

# Resource Consent Application Form 4C – To Take and Use Water: 6 Year Term



Phone: 0800 474 082

Website: [www.orc.govt.nz](http://www.orc.govt.nz)

To take and use surface water – 6 year term only. You only need to complete this form and remember to attach:

- Site plan
- Water use records
- Any supporting information
- Application deposit

*This application is made under Section 88 of the Resource Management Act 1991.*

This form is divided into three sections:

1. Your details
2. Your activity
3. Policy assessment

You can find helpful information relating to deemed and water permits at the following link:

<https://www.orc.govt.nz/media/9378/technical-guidance-note-1-deemed-water-permit-replacement-applications.pdf>

## Part 1. Your Details

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### 1(a). Applicant's details:

Full name(s):

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**OR**

Registered  
company:

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**OR**

Trust (include all Trustees full names) \_\_\_\_\_  
\_\_\_\_\_

Postal address: \_\_\_\_\_  
\_\_\_\_\_ Post code: \_\_\_\_\_

**and**  
Physical address (of applicant):  
(not a PO Box number) \_\_\_\_\_  
\_\_\_\_\_ Post code: \_\_\_\_\_

Phone number: Business: \_\_\_\_\_ Private: \_\_\_\_\_  
Mobile: \_\_\_\_\_

Email address: \_\_\_\_\_

**Please provide a valid and clear email address. Otago Regional Council has adopted a paperless consenting process – therefore any correspondence including decision documents and consent (if granted) will be sent via email, unless you request a paper copy.**

Please tick if you do not prefer contact by electronic means

**1(b). Key contact for applicant details (if applicable):**

Only complete if the applicant consists of multiple parties (e.g. multiple consent holders, Trust etc). Please outline who the key contact for the consent will be, if granted:

Full name: \_\_\_\_\_

Phone number: Business: \_\_\_\_\_ Private: \_\_\_\_\_  
Mobile: \_\_\_\_\_

Email address: \_\_\_\_\_

**2. Location of proposed activity:**

Address: \_\_\_\_\_

Legal description(s) for the area to be grazed: \_\_\_\_\_

3. (a) Has there been a previous application for this activity that was returned as incomplete?

Yes       No

(b) Have you spoken to a Council staff member about this application prior to lodging this application?

Yes       No

If yes, please state name of staff member: \_\_\_\_\_

4. **What is the term of consent you are seeking and reason for this term:**

6 years     

If you are seeking a term longer than 6 years you cannot use this form. You must use Form 4A.

5. **For the land on which the activity occurs, is the applicant (tick one):**

- The owner
- The lease holder
- The occupier
- Prospective purchaser

If the applicant does not own the land to which this application relates, unconditional written approval from the landowner/affected party will be required.

If the applicant is not the landowner, who is the owner of the land on which the activity occurs/is to occur:

Name of landowner: \_\_\_\_\_

Phone number: \_\_\_\_\_ Mobile: \_\_\_\_\_ Business: \_\_\_\_\_

Email address: \_\_\_\_\_

6. **How to pay:**

A deposit **must** accompany this application. The applicant will be invoiced for all costs incurred in processing this application that exceed the deposit. You will either receive an invoice requiring additional payment or a refund.

**If the required deposit does not accompany your application, staff will contact you on the email address provided on this form to request payment, and after 5 working days your application will returned as incomplete if no payment is made for the required deposit.**

When paying online, please use the word '**Consent**' followed by the name of the applicant as a reference.

Method of payment:

<input type="checkbox"/>	Online bank transfer	<input type="checkbox"/>	Cheque
<input type="checkbox"/>	Credit card	<input type="checkbox"/>	In person

Date of payment: \_\_\_\_\_

Amount paid: \_\_\_\_\_

Payment reference: \_\_\_\_\_

**Please note:** Your deposit may not cover the entire cost of processing your application. At the end of the application process you will be invoiced for any costs that exceed the deposit. Interim invoices may be sent out for applications, where appropriate.

Information regarding the average costs in processing various types of single non-notified consent applications can be found via the following link, scrolling down to "Costs to process the application":

[www.orc.govt.nz/consents/ready-to-apply-for-a-consent/fees-and-charges](http://www.orc.govt.nz/consents/ready-to-apply-for-a-consent/fees-and-charges)

## 2. Your Activity

**2.1 This application is for** (please tick any applicable box):

A new surface water take

An application to replace a current Water Permit

*Water permit number:*

*Expiry date:*

An application to replace a Deemed Permit / Mining Privilege

*Deemed permit number:*

*Expiry date:*

**2.2 Provide a map or coloured aerial photograph which outlines the following details (as applicable):**

- The location of the existing and proposed point(s) of take and all associated infrastructure (including water races and point of discharge and re-takes)
- The location of the water measuring device(s) or system(s)
- The total property area boundary
- Point/area of use including the area(s) to be irrigated (if relevant) by water applied for under this application (include legal description(s) and GPS locations) and clearly show any increases in irrigation area.
- The area of the community supply (if relevant)

- Distances to any discharge activities
- Other surface water bodies and wetlands, and distances from the point of take(s) to them
- The proposed points of take
- The location of any known recreational activities, other water takes, areas of significance to iwi and areas where food is obtained from the water body.
- point/area of use
- Any existing works/infrastructure in place, including value, in your application.
- Any other associated activities on site including damming, discharges.

### 3. Volume and rates of take applied for

#### 3.1 Quantity and rate of take currently consented

- a. Maximum rate of take: \_\_\_\_\_ litres per second  
 or Maximum rate of take: \_\_\_\_\_ litres per hour
- b. Maximum monthly volume: \_\_\_\_\_ cubic metres per month
- c. Maximum annual volume: \_\_\_\_\_ cubic metres per year

#### 3.2 Quantity and rate of take applied for:

*Note: 1,000 litres = 1 cubic metre*

- a. Maximum rate of take: \_\_\_\_\_ litres per second
- b. Maximum monthly volume: \_\_\_\_\_ cubic metres per month
- c. Maximum annual volume: \_\_\_\_\_ cubic metres per year

*Note: Some deemed permits refer to hourly/weekly rates. Water permits are issued in litres per second, m<sup>3</sup> per month and m<sup>3</sup> per year. Should you wish to seek hourly or weekly rates **in addition** to those listed on the form, please provide this information including justification for any variances.*

#### 3.3 Frequency of take applied for:

*Note both the maximum and estimated average take.*

	Average	Maximum
How many hours per day?		
How many days per week?		
How many weeks per month?		

**3.4 What is the timing of your take, including which months of the year you expect to take water in both an average year and a dry year, and what part of the day does the water take generally occur?**

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**3.5 If it is a replacement take, are you seeking to replace the take as primary allocation?**

Yes/no

If no, please explain whether the take is from a catchment that has no allocation regime or is for supplementary allocation

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**3.6 Is the take from re-charge/run-off or is it an 'augmented'<sup>1</sup> take?**

Yes/no

If yes, please explain.

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**3.7 Does your application involve any discharges, retakes, by-wash or supplementary takes?** Refer to practice note: <https://www.orc.govt.nz/media/9378/technical-guidance-note-1-deemed-water-permit-replacement-applications.pdf>

Yes/no

If yes, please explain.

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<sup>1</sup> The taking of water from any lake or river which has already been delivered to that lake or river for the purpose of the subsequent taking.

**3.7.1 For by-wash – is the taking of water from by-wash able to meet the non-complying definition in the RPW and is the discharge of by-wash permitted?** Refer to practice note: <https://www.orc.govt.nz/media/9378/technical-guidance-note-1-deemed-water-permit-replacement-applications.pdf>

Yes/no

### 3.8 Storage

**3.8.1 Do you intend to store your water before subsequent use?**

Yes/no

**3.8.2 If yes, what/how much storage will be provided and what type of storage facilities will you use?**

\_\_\_\_\_ m<sup>3</sup>

*Note: You may need a building consent and/or additional resource consents for the construction of storage facilities. If the reservoir is in a water body or captures catchment runoff, you may require resource consents for damming and associated activities.*

## 4. Point(s) of take description

**4.1 What are the GPS coordinates of the point(s) you propose to take water from?**

*Note: if there are more than two points of take, please provide these details on a separate sheet.*

Point 1: NZTM 2000 E: \_\_\_\_\_ N: \_\_\_\_\_

Point 2: NZTM 2000 E: \_\_\_\_\_ N: \_\_\_\_\_

*Note: The ability to control the water into a channel is used to determine where the point of take is. The point of take is where water is taken out of the source waterbody by a control mechanism such as a gate, control structure or pump.*

*Where there is no control structure at the point where water is taken from the source waterbody, you will need to review the diversion rules in Section 12.3 of the RPW. Consent may be required for a permanent or temporary diversion. The take point would then be from the diversion channel where control of the take is held.*

**4.2 Will you or others “re-take” water from your conveyance or storage network (i.e. via a water race, dams or reservoir)? If yes, please provide details of such re-takes in your application.**

Yes

No

**4.3 What is the name of the water body/ies from which the proposed take(s) is/are to occur?**

*Note: if the water body is unnamed please note this and note the water body it flows into.*

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**4.4 If the take is from a river, stream, spring, drain or modified water body, please provide a full description of the water course, including:**

- The average channel width and depth at the point of take and upstream and downstream of the point of take.
- Average flow water velocity including source of flow data and any changes to flow velocity above and below the point of take.
- Bed of the water body at the point of take and upstream and downstream of the point of take.

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**4.5 What type of water body will the take/s occur from?**

- River
- Stream
- Modified water body
- Spring
- Drain

**4.6 Is the water course perennial (flows all year round) or ephemeral?**

- Perennial
- Ephemeral

**4.7 If the take is from a wetland, is the wetland classed as a Regionally Significant Wetland identified in Schedule 9 of the Regional Plan: Water for Otago?**

- Yes (list the name and provide an assessment of effects on the wetland)
- No



## 5. Historical water use

### 5.1 Water abstracted over at least the last 5 years

*Note: if you are applying to replace an existing water permit for primary allocation, or an existing deemed permit or mining privilege you must provide evidence of the amount of water abstracted under that permit for at least the last five years.*

The following usage evidence is provided in support of this application:

- Water metering records, attached to this application with historical water use summarised and assessed
- Water metering records sent to Council electronically or recorded on file by Council with historical water use summarised and assessed
- Detail on alternative water use information, attached to this application

### 5.2 In your application please analyse and assess the historical volumes and pattern of water use based on the water use evidence. If your application is to replace a deemed permit or an existing consent expiring prior to 31 December 2025 please ensure this is also undertaken in accordance with Schedule 10A.4 of Proposed Plan Change 7 (Water Permits).

You can seek your water metering records from [watermetering@orc.govt.nz](mailto:watermetering@orc.govt.nz) and then analyse this using Schedule 10A.4, which is at the back of this form. There is a guidance note on how to apply Schedule 10A.4 here:

<https://www.orc.govt.nz/media/8373/guidance-on-using-schedule-10a4-of-proposed-water-permits-plan-change-plan-change-7.pdf>.

You can find this method at the back of this form. If you have any questions then please let us know.

### 5.3 Provide a summary of your analysis below:

- a. Maximum rate of take: \_\_\_\_\_ litres per second
- b. Maximum monthly volume: \_\_\_\_\_ cubic metres per month
- c. Maximum annual volume: \_\_\_\_\_ cubic metres per year

### 5.4 For which years have these rates and volumes been recorded?

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## 6. Water use and management

### 6.1 For what purpose(s) will the water be used?

- Stock water and/or dairy shed use
- Irrigation (provide detail of irrigation use in your application attached)
- Community supply
- Commercial/industrial including frost fighting
- Other

### 6.2 Will the water take be managed as part of an existing water allocation committee or water management group?

- Yes (name of committee of group): \_\_\_\_\_
- No

## 7. Measuring and Reporting

### 7.1 What type of water metering system is currently installed or proposed to be installed?

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### 7.2 Is your water measuring device or system installed or proposed to be installed at the point(s) of take?

*Note: The council considers the point of take to be within a 100 metre radius of the physical take point. If your answer is No, you need to apply for a Water Measuring Exemption (WEX) by filling out Application Form 24 – Application for Exemption to use a device or system near the location from which water is taken. A fully completed Form 24 should be lodged at the same time as this application to enable dual processing.*

- Yes
- No – there is an existing WEX. Number: \_\_\_\_\_ This will be reissued with the replacement consent if it is granted if there are no changes to the intake and/or point of take location.
- No – complete an Application Form 24 – Application for Exemption

## 8. Location and Efficiency of Water Use

### 8.1 Are any works or new infrastructure proposed works/infrastructure to give effect to consent sought?

- Yes – please explain
- No
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### 8.2 If your application is to use water for irrigation, provide an assessment of the proposed use against the Aqualinc report for reasonable water requirements<sup>2</sup>.

This report sets out reasonable water requirements for various irrigation types taking into consideration soil type and climate. It helps to determine if the water volumes sought are efficient for the intended use.

An assessment of the efficiency of the water taken for the intended purposes is required. This report can be used to assess irrigation efficiency. You can do this assessment yourself as the report sets out the steps you need to follow. This report can be found here: <https://www.orc.govt.nz/media/4499/aqualinc-irrigation-guidelines-2015.pdf>

Alternatively, we can also do this assessment for you, but this will be included in the processing costs for your application.

- Please do the Aqualinc assessment for me
- I have completed an assessment against Aqualinc and it is attached.

### 8.3 If you propose to use water to irrigate land, please outline:

- a. How many hectares of land will be irrigated?
- b. What is the soil type(s) of the land being irrigated?
- c. What will you be irrigating (i.e. crop type, pasture etc in ha)?
- d. What is the target application rate (mm/day and mm/year)?

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<sup>2</sup> "Guidelines for reasonable irrigation water requirements in the Otago Region", Aqualinc, 2017. Note that while this document provides a basis for assessing efficiency of use, other matters may be applicable.

- e. Is the total land area to be irrigated no more than what you irrigated in the 2017-2018 season?

Yes

No

If you have any information to support this, such as maps and aerial photographs then please include this.

**8.4 What type of irrigation system is proposed to be used or is currently being used?**

K-line

Centre pivot

Travelling irrigator

Border-dyke/flood irrigation

Other – provide details

**8.5 Do you have any water distribution infrastructure in place (for example pipes, storage tanks, open races etc.)?**

Yes

No

If yes, please describe the type of infrastructure in place and how you intend to ensure that it is maintained in good working order (e.g. do you intend to have a maintenance or leak detection programme, will the scheme be managed by an external company).

*Note: For deemed permits please ensure you have the right to convey water under s417 of the Resource Management Act if that conveyance crosses another party's property, prior to the expiry of the deemed permit.*

**8.6 Do you intend to install any water distribution infrastructure (for example pipes, storage tanks, open races etc.)?**

Yes

No

If yes, please describe the type of infrastructure to be installed and how you intend to ensure that it is maintained in good working order (e.g. do you intend to have a maintenance or leak detection programme, will the scheme be managed by an external company)?

*Note: For deemed permits please ensure you have the right to convey water under s417 of the Resource Management Act if that conveyance crosses another party's property, prior to the expiry of the deemed permit.*

**8.7 If you propose to use water for stock and/or dairy shed use – please answer the following:**

*Note: The Council considers the following values as efficient use of water for stock:*

<i>Sheep</i>	<i>5 litres per day per head</i>
<i>Beef cattle</i>	<i>45 litres per day per head</i>
<i>Dairy cows</i>	<i>70 litres per day per head</i>
<i>Deer</i>	<i>15 litres per day per head</i>
<i>Dairy shed use</i>	<i>50 litres per day per head</i>

**8.7.1 What type of animal and numbers of stock will be supplied with water for drinking?**

Sheep

Number:                      Water required:                      litres/head/day

Beef cattle

Number:                      Water required:                      litres/head/day

Dairy cows

Number:                      Water required:                      litres/head/day

Other

Number:                      Water required:                      litres/head/day

**8.7.2 How much water do you require for your dairy shed?**

\_\_\_\_\_ litres/head/day

**8.7.3 If you are seeking more water for stock and/or dairy shed use than that recommended by the Council please state why.**

*Note: please provide the source of any data provided. Also include details of stock water transportation if relevant.*

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**8.8 If you propose to use water for industrial use state what type of industry will be using the water and how will the water be used. Please assess the efficiency of water use. Guidance for frost fighting requirements can be found here: <https://www.orc.govt.nz/media/9378/technical-guidance-note-1-deemed-water-permit-replacement-applications.pdf>**

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**8.9 If you propose to use water for community/domestic supply – please answer the following:**

- a. For households, the number of households to be supplied:
- b. For camping grounds, the maximum number of visitors and staff per year:
- c. For schools, the maximum number of students and staff per year:
- d. For motel units, the number and expected occupancy:
- e. Other uses (please describe):

**8.10 For all uses, demonstrate in your application how have you calculated the amount of water you need and how efficiency will be sustained for the duration of the water permit?**

*Note: Please note that the Council will only grant volumes that have been assessed as efficient, and will assess the volumes sought for efficiency, taking into consideration the local climate, soils, and crop type.*

Tick if completed.

**8.11 Please describe any measures you are proposing to minimise wastage of water and maximise its efficient use.**

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## 9. Assessment of Environmental Effects

*Note: Pursuant to Schedule 4 of the Resource Management Act, 1991, there are a number of matters that must be addressed by an assessment of environmental effects.*

Please attach a document to this application form that includes the below information where it applies to your water take. You will not need to include all of the below information and most of it you should be able to access from our website, or on the links provided below. Council is expecting applications to use all currently available information (reports, observations, GIS data) to support the application but are not expecting new studies or investigations.

### 9.1 Assess effects on surface and/or groundwater hydrology. This assessment could include:

- Identifying sensitive areas including affected water bodies (surface, ground and coastal water), wetlands, bores, drinking water supplies and assessing effects on these.
- Comment on the Mean Annual Low Flow (MALF) of the watercourse including the methodology of how this was determined.
- Commentary on any known losing and gaining reaches of the watercourse.
- Hydraulic connection with groundwater, this could include depth and direction of groundwater. Reports to help with this can be found at:  
<https://www.orc.govt.nz/plans-policies-reports/reports-and-publications/water-quality/research-and-technical-reports>

### 9.2 Assess any effect on ecosystems, including effects on plants or animals and any physical disturbance of habitats in the vicinity of the point of take. This assessment could include the following information and answering the below questions:

- Identifying sensitive areas including values within the watercourse (upstream and downstream of the proposed take), wetlands and any other affected water bodies (surface, ground and coastal water)
- Instream assessment of both indigenous and sports fish values, including details of assessment method. Some information on fish presence can be found at:  
<https://niwa.co.nz/information-services/nz-freshwater-fish-database>
- Fish passage provision. Is it required and has it be provided for?
- Is a fish screen required to prevent fish entrainment? Why or why not? If a fish screen is required include the design of the fish screen and location.
- Details of any residual flow proposed, how this has been determined and how this will be measured or reasons why a residual flow is not proposed.
- Will the:
  - conveyance system provide habitat for fish?
  - take be subject to any minimum flows?
  - take cause/exacerbate any drying reaches in the waterbody?

### 9.3 Does the taking of water effect any other users of the water body?

- Identify other surface water takers (including consented takes, permitted activity takers) and groundwater users (bores). Information on consented users can be found here:  
<https://maps.orc.govt.nz/OtagoViewer/?map=1c59ff71893d4613a169806198eedafd>

- For consented takes that expire after 1 October 2021 assess potential effects of the proposal on these consent holders.
- Assess effects of proposed take on any permitted activity takers.

**9.4 Are there any of the following positive effects from the take?**

Supporting local jobs and businesses

Community and economic wellbeing

Other:

**9.5 Are you proposing any of the following mitigation measures? If yes, please tick and then explain below.**

A residual flow

Minimum flow

Fish screening on water intakes

Measures for management where there are low flows

Flow sharing measures

**9.6 Will your instantaneous abstraction rate (litres per second) be reduced by increasing the length of time over which water is taken.**

Yes

No

Explanation:

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**9.7 Are there any possible alternative water sources or methods for undertaking the activity and why these alternatives have not been selected.**

Yes - please explain why you are not using these.

No

## **10. Consultation**

**10.1 Include evidence of any consultation undertaken for this application. You do not need to do any consultation before your application comes in, but if you have talked to neighbours or stakeholders (e.g. iwi, Fish and Game, Department of Conservation) please include information relating to this.**

## **11. Statutory Assessment**

The relevant planning documents include but are not limited to:

- The National Policy Statement for Freshwater Management 2020
- The Regional Plan: Water for Otago
- Proposed Plan Change 7 (Water Permits) (PPC7)
- The Operative Regional Policy Statement, Proposed Regional Policy Statement and Partially Operative Regional Policy Statement
- Resource Management (Measurement and Reporting of Water Takes) Regulations 2010 and Amendment Regulations 2020
- Resource Management (National Environmental Standards for Freshwater) Regulations 2020
- Kai Tahu ki Otago Natural Resource Management Plan 2005.

The following may also be relevant and should be attached to your application if required:

- The National Environmental Standard for Sources of Human Drinking Water
- The National Policy Statement for Renewable Electricity Generation
- Ngāi Tahu ki Murihiku Natural Resource and Environmental Iwi Management Plan 2008 (for takes from the south side of the Clutha River/Mata-Au)
- New Zealand Coastal Policy Statement.

Provisions	Example assessment	Does the example assessment apply to your activity? <i>Say yes/no, provide a comment or complete your own assessment</i>
<b>National Policy Statement for Freshwater Management 2020</b>		
<i>Policy 1 Freshwater is managed in a way that gives effect to Te Mana o te Wai</i>	<i>This proposal aims to enhance the health of these waterways and to restore and preserve the balance between water, the wider environment and the community by identifying and considering the values within, or associated with affected waterways, starting with ecological values. The health of freshwater will be sustained (for present and future generations) through a range of measures including proposed residual flows, adherence to the appropriate minimum flow once operative, reduction in allocation, fish screening and on-farm and catchment initiatives relating to water quality.</i>	
<i>Policy 9 The habitats of indigenous freshwater species are protected</i>	<i>The habitat of indigenous fauna will be protected through via the retention of flows in the Creeks (residual flow limits), fish screening, and the appropriate minimum flow limit once operative. They will be further protected through on farm and wider catchment initiatives protecting water quality.</i>	
<i>Policy 10 The habitat of trout and salmon is protected, insofar as this is consistent with Policy 9.</i>	<i>The habitat of trout is protected in this application via the appropriate minimum flow condition once operative. Trout will be further protected through on farm and wider catchment initiatives protecting water quality.</i>	
<i>Policy 11 Freshwater is allocated and used efficiently, all existing over-allocation is phased out, and future over-allocation is avoided.</i>	<i>Over-allocation is defined in the NPSFM (2020), as a situation where resource use exceeds a limit or if limits have not been set, an FMU or part of an FMU is degraded or degrading. This proposal addresses historic degradation by proposing a reduction in what has previously been taken.</i>	
<i>Policy 12 The national target (as set out in Appendix 3) for water quality improvement is achieved</i>	<i>There are no known water quality issues associated with the subject takes in the tributary streams. The applicant is committed to improving water quality wherever possible within the catchment,</i>	

<p><i>Policy 15 Communities are enabled to provide for their social, economic, and cultural wellbeing in a way that is consistent with this National Policy Statement.</i></p>	<p><i>This proposal has been developed to enable the affected community to provide for its social, economic and cultural wellbeing whilst first prioritising the health and wellbeing of the wider environment. It does so by first understanding and seeking to protect instream ecology and natural values. Overall, this application is considered to be consistent with the relevant policies in the NPSFM (2020).</i></p>	
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<b>Provisions</b>	<b>Example assessment</b>	<b>Does the example assessment apply to your activity?</b> <i>Say yes/no, provide a comment or complete your own assessment</i>
<b>Regional Plan: Water for Otago (Operative)</b>		

<p><i>Objective 5.3.3 To protect the natural character of Otago's lakes and rivers and their margins from inappropriate subdivision, use or development</i></p>	<p><i>As discussed in the Assessment of Environment Effects, the proposed taking and use of water will not result in any adverse effects that are more than minor on natural, human use, spiritual or cultural values, provided the proposed conditions relating to the continued adherence to the minimum flow at Sutton, proposed new residual flow, and a fish screen, are included on the replacement consent. This application is considered to be consistent with these policies.</i></p>	
<p><i>Objective 5.3.4 To maintain or enhance the amenity values associated with Otago's lakes and rivers and their margins</i></p>		
<p><i>Policy 5.4.2 Avoid, remedy or mitigate adverse effects and flooding, erosion, land instability, sedimentation or property damage from the management of</i></p>		

<p>surface water, groundwater, beds and margins of lakes and rivers</p>		
<p>6.4.0A To ensure that the quantity of water granted to take is no more than that required for the purpose of use taking into account:  (a) How local climate, soil, crop or pasture type and water availability affect the quantity of water required; and  (b) The efficiency of the proposed water transport, storage and application system.</p>	<p><i>This application represents a reduction in allocation, with the aim that only the water required for the proposed use will be re-consented and taken. The local climate, soils, crops and pasture types have been taken into account by utilising the Aqualinc approach to calculating the volume of water required to efficiently irrigate the areas specified on the farm. This shows that the applicant seeks less annual volume than the amount calculated as efficient using Aqualinc, thus, reflecting the 'water short' nature of this catchment. In addition, the area irrigated by this water take is undertaken using modern and efficient k-line spray irrigation.</i></p>	
<p>6.4.2A Where an application is received to take water and Policy 6.4.2(b) applies to the catchment, to grant from within primary allocation no more water than has been taken under the existing consent in at least the preceding five years, except in the case of a registered community drinking water supply where an allowance may be made for growth that is reasonably anticipated</p>	<p><i>The applicant does not seek an instantaneous rate that is greater than the consented abstraction rate, or greater than has been historically taken. Further, the proposed volume sought represents a reduction in allocation.</i></p>	
<p>Policy 6.4.3 For catchments identified in Schedule 2A, except as provided for by Policy 6.4.8, minimum flows are set for the purpose of restricting primary allocation takes of water.</p>	<p><i>The minimum flows established provide for the maintenance of aquatic ecosystems and natural character under low flow conditions. As established in the AEE, the appropriate minimum flow is already imposed on the existing permit and the applicant will continue to adhere to this minimum flow requirement.</i></p>	

<p><i>Policy 6.4.7 - The need to maintain a residual flow at the point of take will be considered with respect to any take of water, in order to provide for the aquatic ecosystem and natural character of the source water body.</i></p>	<p><i>The proposal includes a residual flow to ensure appropriate provision for the aquatic ecosystem, natural character and amenity of the water body during low flow periods by retaining flow in the waterway at and below the point of take.</i></p>	
<p><i>Policy 6.4.0B - To promote and support shared use and management of water that: (a) Allows water users the flexibility to work together, with their own supply arrangements; or (b) Utilises shared water infrastructure which is fit for its purpose.</i></p>	<p><i>The applicant is apart of a water sharing group.</i></p>	

<p><b>Provisions</b></p>	<p><b>Example assessment</b></p>	<p><b>Does the example assessment apply to your activity?</b> <i>Say yes/no, provide a comment or complete your own assessment</i></p>
<p><b>Plan Change 7 (Water Permits) (“PPC7”)</b></p>		
<p><b>Objective 10A.1.1</b> <i>Transition toward the long-term sustainable management of surface water resources in the Otago region by establishing an interim planning framework to manage new water permits, and the replacement of deemed permits and water permits to take and use surface water (including groundwater considered as surface water) where those</i></p>	<p><i>This objective seeks a transition toward the long-term sustainable management of surface water resources in the Otago region through the establishment of an interim planning framework until such time as the new Land and Water Regional Plan is made operative. The proposal is consistent with this objective.</i></p>	

<p>water permits expire prior to 31 December 2025, until the new Land and Water Regional Plan is made operative.</p>		
<p><b>Policy 10A.2.1</b>  Irrespective of any other policies in this Plan, avoid granting resource consents that replace deemed permits, or water permits to take and 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, except where:</p> <p>(a) The deemed permit or water permit that is being replaced is a valid permit; and</p> <p>(b) There is no increase in the area under irrigation, if the abstracted water is used for irrigation; and</p> <p>(c) There is no increase in the instantaneous rate of abstraction; and</p> <p>(d) Any existing residual flow, minimum flow or take cessation condition is applied to the new permit; and</p> <p>(e) There is a reduction in the volume of water allocated for abstraction.</p>	<p><i>In relation to these matters, the water permit that is to be replaced is 'valid'; there is no increase to the existing command area of irrigation; there is no increase to the instantaneous rate of take; the existing minimum flow condition is being applied to the new permit; and there is a reduction in the volume of water allocated for abstraction. As all of these provisions are met, granting of this application is consistent with this policy.</i></p>	
<p><b>Policy 10A.2.2</b>  Irrespective of any other policies in this Plan concerning consent</p>	<p>Policies 10A.2.2 and 10A.2.3 should be considered together as only one is applicable depending on the nature of the application and what has been proposed. Beginning with</p>	

<p><i>duration, only grant new resource consents for the take and use of water for a duration of no more than six years.</i></p>	<p>10A.2.2, this policy directs to avoid granting a duration longer than 6 years. As the Applicant has sought a duration of 6 years, the activity is consistent with this policy and there need not be any consideration of Policy 10A.2.3.</p>	
<p><b>Policy 10A.2.3</b>  <i>Irrespective of any other policies in this Plan concerning consent duration, only grant new resource consents that replace deemed permits, or resource consents that replace water permits to take and 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 no more than six years, except where Rule 10A.3.2.1 applies and:</i></p> <p><i>(a) The activity will have no more than minor adverse effects (including no more than minor cumulative effects) on the ecology and the hydrology of the surface water body (and any connected water body) from which the abstraction is to occur; and</i></p> <p><i>(b) The resource consent granted will expire before 31 December 2035.</i></p>		

## **Regional Policy Statement, Proposed Regional Policy Statement and Partially Operative Regional Policy Statement**

- *Provide for the economic wellbeing of Otago's people and communities by enabling the resilient and sustainable use and development of natural and physical resources (Policy 1.1.1)*
- *Provide for social and cultural wellbeing and health and safety by recognising and providing for Kāi Tahu values; taking into account the values of other cultures; taking into account the diverse needs of Otago's people and communities; avoiding significant adverse effects of activities on human health; promoting community resilience and the need to secure resources for the reasonable needs for human wellbeing; promoting good quality and accessible infrastructure and public services (Policy 1.1.2)*
- *Achieve integrated management of Otago's natural and physical resources (Policy 1.2.1)*
- *Taking the principles of Te Tiriti o Waitangi into account including by involving Kāi Tahu in resource management processes implementation, having particular regard to the exercise of kaitiakitaka and taking into account iwi management plans (Policy 2.1.2)*
- *Managing the natural environment to support Kāi Tahu wellbeing (Policy 2.2.1)*
- *Recognise and provide for the protection of sites of cultural significance to Kāi Tahu including the values that contribute to the site being significant (Policy 2.2.2)*
- *Enable Kāi Tahu relationships with wāhi tupuna by recognising that relationships between sites of cultural significance are an important element of wāhi tupuna and recognising and using traditional place names (Policy 2.2.3)*
- *Enable sustainable use of Māori land (Policy 2.2.4)*
- *Safeguard the life-supporting capacity of fresh water and manage fresh water to:*
  - *Maintain good quality water and enhance water quality where it is degraded, including for:*
    - *Important recreation values, including contact recreation; and,*
    - *Existing drinking and stock water supplies;*
  - *Maintain or enhance aquatic:*
    - *Ecosystem health;*
    - *Indigenous habitats; and,*
    - *Indigenous species and their migratory patterns.*
  - *Avoid aquifer compaction and seawater intrusion;*
  - *Maintain or enhance, as far as practicable:*
    - *Natural functioning of rivers, lakes, and wetlands, their riparian margins, and aquifers;*
    - *Coastal values supported by fresh water;*
    - *The habitat of trout and salmon unless detrimental to indigenous biological diversity; and*
    - *Amenity and landscape values of rivers, lakes, and wetlands;*
  - *Control the adverse effects of pest species, prevent their introduction and reduce their spread;*
  - *Avoid, remedy or mitigate the adverse effects of natural hazards, including flooding and erosion; and,*
  - *Avoid, remedy or mitigate adverse effects on existing infrastructure that is reliant on fresh water. (Policy 3.1.1)*
- *Manage the allocation and use of fresh water by undertaking all of the following:*
  - *Recognising and providing for the social and economic benefits of sustainable water use;*



- *Avoiding over-allocation, and phasing out existing over-allocation, resulting from takes and discharges;*
- *Ensuring the efficient allocation and use of water by:*
  - *Requiring that the water allocated does not exceed what is necessary for its efficient use;*
  - *Encouraging the development or upgrade of infrastructure that increases efficiency;*
  - *Providing for temporary dewatering activities necessary for construction or maintenance. (Policy 3.1.3)*
- *Manage for water shortage by undertaking all of the following:*
  - *Encouraging land management that improves moisture capture, infiltration, and soil moisture holding capacity.*
  - *Encouraging collective coordination and rationing of the take and use of water when river flows or aquifer levels are lowering, to avoid breaching any minimum flow or aquifer level restriction to optimise use of water available for taking;*
  - *Providing for water harvesting and storage, subject to allocation limits and flow management, to reduce demand on water bodies during periods of low flows. (Policy 3.1.4)*
- *Identify and protect outstanding freshwater bodies (Policy 3.2.13 & 3.2.14)*
- *Identify and protect the significant values of wetlands (Policy 3.2.15 & 3.2.16)*
- *Apply an adaptive management approach, to avoid, remedy or mitigate actual and potential adverse effects that might arise and that can be remedied before they become irreversible (Policy 5.4.2)*
- *Apply a precautionary approach to activities where adverse effects may be uncertain, not able to be determined, or poorly understood but are potentially significant (Policy 4.4.3)*
- *Consider the offsetting of indigenous biological diversity, when:*
  - *Adverse effects of activities cannot be avoided, remedied or mitigated;*
  - *The offset achieves no net loss and preferably a net gain in indigenous biological diversity;*
  - *The offset ensures there is no loss of rare or vulnerable species;*
  - *The offset is undertaken close to the location of development, where this will result in the best ecological outcome;*
  - *The offset is applied so that the ecological values being achieved are the same or similar to those being lost;*
  - *The positive ecological outcomes of the offset last at least as long as the impact of the activity*

**Example:**

The activity is consistent with the above provisions as the effects of the activity will be less than minor on the environment, including natural and human use values; the activity will provide for the economic wellbeing of the Applicant and indirectly the wider region; water will be allocated and used efficiently; and by granting only a 6-year duration a transition will be achieved for managing longer term effects.

Overall, the Application is consistent with the operative, proposed and partially operative RPS.

### **Does the example assessment apply to your activity?**

Say yes/no, provide a comment or complete your own assessment

### **Resource Management (Measurement and Reporting of Water Takes) Regulations 2010 and Amendment Regulations 2020**

Accurate, complete and current water information is a critical building block in establishing a water management system in which water is effectively allocated and efficiently used.

The regulations apply to holders of water permits (resource consents) which allow fresh water to be taken at a rate of 5 litres/second or more, specifically:

- Regulation 8 - Permit holder must provide records and evidence to regional council

The 2020 amendments introduce additional measuring and reporting requirements in stages starting with takes of more than 20 L/s on 3 September 2022.

Through this consent process, conditions will be placed on any replacement water permit granted, to bring their water use measurement in line with what is required and to require them to provide abstraction data records in accordance with the Resource Management (Measurement and Reporting of Water Takes) Regulations 2010 and 2020 Amendments.

**Provide a comment or complete your own assessment (If relevant)**

### **Resource Management (National Environmental Standards for Freshwater) Regulation 2020 (NESFW)**

The NESFW 2020 regulations came into force on 3 September 2020. They impose standards on a range of farming activities and other activities relating to freshwater. They also set out a framework for consenting certain activities if the standards are not met.

**Provide a comment or complete your own assessment (If relevant)**

## **10A.4 Schedule: Methodology for calculating assessed actual usage for surface-water takes for irrigation purposes**

### **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 Average Maximum of the actual rate taken. In order to achieve this, the actual rate taken across the hydrological year (1 July to 30 June) will be analysed to determine the maximum rate taken at any time during that year. The maximum rate taken in each hydrological year will then be summed and divided by the number of years analysed.

#### Methodology

- (1) 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 m<sup>3</sup> taken over a 15-minute period will equate to a rate of take of 11.11 l/s.
- (2) 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 down to the authorised rate.
- (4) 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, 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% or 10% depending on:
  - a) the margin of error specified in any consent or permit being replaced, or
  - b) the results of the last verification presented to the Otago Regional Council, or
  - c) the margin of error specified by the meter's manufacturer.
- (6) The maximum rate taken in each water year will be summed across the hydrological years analysed and divided by the number of hydrological years analysed.

### **10A.4.2 Methodology for calculating Daily Volume Limit (m<sup>3</sup>)**

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 hydrological years analysed and divided by the number of hydrological years analysed.

#### Methodology

- (1) Where a consent being replaced does not include a 'Daily Volume Limit', the authorised volume will be calculated based on the following formula: Daily Volume m<sup>3</sup> = ((Consented Rate of Take l/s) x 86,400)/1,000
- (2) Any measurement that is at, or below, 0 m<sup>3</sup> will be removed.
- (3) Any day that exceeds the authorised (consented) or calculated daily volume by less than the margin of error on the water meter is rounded down to the consented volume.
- (4) Any day where the volume taken exceeds the authorised (consented) or calculated volume 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) overtaking outside of existing authorised limits, and

- b) errors caused by faulty equipment, and
  - c) overtaking caused by natural events such as floods.
- (5) The margin of error will be treated as being either 5% or 10% depending on:
- a) the margin of error specified in any consent or permit being replaced, or
  - b) the results of the last verification presented to the Otago Regional Council, or
  - c) the margin of error specified by the meter's manufacturer.
- (f) The maximum 'Daily Volume' taken in each water year will be summed across the hydrological years analysed and divided by the number of hydrological years analysed

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

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 hydrological years analysed and divided by the number of hydrological years analysed.

##### Methodology

- (1) Where a consent being replaced does not include a 'Monthly Volume Limit' the authorised volume will be calculated based on the following formula;  $\text{Monthly Limit} = (\text{Consent Daily Volume or Calculated Daily Volume}) \times 30.4$
- (2) Actual Monthly volumes will be calculated based on the sum of the assessed Daily Volumes in each calendar month. For the purposes of this calculation Daily Volumes will be filtered using the same steps used when calculating the Maximum Daily Volume.
- (3) Any measurement that is at, or below, 0 m<sup>3</sup> will be removed.
- (4) 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 down to the consented 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. This ensures that the following are excluded from any calculations:
  - a) overtaking outside of existing authorised limits, and
  - b) errors caused by faulty equipment, and
  - c) overtaking caused by natural events such as floods.
- (6) The margin of error to be applied to any calculation will be either 5% or 10% depending on:
  - a) the margin of error specified in any consent or permit being replaced, or
  - b) the results of the last verification presented to the Otago Regional Council, or
  - c) the margin of error specified by the meter's manufacturer.
- (7) The maximum 'Monthly Volume' taken in each water year will be summed across the hydrological years analysed and divided by the number of hydrological years analysed.

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

The 'Annual Volume Limit' shall be determined by calculating the average of the actual volumes taken each year.

##### Methodology

- (1) Where a consent or permit being replaced does not include an 'Annual Volume Limit' the authorised volume will be calculated based one of the following formula. The formula used will be whichever produces the lower calculated Annual Limit;  $\text{Annual Limit} = (\text{Consent Daily Volume or Calculated Daily Volume}) \times 365.25$   $\text{Annual Limit} = (\text{Consented Monthly Volume}) \times (\text{Months where water can be taken})$  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 assessed Daily Volumes in each water year. For the purposes of this calculation Daily Volumes will be filtered using the same steps used when calculating the Maximum Daily Volume.

(3) Any measurement that is at or below 0 m<sup>3</sup> will be removed.

(4) Any year that exceeds the authorised or calculated volume is rounded down to the authorised volume.

(5) The 'Annual Volume' taken in each water year will then be summed across the hydrological years analysed and divided by the number of hydrological years analysed.

## **Guidance on using Schedule 10A.4 of Proposed Water Permits Plan Change (Plan Change 7)**

This guidance is solely to assist users in preparing an application for resource consent under proposed Rule 10A.3.1.

Users must note that under proposed Rule 10A.3.1.1, the Council reserves control over (among other things) the volume and rate of water taken, dammed, discharged or diverted.

It follows that the Council is not required to grant a water permit for the volume or rate of take calculated in accordance with this guidance nor for the volume or rate of take contained in an application. The Council can grant a water permit for a lesser volume and/or lower rate of take.

Calculating the 'Rate of Take Limit' (Schedule 10A.4.1)

### **Step 1**

- a. In Excel, open the spread sheet supplied by ORC labelled "Flow."
- b. Remove any records at or below 0 litres per second (l/s)
- c. Sort your data set from smallest to largest based on the rate of take.
- d. Delete any rows which contain a negative value or a zero value.

### **Step 2**

Any measurement that exceeds the authorised (consented) rate by less than the margin of error of the water meter is rounded down to the authorised rate.

- a. Check your margin of error. This will be specified on your consent or on your latest verification.
- b. Round the margin of error to either 5% or 10%, whichever is closer (0-5 = 5%, 6-10 = 10%). If you can't find this specified anywhere, use 5% when the meter is located at or measuring a piped take and 10% where the meter is located in an open channel.
- c. Sort your data from largest to smallest and round any measurements where the value is above the consented limit but within the margin of error, down to the consented limit.

*For example*

*On a consent with a rate of take limit of 55 l/s and a margin of error of 10%, the margin of error would be 5.5 l/s. So anything that is between 55.1 l/s and 60.5 l/s (which is the sum of the consented take of 55 l/s + margin of error of 5.5) is rounded down to 55 l/s.*

### **Step 3**

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.

*So for the above example, anything greater than 60.5 l/s should be removed*

To do this:

- a. Sort your data again from largest to smallest.

b. Any values which are more than the margin of error above your consented take should be deleted.

**Step 4**

Find the highest remaining single rate of take in each water year. A water year runs from 1 July to 30 June.

There are a number of ways to do this. Methods include separating the data for each water year and sorting to find the maximum value, or creating a pivot table to select the maximum rate in each month and selecting the maximum rate in each water year from that list.

If you've followed the steps above your maximum rate of take in each year cannot be higher than your current consented rate of take.

**Step 5**

Take the maximum rate of take for each water year (values identified under step 4). If you have a full set of data then you will have five numbers at this point.

To apply the methodology outlined in proposed Schedule 10A.4.1, add these numbers together and divide them by the number of years for which you have data. The resulting number will be the instantaneous rate of take limit that is likely to be stated on your new water permit.

<i>For example Year</i>	<i>Max Rate</i>
2012/13	55 l/s
2013/14	55 l/s
2014/15	45 l/s
2015/16	43 l/s
2016/17	50 l/s

$(55 \text{ l/s} + 55 \text{ l/s} + 45 \text{ l/s} + 43 \text{ l/s} + 50 \text{ l/s})/5 = 49.6 \text{ l/s}$

## **Deemed Permits for Dams– Advice Note for Applications**

The replacement of deemed permits includes some deemed permits that relate to damming. The following provides some advice on the information to include within a deemed permit damming application for a 6 year term.

For a 6 year application Council will be expecting supply and consideration of the best available desk top information/existing studies for understanding the receiving environment and nature of the damming activity rather than new investigations.

Firstly, complete as much of the **above Form 4C** as it generally relates to making an application (Part 1) or that can be reasonably answered for a damming activity.

Complete **Application Form 2** – on the basis of the above limitations e.g. a new dam break assessment would not be required but a risk assessment report provided if one has been completed and a description of the environment below the dam provided.

In addition, the Application should provide sufficient details on the following.

- Evidence to support the deemed permit being 'valid'.
- Irrigation area that is supported by the damming activity. Advise of any deemed permits or other takes that enable water to be taken from the dam and reference irrigation area/changes.
- Outline whether any residual flows are proposed below the dam (damming activity) with an explanation of the residual flow and how it will be maintained, if proposed, or why a residual flow is not proposed
- Outline how potential fish entrainment associated with the damming will be managed.
- Outline how potential fish passage effects associated with the damming will be avoided, remedied, mitigated.
- Provide details on the volume of water dammed and a brief summary of effects as they pertain to the volume of water dammed (e.g. flooding, dam break).
- Outline any investigations or proposed works that may be undertaken over the 6 year period to obtain a better understanding of the receiving environment prior to replacement applications being lodged.

### **Statutory Assessment**

The statutory assessment in this form provides guidance on the relevant documents and objectives and policies to consider. In addition, the following may need to be considered: Regional Plan: Water for Otago – Policy 5.4.3, Policy 8.4.1, Policy 8.5.1 and Policy 8.5.3.