update those clauses relating to notification of a consent application.

For more detail of the submissions received relating to this matter, refer to:

<i>Provision code</i>	<i>Provision</i>	<i>Page(s) of Proposed Plan Change 6A</i>	<i>Page(s) of Summary of Decisions Requested</i>
104	<i>Rule 12.C.2.1</i>	39	374-390
93	<i>Rule 12.C.2.2</i>	40	390-397
94	<i>Rule 13.3.2.1</i>	43 - 44	420-425

6.4.1 Main Issue

The main issue identified related to the effect that changing these clauses would have on those interested in participating in the consent decision-making process.

6.4.2 Recommendation

- (a) Adopt the notification clauses of Rules 12.C.2.1 and 13.3.2.1 as notified.
- (b) Make consequential amendments to the notification provisions for Rules 13.1.2.1 and 13.2.2.1.

6.4.3 Reason

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 update the operative clause, and to write new clauses in accordance with current law. Note that regardless of any such notification clause, a consent authority may publicly notify an application if it decides special circumstances exist in relation to the application (Section 95A(4) RMA).

Note also that Rule 12.C.2.2 is recommended to be deleted (see section 4.6.2(c)).

6.5 Minor and consequential amendments

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

For detail of the proposed changes and the submissions received relating to this matter, refer to:

<i>Provision code</i>	<i>Provision</i>	<i>Page(s) of Proposed Plan Change 6A</i>	<i>Page(s) of Summary of Decisions Requested</i>
131	Minor and consequential changes	111	554 - 557

6.5.1 Recommendation

- (a) Make any consequential amendments necessary to give effect to proposed or recommended changes.

6.5.2 Reason

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

CHAPTER 7– MATTERS NOT ADDRESSED IN THIS PLAN CHANGE

7.1 Beyond the scope of the plan change

A number of submitters requested decisions considered beyond the scope of Plan Change 2. For details of these submissions received, refer to:

<i>Provision code</i>	<i>Provision</i>	<i>Page(s) of Proposed Plan Change 6A</i>	<i>Page(s) of Summary of Decisions Requested</i>
19	<i>Policy 7.B.1 - Address discharges and disturbance</i>	7	53-76
30	<i>Section 7.C</i>	11	109-110
54.2	<i>Section 12.7/12.B</i>	21 -27	152-153
55.2	<i>Rule 12.B.1.1 / 12.7.1.1</i>	21	153-155
56.2	<i>Rule 12.B.1.2 / 12.7.1.2</i>	21	155-157
57.2	<i>Rule 12.B.1.3 / 12.7.1.3</i>	21-22	157-160
58.2	<i>Rule 12.B.1.4 / 12.7.1.4</i>	22	160-163
60	<i>Rule 12.B.1.6 / 12.11.2.1</i>	23	169-170
61	<i>Rule 12.B.1.7 / 12.11.2.2</i>	23-24	170
62	<i>Rule 12.B.1.8 / 12.4.1.1</i>	24	170-172
63	<i>Rule 12.B.1.9 / 12.4.1.2</i>	25	172
65	<i>Rule 12.B.3.1 / 12.4.2.1</i>	25-26	172-173
107	<i>Rule 13.2.1.7</i>	42	400-408
109	<i>Rule 13.2.1.7B</i>	42-43	410-419
111	<i>Rule 13.3.2.1</i>	43-44	420-425
113	<i>Rule 13.5.1.1</i>	44-45	427-436
114	<i>Rule 13.5.1.2</i>	45	436-442
115	<i>Rule 13.5.1.3</i>	45-46	442-451
116	<i>Rule 13.5.1.4</i>	46	451-459
118	<i>Rule 13.5.18A</i>	47	459-468
222	<i>Beyond the scope general</i>	N/A	613-616
223	<i>Riparian planting</i>	N/A	616-618
224	<i>Fencing</i>	N/A	618-620
226	<i>Land use controls</i>	N/A	620-623
228	<i>Permitted contaminant discharges – general requests</i>	20-40	640
244	<i>Other approaches</i>	N/A	652-654

7.1.1 Main Issues

The main issues raised by submitters include:

- Requests relating to policies and rules for discharges of human sewage, hazardous substances, hazardous wastes, stormwater and other specified contaminants, discharges from industrial and trade premises, and in particular, rules for discharges of pesticides or herbicides.
- Better protection for wetlands, including identification of Regionally Significant Wetlands.
- Better protection for significant aquatic habitat for spawning.
- Miscellaneous other matters, including water allocation and takes; lagarosiphon control; support for composting toilets; water storage reservoirs; riparian planting, fencing control, other land use control, larger fines and amendment to section 13.4 (Demolition or removal of a structure).

7.1.2 Recommendation

- (a) Reject the submissions.

7.1.3 Reasons

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

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

Note that while submitter requests are considered beyond the scope of this plan change, they will be used in developing future plan changes, see section 1.1.3(b).

- **Better protection for wetlands and for significant aquatic habitat (spawning)**

While amendments recommended to provisions relating to structures and livestock) address some wetland concerns (refer to Chapter 5), the relief sought is generally beyond the scope of the proposed plan change as notified. Considering these matters 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.

- **Miscellaneous other matters**

These submissions seek relief beyond the scope of the plan change. Considering these matters 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 the ORC promotes good land management practices, such as riparian planting and fencing, and that the overall approach is to enable land managers to manage their own properties in the way that best suits them and achieves good water quality.