Resource Consent Application Form 16

To Transfer the Site of a Surface Water Take or Groundwater Take

Otago Regional Council

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

Phone: 0800 474 082

Website: www.orc.govt.nz

IMPORTANT NOTES TO THE APPLICANT

Under Section 136(2)(b)(ii) of the Resource Management Act 1991 a consent holder of a water permit to take surface water or groundwater may apply to transfer their permit to another person on another site, or to another site, if both sites are in the same catchment or aquifer.

An application to transfer the site of a surface water take or groundwater take under Section 136(2)(b)(ii) of the Resource Management Act 1991 may be approved and retain any allocation status it currently has, providing it meets conditions (a) through (d) of Policy 6.4.17 of the Regional Plan: Water for Otago. These conditions state that:

(a) The transfer is within the same catchment or aquifer as the original consent, or both sites are connected in terms of Policy 6.4.1A(a) or (b);
(b) The total take from the water body following transfer does not exceed that occurring prior to the transfer, as a result of the transfer;
(c) The quantity of water taken is no more than that required for the purpose of use of that water, having regard to the local conditions; and
(d) There is no more than minor adverse effect on any other take, any right to store water, or on any natural or human use value, as a result of the transfer.

Ensure that you complete this application Form 16 and Resource Consent Application Form 1 in full

For any consent application to be processed efficiently in the minimum time and at minimum cost, it is critical that as much relevant information as possible is included with the application. If all the necessary information is not entered on the form or supplied with the application then Otago Regional Council may reject your application, request further information or publicly notify your application. This will lead to delays in the processing of your application and may increase processing costs.

This application form, when properly completed, should provide an adequate "Assessment of Effects on the Environment" (AEE) where the adverse effects of a proposal are not significant. However, this can only be determined on application.

PART A: GENERAL

A.1 Water Permit Number to be transferred: _____

Are you the holder of the current water permit?

☐ Yes

☐ No (*If not, a transfer of owner of the permit pursuant to Section 136(2)(a) will need to occur. Please complete application Form 15)*

A.2 In addition to transferring the point(s) of take, are you transferring ownership of all or part of the water permit to another party?

☐ No

☐ Yes *(You will also need to fill out application Form 15. If water is being transferred to more than one other party application Form 15 will need to be filled out by each party to whom water is being transferred)*

A.3 Are you transferring the whole or only part of the interest in the permit to a new site?

☐ Whole

☐ Part _____% to be transferred

A.4 Please provide evidence of the amount of water historically abstracted under the permit *Note: Only the water historically abstracted under the permit can be applied to be transferred to a new site*

☐ My water use records are attached to the application. _____years of records attached

☐ The Otago Regional Council has my water use records. *Note: You will be charged for all time spent retrieving and analysing records held on Council files*

☐ I don't have any records but have other evidence of historical use (e.g. description and photos of existing functioning infrastructure, aerial photographs of irrigated area)

A.5 Please provide a plan (A4 or A3 size) with this application that shows the following:

☐ The legal boundaries of the property encompassing the point(s) of take and neighbouring properties, including the names of the owners and/or occupiers of those properties.

☐ The location of the water body on the property (if relevant).

☐ The location of the proposed point(s) of take.

☐ The location of the water measuring device or system.

☐ The areas to be irrigated (if relevant).

☐ The location of any other known surface water takers/groundwater takers within 500 metres of your proposed point(s) of take, from the same water body.

☐ The location of any other rivers, streams, springs, lakes, ponds, wetlands or modified watercourses within 500 metres of your proposed point(s) of take.

☐ If the water body is a river or stream, please indicate the direction of the flow with an arrow.

☐ A north symbol.

☐ A scale, or if the plan is not to scale, estimated distances between the proposed point(s) of take and key features.

PART B: DESCRIPTION OF THE POINT OF TAKE – SURFACE WATER

B.1 What is the name or names of the water body(s) from which you CURRENTLY take water?

.....

.....

B.2 What are the GPS co-ordinates of the location(s) of the point(s) of take from which you CURRENTLY take water?

Point 1: NZTM 2000 E ..... N .....

Point 2: NZTM 2000 E ..... N .....
If more than 2, please provide details on a separate sheet

B.3 What is the name or names of the water body(s) from which you PROPOSE to take water?
Note: if the water body is unnamed then please note this and state which water body it flows into
.....
.....
.....

B.4 If the PROPOSED point(s) of take is from the same watercourse, what is the distance and direction (upstream or downstream) from the CURRENT point of take? Please state whether distance is in metres or kilometres.
.....
.....
.....
Note: If the catchment is different to that from which you are currently consented to take water then a new application to take surface water will be required (see Form 4)

B.5 What are the GPS co-ordinates of the location(s) of the point(s) of take from which you PROPOSE to take water?
Point 1: NZTM 2000 E ..... N .....
Point 2: NZTM 2000 E ..... N .....
If more than 2, please provide details on a separate sheet

B.6 Describe the property on which the PROPOSED point(s) of TAKE will be located
(a) Full name(s) of owner(s)_____

(b) Full name(s) of occupier(s)_____

(c) Address/location_____
_____

(d) Legal Description(s) (as shown on Certificate of Title)
Lot_____DP_____Sec_____

Survey District (SD)_____

Other (Specify)_____
Council will obtain a Certificate of Title to confirm details, if necessary

(e)Is the point of take located on Crown Land River Bed?

☐ No

☐ Yes *(Please provide the legal description of the property adjacent to the point of take)*_____
_____

B.7 Describe the property(s) on which the water is to be USED

(a) Full name(s) of owner(s)_____

(b) Full name(s) of occupier(s)_____

(c) Address/location_____
_____

(d) Legal Description(s) (as shown on Certificate of Title)
Lot_____DP_____Sec_____

Survey District (SD)_____

Other (Specify)_____
Council will obtain a Certificate of Title to confirm details, if necessary

B.8 Please provide photographs of the proposed point (s) of take (or existing intake structure) and of the water body within the immediate area. *(Note: Please date and detail the orientation of each photo). If you are unable to provide photos please give any reasons below.*

.....
.....
.....

PART C: DESCRIPTION OF THE POINT OF TAKE -GROUNDWATER

If the bore the water is to be transferred to is not yet constructed, or is unconsented, STOP now and apply for the Land Use Consent to construct a bore and obtain this before you apply to transfer the take to a new site. Form 9A is available on the Council website.

C.1 What are the consent and bore tag numbers for the bore(s) where water is CURRENTLY taken?

Bore 1: Consent Number:..... Bore tag number .....
Bore 2: Consent Number:..... Bore tag number .....
If more than 2, please provide details on a separate sheet

C.2 What are the GPS co-ordinates of the location of the bore(s) from which groundwater is CURRENTLY taken?

Bore 1: NZTM 2000 E ..... N .....
Bore 2: NZTM 2000 E ..... N .....
If more than 2, please provide details on a separate sheet

C.3 Tick the box next to the aquifer that the water is CURRENTLY taken from. If you are unsure refer to Maps C1-C17 in the Regional Plan: Water for Otago.

- ☐ Cardrona Alluvial Ribbon
- ☐ Cromwell Terrace
- ☐ Dunstan Flats
- ☐ Earnscleugh Terrace
- ☐ Ettrick Basin
- ☐ Hawea Basin
- ☐ Inch Clutha River/Mata-Au Gravel
- ☐ Kakanui-Kauru Alluvium
- ☐ Kuriwao Basin
- ☐ Lindis Alluvial Ribbon

- ☐ Lowburn Alluvial Ribbon
- ☐ Lower Taieri
- ☐ Lower Waitaki Plains
- ☐ Maniototo Tertiary
- ☐ Manuherikia Alluvium
- ☐ Manuherikia Claybound
- ☐ North Otago Volcanics
- ☐ Roxburgh Basin
- ☐ Papakaio
- ☐ Pomahaka Basin
- ☐ Shag Alluvium
- ☐ Wanaka Basin Cardrona Gravels
- ☐ Wakatipu Basin
- ☐ Unknown

Others:
- ☐ Bendigo
- ☐ Clydevale
- ☐ Glenorchy
- ☐ Strath Taieri
- ☐ Tarras
- ☐ Wairuna

C.4 What are the consent and bore tag numbers for the bore(s) where water is PROPOSED to be taken?

Bore 1: Consent Number:..... Bore tag number .....
Bore 2: Consent Number:..... Bore tag number .....
If more than 2, please provide details on a separate sheet

C.5 What are the GPS co-ordinates of the location of the bore(s) from which groundwater is PROPOSED to be taken?

Bore 1: NZTM 2000 E ..... N .....
Bore 2: NZTM 2000 E ..... N .....
If more than 2, please provide details on a separate sheet

C.6 Tick the box next to the aquifer that the water is PROPOSED to be taken from. If you are unsure refer to Maps C1-C17 in the Regional Plan: Water for Otago. *Note: If the aquifer is different to that from which you are currently consented to take water then a new application to take groundwater will be required (see Form 5)*

- ☐ Cardrona Alluvial Ribbon
- ☐ Cromwell Terrace
- ☐ Dunstan Flats
- ☐ Earnscleugh Terrace
- ☐ Ettrick Basin
- ☐ Hawea Basin
- ☐ Inch Clutha River/Mata-Au Gravel
- ☐ Kakanui-Kauru Alluvium
- ☐ Kuriwao Basin
- ☐ Lindis Alluvial Ribbon
- ☐ Lowburn Alluvial Ribbon
- ☐ Lower Taieri
- ☐ Lower Waitaki Plains
- ☐ Maniototo Tertiary
- ☐ Manuherikia Alluvium
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- ☐ North Otago Volcanics
- ☐ Roxburgh Basin
- ☐ Papakaio
- ☐ Pomahaka Basin
- ☐ Shag Alluvium
- ☐ Wanaka Basin Cardrona Gravels
- ☐ Wakatipu Basin
- ☐ Unknown

Others:
- ☐ Bendigo
- ☐ Clydevale
- ☐ Glenorchy
- ☐ Strath Taieri
- ☐ Tarras
- ☐ Wairuna

C.7 Do you have a bore log for your bore(s)?

- ☐ Yes and it is enclosed with this application, go to Part D
- ☐ Yes and it was provided to the Otago Regional Council after the bore was constructed, go to Part D
- ☐ No, go to C.8

C.8 Please complete the following if no bore log is available.

Date bore drilled: .....
Driller: .....
Total depth of bore: .....
Diameter of bore: .....
Static water level: .....
If more than one bore, please provide the information on a separate sheet.

PART D: VOLUME AND RATES OF TAKE

D.1 Will the rate of take and total volume taken under this consent alter as a consequence of a new site of take?

- ☐ No
- ☐ Yes

D.2 What quantity of water do you propose to take from the new site(s) and at what rate will it be taken? *Note: 1,000 litres = 1 cubic metre (Please take the time to complete this section in full as each of the values listed are required in order to assess an application)*

(a) maximum rate of take	.....	litres per second
(b) maximum daily volume	.....	litres per day; or
	.....	cubic metres per day
(c) maximum monthly volume	.....	cubic metres per month
(d) maximum annual volume	.....	cubic metres per year

D.3 What will be the frequency of take at your proposed new site(s)?

	Average	Maximum
(a) How many hours per day?	.....	.....
(b) How many days per week?	.....	.....
(c) How many weeks per month?	.....	.....

(d) In which months do you expect to take water? *(tick those relevant)*

	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Average												
Dry year												

D.4 Over what part of the day will you typically take water?

- ☐ During the day
- ☐ During the night
- ☐ Other *please specify* .....
- ☐ 24 hours
- ☐ 'on demand'

D.5 Are you intending to harvest water for storage before subsequent use?

- ☐ No, go to question D.6.
- ☐ Yes: Capacity of water storage reservoir(s) ..... cubic metres

D.6 Is your water storage reservoir 3 metres or more in depth and impounds more than 20,000 cubic metres of water?

- ☐ No.
- ☐ No, but the water immediately upstream of the dam is more than 3 metres deep and/or the dam stores more than 20,000 cubic metres. (Note: If the dam meets the above criteria and is in a watercourse or captures catchment run off you may require resource consents for damming and associated activities, contact the Duty Resource Management Administration Officer for more information.
- ☐ Yes, a building permit may be required, contact the Duty Consent Administration Officer or visit the Council website www.orc.govt.nz.

D.7 Is the water to be taken using a pump or via gravity feed?

- ☐ Pump (go to question D.8)
- ☐ Gravity Feed (go to question D.11)

D.8 What is the pump's maximum capacity?_____ litres per second

D.9 Will a screen be fitted on the intake?

- ☐ Yes, a screen will be fitted
- ☐ Yes, a screen is already fitted
- ☐ No, a screen will be fitted

D.10 If a screen is or will be fitted to the intake, what are the dimensions of the screen including the hole/slot size?

Screen width _____mm
Hole/slot size_____mm
Screen diameter_____mm
Density of holes/slots_____number/cm^2

D.11 If you take is to be gravity fed, please describe your water collection and delivery system (it may be useful to show your system on the site plan required under question A.5).

.....

.....

D.12 If you propose to have more than one point of take, will you be exercising the take from the points concurrently, or at different times? Please describe how the different points of take will be used:

.....

.....

D.13 Is your proposed take from a Schedule 2C Aquifer (of the Regional Plan: Water)?

Schedule 2C Aquifers:

Kakanui Kauru Alluvium Aquifer, Shag Alluvium Aquifer, Lindis Alluvial Ribbon Aquifer, Cardrona Alluvial Ribbon Aquifer, Lowburn Alluvial Ribbon Aquifer

☐ Yes: which one ..... ☐ No, go to question D.15.

D.14 For Schedule 2C Aquifers what is the name of the surface water body connected to your proposed point of take?

e.g. for Kakanui-Kauru Alluvium Aquifer is it the Kakanui River, Kauru River, a tributary of these or another named water course?

.....

D.15. If a groundwater take, is your proposed point of take(s) within 100 metres of a connected perennial surface water body?

☐ No, go to question D.17 ☐ Yes, go to question D.16

D.16 What is the name of the surface water body within 100 metres of your proposed point of take?

i.e. Lake Dunstan, Waiareka Creek or a tributary of Stoney Creek, etc

.....

D.17 For rivers, streams, modified water courses, springs or drains answer questions (a)-(g), for lakes, ponds and wetlands go to Question D.18.

(a) What type of water course is identified in B.3 above. *Tick those relevant*

☐ River ☐ Modified watercourse ☐ Drain

☐ Stream ☐ Spring

(b) Is the water course:

☐ Perennial (flows all year around) ☐ Ephemeral (flows only as a result of rainfall or snow melt)

(c) What is the average channel **width** nearest to your proposed point of take? ..... metres

(d) What is the average channel **depth** nearest to your proposed point of take? ..... metres

(e) What is the estimated average water flow velocity? ..... metres/second

(f) How would you describe the bed of the water course? *Tick those relevant*

☐ Muddy ☐ Boulders ☐ Gravels and cobbles ☐ Sandy ☐ Hard rock

(g) Are you able to supply estimated minimum and maximum flow rates for the water course?

☐ No, go to Part E

☐ Yes, please complete the following

Minimum: ..... litres per second

Maximum: ..... litres per second

Location of estimate:

☐ adjacent to proposed point of take ☐ Other

Source of flow data: .....

D.18 For lakes, ponds and wetlands, answer points (a)-(f) below.

(a) What type of water body is identified in B.3 above. *Tick those relevant*

☐ Lake ☐ Pond ☐ Wetland

If identified as a wetland, is the wetland classified as a Regionally Significant Wetland?

☐ Yes ☐ No

(Note: if unsure of this please contact the Duty Consents Administration Officer or visit the Council website www.orc.govt.nz.)

(b) Has the water body been formed by artificial means?

☐☐ Yes ☐ No

(c) What is the surface area of the lake/pond/wetland?.....

(d) How deep is the lake/pond/wetland?.....

(e) Does the lake/pond/wetland have an outlet? i.e. does water flow out of it?

☐ Yes ☐ No

(f) What is the main source of water that fills the lake/pond/wetland? *Tick as many boxes as is relevant*

☐ Direct rainfall

☐ Springs ☐ Groundwater ☐ Runoff from surrounding land

☐ Stream/rivers name: .....

☐ Other consented water takes:

consent numbers:.....

PART E: WATER MEASURING AND REPORTING INFORMATION

The Resource Management (Measurement and Reporting of Water Takes) Regulations 2010 and the Regional Plan: Water require continuous measurement of the water taken and for the daily records to be provided to the Otago Regional Council at the end of the water year. Verification of the device or systems installed is also required. *(Note: According to the Regulations the water year is from 1 July through to 30 June in the following year).*

E.1 Is a water measuring device or system…

☐ Proposed to be installed; or ☐ Already installed

E.2 Is a data logger installed, or proposed to be installed, as part of your water measuring device or system?

☐ No ☐ Yes

(Note: If a data logger is required it will need a minimum of 24 months data storage.

E.3 Please provide photographs of the measuring device or system if it is currently installed.

☐ Photographs attached

Installation of a Water Measuring Device or System

The Otago Regional Council has standard installation specifications for water meters. The standard installation requirement is:

The water meter shall be installed in a straight length of pipe, before any diversion of water occurs. The straight length of pipe shall be part of the pump outlet plumbing, easily accessible, have no fittings and obstructions in it. The water meter shall be installed at least 10 times the diameter of the pipe from the pump and at least 5 times the diameter of the pipe.

E.4 Are you proposing to install your water meter in accordance with the Otago Regional Council Standard Installation specifications outlined in the paragraph above?

☐ Yes ☐ No

If your answer is NO, you need to fill out and attach to this application form a *Non-Standard Installation Form* for Water Measuring Devices available on our Website or through the Environmental Services Unit of the Otago Regional Council.

E.5 The Regulations require the taking of water to be measured at the point of take unless an Exemption is approved by the Otago Regional Council. Is your water measuring device or system installed at the point of take?

☐ Yes ☐ No

If your answer is no, you need to apply for an Exemption by filling out *Application Form 24 – Application for Exemption to use a device or system near the location from which water is taken,* which is available on our website www.orc.govt.nz and from our offices.

E.6 The Regulations require the taking of water to be recorded on a daily basis unless an Exemption is approved by the Otago Regional Council. Will you be keeping daily records of your water use?

☐ Yes ☐ No

If your answer is no, you need to apply for an Exemption by filling our *Application Form 25 – Application for Exemption to record water use on a weekly basis,* which is available on our website www.orc.govt.nz and from our offices. Please note that only in exceptional circumstance will the Council consider granting an exemption enabling water use to recorded on a weekly basis. In most cases, it will be expected that a datalogger is installed.

PART F: WATER USE AND MANAGEMENT

F.1 Will the water take be managed as part of an existing Water Allocation Committee or Water Management Group?

☐ Yes – Water Allocation Committee ----------

☐ Yes – Water Management Group ----------

☐ No

If yes, please describe how the allocation committee/management group operates.

.....

.....

.....

.....

Efficiency of water use

In this section you are required to only answer the questions relevant to your intended use of water. As a guide the questions are as follows:

F.2 Irrigation of land (pasture etc)
F.3 Irrigation of crops or horticulture
F.4 Frost fighting
F.5 Industrial use
F.6 Private community water supply
F.7 Public community water supply
F.8 Stock and/or dairy shed use
F.9 Other

F.2 Irrigation of land– not crops or horticulture
(includes pasture, turf (golf courses), lifestyle blocks and sports fields)

(a) How many hectares of land will be irrigated? (Show the area of land to be irrigated on the map attached to this application and required by Question A.3) .....

(b) What is the total property area (not just that proposed to be irrigated)? .....

(c) What type of irrigation system is to be or is being used?

☐ K-line ☐ Centre pivot ☐ Travelling irrigator

☐ Border-dyke/flood irrigation ☐ Other

(d) How many hectares will be irrigated in one day? .....

(e) For how many hours per day? .....

(f) What is the target (net) application rate? .....

(g) How many days are there between irrigating the same block? .....

(h) Please describe the soil types of the areas to be irrigated and state the source of this information.

.....

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.....

(i) How have you calculated the amount of water you need? (a separate sheet may be needed and attached to this application form)

.....

.....

.....

.....

(j) Is the area to be irrigated:

☐ Presently irrigated/developed

☐ Partly irrigated/developed (..... ha complete ha under development)

☐ Proposed to be irrigated/developed (..... likely completion date)

F.3 Irrigation of crops or horticulture

(a) What is the total area to be irrigated?(Show the area of land to be irrigated on the map attached to this application and required by Question A.3).....

(b) What is the total property area (not just that proposed to be irrigated)? .....

(c) If glass/plastic houses are used, what area do they cover? .....

(d) What type of crops will be irrigated?

- ☐ Grain/wheat ☐ Pip fruit ☐ Stone fruit
- ☐ Market garden ☐ Flowers ☐ Nursery
- ☐ Viticulture ..... (vines/hectare)
- ☐ Nuts
- ☐ Other .....

(e) What type of irrigation system is or is proposed to be used?

- ☐ Trickle ☐ Sprinkler ☐ Other .....

(f) How many hectares will be irrigated in one day? .....

(g) For how many hours per day? .....

(h) What is the target (net) application rate? .....

(i) How many days will there be between irrigating the same block? .....

(j) Please describe the soil types of the areas to be irrigated and state the source of this information.

.....

.....

.....

.....

(k) How have you calculated the amount of water you need? (a separate sheet may be needed and attached to this application form)

.....

.....

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.....

(l) Is the area to be irrigated:

- ☐ Presently irrigated/developed
- ☐ Partly irrigated/developed (..... ha complete ha under development)
- ☐ Proposed to be irrigated/developed (..... likely completion date)

F.4 Frost Fighting

(a) List the crops, and the area (ha) of each crop, for which frost fighting may be undertaken.

.....

.....

(b) How many hours a day? .....

(c) How many days per year? .....

(d) How many days on average do you expect a frost when frost fighting is required?

(e) How have you calculated the amount of water you need? (a separate sheet may be needed and attached to this application form)

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F.5 Industrial Use

(a) What type of industry/process will be using the water and how will the water be used?

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(b) How have you calculated the amount of water you need? (a separate sheet may be needed and attached to this application form)

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F.6 Private Community Water Supply

The council considers efficient water use for a household is 1,000 litres per day in winter and 3,000 litres per day in summer (average 2,000 litres per day). This is derived from wastewater volumes in ASNZ 1547:2000.

(a) What type of institution uses the water?

- ☐ Households – number of households to be supplied:.....
- ☐ Camping grounds – maximum number of visitors and staff per year:.....
- ☐ Schools - maximum number of students and staff per year:.....
- ☐ Motel units – number and expected occupancy .....
- ☐ Other: .....

(b) For applications to supply water to households what is the minimum, maximum and average lot size?

.....Square metres (minimum)
.....Square metres (average)
.....Square metres (maximum)

(c) How have you calculated the amount of water you need? (a separate sheet may be needed and attached to this application form)

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.....

F.7 Public Community Water Supply

The council considers efficient water use for a household is 1,000 litres per day in winter and 3,000 litres per day in summer (average 2,000 litres per day). This is derived from wastewater volumes in ASNZ 1547:2000.

(a) What population(s) will be served by the supply?

.....General location of population(s)
.....Approximate number of households

(b) How have you calculated the amount of water you need? (a separate sheet may be needed and attached to this application form)

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.....

.....

F.8 Stock Water and/or Dairy Shed Use

The Council considers the following as efficient use of water for stock.

Sheep	5 litres per day per head
Beef cattle	40 litres per day per head
Dairy cows	70 litres per day per head
Deer	1.5 litres per day per head
Dairy shed use	50 litres per day per head

(a) What type and how much stock will be supplied with water?

- ☐ 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

* excluding dairy shed usage

(b) If you have dairy cows, and require water for your dairy shed, please state the estimated volume required

.....Litres/head/day

F.9 Other

How have you calculated the amount of water you need? (a separate sheet may be needed and attached to this application form)

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.....

.....

.....

.....

PART G: ASSESSMENT OF ENVIRONMENTAL EFFECTS (AEE)

An AEE should be proportional to the scale and significance of the proposed activity. Where your proposed take could have significant effects on the surface water and/or groundwater resource a more detailed environmental assessment is required.

Note: Environment includes ecosystems, people, communities, all natural and physical resources and amenity values, and social and economic, aesthetic and cultural conditions that affect them.

G.1 For groundwater takes, an aquifer test (pumping test) is required to be submitted with your application. Instructions on the minimum requirements are provided at the end of this form.

- ☐ Yes a copy of the results are attached

G.2 For groundwater takes, provide details of all known neighbouring bores assessed under Schedule 5B* of the Regional Plan: Water which may be potentially affected by your application or within 1 kilometre of the proposed point of take.

** within the calculated interference radius based on the aquifer properties from testing and proposed volume*

Owner name	Bore number (if known)	Distance (m)	Depth (m)	Use (e.g. domestic irrigation etc)

G.3 For groundwater takes, have you undertaken an assessment of effect on water availability to neighbouring bores in accordance with Schedule 5 of the Regional Plan: Water for Otago? (available on our website www.orc.govt.nz)

☐ Yes and it is attached to the application ☐ No, go to F.6

G.4 If the answer to G.3 was yes, then at what distance may calculated effects on water availability be experienced?

.....metres

G.5 Are there any of the following present within 500 metres of the proposed point of take?

(i)	Obvious signs or known aquatic biota?	☐	Yes	☐ No
(ii)	Areas where food is obtained from a water body?	☐	Yes	☐ No
(iii)	Natural wetlands or springs?	☐	Yes	☐ No
(iv)	Waste discharges?	☐	Yes	☐ No
(v)	Recreational activities?	☐	Yes	☐ No
(vi)	Areas of special aesthetic value?	☐	Yes	☐ No
(vii)	Areas or aspects of significance to iwi?	☐	Yes	☐ No
(viii)	Other water takes (ground or surface)?	☐	Yes	☐ No

If you have answered 'yes' to any of the above, describe what adverse effects your take may have and the steps you propose to mitigate these effects:

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G.6 Are there any waste disposal sites *(e.g. septic tanks, offal pits, landfills etc)* within 100 metres of your proposed point of take(s) ?

☐ Yes – *show on the site plan required by question A.5 and state distances*

☐ No

G.7 Is your proposed take point(s) within 1 kilometre of the coastline?

☐ Yes – *show on the site plan required by question A.5 and state distances*

☐ No

G.8 For groundwater takes only, do you anticipate that your proposed water take will affect the water quality of the groundwater resource? (e.g. contamination from septic tanks or saltwater intrusion)

☐ Yes ☐ No

If you have answered 'yes', describe what adverse effects your take may have and the steps you propose to mitigate these effects:

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G.9 Can your instantaneous abstraction rate (litres per second) be reduced by increasing the length of time over which water is taken?

☐ Yes

Over what time period would you take water and at what rate?

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☐ No

Why not?

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G.10 What are the positive effects of your proposed take and use? (examples can include any environmental, social and economic benefits of your water take. If you are part of a water management group are there any benefits/good environmental outcomes to being part of this management group. Please explain).

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G.11 What measures are you proposing to minimise wastage of water and maximise its efficient use?

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G.12 How far from the point of taking the water is the use of the water? If the distance is greater than 5 km please explain the reasons for this and why a closer source of water is not available.

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PART H: ALTERNATIVE WATER SUPPLIES

H.1 Does your property have alternative water sources available? (such as other water bodies, reticulated supplies, groundwater, other water permits, irrigation schemes?

- ☐ No
- ☐ Yes

If yes, Please detail the sources, quantities, uses and any current Water Permit numbers or any takes authorised by permitted activity rules in the Regional Plan: Water for Otago.

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H.2 Have you considered the option of using other sources of water?

- ☐ No
- ☐ Yes

If yes, Please detail the sources, quantities, uses and any Water Permit numbers

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H.3 Explain why you have decided to take water from the proposed surface water source rather than any alternative source?

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PART I: CONSULTATION

I.1 Please describe any consultation undertaken with persons/parties potentially affected by your proposed surface water take. This should include parties you identified in F.1

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Written approvals are required from parties who are considered by the Otago Regional Council to be affected by your proposed water take. To reduce costs and processing times, it is recommended that written approval is obtained, and submitted with the application, for parties who may be affected.

Potential affected parties for surface water takes:

- Director General of Conservation (DoC)
- Fish and Game (Otago or Central South Island)
- Aukaha
- Te Ao Marama Incorporated (for takes located south of the Clutha River/Mata-Au)
- Nearby consented and permitted activity takers

I.2 Provide any written approvals using the Council's standard Form 1 – Resource Consent Application available on our website.

PART J: DEPOSIT

A deposit is required upon lodgement of your application. Refer to the fees on Form 1. This deposit is not the final or maximum cost of your application. Further charges are incurred in accordance with Councils scale of fees and charges.

J.1 Deposit Enclosed

☐ Yes ☐ No

PART K: CHECK LIST

K.1 In order to submit a complete application, have you remembered to?

- ☐ Fully completed this application form and Form 1?
- ☐ For replacement applications, provide evidence of how much water has historically been used under that consent (unless information held by Council). *refer A.4*
- ☐ A detailed site map or aerial photograph? r*efer A.5*
- ☐ Attached a Non-Standard installation form if required? r*efer E.4*
- ☐ Attached an Exemption Application Form for the point of take? *refer E.5*
- ☐ Attached an Exemption application form for weekly records? *refer E.6*
- ☐ For water management groups, provide evidence that the group meets the requirements of Appendix 2A of the Regional Plan: Water for Otago? *refer F.1*
- ☐ Attached any written approvals? *refer I.2*
- ☐ Paid your deposit or attached a cheque? *refer J.1*

To keep consent processing costs to a minimum it is strongly recommended that the checklist is complete and all items required are attached **before** you lodge your application to the Otago Regional Council.

Minimum Aquifer Test Requirements

Aquifer properties (transmissivity and storativity) need to be determined in order to assess the effect of your groundwater take on the aquifer and other bores tapping the same aquifer. These properties are calculated by testing the aquifer's response to water being removed from a bore (drawdown) by an "aquifer test". An aquifer test involves pumping a bore at a known rate while recording the groundwater level changes at set times. While collecting data during a pumping test can be relatively straightforward, complications can occur and the interpretation of pumping test data requires specialist skills. If the aquifer test data the Council receives for a consent is substandard you may be asked to repeat the test. To avoid this, you are advised to consult a contractor, driller or consultant before you commence testing.

Minimum Aquifer Test (Pumping Test) Requirements

Before starting an Aquifer Test:

- Aquifer tests should be carried out at a rate that is at least 90% of the proposed water take.
- Avoid influences from pumping of neighbouring wells (of similar depth) shortly before and during the test and for the monitored recovery period afterward.
- Monitor neighbouring wells during the test if it is likely they will be affected (similar depth).
- Make sure water discharged during the test does not interfere with shallow aquifer tests or cause unfavourable effects such as erosion.

Steps for carrying out an aquifer test:

- Before you start the test, measure ground water levels in both the pumping test bore and observation bores. You may have to stop pumping the bore for up to a day for the aquifer to stabilise. This depends on the quantity and duration of your pumping as well as the aquifer.
- Start pumping the test bore. Monitor the rate of pumping to ensure it remains constant throughout the test. Measure the rate of pumping using an orifice meter or an accurately calibrated flow meter.
- Monitor ground water levels often enough to accurately show how levels change. For example, you could take measurements in the pumping well at the following time intervals (in minutes) after you start.

  1, 2, 3, 5, 7, 10, 15, 25, 40, 50, 60, 90, 120, 150, 180, 240, 300, 360, 480, 600 and then every three hours.
- Measure ground water levels accurately - noting the exact time you made the measurement. Battery powered ground water probes can be used that have a light or alarm which goes off when it's dipped into water.
- After pumping stops, keep monitoring ground water for a time period similar (and same intervals) to the pumping test, or until water levels have recovered to the pre-test level.