

Proposed Plan Change 4A (Groundwater and North Otago Volcanic Aquifer)

to the Regional Plan: Water for Otago

Decisions of Council

Otago Regional Council resolved to adopt the recommendations of the Hearing Committee on Proposed Plan Change 4A (Groundwater and North Otago Volcanic Aquifer) at its meeting on 14 September 2011, as follows:

That Council:

- 1. Adopt the minutes and recommendations of the Hearing Committee on Proposed Plan Change 4A (Groundwater and North Otago Volcanic Aquifer) in full, attached as Appendices 1, 2 (Recommendations of the Hearing Committee to Council) and 3 (Proposed Plan Change 4A (Groundwater and North Otago Volcanic Aquifer));*
- 2. Publicly notify its decisions on Proposed Plan Change 4A (Groundwater and North Otago Volcanic Aquifer) on Saturday 24 September 2011; and*
- 3. Notify submitters of the decisions made and complete all other related formalities under Schedule 1 of the RMA.*

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

This report presents the recommendations of the Hearing Committee to the Otago Regional Council on submissions and further submissions to Proposed Plan Change 4A (Groundwater and North Otago Volcanic Aquifer) to the Regional Plan: Water for Otago.

Detail of our recommendations follow. This report only shows our recommended changes to the text of the proposed plan change as notified, with double ~~strike through~~ and underline. Appendix 3 provides a full copy of the proposed plan change, incorporating our recommendations.

Hearings Committee:

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Councillor Duncan Butcher
Chairperson

Councillor Trevor Kempton

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Councillor Sam Neill

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Abbreviations	
Council	Otago Regional Council
Mm ³ /year	Million cubic metres per year
NES	National Environmental Standard
Proposed plan change / plan change	Proposed Plan Change 4A (Groundwater and North Otago Volcanic Aquifer) to the Regional Plan: Water for Otago
Proposed plan change 1C	Proposed Plan Change 1C (Water Allocation and Use) to the Regional Plan: Water for Otago
RMA	Resource Management Act 1991
SOE	State of the Environment
Water Plan	Regional Plan: Water for Otago
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.

1 Introduction

Proposed Plan Change 4A (Groundwater and North Otago Volcanic Aquifer) to the Regional Plan: Water for Otago, builds on the groundwater management framework of taking water within a maximum allocation volume, and the integration of surface water and groundwater management, established under Proposed Plan Change 1C (Water Allocation and Use).

The first aquifer for which a maximum allocation volume is proposed is the North Otago Volcanic Aquifer. The aquifer and its management is detailed in the technical report “*North Otago Volcanic Aquifer Study*” (dated 10 July 2008), which recommends extending aquifer boundaries, establishing a seawater intrusion management area, and amending existing restriction levels, in addition to setting a maximum allocation volume.

The groundwater provisions of the Water Plan were reviewed to achieve the recommendations of the technical report. Additional amendments to the groundwater management framework were required to clarify matters related to implementing the maximum allocation volume and restriction levels, and avoiding aquifer contamination (including seawater intrusion).

This proposed plan change has also provided the opportunity to simplify and streamline the permitted activity rules for taking groundwater, to recognise the Mosgiel and Clydevale-Pomahaka water supplies in Schedule 3B (groundwater takes used for community supply), and to make further consequential amendments resulting from Proposed Plan Change 1C.

As a result of the submission and hearing process, our recommendation to the Otago Regional Council is to amend the plan change. The substantive amendments we are recommending are:

- An increase in the maximum allocation volume for the North Otago Volcanic Aquifer from 5 Mm³/year to 7 Mm³/year (in Schedule 4A); and
- Allowing community supplies listed in Schedule 3B to take groundwater (including connected groundwater) as a controlled activity, exempt from minimum flows, at their currently consented rates and volumes (by amending Rule 12.2.2A.1 and Schedule 3B).

We also recommend clarification of various matters through amendments to the following provisions:

- Issue 6.2.1A (e)
- Policy 6.4.10A (d) and explanation
- Policy 6.4.10AB explanation
- Policy 6.4.10AC explanation
- Rule 12.2.2A.1
- Rule 12.2.3.4
- Method 15.8.3.1
- Information requirement 16.3.1 (5B)
- Schedule 4C.2

2 Recommendations

2.1 Groundwater management framework

The Water Plan allows for the taking of groundwater¹ within an aquifer's "maximum allocation volume", subject to relevant restriction levels, while avoiding adverse effects on the aquifer. The proposed plan change provided the opportunity to clarify these matters, and to simplify and streamline the permitted activity rules for taking groundwater.

2.1.1 Setting maximum allocation volumes and restriction levels

New schedule 4C lists the matters to which consideration will be given when setting a maximum allocation volume or restriction level in the Water Plan. We considered the decisions requested, and recommend Schedule 4C.2 is amended as follows:

4C.2 When setting restriction levels in Schedule 4B for an aquifer, consideration will be given to the following matters:

- (a) Physical properties of the aquifer;
- (b) Variance of groundwater levels in the aquifer;
- (c) The amount and characteristics of recharge to the aquifer;
- (d) The proposed or existing maximum allocation volume;
- (e) Interaction with surface water bodies and their values;
- (ef) Any actual or potential effect of drawdown on groundwater quality; and
- (fg) The environmental, social, cultural and economic effects of the restriction level on existing users of groundwater from the aquifer.

Reasons for recommendation:

- How an aquifer interacts with surface water and its values is a key consideration when setting a restriction level, and is consistent with Policy 6.4.10AB.
- Consideration of the cumulative effect of groundwater takes on existing lawful surface water uses is provided for by Schedule 4C.1(d) when setting maximum allocation volumes. Chapter 5 of the Water Plan clearly identifies water body values as both natural and human use, and it is not necessary to reference which provisions apply in the schedule.
- More explicit recognition of the relationship between recharge and the maximum allocation volume is unnecessary and unhelpful, as both matters are already listed and full consideration will be given to the relationship of all the items in the schedule.

¹ For the purposes of this discussion, excluding groundwater with a clear connection to surface water.

2.1.2 Calculation of consented take

Policy 6.4.10A defines the maximum allocation volume of an aquifer, which can be the “assessed maximum annual groundwater take”. New Method 15.8.3.1 states how this is calculated. We considered the decisions requested regarding Method 15.8.3.1, and recommend it is amended as follows:

15.8 Methods for calculating allocation and applying minimum flows

...

15.8.3.1 The assessed maximum annual take of groundwater from any aquifer for the purposes of Policy 6.4.10A(a), will be the sum of:

- (a) The annual volume specified on consents to take groundwater from that aquifer; and
- (b) Where a consent does not specify an annual volume, it is calculated using the instantaneous, daily, weekly or monthly limits specified as shown below:
 - (i) Except as provided for by (iii) below, where the purpose of use includes irrigation, convert the consent limit as follows:
 - (1) Where a daily or a monthly limit is specified:

<u>Consent Limit</u>	<u>Purpose of use irrigation</u>
<u>Daily</u>	<u>Multiply by 90</u>
<u>Monthly</u>	<u>Multiply by 6</u>

Note: A 90 day limit is equivalent to irrigating 150 days at 60% of the maximum take rate. A 6 month limit is representative of an annual irrigation season.

Where both limits are specified, use the limit which yields the smaller volume.

- (2) Where no daily or monthly limit is specified:

<u>Consent Limit</u>	<u>Purpose of use irrigation</u>
<u>Instantaneous (e.g. litres/second or m³/hour)</u>	<u>Convert to a daily volume assuming taking of 12 hours per day, and then multiply by 90.</u>
<u>Weekly</u>	<u>Convert to a monthly volume, by multiplying by 4.3, and then multiplying by 6.</u>

Where both limits are specified, use the limit which yields the smaller volume.

(3) If a consent specifically restricts taking over different periods, use the quantity and time limits specified on the consent.

(ii) Where the only purpose of use is frost-fighting, convert any consent limit to a 20 day volume.

(iii) Except as provided for by (i) and (ii), convert the consent limit to a 12-month volume.

less any quantity in a consent where all of the water taken is immediately returned to the aquifer or connected surface water body.

Principal reasons for adopting

This method is adopted to assess the annual volume of take from an aquifer, and so assist in determining the remaining allocation available from an aquifer.

Reasons for recommendation:

- Method 15.8.3.1 should be consistent with Policy 6.4.10A(a), and clarify certain consents are not included in the calculation.
- The purpose of the method is to calculate assessed maximum annual take for groundwater from an aquifer. The purpose is stated within the headings of sections 15.8 and 15.8.3, and the explanation to Policy 6.4.10A. The method does not relate to specific consent assessment of water required for use, such as irrigation, or frost-fighting.
- Allowing for case-by-case adjustment of annual volumes, where they are calculated using instantaneous or weekly figures, does not provide an acceptable level of certainty. The risk of error due to this is low: the calculation in the method makes reasonable assumptions of how much use is likely, and the number of consents where annual volumes would be calculated using these figures is low. The method of calculation must be stated in certain and definitive terms to ensure consistent application across aquifers over time. As older consents without annual volume limits are replaced, the assessed maximum annual take will increasingly reflect actual take. The Council may also choose to review consents (in accordance with consent conditions) where metering data shows the consented volumes are not being used, to prevent “banking” of water.

2.1.3 Purpose and use of restriction levels

New Policy 6.4.10AB provides for restriction levels to be defined, where needed, to protect aquifer properties and water storage. We considered the decisions requested and recommend amending the explanation to Policy 6.4.10AB as follows:

6.4.10AB To define restriction levels where needed to protect aquifer properties and water storage.

Explanation

Groundwater restriction levels can be useful for protecting an aquifer from over-depletion due to extended periods of low recharge, or in managing

localised areas of high demand. They can assist in avoiding land subsidence, aquifer compression, and reduced outflows to surface water, and sustaining the life supporting capacity of the aquifer. Near the coast or contaminated sites, restrictions can minimise the potential for water quality effects by intrusion.

...

Reasons for recommendation:

- Groundwater outflows to surface water can support aquifer ecosystems.
- Policy 6.4.10AB provides only for restriction levels to be set, and the explanation details why they can be useful. Schedule 4C.2 provides detail of the matters that may be considered when setting restriction levels; aquifer recharge volumes are item (c).
- Implementation of rationing before restriction levels (or minimum flows) are breached is provided for in the Water Plan through policies supporting the establishment of Water Allocation Committees or Water Management Groups, and requiring the suspension of takes to comply with an approved rationing regime. Those committees or groups will typically be comprised of local water takers who can provide for the needs of specific individuals when devising the rationing regime.
- Recognition of the adverse impact restrictions will have on community water supplies is addressed through Rule 12.2.2A.1 and Schedule 3B, as discussed in section 2.3.1 of this report.

2.1.4 Consideration of the effects of take on an aquifer's properties

Rule 12.2.3.4 lists matters to which the Council's discretion is restricted when considering certain applications to take groundwater. We considered the decision requested and recommend amending Rule 12.2.3.4, Information Requirement 16.3.1, Issue 6.2.1A and Policy 6.4.10A as shown below:

12.2.3.4 Restricted discretionary activity considerations

In considering any resource consent for the taking and use of groundwater in terms of Rule 12.2.3.2A, the Otago Regional Council will restrict the exercise of its discretion to the following:

- (a) The maximum allocation volume for the aquifer; and
- (b) The mean annual recharge of that aquifer; and
- (c) The effect of the take on the ~~physical~~ hydrodynamic properties of the aquifer and the vulnerability of the aquifer to compaction; and
- (i) The rate, volume, timing and frequency of groundwater to be taken and used; and ...

16.3.1 The taking of surface water or groundwater

...
5B. In the case of the taking of groundwater, results of the aquifer test.
...

6.2.1A The taking of water from Otago's aquifers can lead to:

...
(e) ~~Aquifer compression~~ compaction.

6.4.10A To enable the taking of groundwater by:

...
(d) ~~In any aquifer, avoiding permanent aquifer compression~~
compaction.

Explanation

...
(iii) Aquifer contamination or ~~compression~~ compaction will be avoided.

Reasons for recommendation:

- To make an adequate assessment of environmental effects, both the maximum allocation volume and annual recharge need to be considered, particularly where the maximum allocation volume for the aquifer is equivalent to the assessed maximum annual take.
 - In this situation, the setting of the maximum allocation volume has no regard to aquifer recharge, which is a key consideration when assessing environmental effects of taking.
 - Considering annual recharge when the maximum allocation volume is listed in Schedule 4A or is equivalent to 50% mean annual recharge is necessary as there could be localised effects or significant changes in recharge.
- The “physical” properties of an aquifer are better defined as its “hydrodynamic” properties. Hydrodynamic properties allow assessment of how the aquifer will respond to a take, and in conjunction with aquifer geology an assessment of the aquifers vulnerability to compaction can be made. While a maximum allocation volume and restriction level can protect these aquifer properties, effects of individual takes should be assessed as aquifers are not uniform across their extent.
- An aquifer test from a bore allows the hydrodynamic properties of an aquifer, in the vicinity of that bore, to be determined.
- Issue 6.2.1A and Policy 6.4.10A incorrectly refer to aquifer “compression”, rather than “compaction”. Compression is a stress (an action) that an aquifer is permanently subject to from the weight of overlying material, which results in compaction of the aquifer (an effect).

2.1.5 Managing take where there is risk of aquifer contamination

New Policy 6.4.10AC requires aquifer contamination be avoided. One means is through identifying areas vulnerable to seawater intrusion. Maps C10 and C10a show a seawater intrusion risk zone for the North Otago Volcanic Aquifer. We considered the decisions requested and recommend adopting the Seawater Intrusion Risk Zones shown on Maps C10 and C10a as notified, and amending the explanation to Policy 6.4.10AC as follows:

6.4.10AC To avoid aquifer contamination by:

- (a) Recognising contaminated sites;**
- (b) Identifying areas vulnerable to seawater intrusion;**
- (c) Setting maximum allocation volumes;**
- (d) Setting aquifer restriction levels;**
- (e) Restricting takes; and**
- (f) Requiring monitoring of groundwater quality and levels.**

Explanation

...

Where there is risk of aquifer contamination, a consent holder may be required to monitor groundwater quality and groundwater levels, and the rate, volume, timing and frequency of take may be restricted, and groundwater levels monitored, to control the degree to which groundwater levels are lowered. Groundwater quality monitoring may also be required.

...

Reasons for recommendation:

- The submitter supports management of seawater intrusion risk.
- Policy 6.4.10AB provides for restriction levels to be defined where they are needed to protect aquifer properties and water storage. Policy 6.4.10AC is to avoid aquifer contamination, so a restriction level under this policy will only be set where it will assist to achieve this.
- To clarify a consent holder may be required to monitor groundwater quality and/or groundwater levels, where there is risk their take could cause aquifer contamination. Policy 6.4.10AB(f) replaces that formerly in Policy 9.4.22 (to be deleted), which requires take consents to monitor groundwater quality “where appropriate”. It is also consistent with Rule 12.2.3.4 discretion (xii) “any adverse effect on the existing quality of groundwater in the aquifer”. Isolated takes along the coast are the most likely to risk aquifer contamination. If an individual user is risking a potentially significant effect, then they should monitor their take so they can avoid it occurring. There are no aquifers where there are general or widespread effects of taking, which might justify Council monitoring over individual monitoring.

- State of the environment monitoring is undertaken by the Council to ensure its requirements under the RMA are met, however this is not specifically to avoid aquifer contamination as required by Policy 6.4.10AC. It is not appropriate to limit state of the environment monitoring undertaken through the Water Plan.
- Recognition of the adverse impact restrictions will have on community water supplies is addressed through Rule 12.2.2A.1 and Schedule 3B, as discussed in section 2.3.1 of this report.
- The decision requested regarding increased soil and water testing in the North Otago area is discussed in section 2.2.3 of this report.

2.1.6 Simplify permitted groundwater taking

Rule 12.2.2.2 permits the take of varying amounts of groundwater from aquifers. It is proposed to simplify the rule by allowing take of 25 m³/day from all aquifers. This is an increase from 10 m³/day in some aquifers, and a decrease from 30 m³/day in others. We considered one decision requested and recommend adopting Rule 12.2.2.2 as notified.

Reasons for recommendation:

- Permitted activity rules should be consistent and simple. Those taking surface water, connected groundwater and unconnected groundwater for such minor uses should have access to the same permitted daily volume.
- Groundwater modelling shows there is only low risk to aquifers where the volume of take is increased from 10 to 25 m³/day.
- The difference of 5 m³/day between 25 and 30 is a small quantity of water and its take would not make a significant difference to either the taker or to those aquifers. Most commercial users of groundwater require consent for the volumes they need.

2.2 The North Otago Volcanic Aquifer

The first aquifer for which a maximum allocation volume is proposed is the North Otago Volcanic Aquifer. The aquifer and its management is detailed in the technical report “*North Otago Volcanic Aquifer Study*” (dated 10 July 2008).

2.2.1 Amending the restriction level for the North Otago Volcanic Aquifer

The “North Otago Volcanic Aquifer” boundaries encompass the Deborah and Waiareka Aquifers, which were previously managed using restriction levels at Webster’s and Isbister’s Wells, respectively. With the proposed new management regime, the restriction levels measured at Webster’s Well would be relaxed, and applied across the North Otago Volcanic Aquifer. We considered the decisions requested and recommend relaxing the restriction levels at Webster’s Well for the North Otago Volcanic Aquifer as notified.

Reasons for recommendation:

- Restriction levels should protect aquifer characteristics and therefore come into effect during extreme climatic conditions or pumping-induced groundwater depletion.
- Current restriction levels are within the upper range of groundwater levels observed during normal climate and recharge conditions, and breaches of them are not due to pumping.
- The proposed restriction levels are within the lower range of groundwater levels observed during normal climate and recharge conditions.
- The proposed restriction levels will preserve baseflow to surface water bodies supported by the aquifer

2.2.2 Maximum allocation volume for the North Otago Volcanic Aquifer

Council groundwater scientists made a technical recommendation of 7 Mm³/year² for the maximum allocation volume. At public meetings, there was some support for this volume, and some support for a precautionary approach. A maximum allocation volume of 5 Mm³/year was notified. Decisions requested by submitters included no increase in current allocation, 5 Mm³/year and an increase to 7 Mm³/year.

We considered the environmental, social, cultural and economic costs and benefits of each request. We recommend the maximum allocation volume for the North Otago Volcanic Aquifer is increased to 7 Mm³/year in Schedule 4A, as shown below:

4A Maximum allocation volumes for groundwater takes from aquifers		
Aquifer Name	Map Reference	Maximum Allocation Volume (million cubic metres per year)
North Otago Volcanic Aquifer	C10	5 7

Reasons for recommendation:

- We consider there is sufficient knowledge about the aquifer, and that the assumptions made are reasonable. The cost of not setting a maximum allocation volume outweighs any benefits of collecting further data over the coming years.
- Water quality in this aquifer is independent of water quantity management, so there is no advantage in addressing water quality before setting a maximum allocation volume. High sodium levels previously reported are not found in current monitoring. While we do not condone the nitrogen content of this groundwater, nitrogen can be considered a resource if applied appropriately to soils. As the take and use of groundwater within the maximum allocation volume requires consent, any specific concerns regarding groundwater quality can be addressed during the

² Reported in *North Otago Volcanic Aquifer Study*, December 2008.

consent process. We note that water quality is a matter being addressed in a future plan change.

- The discussion document for the proposed National Environmental Standard (NES) for Ecological Flows and Water Levels proposes an interim limit of 35% of an aquifers average annual recharge, where there is no specific allocation limit in a plan. For the North Otago Volcanic Aquifer, this equates to 7 Mm³/year. The discussion document states the interim limits are set at a level that caters for most water bodies to accommodate environmental, recreational, natural character, and cultural values.
- The technical recommendation states take of 7 Mm³/year will not adversely affect the aquifer or connected surface water bodies. Aquifer restriction levels will also assist in protecting these values.
- Poorly located, constructed or maintained bores should not inhibit new users accessing an available resource. We note that for each consent application, effects on other water users and outflows to surface water bodies are always considered, and adverse effects must be avoided, remedied or mitigated. We also note that rationing can address any local effects from consent holders pumping at the same time.
- The economic value of irrigation benefits the wider North Otago area.
- Considering both the NES and the Council technical assessment of the aquifer, 7 Mm³/year is a conservative limit on taking, and protects the environmental, social and cultural values associated with the aquifer. We are concerned that if the maximum allocation volume is set unnecessarily low and all available water becomes allocated to consents, a new person is prohibited from making an application to take water, and the opportunity to prove any adverse effects may be minor is denied.

2.2.3 Monitoring soil and water quality

We considered a decision requested to increase soil and water quality measurements in the North Otago to monthly. This matter is partly addressed by Policies 6.4.10AC (how aquifer contamination will be avoided) and 9.4.23 (effects of poor quality groundwater on soils). The Council also undertakes “State of the environment” groundwater monitoring to meet RMA requirements.

We do not consider any amendments are necessary to Policy 6.4.10AC as a result of this decision requested. However, we note other recommendations regarding Policy 6.4.10AC in section 2.1.5 of this report. We recommend Policy 9.4.23 is adopted as notified, and correction of a discrepancy in Rule 12.2.3.4 as follows:

12.2.3.4 Restricted discretionary activity considerations

In considering any resource consent for the taking and use of groundwater in terms of Rule 12.2.3.2A, the Otago Regional Council will restrict the exercise of its discretion to the following:

(#)Any irreversible or long term degradation of soils arising from the use of water for irrigation

Reasons for recommendation:

- Policy 6.4.10AC requires groundwater monitoring if there is a risk a take may result in aquifer contamination. A requirement to monitor groundwater quality and levels may also be imposed on consents to take and use groundwater, where that take could result in aquifer contamination, in accordance with this policy and Rule 12.2.3.4(xii).
- Policy 9.4.2 seeks to avoid irreversible or long-term degradation of soils arising from the use of water for irrigation, however the list in Rule 12.2.3.4 does not allow the consideration of the effects of the use of that groundwater on soils.
- Policy 9.4.23 supports the voluntary efforts of landholders in managing soil.
- The Council will undertake six monthly “State of the environment” groundwater monitoring. It is not appropriate to limit state of the environment monitoring undertaken through the Water Plan.

2.3 Community groundwater supplies

The Water Plan provides for identified surface water takes for community supply, in existence at 28 February 1998), to be exempt from minimum flows. Any new supplies (or additional volumes) are considered equally against any other use for water, subject to minimum flows, so those new communities must consider the risk of restrictions. Plan Change 1C³ introduced an equivalent provision for identified groundwater⁴ takes for community supply, exempt from restriction levels. However, minimum flows and restriction levels do not perform the same function. This plan change seeks to allow consideration to be given to imposing restriction levels on such takes, to ensure the properties of an aquifer are protected. It also provides the opportunity to identify existing (pre-28 February 1998) community groundwater supplies.

2.3.1 Connected groundwater community supplies and minimum flows

Policy 6.4.8 provides connected groundwater takes for community supply (listed in Schedule 3B) the same exemption from minimum flows as surface takes for community supply (listed in Schedule 1B). We considered the decisions requested and recommend adopting Policy 6.4.8 as notified.

Reasons for recommendation:

- Groundwater takes for community supply listed in Schedule 3B that transfer the point of take should not be considered as a controlled activity under Rule 12.2.2A.1, as a full assessment of the effects of the new take is required. Transfers within a catchment or aquifer during the term of an existing consent are provided for by Section 136 of the RMA. Applications for additional water volumes are considered a new activity and not a variation to an existing activity. The supplier should consider the costs and benefits of relocating an existing take, including the risks of minimum flow restrictions.

³ Plan Change 1C was notified on 20 December 2008 and Council’s decisions on submissions were notified on 10 April 2010. Rule 12.2.2A.1 was not appealed, so is effectively operative.

⁴ And “connected groundwater” takes (i.e. groundwater takes that are managed as surface water).

- The location of the take must remain in the Schedule to provide the public certainty and transparency.
- Once a consent is granted, a community water supply could seek to be included in Schedule 3B through a plan change, where the public are offered the opportunity to assess and submit on the proposal and its effects. The RMA does not provide the mechanism to include consented activities in a regional plan without using the Schedule 1 plan change process.
- The reference to human health and safety should be deleted from the explanation to Policy 6.4.8, as it is used in reference to matters beyond the policy: firstly in relation to residual flows (addressed by Policy 6.4.7), and secondly in relation to supplementary allocation (which was incorrect). The principal reasons for adopting the policy recognise imposing minimum flows on existing community supply takes may compromise human health and safety.

2.3.2 Community water supplies as a controlled activity

Rule 12.2.2A.1 provides for community groundwater supplies identified in Schedule 3B to observe a restriction level, to take up to the rate or volume authorised as at 28 February 1998, to be taken as a controlled activity. The plan change proposed to add the “need to observe a restriction level” to the list of matters to which control is reserved, and to add groundwater community supplies in existence as at 28 February 1998 to Schedule 3B.

We considered the decisions requested, and recommend amending Rule 12.2.2A.1 and Schedule 3B to allow all community groundwater supplies in Schedule 3B to take their currently consented rate or volume:

12.2.2A.1 ~~The taking and use of groundwater for community water supply, up to any volume or rate authorised as at 28 February 1998,~~ by any take identified in Schedule 3B, up to any volume or rate listed in Schedule 3B, is a **controlled** activity. ...

...

~~Applications may be considered without notification under Section 93 and without service under Section 94(1) of the Resource Management Act on persons who, in the opinion of the consent authority, may be adversely affected by the activity.~~

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

Schedule 3B Schedule of groundwater takes for the purpose of community supply

Site No.	Community Water Supply Takes (at NZMS 260 Series Map Grid Reference)	<u>Rate (litres per second) and volume (cubic metres per day) authorised</u>
1*	Glenorchy Water Supply at E41:459-841.	<u>63 l/s; 5400 m³/day</u>
2*	Arthurs Point Water Supply at E41:686-713.	<u>49 l/s; 3385 m³/day</u>
3*	Dalefield Water Supply at F41:739-724.	<u>6 l/s; 300 m³/day</u>
4*	Arrowtown Water Supply at: F41:806-773; <u>F41:808-774; and</u> <u>F41:809-774</u>	<u>108 l/s; 7800 m³/day</u>
5*	Cromwell Water Supply at G41:119-671.	<u>210 l/s; 18,000 m³/day</u>
6*	Alexandra Water Supplies at: G42:253-444; G42:263-454; and G42:271-442	<u>420 l/s; 21,600 m³/day</u> <u>12.5 l/s; 675 m³/day</u> <u>4 l/s; 345 m³/day</u>
7*	Roxburgh Water Supply at G43:210132.	<u>58 l/s; 3000 m³/day</u>
8*	Dunedin and Outram Water Supplies at: I44:956-803; I44:956-805; and I44:956-804.	<u>Combined total take of</u> <u>382 l/s; 33,000 m³/day</u>
9	Warrington Water Supplies at: I44:221-982; I44:224-980.	
10*	East Taieri Water Supply at I44:007-763.	
11*	Owaka Water Supply at H46:533-124.	<u>4.4 l/s; 380 m³/day</u>
12	<u>Mosgiel Water Supply at:</u> <u>I44:048-789;</u> <u>I44:042-779;</u> <u>I44:036-776;</u> <u>I44:048-789;</u> <u>I44:036-788*;</u> <u>I44:051-787;</u> <u>I44:032-782;</u> <u>I44:051-789; and</u> <u>I44:042-784.</u>	<u>The combined total take shall not</u> <u>exceed 10,104 m³/day.</u>
13*	<u>Clydevale-Pomahaka Water Supply at</u> G45:417-507; volume as at 28/2/98: 2082 <u>m³/day.</u>	<u>60 l/s; 5160 m³/day</u>

* Point of take located within 100 metres of a surface water body.

Reasons for recommendation:

- Generally, we consider it appropriate for a community supply identified in Schedule 3B to observe a restriction level, in order to achieve Objective 6.3.2A (to maintain long term groundwater levels and water storage in Otago's aquifers). An exemption from a restriction level can be considered under discretionary Rule 12.2.4.1 (e.g. to allow for human health and sanitation).
- To ensure efficient water use in accordance with Policy 6.4.0A, community supplies are often subject to consent conditions requiring them to take reasonable action to minimise leakage, and to promote of efficient water use. There is no specific policy for any water taker to apply conservation measures when water supply is reduced (i.e. before restriction levels or minimum flows apply), nor do we consider it necessary.
- Applications for new groundwater takes should not be controlled activities under Rule 12.2.2A.1 as we consider a full assessment of the effects of the take is required, and that the consent authority should be able to decline an application.
- Current consents for Schedule 3B supplies were fully assessed under the Water Plan and RMA, and the effects of taking were found to be minor. For these consents, we consider the exemption of additional water from minimum flow requirements is of no concern:
 - Connected groundwater takes (excluding the Dunedin-Outram and Arrowtown supplies) in the schedule are adjacent to water bodies for which no catchment-wide minimum flow is likely to be set in Schedule 2A.
 - The Dunedin and Outram community supply takes from gravels adjacent to the Taieri River (which has a minimum flows set in Schedule 2A). Consents have previously been issued as surface water takes, exempt from minimum flows, and the current take is less than consented in 1998.
 - The Arrowtown community supply has increased due to a transfer of water from a deemed permit for town supply. The deemed permit is not subject to a minimum flow and was in use prior to 28 February 1998. The community supply will be taken into consideration when setting a minimum flow for the Arrow River.
- The Maheno Water Committee Incorporated take is from the Kakanui-Kauru Alluvium Aquifer, and therefore is not subject to the restriction levels proposed for the North Otago Volcanic Aquifer.
- The non-notification and non-service clauses of the rule require updating to reflect amendments to the RMA and provide for ongoing and consistent administration of the Water Plan.
- We note the Owaka water supply was incorrectly identified as within 100 metres of a connected surface water body.

2.4 Matters beyond the scope of the plan change

Four submitters requested decisions that are considered beyond the scope of plan change 4A, relating to:

- Water and soil quality.
- Plan implementation.
- Consistency with Land and Water Forum.
- 35 year terms for resource consents.
- Bore construction.
- Water metering.
- Default maximum allocation volume.
- Amending of provisions relating to surface water community supplies.

The purpose of this plan change is to build on the groundwater management system of taking water within a maximum allocation volume, established under Proposed Plan Change 1C, with focus on the North Otago Volcanic Aquifer. Giving consideration to any of 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 and heard.

We recommend that these submissions be rejected as beyond the scope of the proposed plan change.