

Appendix 1 to JWS expert conferencing 5 July 2021

Regional Plan: Water for Otago

Proposed Plan Change 7 (Water Permits)

**DRAFT AMENDMENTS
AS AT 5th July 2021 BASED ON MATTERS
DISCUSSED BY EXPERT WITNESSES
IN THE CONFERENCING ON RIGHTS OF PRIORITIES
(Showing amendments to 14 March 2021 version, and includes amendments
recommended in the JWS on 5 July 2021 (minor amendments))**

NOTE FOR THE READER

How the proposed amendments are shown and the scope for them is referenced

This version of proposed Plan Change 7 comprises a consolidation of:

- the amendments to the provisions proposed by Tom de Pelsemaeker in his Evidence in Chief dated 7 December 2020, his Evidence in Reply dated 19 February 2021 and Supplementary Statement of Evidence dated 14 March 2021.
- Draft amendments based on matters discussed by all expert witnesses in the expert conferencing over the period 24th March 2021 to 21 June 2021.

The base text used to show the amendments recommended on matters discussed by witnesses in the expert conferencing is the text of the Plan Change as recommended in the Supplementary Statement of Evidence of Tom De Pelsemaeker dated 14 March 2021.

All new text proposed based on matters agreed by witnesses in the expert conferencing over the period 24th March 2021 to 21 May 2021 and as shown in Appendix 1 to the 7th JWS (amended) 6 May 2021 is shown underlined.

All text proposed to be omitted based on matters agreed by witnesses in the expert conferencing over the period 24th March 2021 to 21 May 2021 and as shown in Appendix 1 to the 7th JWS (amended) 6 May 2021 is shown in ~~striketrough~~.

All new text proposed based on matters agreed by witnesses in the expert conferencing on 4th and 21st June 2021 is shown in double underline.

All new text proposed to be omitted based on matters agreed by witnesses in the expert conferencing on 4th and 21st June 2021 is shown in ~~double striketrough~~.

All new text proposed based on matters agreed by witnesses in the JWS - minor amendments signed on 5 July 2021 is shown in yellow highlighting and double underline.

All new text proposed to be omitted based on matters agreed by witnesses in the JWS - minor amendments signed on 5 July 2021 is shown in yellow highlighting and double striketrough.

All new text proposed based on matters agreed by witnesses in the expert conferencing on rights of priorities on 2 and 5 July 2021 is shown in blue highlighting and double underline.

All new text proposed to be omitted based on matters agreed by witnesses in the expert conferencing on rights of priorities on 2 and 5 July 2021 is shown in blue highlighting and ~~double strikethrough~~.

Where “minor amendment” is noted, the amendment is made pursuant to Clause 16 of the First Schedule to the Resource Management Act 1991 to improve the clarity of expression or the consistency of language used but where the substance of the provision is not altered.

Introduction

The Otago Regional Council has prepared Proposed Plan Change 7 to the Regional Plan: Water for Otago.

Proposed Plan Change 7 (Water Permits) is intended to provide an interim regulatory framework for the assessment of applications to renew:

- deemed permits expiring in 2021
- any other water permits expiring prior to 31 December 2025, the date by which the new Regional Land and Water Plan (LWRP) is expected to be operative.

The Plan Change also establishes a requirement for short duration consents for all new water permits granted under the operative Water Plan rules.

The provisions will enable the assessment of applications and issuing of resource consents subject to conditions for a short duration during which time a new LWRP will be prepared.

Insert the following text as two new paragraphs at the end of the section entitled 'How to Use the Regional Plan: Water'

Applications for water permits to replace deemed permits or to replace water permits that expire before 31 December 2025 will be assessed in accordance with the objective, policies and rules set out in Chapter 10A of this Regional Plan: Water.

Applications for water permits that are not replacing either a deemed permit or an existing water permit will be assessed in accordance with the provisions in Chapters 5, 6, 12 and 20, except that the duration of any water permit will be determined in accordance with the policies in Chapter 10A.

Insert the following new Chapter in the Water Plan immediately following Chapter 10

10A

Objective, Policies & Rules for Replacement Water Take & Use Permits



10A.1 Objective

~~Version A~~ (as drafted during expert conferencing 4-6 May 2021)

~~10A.1.1 To provide for an efficient and timely transition toward the long-term sustainable management of freshwater in the Otago region under a new land and water plan by establishing an interim planning framework to manage~~
~~(a) water permits for takes and uses of freshwater not previously authorised by a water permit,~~
~~(b) the replacement of deemed permits, and~~
~~(c) the replacement of water permits for takes and uses of freshwater where those water permits expire prior to 31 December 2025, including by enabling existing activities to be maintained for the interim period~~
~~until a new land and water regional plan is made operative.~~

~~Version B~~ (as drafted during expert conferencing 4-6 May 2021)

~~10A.1.1 Transition toward the long-term sustainable management of freshwater in the Otago region To provide for an efficient and timely transition to a new land and water plan by establishing an interim planning framework to manage~~
~~(a) water permits for takes and uses of freshwater not previously authorised by a water permit,~~
~~(b) the replacement of deemed permits, and~~
~~(c) the replacement of water permits for takes and uses of freshwater where those water permits expire prior to 31 December 2025, including by enabling existing activities to be maintained for the interim period while not compromising the ability of the new land and water plan to give effect to the NPS-FM 2020,~~
~~until a new land and water regional plan is made operative.~~

10A.1.1 Facilitate an efficient and effective transition from the operative freshwater planning framework toward a new integrated regional planning framework, by managing:

- (a) the take and use of freshwater not previously authorised by a water permit,
- (b) the replacement of deemed permits, and
- (c) the replacement of water permits for takes and uses of freshwater where those water permits expire prior to 31 December 2025.

Version A

10A.1.2 Enable activities authorised by deemed permits or water permits for takes and uses of freshwater expiring prior to 31 December 2025 to continue operating:

- (a) at their existing scale and consistent with historical use, and**
- (b) where the risk of additional adverse environmental effects resulting from any proposed increase in the scale or duration of the take and use of freshwater is low.**

Version B

10A.1.2 Enable activities authorised by deemed permits or water permits for takes and uses of freshwater expiring prior to 31 December 2025 to continue operating during the transition period at their existing scale and consistent with historical use.

10A.1.3 Ensure that activities authorised by deemed permits or water permits for takes and uses of freshwater expiring prior to 31 December 2025 are only allowed to:

- (a) increase their scale and rate or volume of take; and /or**
- (b) continue operating beyond the transition period,**

if this does not compromise the implementation of an integrated regional planning framework that prioritises the health and wellbeing of water bodies and freshwater ecosystems.

10A.2 Policies

10A.2.1 Irrespective of any other policies in this Plan, avoid granting resource consents that replace deemed permits, or water permits for takes and uses of surface water (including groundwater considered as surface water under policy 6.4.1A (a), (b) and (c) of this Plan) where those water permits expire prior to 31 December 2025, except where:

- (a) The deemed permit or water permit that is being replaced is a valid permit; and**
- (b) There is no increase in the area under irrigation, ~~if the abstracted water is used for irrigation except where any additional area to be irrigated is only for orchard and/or viticulture land uses and all mainline irrigation pipes servicing that additional area were installed before 18 March 2020;~~ and**

- (c) Any existing residual flow, minimum flow or take cessation condition is applied to the new permit; and
- (d) For takes other than community water supplies:
 - (i) There is no increase in the actual~~historical~~ instantaneous rate of abstraction; and
- ~~(d) Any existing residual flow, minimum flow or take cessation condition is applied to the new permit; and~~
- ~~(e) (ii) There is no increase in any actual~~historical~~ volume of water taken; and~~
- (e) The application is to replace a deemed permit that was subject to a right of priority, and the applicant agrees to cease taking water upon receipt of notice from a downstream permit holder with a higher right of priority and insufficient flow at their point of take.

10A.2.2 Irrespective of any other policies in this Plan concerning consent duration, only grant resource consents for takes and/or uses of freshwater, where this activity was not previously authorised by a deemed permit or water permit, for a duration of no more than six years.

10A.2.3 Irrespective of any other policies in this Plan concerning consent duration, avoid granting resource consents that replace deemed permits, or resource consents that replace water permits to take and/or use surface water (including groundwater considered as surface water under policy 6.4.1A (a), (b) and (c) of this Plan) where those water permits expire prior to 31 December 2025, for a duration of more than six years.

10A.3 Rules

Note 1: If the application is for a resource consent for the taking and use of water and the activity was not previously authorised by an existing deemed permit or expiring water permit, refer to the rules in Chapter 12 of this Plan.

Note 2: Where, under Rule 10A.3.1.1, any of entry conditions (iii), (iv) and (vi) do not apply to an activity for which resource consent is sought, that condition is deemed to be met.

Note 3: For the avoidance of doubt, the reference to “right of priority” in entry condition (vii) of Rule 10A.3.1.1, does not refer to a right of priority for the purposes of section 124B(2).

10A.3.1 Controlled activity: Resource consent required

10A.3.1.1 Despite any other rule or rules in this Plan;

- a) any activity that is currently authorised under a Deemed Permit; or
- b) the take and use of surface water (including groundwater considered as surface water under policy 6.4.1A (a), (b) and (c) of this Plan) that is currently authorised by an existing water permit where that water permit expires prior to 31 December 2025;

is a **controlled** activity provided the following conditions are met:

- (i) The consent duration sought is no more than six years; and
- (ii) The deemed permit or water permit that is being replaced is a valid permit; and
- (iii) The application demonstrates that the total land area under irrigation does not exceed the maximum area irrigated in the period 1 September 2017 to 18 March 2020, if the abstracted water is used for irrigation, and
- (iv) Except where (vii) applies, the rate of take shall be no more than the rate of take limit recorded during the ~~period 1 July 2015—30 June 2020~~ and water years (1 July to 30 June) for which water meter data is available up until 30 June 2020, as calculated in accordance with the method in Schedule 10A.4; and
- (v) Any existing residual flow, minimum flow, or take cessation condition (whichever is applicable) on the expiring deemed permit or water permit is included in the application for resource consent; and

- (vi) Except where (vii) applies, the volume of water taken shall be no more than the daily volume limit, and monthly volume limit, and annual volume limit (whichever one or more are applicable) recorded during the ~~period 1 July 2015 – 30 June 2020~~ and water years (1 July to 30 June) for which water meter data is available up until 30 June 2020, as calculated in accordance with the method in Schedule 10A.4; and
- (vii) For takes authorised by a deemed permits or water permits where metering is not required by condition of resource consent or by the Resource Management (Measuring and Reporting of Water Takes) Regulations 2010, the rate of take and the volume of water sought is no more than the existing consented instantaneous rate of take and volumes; and
- (viii) Where the application is to replace a deemed permit that was subject to a higher right of priority of a downstream permit holder, the applicant proposes a condition:
 - (a) to cease taking water when:
 - a. there is insufficient flow at the point of take of the holder of a downstream water permit with a higher right of priority; and
 - b. notice has been given by the downstream permit holder; and
 - (b) requiring the provision of a contact management plan to the Consent Authority.

The Council reserves control over the following matters:

- (a) In accordance with historical use and existing water permit conditions, the volume and rate of water taken, dammed, discharged or diverted; and
- (b) Any existing consent conditions concerning operating procedures administered through a water allocation committee that exists for the catchment; and
- (c) Any other conditions on the expiring permit to be replaced, where those matters are not otherwise addressed by the entry conditions of this rule or matters of control; and
- (d) Any condition:
 - (i) to cease taking water when:
 - (a) there is insufficient flow at the point of take authorised by a downstream water permit with a higher right of priority; and
 - (b) notice has been given by the downstream permit holder; and

(ii) requiring the provision of a contact management to the
Consent Authority; and

- (e) Review conditions; and
- ~~(e)~~(f) Compliance monitoring; and
- ~~(f)~~(g) The point and method of measurement and the method for transmitting recorded data to Council.

Pursuant to sections 95A and 95B of the RMA, an application for resource consent under this rule will be processed and considered without public or limited notification.

10A.3.1A Restricted discretionary activity: Resource consent required

10A.3.1A.1 Despite any other rule or rules in this Plan;

- (a) any activity that is currently authorised under a Deemed Permit; or
- (b) the take and use of surface water (including groundwater considered as surface water under policy 6.4.1A (a), (b) and (c) of this Plan) that is currently authorised by an existing water permit where that water permit expires prior to 31 December 2025;

is a **restricted discretionary** activity providing the following conditions are met:

- (i) The activity meets conditions (i), (ii), ~~(iii)~~, (v), ~~and (vii) and (viii)~~ of Rule 10A.3.1.1 but does not meet condition (iii) and/or conditions (iv) and (vi); and
- (ii) Where the activity does not meet (iv) and (vi) of Rule 10A.3.1.1 a water meter for the take has been installed, or an exemption under the Resource Management (Measuring and Reporting of Water Takes) Regulations 2010 from water metering has been granted and ~~The activity has been carried out in accordance with any requirements under the Resource Management (Measuring and Reporting of Water Takes) Regulations 2010 and any conditions of the current water permit with respect to water metering (whichever one applies); and.~~
- (iii) Where the activity does not meet (iii) of Rule 10A.3.1.1 the application includes an irrigation plan that demonstrates that, where the water is used for irrigation, the total irrigated land area does not exceed:

- (c) the maximum area irrigated in the period 1 September 2017 to 18 March 2020; and
- (d) any additional area to be irrigated is only for orchard and/or viticulture land uses and all mainline irrigation pipes servicing that additional area were installed before 18 March 2020.
- ~~(e) — A complete set of water metering data needed to carry out the assessment under Schedule 10A.4 is not available and it is demonstrated in the application that the missing data is the result of a technical issue and that all reasonably practicable steps have been taken to resolve the technical issue.;~~

The Council will restrict its discretion to the following matters:

- ~~(a) — In accordance with~~Within the limits of historical use, as established through consideration of water meter data and other relevant methods and data, and existing water permit conditions, the volume and rate of water taken, dammed, discharged or diverted; and
- (a)(i) whether the water meter data in combination with other relevant methods and data as agreed with Council accurately represents historical use; and
- (ii) whether the ~~rate and~~ volume and rate taken, dammed, discharged or diverted is in accordance with the historical rate of take and volume and within existing water permit conditions.
- (aa) For community water supplies, within existing water permit volume and rate limits, the extent to which there is a need to provide for population growth within the term of the consent; and
- (ab) where (iii)(b) applies, the maximum size of the additional area to be irrigated and use of good management practices on the additional area; and
- (b) Any existing consent conditions concerning operating procedures administered through a water allocation committee that exists for the catchment; and
- (c) Any other conditions on the expiring permit to be replaced, where those matters are not otherwise addressed by the entry conditions of this rule or matters of discretion; and

- (d) Any condition:
 - (i) to cease taking water when:
 - (a) there is insufficient flow at the point of take authorised by a downstream water permit with a higher right of priority; and
 - (b) notice has been given by the downstream permit holder; and
 - (ii) requiring the provision of a contact management to the Consent Authority; and
- (e) Review conditions; and
- ~~(e)~~(f) Compliance monitoring; and
- ~~(f)~~(g) The point and method of measurement and the method for transmitting recorded data to Council.

Pursuant to sections 95A and 95B of the RMA, an application for resource consent under this rule will be processed and considered without public or limited notification.

10A.3.2 Non-complying activity: Resource consent required

10A.3.2.1 Despite any other rule or rules in this Plan:

- a) any activity that is the replacement of an activity authorised under a Deemed Permit; or
- b) the take and/or use of surface water (including groundwater considered as surface water under policy 6.4.1A (a), (b) and (c) of this Plan) that is the replacement of a take and/or use authorised by an existing water permit where that water permit expires prior to 31 December 2025;

that does not meet any one or more of the conditions of

- (i) Rule 10A.3.1.1; or
- (ii) Rule 10A.3.1A.1

is a *non - complying* activity.

10.3A. Definition

Valid permit In the context of Chapter 10A, means a resource consent or deemed permit that

- 1) has not expired; or
- 2) has expired but where the consent holder can still exercise the permit under s124 of the RMA; or
- 3) has not been surrendered under s138 of the RMA; or
- 4) has not been cancelled under s126 of the RMA; or
- 5) has not lapsed under s125 of the RMA.

Community water supply Means a water supply for the primary purpose of supplying drinking water to communities, that may also be used for industrial and business uses, and is for the purpose of enabling territorial authorities to meet their responsibilities for the supply of drinking water under the Health Act 1956 and the Local Government Act 2002. A community water supply serves 25 or more people for at least 60 days a year.

Contact management plan A plan that records up to date contact details for the consent holder to be served written notice (which may be an email address) and an acknowledgement that the contact details can be provided to a permit holder with a higher right of priority by the Otago Regional Council.

Insufficient flow Where the flow is below the level at which the permit holder is able to abstract water at their authorised rate of take.

Mainline irrigation pipes The primary permanently installed pipelines delivering water to the irrigated area including the connections to the headworks at the pumping location.

Notice A communication in writing sent to the contact details recorded in the contact management plan and copied to the Consent Authority that contains the following detail:

- (a) The name and consent number of the Consent Holder giving notice;
- (b) The name and consent number of the Consent Holder required to cease taking water;
- (c) Date and time of notice issue;
- (d) An instruction to cease taking water; and
- (e) A start date and time and end date and time for the cessation; the cessation period must not be longer than 72 hours from when the cessation commences.

**Take
cessation
condition**

Means a condition that ~~seeks to~~ limits or restricts the taking of water under specified circumstances, including:

- (f) during certain times or periods across the year;
- (g) when other water permits within the catchment or from the same water body are being exercised;
- (h) when water is being abstracted under the same water permit at an alternative point of take
- (i) when recharge, water yield or inflows into the catchment or water body from which water is being taken is below a specified flow or water level.

**Transition
period (only
applies to
version B of
Objective)**

Within the context of Objective 10A.1.2 and Objective 10A.1.3, means the period that commences with the granting of a consent to replace an activity specified in Objective 10A.1.2 and Objective 10A.1.3; and concludes within six years of the consent being granted.

**Higher right
of priority**

A right that existed under a deemed permit under section 413 of the RMA, where that deemed permit had not been replaced by [placeholder - either the date of the decision or 30 September 2021, whichever is the earlier date], which entitled the permit holder to exercise a priority to water over the applicant.

10A.4 Schedule: Methodology for calculating assessed actual usage for surface-water and connected groundwater takes

The methodologies in Schedules 10A.4.1 to 10A.4.4 outline the different steps that need to be taken to calculate the assessed actual usage for surface-water and connected groundwater takes. Each of these steps apply to any activity authorised by a water permit for the take and/or use of water, except for steps 4(a) to (g) in Schedule 10A.4.1 and steps 4(a) to (h) in Schedule 10A.4.2, which do not apply to applications for:

- the take and use of water for community water supplies; or
- the take and use of water where the only purpose is for hydro-electricity generation.

10A.4.1 Methodology for calculating 'Rate of Take Limit'

The 'Rate of Take Limit' (litres per second – l/s) shall be determined by calculating the Maximum ~~rate~~ Rate of Take taken in all water years (1 July to 30 June) for which water meter data is available, analysed using the following methodology method.

The 'Rate of Take Limit' (litres per second – l/s) shall be determined by calculating the Average Maximum of the actual rate taken. In order to achieve this, the actual rate taken across the water years (1 July to 30 June will be analysed to determine the maximum instantaneous rate at which water was taken at any time during that year. The maximum instantaneous rate at which water was taken in each water year will then be summed and divided by the number of years analysed.

Methodology

- Where a water meter records the volume of water taken over a fixed period of time, the rate of take will be calculated by converting the volume taken in litres by the interval recorded by the meter. For example, 10 m³ taken over a 15 minute period will equate to a rate of take of 11.11 l/s. Water meters record rate of take over different time intervals.
 - Where a water meter records a volume of water taken over a fixed time interval which is less than or equal to an hour, the rate of take will be determined by first calculating the hourly volume and then converting this to a l/s rate. For example, 40 m³ taken over one hour will equate to a rate of take of 11.11 l/s.
 - Where a water meter records the volume of water taken over an interval of time greater than an hour, the hourly rate of take will be calculated and used as the base data set.
- Any measurement that is at or below 0 l/s will be removed.

- (3) Any measurement that exceeds the authorised (consented) rate ~~by less than the margin of error of the water meter is rounded~~ adjusted down to the authorised rate.
- (4) If any remaining measurement (including those from step 3) deviates from the general pattern of taking, it shall be rounded adjusted down to the maximum of the typical data record across the full data record. The methodology for undertaking this step is set out below:
- (a) Order the rate of take data by size (descending order).
 - (b) Determine D, where D is the number of complete water years covered by the record being considered.
 - (c) Calculate N (where N is the number of measurements) = 18+(63×D).
 - (d) Find the highest value.
 - (e) Calculate the number of other data values which are within the margin of error of that value.
 - (f) Repeat steps d) and e) until the first value which has N data values within the margin of error (+ and -) of that value is found.
 - (g) This number is the maximum typical rate of take.

The margin of error to be applied to any calculation in steps (4)(e) and (4)(f) will be either ±5% for piped takes or ±10% for water taken by any other method, including by any open channel or a partially full pipe.

~~Except that~~ Steps 4 (a) to (g) above does not apply to applications for community water supplies or where the only purpose is for hydroelectricity generation. Any measurement that exceeds the authorised rate of take by more than the margin of error of the water meter will be removed from the data and not considered further. This ensures that the following are excluded from any calculations:

- ~~a) abstracting above the consented rate of take by more than the margin of error, and~~
- ~~b) errors caused by faulty equipment, and~~
- ~~c) abstraction rates that are high due to natural events such as floods.~~

~~(5) The margin of error to be applied to any calculation will be either 5% for piped takes or 10% for water taken by any other method, including by any open channel or a partially full pipe.~~

~~(6)~~ (5) 'Rate of Take Limit' (litres per second – l/s) will be determined as the maximum remaining value after steps (1) to (5)(4) have been completed. The maximum instantaneous rate at which water was taken in each water year will be summed across the water years analysed and divided by the number of water years analysed.

10A.4.2 Methodology for calculating Daily Volume Limit (m³)

The 'Daily Volume Limit' shall be determined by calculating the Maximum 'Daily Volume' taken in all water years (1 July to 30 June) for which water meter data is available, using the following methodology method.

~~The 'Daily Volume Limit' shall be determined by calculating the Average Maximum of the actual 'Daily Volume' taken. In order to achieve this, the maximum 'Daily Volume' taken on any day in each water year (1 July to 30 June) will be calculated. The maximum 'Daily Volume' in each water year will then be summed across the water years analysed and divided by the number of water years analysed.~~

Methodology

- (1) Where a consent or permit being replaced does not include a 'Daily Volume Limit', the Authorised Daily Volume will be calculated based on the following formula:

$$\text{Authorised Daily Volume m}^3 = ((\text{Consented Rate of Take l/s}) \times 86,400)/1,000$$

- (2) Any measurement that is at, or below, 0 m³ will be removed.
- (3) Any day that exceeds the Authorised Daily Volume ~~by less than the margin of error on the water meter is rounded~~ adjusted down to the consented volume Authorised Daily Volume.
- ~~(4) Any day where the volume taken exceeds the Authorised Daily Volume by more than the margin of error of the water meter will be removed from the data and not considered further.~~
- (4) If any remaining measurement (including those from step 3) deviates from the general pattern of taking, it shall be rounded adjusted down to the maximum of the typical data record across the full data record. The methodology is set out below:
 - (a) Order the Daily Volume data by size (descending order).
 - (b) Determine D, where D is the number of complete water years covered by the record being considered.
 - (c) Calculate N (where N is the number of measurements) = 1+(2xD).
 - (d) Find the highest value.
 - (e) Calculate the number of other data values which are within the margin of error of that value.
 - (f) Repeat steps d) and e) until the first data value which has N data values within the margin of error (+ and -) of that point is found.
 - (g) This number is the maximum typical Daily Volume.
 - (h) Adjust any remaining daily volumes above the Maximum Typical Daily Volume, down to the Maximum Typical Daily Volume

The margin of error to be applied to any calculation in steps (4)(e) and (4)(f) will be either $\pm 5\%$ for piped takes or $\pm 10\%$ for water taken by any other method, including by any open channel or a partially full pipe.

Except that Steps 4 (a) to (h) above do not apply to applications for community water supplies or where the only purpose is for hydroelectricity generation.

~~(5) The margin of error to be applied to any calculation will be either 5% for piped takes or 10% for water taken by any other method, including by any open channel or a partially full pipe.~~

~~(6)(5) The 'Daily Volume Limit' will be determined as the maximum remaining value after steps (1) to (5)(4) above have been completed. The maximum 'Daily Volume' taken in each water year will be summed across the water years analysed and divided by the number of hydrological water years analysed.~~

10A.4.3 Methodology for calculating Monthly Volume Limit (m3)

The 'Monthly Volume Limit' shall be determined by calculating the Maximum 'Monthly Volume' taken in all water years (1 July to 30 June) for which water meter data is available, using the following methodology method.

~~The 'Monthly Volume Limit' shall be determined by calculating the Average Maximum of the actual 'Monthly Volume' taken. In order to achieve this, the maximum 'Monthly Volume' taken in any month in each water year (1 July to 30 June) will be calculated. The maximum 'Monthly Volume' in each water year will then be summed across the water years analysed and divided by the number of water years analysed.~~

Methodology

- (1) Where a consent or permit being replaced does not include a 'Monthly Volume Limit' the ~~authorised volume~~ **Authorised Monthly Volume** will be calculated based on the following formula;

$$\text{Authorised Monthly Volume Limit m}^3 = (\text{Consent Daily Volume or Calculated Daily Volume}) \times 30.4$$

- (2) Actual Monthly volumes will be calculated based on the sum of the Daily Volumes taken in each calendar month. For the purposes of this calculation Daily Volumes will be ~~filtered~~ **determined** using the ~~same steps (2) – (4)(5)~~ in the Methodology set out in 10A.4.2 ~~used when for~~ calculating the ~~Maximum~~ Daily Volume Limit.
- (3) ~~Any measurement that is at, or below, 0 m³ will be removed.~~
- (43) Any month where the volume taken exceeds the authorised or calculated volume ~~by less than the margin of error on the water meter is rounded adjusted~~ down to the ~~consented volume~~ **Authorised Monthly Volume**.
- (5) ~~Any month where the volume taken exceeds the authorised or calculated volume by more than the margin of error of the water meter will be removed from the data and not considered further.~~
- (6) ~~The margin of error to be applied to any calculation will be either 5% for piped takes or 10% for water taken by any other method, including by any open channel or a partially full pipe.~~
- (74) The 'Monthly Volume Limit' will be determined as the maximum remaining value after steps (1) to (3) above have been completed. The maximum 'Daily Volume' taken in each water year will be summed across the water years analysed and divided by the number of hydrological water years analysed.

10A.4.4 Methodology for calculating Annual Volume Limit (m3)

The 'Annual Volume Limit' shall be determined by calculating the Maximum 'Annual Volume' taken in all water years (1 July to 30 June) for which water meter data is available, using the following methodology method. The 'Annual Volume Limit' shall be determined by calculating the maximum volume taken in any water year analysed.

Methodology

- (1) Where a consent or permit being replaced does not include an 'Annual Volume Limit' the ~~authorised volume~~ Authorised Annual Volume will be calculated based one of the following formulae. The formula used will be whichever one produces the lower calculated Authorised Annual Volume Limit:

Authorised Annual Volume Limit³ = (Consent Daily Volume or Calculated Daily Volume) x 365.25

Authorised Annual Volume Limit³ = (Consented Monthly Volume) x (Months where water can be taken)

Where the consent or permit being replaced specifies the months during which water can be taken, a count of those months will be used. Where the consent or permit being replaced does not specify the months during which water can be used the number used will be 12.

- (2) Actual Annual volumes will be calculated based on the sum of the Daily Volumes taken in each water year. For the purposes of this calculation Daily Volumes will be ~~filtered~~ determined using the same steps (2) – ~~(4)(5)~~ in the Methodology set out in 10A.4.2 ~~used when for~~ calculating the ~~Maximum~~ Daily Volume Limit.
- (3) Any year that exceeds the authorised or calculated volume is ~~rounded~~ adjusted down to the ~~authorised volume~~ Authorised Annual Volume.
- ~~(4)~~ The 'Annual Volume Limit' will be determined as the maximum remaining value after steps (1) to (3) above have been completed. ~~actual highest volume taken in any water year analysed will be the Annual Volume Limit.~~

Table of minor and consequential changes

Plan Provision	Detail of proposed change			
Page numbers	Update page numbers.			
Footers	Change footer to read “Regional Plan: Water for Otago (Updated to <i><date to be inserted></i>)”.			
Title page	Change the date to read “Updated to <i><date to be inserted></i> ”.			
ISBN number	Obtain new ISBN numbers for Regional Plan: Water for Otago.			
Chronicle of key events	Add the following to the end of table:			
	Key event	Date notified	Date decisions released	Date operative
	Plan Change 7 (Water Permits) to the Regional Plan: Water	<i><Date to be inserted></i>	<i><Date to be inserted></i>	<i><Date to be inserted></i>
Section 1.4	Proposed Plan Change 7 (Water Permits) provides an interim regulatory framework for the assessment of applications to replace deemed permits expiring in 2021 and other water permits expiring prior to 31 December 2025, the date by which the new Land and water Regional Plan is expected to be operative. It was notified on ..., and a total of ... submissions and ... further submissions were received. Following the hearing, decisions on submissions received were released on Plan Change 7 was made operative on			