



Otago Regional Council

Section 42A Staff Recommending Report

Water Permit Application RM20.003.01

Rockburn Wines Limited

The recommendation in the staff report represents the opinion of the writers and it is not binding on the Hearing Commissioners. The report is evidence and will be considered along with any other evidence that the Hearing Commissioners will hear.

Kirstyn Lindsay
Consultant Planner

17 August 2020

Executive Summary

Rockburn Wines Limited (the applicants) have applied for a water permit RM20.003.01 to replace a deemed permit to take and use water from the Park Burn and a tributary of the Park Burn.

The key issues for this application are:

- Consent duration;
- Rate and volume of take; and
- The need for a residual flow.

After assessing the actual and potential effects of the applications, considering submissions, and considering all of the matters in section 104 of the Resource Management Act 1991, I recommend that this application be **granted** for a period of **15 years**, subject to the conditions listed at the end of this report.

Report Author

Please note that this report contains the recommendations of the Reporting Planner and represents the opinion of the writer. It is not a decision on the application.

Kirstyn Lindsay – Consultant Planner, Southern Planning Solutions Limited

I am the sole director and independent consultant planner of Southern Planning Solutions Limited. I hold a Masters in Planning with Distinction from the University of Otago. I have over 17 years' professional experience in district and regional planning. I am an accredited RMA Commissioner with Chairs Endorsement and hold full NZPI membership.

I have been engaged by the Otago Regional Council to report and make a recommendation on the above application. I have read the Code of Conduct for Expert Witnesses in the Environment Court Practice Note 2014. While this report has not been prepared for the Environment Court, it has been prepared in accordance with the practice note. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

I have been involved with the subject application since it was lodged and received.

**OTAGO REGIONAL COUNCIL DEEMED PERMIT REPLACEMENT
SECTION 42A REPORT**

ID Ref: A1370085
Application No(s): RM20.003.01
Prepared For: Hearings Panel
Prepared By: Kirstyn Lindsay, Consultant Planner
Date: 28 July 2020
Subject: Section 42A Recommending Report – Limited-notified Deemed Permit Replacement by Rockburn Wines Limited for a water permit to take and use water from the Park Burn and a tributary of the Park Burn, Pisa Moorings.

1. Purpose

This report has been prepared under Section 42A of the Resource Management Act 1991 (RMA) to assist in the hearing of the application for resource consent made by the applicants. Local authorities may commission a consultant to prepare the Section 42A report and may consider the report at any hearing. The purpose of the report is to assist the Hearing Panel in making a decision on the applications.

The report assesses the application in accordance with Sections 104 and 104C of the Resource Management Act 1991 and makes a recommendation as to whether the application should be granted, and, if granted, a recommendation on the duration of the consent and appropriate conditions.

This report contains the recommendations of the Consultant Planner and is not a decision on the application. The recommendations of the report are not binding on the Hearing Commissioners. The report is evidence and will be considered along with any other evidence that the Hearing Commissioners will hear.

Background Information

Applicant: Rockburn Wines Limited

Applicant's Agent: Will Nicholson – Landpro Ltd

Site address or location: Lower flanks of the Pisa Range approximately 1.6 kilometres (km) northwest of Pisa Moorings.

Legal description(s) take:

Point of Take 1: Park Burn, approximately 2.5 km upstream from State Highway 6 - Lot 3 DP 27494

Point of Take 2: An unnamed tributary of the Park Burn, approximately 2 km upstream from State Highway 6. - Lot 2 DP 526279

Retake from the storage Reservoir - Lot 2 DP 437387

Map reference(s):

- Point 1: NZTM 2000: 1302345E 5016651N
- Point 2: NZTM 2000: 1302328E 5016202N
- Retake: NZTM 2000: 1303103E 5015933N

Legal description(s) point of use:

- LOT 2 Deposited Plan 437387

Consent sought: To take and use surface water from the Park Burn and retake from the storage reservoir

Purpose of take: irrigation and frost fighting

Deemed permits: 98526.V1

Notification:

The application was originally approved to be processed on a non-notified basis on 2 March 2020 subject to the applicant obtaining the written approval of the following affected parties:

- Aukaha Limited on behalf of local runanga - Kāti Huirapa Rūnaka ki Puketeraki and Te Rūnanga o Ōtākou;
- Te Ao Marama on behalf of local runanga -Te Runanga o Waihopai
- Te Runanga o Ngai Tahu
- Department of Conservation
- Mark II Limited

The applicant subsequently requested limited notification to those parties and the application was limited notified to the identified parties on 22 June 2020.

Site visit:

A site visit was undertaken on 7 February 2020 and attended by Kirstyn Lindsay, Consultant Planner and Pete Ravenscroft and Ciaran Campbell ORC Resource Scientists. Representatives of the applicants and the applicant's agent Will Nicholson of Landpro also attended.

2. Key Issues

I believe that the key issues for consideration with this application are:

- Consent duration;
- Rate and volume of take; and
- The need for a residual flow.

3. Description of the Proposed Activity

The applicant, Rockburn Wines Limited, holds Deemed Permit 98526.V1, Water Permit 98527.V1, and Discharge Permit 98655. The key details relating to these permits are given in the application as follows:

Table 1: Details of applicant's current consents

Permit No.	Details	Location	Rate of take/discharge	Replace permit?
98526.V1	To take 100,000 L/hour of water from the Park Burn and/or a tributary of the Park Burn.	NZMS 260 G41:124 784 & G41:123 779 (NZTM 2000: 1302448E 5016667N & 1302348E 5016167N)	28 L/s	Yes
98527.V1 (Surrendered)	To take water from a tributary of the Park Burn that has been discharged into the same tributary from branch race 8746Cr (associated with deemed permit 95789) for up to 4 days per month at a rate of flow of up to 84 l/s and a total volume of up to 15,43001 l/month.	NZMS 260 G41:123 779 (NZTM 2000: 1302348E 5016167N)	84 L/s	No
98655	To discharge water from branch race 8746Cr (associated with deemed permit 95789) into a tributary of the Park Burn for up to 4 days per month at a rate of flow of up to 84 l/s and for a total volume of up to 15,430,000 l/month.	NZMS 260 G41:112777	84 L/s	No

The applicant owns and manages approximately 24 ha of vineyard on the terraces above Lake Dunstan, 1.6 km northwest of Pisa Moorings. Water is taken from the Park Burn under Deemed Permit 98526 (subject to this application) for the purpose of irrigating these vines. The applicant is also holds a 2/54 share of Deemed Permit 95789 (subject of current application RM20.005) and this water is occasionally taken to supplement irrigation water when Park Burn flows are lacking. The location of the applicant's property in relation to the existing take points, races and reservoir, and the permitted (but currently unexercised) discharge location are shown below in Image 1.

The applicant advises that it has not exercised 98655 and 98527, as the specified discharge location is a long way from its existing take infrastructure and would require significant investment in order to get the Amisfield Burn water to the re-take location. Instead, the applicant has abstracted Deemed Permit 95789 water on an as-needed basis via an adjacent land owner's (Mark II Ltd) reservoirs, as per a civil agreement. Mark II Limited is also a shareholder in 95789. The replacement of Deemed Permit 95789 is the subject of application RM20.005 which seeks a rate of take to 120 l/s and annual allocation of 1,257,818m³.

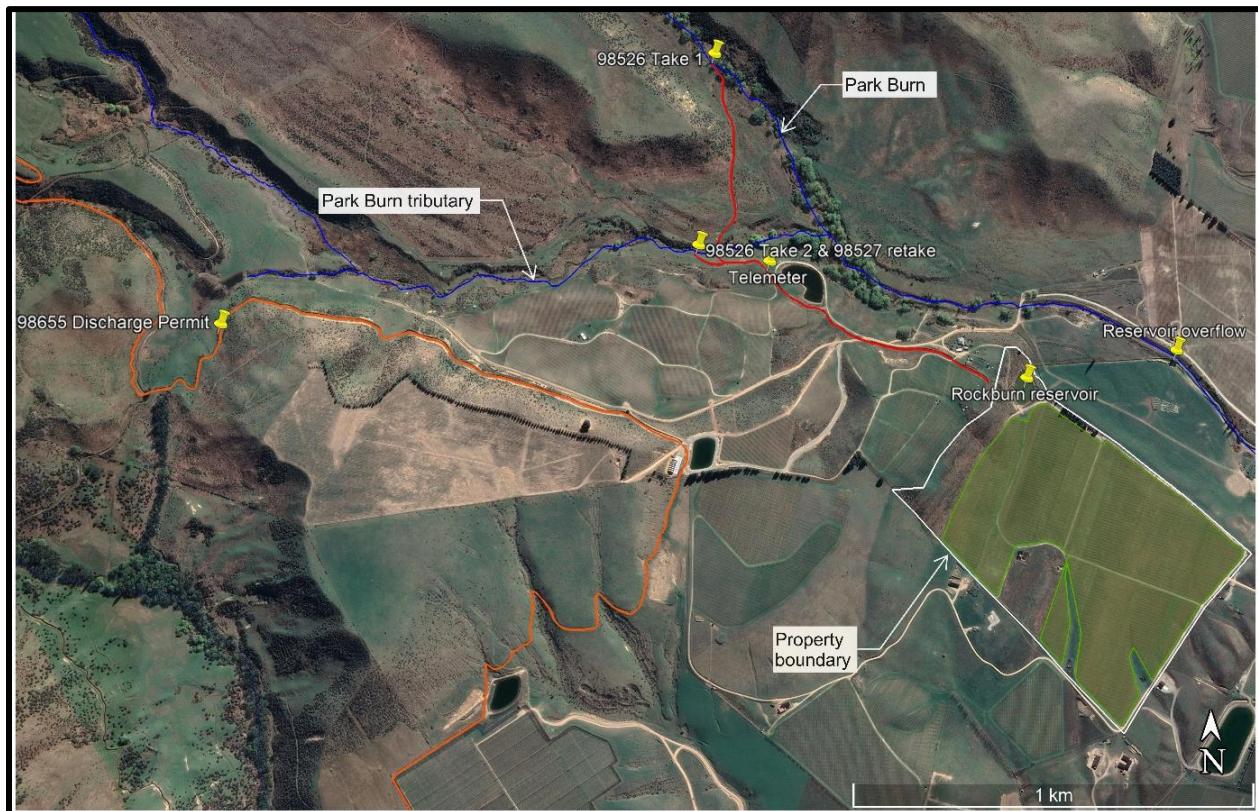


Image 1: Overview of Rockburn Wines water take and use. The red line represents the applicant's Park Burn race, while the orange line represents the 95789 race (maintained by the applicant and others subject to application RM20.005). (Source: Application).

The water take currently authorised by Deemed Permit 98526 is the applicant's primary source of water and can be taken from two locations: the first of which is on the main stem (Take 1) of the Park Burn, and the second (Take 2) of which is on an unnamed tributary of the Park Burn. Both intakes are open channel diversion structures controlled via a sluice gate. The applicant's main race runs from below the upper intake (Take 1) on the Park Burn to their northwest property boundary, where it is piped for approximately 60 m into a storage pond. The main race crosses a tributary of the Park Burn via a perched pipe. Water abstracted from the lower intake (Take 2) flows down a branch race for approximately 80 m before joining up with the main race. A race overflow by-washes into the unnamed tributary of the Park Burn and is located approximately 70 m downstream of the race junction and the telemetry station is located approximately 110 m downstream of the race junction. Notice of Exemption WEX0164 authorises the location of the telemeter down-race from the points of take.



Image 2: Close up of Rockburn water intake and conveyance infrastructure (Source Application)

All of the applicant's water enters a 6,000 cubic metre (m^3) reservoir located at the northern corner of the property. The vineyard is irrigated from this reservoir. A spillway directs excess clean reservoir water into a channel that discharges into the Park Burn.

The applicant's relevant infrastructure is shown in the table below:

Table 2: Water infrastructure summary

Feature	Approx. location (NZTM 2000)	Notes or dimensions (if applicable)
98655 discharge location	1301247E 5015966N	Discharge from race, above tributary of the Park Burn.

98526 Park Burn abstraction (98526 Take 1)	1302345E 5016651N	This is the latest verified location. The location specified on the permit is approx. 100 m to the east of this point, presumably due to an administrative error.
98526 water race	Start point: 1302345E 5016651N. End point: 1303016E 5015942N.	Approx. 1.2 km long, average 0.4 m deep and 0.6 m wide. Unlined.
Piped section of race across Park Burn tributary	1302379E 5016211N	HDPE. Diameter unknown.
98526 Park Burn tributary abstraction (98526 Take 2)	1302328E 5016202N	This is the latest verified location. The location specified on the permit is approx. 40 m to the southeast of this point, presumably due to an administrative error.
Race overflow	1302437E 5016190N	Newly constructed. Sized and positioned to ensure excess race flows are returned to the Park Burn.
Telemeter	1302494E 5016173N	Last verified in 2019
Reservoir	1303103E 5015933N (centre). Inlet: 1303080E 5015941N Spillway: 1303102E 5015972N	Depth: 2.8. Average Width: 35 m. Average length: 60 m. Estimated max. volume: 5,880 m ³ .
Reservoir discharge to Park Burn	1303460E 5016015N	

A summary of properties within which the applicant's replacement water take, conveyance and use infrastructure are located is provided below:

- Deemed Permit 98526 Take 1 and upper race: located on land owned by Lowburn Land Holdings LP (LLHLP) – Record of Title OT19A/906. S417 rights are registered against this title via instruments 10435540.2 and 10435540.3.
- Deemed Permit 98526 Take 2, 98527 retake and lower race: located on land owned by Mark II Limited – Records of Title 844471 and 844470. S417 rights are registered against this title via instruments 10435540.2 and 10435540.3.
- Water storage and irrigation within the applicant's property – Record of Title OT19A535.
- Reservoir overflow: located on land owned by John Douglas Allison and Marilyn Elizabeth Allison – Record of Title 319229. The applicant notes that they occasionally discharge

water from the reservoir to the Park Burn via the Allison's land with the verbal approval of the landowner.

3.1 Rates and Volumes Applied For

Rate of take:	28 l/s
Monthly Volume:	73,000 m ³ /month
Annual volume:	237,933 m ³ /year

3.2 Details of Deemed Permit Being Replaced

The applicant is seeking to replace Deemed Permit 98526, which expires on 1 October 2021. Deemed Permit 98526.V1 authorises the applicant to take up to 100,000 l/hour (28 l/second) from either of two locations. The first location is on the main stem of the Park Burn and the second on an unnamed tributary of the Park Burn.

This application was lodged with the Council at least six months before the expiry date. In accordance with Section 124 of the Act, the applicant may continue to operate under Deemed Permit 98526 until a decision on this application is made and all appeals are determined.

Historic Rate and Use Data and Deemed Permit Conditions

The Applicant has proposed a consent to replace Deemed Permit 98526.V1 with maximum total rates of take from the Park Burn at 28 l/s, 73,000 m³ /month, and 237,933 m³ /year and a duration of 35 years.

Abstraction under Deemed Permit 98526 has been recorded via WM1363 since January 2015. The applicant states that there is little pattern to the abstraction record and this generally matches the supply of water in both the Park Burn and its tributary. However, the abstraction records show that the applicant has regularly met and at times exceeded their consented maximum of 28.l/s. The applicant states that exceedances of the consented maximum have occurred as it was operating under the assumption that it could take up to 112 l/s as a combined rate of take, per Condition 3 of 98526 which states "*the combined take of Water Permit 98526 and 98527 shall not exceed 112 litres per second at the water metering device location.*" The applicant has stated that future abstraction will not exceed the relevant consented rate of take applied for of 28 l/s. The applicant has not stated what mechanisms will be put in place to ensure there are no ongoing exceedances.

Other Activities

Discharge Permit 98655 authorises the applicant to discharge from the 95789 race into a tributary of the Park Burn with a subsequent downstream take via Water Permit 98527. The applicant has not exercised 98655 and 98527 as the specified discharge location would require significant infrastructure investment. 98527 was surrendered in March 2020.

As a Shareholder in Deemed Permit 95789, the applicant is entitled to take and use 2 out of 54 shares of the water from the Amisfield Burn under Deemed Permit 95789. The applicant has abstracted water taken under Deemed Permit 95789 on an as-needed basis via one of Mark II Limited's reservoirs based on a civil agreement.

All of the applicant's water enters a 6000 m³ reservoir from a race and pipe distribution system located at the northern corner of the property. The retake of primary allocation water from the reservoir for use on the applicant's property are considered as part of the relevant rules that apply to the primary allocation takes from the Park Burn and the tributary of the Park Burn. No additional consents are required for these takes. The storage reservoir does not capture natural run-off and is not located within a watercourse. It does not meet the definition of large dam under the Building Act.

The discharge of water back into the Park Burn from the reservoir and by-wash from the race overflow into the unnamed tributary of the Park Burn is a permitted activity pursuant to Rule 12.C.1.1 of the RPW.

Maintenance of the intake infrastructure is a permitted activity pursuant to Rule 13.5.1 of the RPW and its ongoing use is permitted by Rule 13.1.1

3.3 Application Documents

The application was lodged with Council on 13 January 2019 and the application included the following documentation:

- Form 1 and Form 4
- Assessment of Environmental effects by Landpro Limited dated 9 January 2020
- Fish Survey and Residual Flow report- Waterways Consulting dated May 2019
- Park Burn Hydrology investigation – Landpro Limited dated 28 May 2019
- Aqualinc Calculations – Landpro Limited (submitted with the application)

No additional information was requested.

4. Notification and Submissions

4.1 Notification Decision

The applicant requested limited notification to those affected parties who were identified by Council on 28 February 2020. The application was limited notified on 6 May 2020. The application was notified to:

- Aukaha Limited on behalf of local runanga - Kāti Huirapa Rūnaka ki Puketeraki and Te Rūnanga o Ōtākou;
- Te Ao Marama Incorporated on behalf of local runanga – Te Runanga o Waihopai
- Te Runanga o Ngai Tahu
- Department of Conservation
- Mark II Limited

The reasons for these parties being considered affected are included in the notification recommendation (ORC Reference A1328163). The submission period closed on 20 July 2020.

4.2 Submissions Received

Submissions were received from the following:

- Aukaha Limited;
- Mark II Limited

4.3 Summary of Submissions

Table 3: Summary of Submissions

Submitter	Submission Points	Support/Oppose	Wishes to be heard
Mark II Limited	<p>Submission relates to RM20.003 and RM20.007.</p> <p>Mark II Limited holds 93177 which has a consented point of take downstream of the applicant's point of take. The application states that 93177 is unexercised.</p> <p>The Submitter advises that the status of 93177 as outlined in the application does not, in its opinion, accurately reflect the legal status of 93177 which expires on 1 October 2021 and, for which a replacement application may still be made.</p> <p>The submitter states that their point of take is now shared with 98526.V1 and water passes through the same meter.</p> <p>The Submitter is concerned that should residual flow requirements be applied, this could limit water abstraction at the applicant's point of take, and this could have significant adverse effects on the amount and rate that abstraction could occur.</p> <p>At times of low flow, a requirement to leave half of the available flow, abstraction potential would become minimal. Further, the benefits of leaving water to drain into the gravels a few metres downstream as the Park Burn outwash channel widens and falls towards the lake, as described in the application, would be a waste of a precious resource and create significant issues for water users.</p>	Support	Yes

	<p>The submitter seeks that RM20.003 be granted as applied for to enable economic survival of the property served by the lapsing consent.</p> <p>Seeks that the relativity of Deemed Water Permit 93177 as held by Mark II Limited be duly recognised.</p>		
Aukaha Limited (on behalf of Te Rūnanga o Moeraki, Kāti Huirapa Rūnaka ki Puketeraki, Te Rūnanga o Ōtākou and Hokonui Rūnanga (Ngā Rūnanga))	<p>Nga Runanga are not confident in the regional planning framework and request a short-term consent to allow a new planning framework to be established before longer term consent is granted.</p> <p>Nga Runanga seek that the consent be declined or if granted then the following conditions imposed:</p> <ul style="list-style-type: none"> • That the term of consent be no longer than 6 years • A minimum flow of 90% of the mean annual low flow (MALF) as calculated by the regional council and an allocation limit of, whichever is greater of: <ul style="list-style-type: none"> ○ 30% of MALF as calculated by the regional council ○ the total allocation from the catchment on the date that the national environmental standard comes into force less any resource consents surrendered, lapsed, cancelled or not replaced. • Retain existing requirements for water meter(s) and ensure results continue to be recorded and reported via telemetry. 	Oppose	Yes

5. Description of the Environment

5.1 Description of the Site and Surrounding Environment

The applicant owns approximately 34 ha on the terraces above Lake Dunstan, 1.6 km northwest of Pisa Moorings. The applicant's water take infrastructure and property are situated on the lower flanks of the Pisa Range, on a series of gently sloping terraces above Lake Dunstan. Elevation varies, from approximately 300 masl at Take 1, to approximately 240 masl at the bottom corner of the applicant's property.

Approximately 24 ha of this land has been converted to vineyard with plans to convert a further 1.7 ha. Vineyard irrigation is via a drip irrigation which will be continued across the next 1.7 ha. Currently the applicant relies on helicopters for frost fighting purposes but intends to install overhead sprinklers in the future.

The applicant's primary source of water is from the Park Burn, as authorised by the deemed permit that the applicant is seeking to replace. Vegetation at the take points is predominantly exotic grasses and willows. The water take occurs from either of two locations. The first location is on the main stem of the Park Burn and the second on a tributary of the Park Burn. Both intakes are open channels diversions and are controlled by sluice gates. The diversions are shown below.



Image 3: Permit 98526 Take 1 on the Park Burn -August 2019 (Source: Application)



Image 4: Permit 98526 Take 2 (left) and start of branch race (right) that joins with main Rockburn race - August, 2019 (Source: Application)

The applicant's main race runs from the Take 1 intake to their northwest property boundary where it is then piped for approximately 60 m into a storage pond. The main race crosses a tributary of the Park Burn via a perched pipe.

Water, abstracted from the second take point, flows down a branch race for approximately 80 m before joining up with the main race. A race overflow and telemetry station are located approximately 70 m and 110 m downstream of this race junction respectively. WEX0164 provides for the downstream location of the telemeter. The applicant is not seeking any change to the measuring location and there has been no change to the points of take locations since the measuring device was installed.

All of the applicant's water enters a reservoir at the northern corner of their property which is then used to irrigate the entire vineyard. A spillway directs excess clean water into a channel which discharges it back into the Park Burn. The applicant has not stated how often this discharge occurs and whether it is only during high flow events. Frequent use of the discharge would indicate that more water is being taken than is required for the purpose of use and improved management of the take would enable more water to remain in the Park Burn and its tributary.

Landcare Research S-Map designated soils identifies that the soils on the site comprise:

- Waenga_5a.3 on the gentler-sloping sections, which make up the front of the property and support all of the existing vineyard. These are shallow, moderately well drained loams with a PAW of 40.
- Moly_10a.1 at the northwest section of the site. This area is steeper sloping and includes the existing reservoir and proposed future vines. These are well drained, moderately stony, sandy loams with a PAW of 60.

The vineyard is located within the 350 mm/year rainfall class band. GrowOtago calculated the potential evapo-transpiration rate at the site between 620-635 mm from September to April. However, the applicant suggests that when comparing these figures to the NIWA evapo-transpiration records for Alexandra and Queenstown, this may be a significant underestimation. Modelling undertaken by NIWA in 2015 shows the site and surrounding area experience

approximately 110-120 days per years of soil moisture deficit. The property also experiences 9-12 spring frosts every year which can damage young vine shoots and flowers.

5.2 Description of Surface Water Body

The headwaters of the Park Burn begin at around 1800 masl on the Pisa Range. The channel gradient is steep at this elevation with the gradient easing at around 650 masl. Below this, several tributaries enter the main stem. Proposed Take 2 is located on the largest of these tributaries. Below this tributary confluence the Park Burn drops down onto the Dunstan Flats before passing under SH6 and discharging to Lake Dunstan.

There is no flow monitoring data for the Park Burn. Gauging at various sites throughout the Park Burn catchment was undertaken by the applicant's agent on 16 January 2019. For the duration of the survey and for 24 hours prior, the applicant ceased taking water. The gauging showed a net loss of 70 l/s between gauging site 2 (113.5 l/s) and site 6 (43.5 /s).

The New Zealand Freshwater Fish Database has three records for Park Burn. All three surveys found brown trout only with no other species present. Waterways Consulting Limited conducted further aquatic surveys in April 2019 on behalf of the applicant. No native fish were identified in the survey but brown trout ranging from 67 mm to 219 mm were observed and a single rainbow trout (127 mm in length). No additional aquatic species were reported on by Waterways Consulting Limited or Council's Resource Science Unit.

There are no known recreational values associated with the Park Burn and its tributaries. Most of the catchment is located on private land and is unsupportive of recreation, with the small size of the watercourses unsupportive of angling.

The following parties also have water takes from the Park Burn as identified in Table 4 below taken from the application. Both permits expire on 31 October 2021, although RM15.007.01 and Deemed Permit 93394 are subject of a replacement application under RM20.007. RM20.007 seeks a lesser rate of take than that authorised by RM15.007.01 and Deemed Permit 93394.

Table 4: Summary of other water users

Permit No.	Creek	Location	Rate of take (L/s)	Primary consent holder
RM15.007.01 & 94394	Park Burn	Approx. 2.5 km u/s of 98526 Take 1.	250	Smallburn Limited
93177	Park Burn	Approx. 1 km d/s of the 98526 Take 2.	55.6 (unexercised)	Mark II Limited

It is noted that the submission of Mark II Limited raises some doubt as to whether Deemed Permit 93177 is unexercised as stated in the application. Deemed Permit 93177 provides for 200,000 l/hour to be taken from the Park Burn for the purpose of irrigation. There are a number of permits which can exercise priority over 93177.

There are no Water Conservation Orders for the Park Burn or the unnamed tributary.

5.3 Schedule 2 of the Regional Plan: Water

Schedule 1A of the Regional Plan: Water for Otago (RPW) outlines the natural and human use values of Otago's surface water bodies. The Park Burn is not listed in Schedule 1A of the RPW.

The Park Burn is a tributary of Lake Dunstan/Te Wairere which is part of the Clutha River/Mata-Au catchment. The following Schedule 1A values are identified for Clutha River/Mata-Au:

- Size (large waterbody supporting high numbers of particular species or a variety of habitats)
- Bedrock and gravel beds
- Areas for spawning and juvenile fish development for trout and salmon
- Riparian vegetation
- Significant presence of trout, eel and salmon
- Presence of indigenous fish species.
- Significant habitat for flathead galaxid
- Presence of a significant range of indigenous waterfowl.

Schedule 1B of the RPW identifies water takes used for public supply purposes (current at the time the RPW was notified in 1998). The Park Burn is not identified in Schedule 1B. However, Site 13 (Clyde Water Supply) and Site 14 (Cromwell Water Supply) of Schedule 1B are both within the Clutha River/Mata Au catchment downstream of the confluence of the Park Burn and the Clutha River/Mata Au.

Schedule 1C identifies registered historic places which occur in, on, under or over the beds or margins of lakes and rivers. The Park Burn is not identified in Schedule 1B. However, the Cromwell Bridge located downstream of the confluence of the Park Burn and the Lake Dunstan/Te Wairere is a registered historic place.

Schedule 1D of the RPW identifies the spiritual and cultural beliefs, values and uses associated with water bodies of significance to Kai Tahu. The Park Burn is not listed within this Schedule, however the Clutha River/Mata Au (to which the watercourse flows) is identified as having the following values:

- **Kaitiakitanga:** the exercise of guardianship by Kai Tahu, including the ethic of stewardship.
- **Mauri:** life force.
- **Waahi tapu and/or Waiwhakaheke:** sacred places; sites, areas and values of spiritual values of importance to Kai Tahu.
- **Waahi taoka:** treasured resource; values, sites and resources that are valued.
- **Mahika kai:** places where food is procured or produced.
- **Kohanga:** important nursery/spawning areas for native fisheries and/or breeding grounds for birds.
- **Trails:** sites and water bodies which formed part of traditional routes, including tauraka waka (landing place for canoes).
- **Cultural materials:** water bodies that are sources of traditional weaving materials (such as raupo and paru) and rongoa (medicines).

5.4 Schedule 2 of the Regional Plan: Water

The Park Burn is not listed in Schedule 2 of the RPW.

5.5 Regionally Significant Wetlands

There are no regionally significant wetlands identified within or near this watercourse.

6. Status of the Application s77A and s87A

Resource consent is required under the RPW and proposed Plan Change 7 (Water Permits) of the RPW (PPC7).

Table 5: Planning Rule Summary

Planning Instrument	Rule	Purpose	Activity Status
RPW	Rule 12.1.4.5	Taking and use of surface water as primary allocation including the associated retake from the reservoir	Restricted Discretionary
PPC7	Rule 10A.3.2.1	Taking and use of surface water as primary allocation which does not meet Rule 10A.3.1.1	Non-Complying

PPC7 was notified for submissions on 18 March 2020 and has immediate legal effect in accordance with section 86B(3) of the Act. PPC7 was renotified on 6 July 2020 by the Environmental Protection Agency. PPC7 introduces two new rules relating to water takes which have immediate legal effect upon notification.

Under s88A of the RMA an application for a resource consent continues to be processed for the type of activity that applied when an application was made, despite an activity status changing as a result of proposed plan change being notified. As this application was lodged prior to notification of PPC7, it will retain the activity status that it had under the operative rules in the RPW.

Overall, the proposal is assessed as a **Restricted Discretionary** Activity.

7. Section 104 Effects Evaluation

Section 104(1)(a) of the RMA requires the council to have regard to any actual and potential effects on the environment of allowing the activity. This includes both the positive and the adverse effects.

7.1 Ecological Effects

I consider that the adverse effects of the activity on the environment relate to:

- Allocation availability
- Minimum flows
- Instream values
- Downstream users and competing demand for water

- Groundwater
- Cultural effects

7.1.1 Surface Water Allocation Availability

Primary allocation is defined by Policy 6.4.2(b) of the RPW:

"To define the primary allocation limit for each catchment, from which surface water takes and connected groundwater takes may be granted, as the greater of:

- (a) *That specified in Schedule 2A, but where no limit is specified in Schedule 2A, 50% of the 7-day mean annual low flow; or*
- (b) *The sum of consented maximum instantaneous, or consented 7-day, takes of:*
 - (i) *Surface water as at: 19 February 2005 in the Welcome Creek catchment; or 7 July 2000 in the Waianakarua catchment; or 28 February 1998 in any other catchment; and*
 - (ii) *Connected groundwater as at 10 April 2010, less any quantity in a consent where:*
 - (1) *In a catchment in Schedule 2A, the consent has a minimum flow that was set higher than that required by Schedule 2A.*
 - (2) *All of the water taken is immediately returned to the source water body.*
 - (3) *All of the water being taken had been delivered to the source water body for the purpose of the subsequent take.*
 - (4) *The consent has been surrendered or has expired (except for the quantity granted to the existing consent holder in a new consent).*
 - (5) *The consent has been cancelled (except where the quantity has been transferred to a new consent under Section 136(5)).*
 - (6) *The consent has lapsed."*

There is no flow monitoring data for the Park Burn, and the applicant states that the MfE river flow modelling is relatively unreliable given that there are discrepancies between the topographic mapping used to calculate the model and the real-world creek dynamics. The applicant advises MfE data considers the main stem of the Park Burn at Take 1 to have a mean flow of 25 l/s and a 7-day MALF of 5.9 l/s. Conversely, for the tributary in the vicinity of Take 2 (with a significantly smaller catchment), the model predicts a mean flow of 150 l/s and a 7-day MALF of 38 l/s.

Notwithstanding the MALF calculations above, the sum of the consented primary allocation takes for the Park Burn is calculated as 334 l/s (comprising the take which is the subject of this application (28 l/s), 250 l/s by Smallburn Limited and 56 l/s by Mark II Limited). The sum of the consented primary allocation takes for the Park Burn is greater than the 7-day MALF.

The proposed take is assessed as primary allocation in accordance with Policy 6.4.2(b) and, as the application seeks to replace a consent which was originally granted prior to 28 February 1998 and the applicants have applied to replace this consent within the statutory timeframes given in Section 124 of the Act, the take will retain primary allocation status.

7.1.2 Minimum Flows

Minimum flows may be set for a river or catchment for the purpose of restricting primary allocation takes of water. A minimum flow provides for the maintenance of aquatic ecosystem and natural

character values of water bodies, while providing for the sustainable taking of water for use. Once set in Schedule 2A of the RPW, they are imposed on all relevant consents in that catchment. When a minimum flow is breached, all consents to take water as primary allocation (with some exceptions), must cease.

Policy 6.4.4 of the RPW states that in the case of existing resource consents to take water outside of Schedule 2A catchments, any proposed minimum flows must be set in Schedule 2A by a plan change, before it can be applied to any consent in accordance with Policy 6.4.5(d). No minimum flow has yet been set for this catchment. Any relevant consent within that catchment may be reviewed under Section 128 of the Act in order to impose conditions that will allow the minimum flow to be met.

7.1.3 Effects on Fish and Instream Values

With regard to the effects on the instream values of a surface water body, the following has been considered:

- the need for a residual flow at the point of take;
- the rate, volume, timing and frequency of water to be taken and used;
- the proposed methods of take;
- the need to prevent fish entering the intake;
- any effect on any Regionally Significant Wetland or on any regionally significant wetland value.

The application sets out that the two race intakes effectively act as open diversion channels, meaning abstraction is only ever a subset of total natural flow in the creeks and that there is always water left in the creeks downstream of the take points, unless of course there is no natural flow present upstream of the takes. Furthermore, the applicant advises that due to the open nature of the intakes, taking generally matches the natural hydrological cycles of the watercourses, with higher rates of take during times of high natural flows, and lower rates of take during times of low flow. This ensures that the natural hydrological dynamics of the creeks are maintained downstream of the takes, albeit with diminished flows. The applicant states that the Park Burn naturally dries up in the summer and loses surface connectivity with Lake Dunstan regardless of abstraction.

With regard to stream ecology, all trout found have been indicative of stunted, isolated populations and no native fish have been identified in the catchment to date.

The applicant states that any residual flow considerations should be determined based on the above in-stream effects assessment. The ecological report prepared by WaterwaysConsulting Limited earlier this year noted that any residual flow condition “*should recognise that a connecting flow to the Clutha River is unlikely during summer low flow conditions in the Park Burn.*” As such, the applicant considers that the value of any residual flow conditions imposed at the applicant’s intakes would, therefore, have only limited beneficial effects by perhaps increasing the downstream reach of the Park Burn during low flows but likely failing to ensure surface water connectivity with Lake Dunstan. The applicant considers that the consequence of imposing a strict residual flow condition on the abstraction could significantly affect the applicant’s ability to obtain sufficient water during the summer and early autumn months, thereby placing their harvest and livelihood at risk.

The application has been assessed by ORC's Freshwater Ecologist, Ciaran Campbell (evidence appended to this application). Mr Campbell notes that there are no flow records for Park Burn. Mr Campbell's evidence is attached to this report. To establish flows, Otago Regional Council Hydrologist – Xiaofeng Lu – used flow records from the neighbouring catchment, Amisfield Burn. The Amisfield Burn flow recorder has been in place since 2013 and is not impacted by any water abstraction or augmentation, therefore the recorded flows can be considered natural. Based on the flow data recorded, the following flow statistics have been generated:

Table 6: Flow statistics for Park Burn calculated by Xiaofeng Lu as a ratio of Amisfield Burn.

Location	Area (m ²)	Runoff (mm)	Vol (m ³)	7dMALF (Oct-Apr)	MALF (HYDRO YEAR)
Amisfield Burn flow recorder	6560262	372	2441998	0.068	0.062
Park Burn	15140786	191	2897596	0.081	0.073

Based on the data provided in the application, Mr Campbell notes that there is a natural loss of surface water to ground which is unlikely to provide connectivity to Lake Dunstan during summer low flow conditions in Park Burn.

In assessing the ecological values of the Park Burn, Mr Campbell combined NZFFD records with the recent survey report provided in the consent application, and on-site observations. The NZFFD provides presence/absence data for fish species at three sites in the Park Burn catchment. Records exist for fish surveys from 1996 and 2018 and brown trout (*Salmo trutta*) are the only fish species recorded in the Park Burn on the database. Since 2018, a survey was completed in the Park Burn and neighbouring catchments by Dr Richard Allibone of Waterways Consultants Ltd. Brown trout were detected at five sites and rainbow trout (*Oncorhynchus mykiss*) at one site in Park Burn.

Sampling across Park Burn is not extensive, however in Mr Campbell's opinion there is sufficient data to determine fish values. Mr Campbell agrees with the findings of the applicant's expert, Dr Alibone, that brown trout and rainbow trout are introduced sports fishes that appear to have formed a self-supporting, stunted population in the Park Burn catchment, and is highly unlikely to be acting as a nursery to the downstream Lake Dunstan fishery due to the ephemeral nature of the creek. Mr Campbell notes that there are no Regionally Significant Wetlands that will be affected, adversely or otherwise, by the proposed water take in the Park Burn.

Mr Campbell notes that the hydrological nature and connectivity of these catchments is complex and highly variable. To prevent unnecessary mortality, it is Mr Campbell's opinion that freshwater fishes should be able to move freely between natural waterways, water races, and storage ponds within the systems affected by this application. To further prevent unnecessary mortality, a fish screen should be installed on the outlet from the storage ponds. A drum-shaped screen with 3 mm mesh is recommended.

Mr Campbell's assessment is adopted for the purposes of this report and it is considered that subject to a condition which requires fish screening to be fitted to the outlet of the storage ponds, the ecological effects of the take are no more than minor.

7.2 Natural Character and Amenity Effects

The taking of water can influence flows of a river thereby altering its natural character as well as adversely affect the amenity values associated with it. As noted previously the Park Burn is not identified in Schedule 1A. DOC was served notice of the application but did not make a submission.

Mr Campbell notes that the Park Burn naturally goes to ground in the lower reaches below the applicant's take and that there will be no adverse effects on natural character and amenity values of the Park Burn. Mr Campbell's assessment is adopted for the purposes of this report and the effects of the proposal on natural character and amenity values are assessed as acceptable

7.3 Cumulative Effects

In accordance with Section 3 of the Act, the definition of 'effect' includes *any cumulative effect which arises over time or in combination with other effects*. There is no definition for 'cumulative effect' under the Act, other than what is outlined above. The Oxford English dictionary defines 'cumulative' as meaning 'having a result that increases in strength or importance each time more of something is added' and 'including all the amounts that have been added previously'. The case law advises that a cumulative effect is an effect that will occur as opposed to a 'potential effect'. (*Dye v Auckland Regional Council* (2001) 7 ELRNZ 209 (CA)).

In respect of this application, it is noted that the Park Burn is a tributary of the Clutha River – Mata Au and the proposed take is not expected to have a cumulative effect on the wider Clutha River Catchment. In respect of the cumulative effects on the Park Burn itself, the proposed take is assessed as primary allocation and is the lowermost point of take on the Park Burn. The take in the upper park Burn RM15.007.01 and 94394 are subject to application RM20.007. RM20.007 seeks a lesser rate of take than that currently authorised. The permit held by Mark II Limited (93177) is exercised at the same location as the applicants point of take and if exercised this only occurs after the applicant has taken their allocation. The proposal represents an overall reduction in the annual volume when compared to that currently allocated. It is assessed that in respect of this take there are no more than minor cumulative effects in relation to the abstraction of water from a pure volumetric point of view. However, there is a need to take a ki uta ki tai approach to these applications and the applications need to be considered under the relevant provisions of the NPS-FM. Hearing all three of these applications at once should help to ensure that a ki uta ki tai approach is taken.

7.4 Effects on Other Water Users

There are two other users on the Park Burn:

- Smallburn Limited, who holds Water Permit RM15.007.01 and Deemed Permit? 94394. The permits authorise a rate of take of 250 l/s and are located approximately 2.5 km upstream of the applicant's point of take.
- Mark II Limited holds Deemed Permit 93177 located 1 km downstream of the point of take and authorises a take of 56 l/s. The application advises that Mark II Limited's consent is unexercised. Mark II Limited were notified of the application and made a submission in support.

Mark II Limited advises that the status of Deemed Permit 93177 as outlined in the application does not, in its opinion, accurately reflect the legal status of Deemed Permit 93177 which the submitter states lapses on 1 October 2021. Council records show that this deemed permit will expire on this date. It is noted that the replacement of Deemed Permit 93177 may still be subject to an application by Mark II Limited.

The ORC Water metering team made contact with Mark II Limited in March 2020 seeking confirmation that Deemed Permit 93177 was being exercised following an audit undertaken in February 2020. The Audit noted that the point of take for 93177 was not located as per the consent and the points of take were at the same locations (NZTM E1302343 N50146700 and NZTM E1303319 N5016332) as Deemed Permit 98256 held by Rockburn Wines Limited. Mark II limited advises that the point of take was relocated after the flooding and slip events in the 1999 period. The audit noted that suitable water metering is installed along with a datalogger and telemetry unit, but that a WEX has not been granted for 93177. Data records for the combined takes are assessed as exceeding the current deemed permit limits when considering the combined 300,000 litres per hour authorised by both 98526 and 97133.

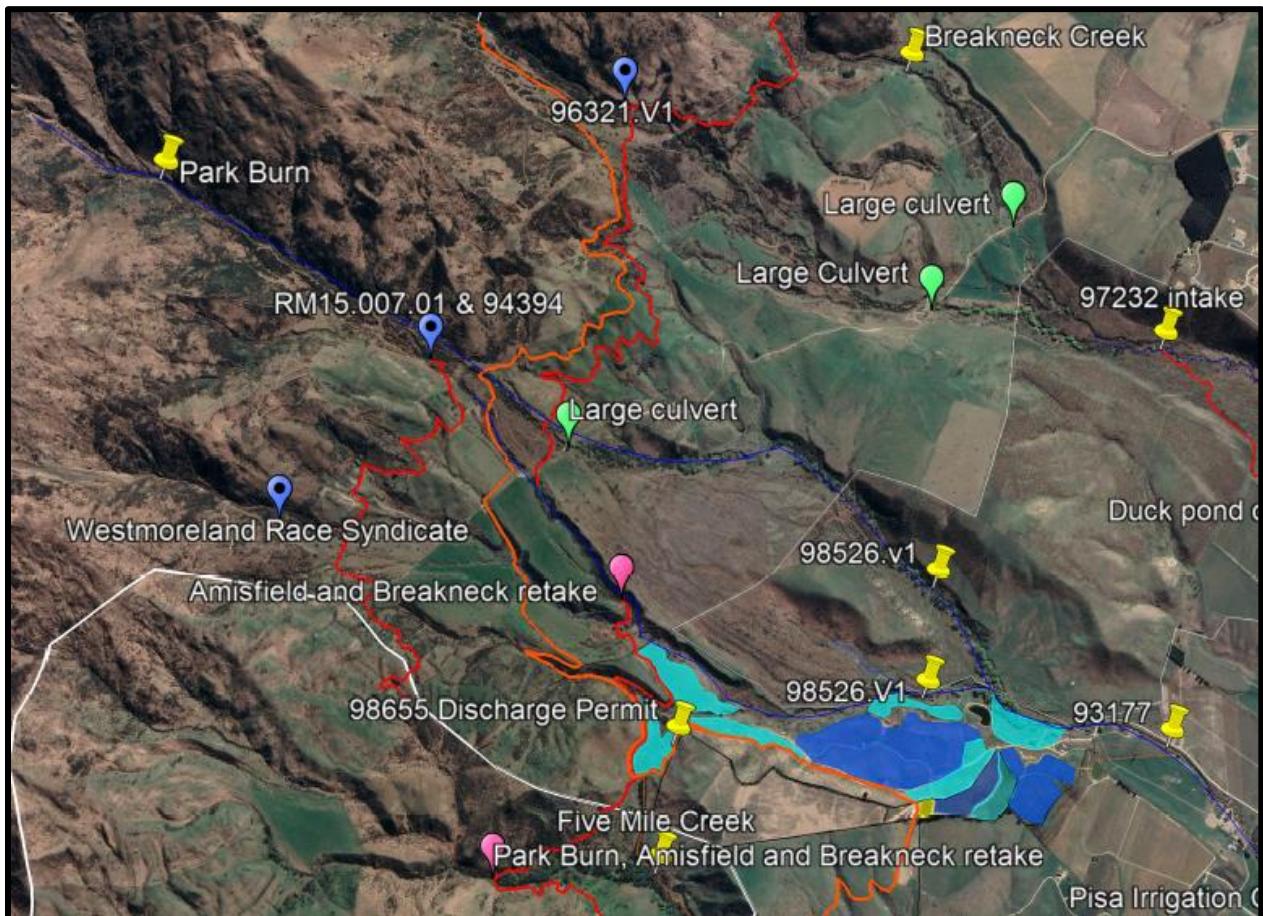


Image 5: Surrounding water takes in the Park Burn Catchment

Mark II Limited advises that, since the early 2000's, it has worked with Rockburn Wines and that water taken at the intake of 98526 up to 100,000 litre per hour (28 l/s) is assumed to be under 98526, and where the water take exceeds this, it has been considered to be water authorised under 93177, which authorised a take 200,000 l/h (56 l/s) from the Park Burn.

Given the supportive submission, which raises points of clarification rather than seeks conditions of consent or other outcomes, and the nature of the Park Burn at this location, it is considered that there are no effects on downstream water users arising from this proposal.

7.5 Groundwater Effects

The effects of the proposed take on groundwater has been assessed by Pattle Delamore Partners Limited (PDPL) on behalf of the Council (evidence appended to this application). PDPL note that according to the ORC database, there is a potentially affected draft/recommended aquifer (Pisa Groundwater Management Zone) flanking the western side of Lake Dunstan about 0.5 km downstream of the Applicant's takes along the Park Burn. This groundwater management zone extent mostly corresponds to the extent of the Late Pleistocene river deposits (gravelly alluvium between Lake Dunstan and SH6) and Holocene river deposits (gravelly alluvium extending up the valleys of the lower foothills to the bedrock base of the Pisa Range metamorphic rocks flanked by glacial till deposits). PDPL note that this zone appears to be primarily delineated based on the topography of the land surface where the foothills extending from the Pisa Range transition into the lower flatter areas on the western side of Lake Dunstan and up the lower valley fill areas of Five Mile Creek, Park Burn, and Amisfield Burn.

PDPL advise that bores in the area appear to be primarily concentrated towards Lake Dunstan within the extent of the alluvium between SH6 and the lake. The hydrogeologic setting is such that any surface water flow within the Park Burn that is lost to groundwater above (upgradient) and outside of the Pisa Groundwater Management Zone is expected to arrive as groundwater inflow on the northwest side of the zone. Additionally, surface water flow losses within the Pisa Groundwater Management Zone above the point of inflow into Lake Dunstan are expected to bolster the groundwater supply. PDPL advise that the applicant's two take locations from the Park Burn appear to be just above and outside of the Pisa Groundwater Management Zone, which has, according to ORC, 2,234,080 m³/year of groundwater available for allocation.

The Applicant has concluded, based on observations from similar work on the Amisfield Burn where it was possible to access the lower reaches, that the Park Burn has the potential to completely lose to groundwater before reaching Lake Dunstan in its natural setting. Based on the review of hydrogeologic conditions and the gauging results above, PDPL finds this conclusion reasonable.

With regard to effects on the groundwater resource, PDPL considers that the amount of water sought by the applicant (237,933 m³/year), the most conservative scenario is that, in the natural setting, all this water would be lost to groundwater that recharges the Pisa Groundwater Management Zone. This is less than the 2,234,080 m³/year of groundwater considered available for allocation, so the effects on the overall groundwater resource are expected to be less than minor.

In respect of the effects on nearby bores, PDPL advises that a review of bores on the ORC database shows a domestic bore (G41/0202) about 940 m east-southeast of the Applicant's Park Burn tributary take. This bore is noted as shallow (5 m deep) at about 150 m distance from the main stem of the Park Burn. The ORC database does not include depth to groundwater information for this bore. The GNS geologic map suggests that this shallow bore is completed within gravelly Holocene river deposits in close vicinity to glacial tills. Given the information above, it is unknown to what extent, if at all, this bore relies on elevated groundwater levels as a result of natural groundwater mounding (via losses to groundwater) in the vicinity of the Park Burn. A

second bore is located approximately 2.2 km to the southeast of the Park Burn takes. PDPL assess that adverse effects on neighbouring bores due to lowered groundwater levels or reduced capacity for contaminant dilution are not expected to occur as a result of the proposed take from the Park Burn.

Overall, PDPL found that the taking of surface water is expected to reduce groundwater recharge. Based on the absence of potentially affected bores and connected surface water bodies, no residual flow specific to groundwater effects is considered necessary nor are any specific groundwater conditions.

PDPL's assessment is adopted for the purposes of this report and it is assessed that the effects of the take on ground water are acceptable.

7.6 Cultural Effects

The Park Burn is a tributary of Lake Dunstan/Te Wairere which is part of the Clutha River/Mata-Au catchment. The Clutha River/Mata-Au is a Statutory Acknowledgement area. Te Runanga O Ngai Tahu (TRONT) were sent advice of the application and Aukaha Limited on behalf of TRONT advised on 27 January 2020 that Kai Tahu ki Otago considered themselves to be an affected party, pursuant to Section 95E of the Resource Management Act 1991 to the application. The subsequent S95A-E decision confirmed this.

Aukaha Limited on behalf of Te Rūnanga o Moeraki, Kāti Huirapa Rūnaka ki Puketeraki, Te Rūnanga o Ōtākou and Hokonui Rūnanga (Nga Runanga) made a submission on the application. The submission sets out the takiwa of each runanga, detail of the Deed of Settlement under the The Ngāi Tahu Claims Settlement Act 1998 and the principles of the The Kāi Tahu ki Otago Natural Resource Management Plans 1995 and 2005. Kāi Tahu aspirations for freshwater management are recorded in the *Te Rūnanga o Ngāi Tahu Freshwater Policy Statement 1999*, and the *Kāi Tahu ki Otago National Resource Management Plan 2005*.

Kāi Tahu has a cultural, spiritual, historic and traditional relationship with the Clutha Catchments/Mata-au. Kāi Tahu ki Otago used all areas of the Clutha/Mata-au Catchments as evidenced by the hundreds of mahika kai sites associated with the many waterways, lakes and wetlands in the Clutha/Mata-au catchments. Many of these waterways have been modified or lost as a result of mismanagement and misappropriation of this taoka. All water plays a significant role in Kāi Tahu spiritual beliefs and cultural traditions, the condition of water is seen as a reflection of the health of Papatūānuku. The loss and degradation of this resource through drainage, pollution and damming is a significant issue for Kāi Tahu ki Otago and is considered to have resulted in material and cultural deprivation.

The primary management principle for Nga Runanga is the maintenance and enhancement of the mauri or life-giving essence of a resource. Mauri can be tangibly represented in terms of elements of the physical health of the land, a river, or surrounding biodiversity. There are also many intangible qualities associated with the spiritual presence of a resource, elements of physical health which Nga Runanga use to reflect the status of mauri and to identify the enhancements needed include:

- Aesthetic qualities e.g. natural character and indigenous flora and fauna;
- Life supporting capacity and ecosystem robustness; and
- Fitness for cultural usage

Nga Runanga consider that mismanagement and appropriation of water resources in Otago has resulted in most catchments being ‘over-allocated’, meaning that the volume of water abstracted through resource consents exceeds the volume of water available in the catchment. When considering abstractions, Nga Runanga understand that every take affects the mauri of the river system. Nga Runanga consider it is their right as rakatira, and our obligation as kaitiaki, to ensure that the mauri of the water comes first.

Kāi Tahu advises that it has unresolved customary interests in water, which it asserts must be taken into account in the consenting process and that water permits must not be treated as a property rights. As such, the adverse effects of the take should be avoided and mitigated by limiting the water extraction in both term and the nature of the take. Limiting the take and use of water is consistent with the RMA, and Kāi Tahu customary rights and interests.

Nga Runanga consider that the application will prevent the protection and restoration of mahika kai habitats in the Clutha/Mata-au Catchment. To manage the effects on cultural values, Nga Runanga consider that it is appropriate for a short-term consent to be granted in this instance to avoid locking in unsustainable water use which would inhibit the Council from effectively implementing the outcomes of its intended new RPS (Regional Policy Statement) and the future LWRP (Land and Water Regional Plan). Nga Runanga consider that granting of a long-term consent in this instance would be inconsistent with the RMA, the planning framework, Kāi Tahu tikaka, rakatirataka and the exercise of kaitiakitaka.

In respect to flow conditions, no environmental flows have been set on Park Burn and, as such, it is Nga Runanga’s preference is to determine the appropriate allocation in accordance with the proposed National Environmental Standard for Ecological Flows and Water Levels 2008 (NES):

- A minimum flow of 90% of the mean annual low flow (MALF) as calculated by the regional council and an allocation limit of, whichever is greater of:
 - 30% of MALF as calculated by the Regional Council
 - the total allocation from the catchment on the date that the national environmental standard comes into force less any resource consents surrendered, lapsed, cancelled or not replaced.

The applicant has assessed the effects on cultural values by making an assessment against what they have assessed as the relevant iwi planning documents (Te Runanga o Ngai Tahu Freshwater Policy Statement and Kai Tahi ki Otago Natural Resource Management Plan). This assessment generally indicates that the application is in accordance with these plans, subject to fish passage requirements, fish screens and consent duration. It is agreed that a minimum flow and residual flow not be imposed due to the natural properties of the water body and known aquatic values. It is suggested that the mauri of the water would not be enhanced by the imposition of these restrictions. Fish screens are not recommended by the applicant but it is suggested that these be imposed on the outlet from the storage pond, based on the advice of the ORC Freshwater Scientist and further discussed 7.1.3 above. It is considered that the fish screens will mitigate some of the effects on cultural values. The reasons for the consent duration recommended are discussed in section 10 of this report. It is noted here that this is a submission matter raised by Aukaha. Overall, the cultural effects of the proposed abstraction are considered to be minor.

7.7 Water Use Assessment

Water use assessment considers what the applicants have applied for, their historic use and what is considered efficient. The applicants are proposing to take and use the water in a variety of applications including irrigation and frost fighting.

7.7.1 Historical Water Access

To assist in the reduction of primary allocation under Policy 6.4.2(b), Policy 6.4.2A allows only water that has been historically accessed under previous consents to be considered to be granted as primary allocation (except in the case of a registered community drinking water supply where an allowance may be made for growth that is reasonably anticipated).

The Council is able to control the rate, volume, timing or frequency of take, or a combination of these. The Council could grant less water than has been taken under existing consents if it is satisfied on the evidence that the lesser quantity would:

- (a) *reflect only the water actually taken and the pattern of taking established under the existing consent; and/or*
- (b) *minimise conflict between those taking water; and/or*
- (c) *address the underutilisation of water allocated under the existing consent, including any underutilisation arising from;*
 - (i) *inefficient and inappropriate practices; and/or*
 - (ii) *consent holders retaining authorisation for more water than is actually required for the purpose of use.*

The applicant currently takes water from the Park Burn under Deemed Permit 98526.V1. Water meter WM1363 records the water take.

The applicant recognises that they have regularly met and exceeded their consented maximum of 27.8 l/s. They note that, even with the applicant closing both intakes to facilitate maintenance to the race, reservoir, or monitoring station, and over the winter there is virtually always some water in the race due to the difficulty in completely sealing off the intakes. The applicant further notes that there is little pattern to the abstraction record, with taking generally matching supply of water in both the Park Burn and its tributary.

Exceedances of the consented maximum have occurred as the applicant was operating under the assumption that they could take up to 112 l/s as a combined rate of take, per Condition 3 of Deemed Permit 98526 (the permit sought to be replaced) which states “the combined take of Water Permit 98526 and 98527 shall not exceed 112 litres per second at the water metering device location.” Water Permit 98527 is for taking of augmented water discharged to the Park Burn from the Amisfield Burn for the purpose of retaking. It is now noted that the applicant has not been exercising Water Permit 98527 (see application RM20.005). The applicant confirms that future abstraction will not exceed the relevant consented rate of take. It is further noted that any water taken from the Amisfield Burn as part of their 2/54 share has been recorded via a different telemeter, and is not the subject of this application.

The application states that historic use data shows that water is taken as follows:

- Maximum rate of take: 225.8 l/s (19/01/2017)
- Maximum monthly volume: 140,814 m³ (February 2017)

- Maximum annual volume: 702,906 m³ (2018/19 water year)

Sarah McCorie, the ORC Systems and Information Analyst has analysed the water data collected from WM1363 between 17 January 2015 and 16 July 2020 (evidence appended to this application). The filtered data set contains 46,937 measurements which show an average rate of take of 18.1 l/s, a median rate of take of 10.8 l/s, and a modal (most common) rate of take of 112 l/s.

The 80th, 90th, and 95th percentiles for the rate of take were calculated, without modelling the distribution, for the raw data set, the filtered data set, and the high rate data set. The results are presented to three significant figures below.

Table 6: Percentiles for the rate of take (l/s)

	80th %ile	90th %ile	95th %ile
Raw rate	27.8	43.8	60.6
Filtered rate	27.6	42.2	58.3
High use rate	31.9	48.9	62.8

The ORC Systems and Information Analyst has analysed the data and summarises that:

- The rate of taking appears consistent with taking for storage and possibly frost fighting (It is noted that the water is not currently used for frost fighting and this is a proposed use).
- There are two additional deemed permits that share water meter WM1363.
- Deemed permit 98527.V1 has been considered in this analysis as it was only surrendered in March 2020, its consented rate of 84 l/s has been included in the total consented rate applied to this analysis.
- Deemed permit 93177 has not been included as according the RM20.003 application it has not been exercised for some time.
- The average maximum rate of take assessed in accordance with Method 10.A.4 of the Regional Plan: Water for Otago is 112 l/s.
- The average maximum daily volume assessed in accordance with Method 10.A.4 of the Regional Plan: Water for Otago is 2,400 m³/day.
- The average annual volume assessed in accordance with Method 10.A.4 of the Regional Plan: Water for Otago is 230,000 m³/year.
- The applicant has applied for 28 l/s ±10%.

Based on the analysis above, and notwithstanding any water taken under Water Permit 98527.V1 and Deemed Permit 93177, it is considered that the rates and volumes applied for have been historically taken.

7.7.2 Efficiency of Water Take and Use

Policy 6.4.0A of the RPW requires that the quantity of water granted to take is no more than that required for the purpose of use taking into account the local climate, soil, crop or pasture type and the efficiency of the proposed water transport, storage and application system. The Council commissioned a report by Aqualinc Research Ltd (Aqualinc) entitled “*Water Requirements for Irrigation Throughout the Otago Region*”, dated October 2006, to assess water volumes required to efficiently irrigate pasture and crops. This report was updated in July 2017.

Aqualinc developed a water-balance computer model that was used to estimate soil moisture levels over a 42-year period. This model takes into account the local climate, the types of soils, crop types and the irrigation system. The irrigation strategy meets a specific irrigation objective, being that production levels were to be maintained close to maximum for most of the time, and that even in the driest of conditions sufficient water would still be available to sustain plant growth.

The land area of the Otago region was divided into four main zones (Central and Lakes District, Coastal and South Otago, Maniototo and North Otago) based on geographical distribution and climatic conditions; primarily evapotranspiration and temperature.

These four zones are further divided into rainfall sub-zones using mean annual rainfall (MAR), as irrigation demand is primarily dependent on rainfall.

The soil type of an area and the rooting depth of a crop or pasture affect plant available water (PAW). PAW is the amount of water that a soil can store that is available for plants to use. Six soil PAW classes have been specified and soil data for each site can be obtained from the S-Map database (Landcare, 2014), the New Zealand Fundamental Soil Layer (NZFSL) (Landcare 2000) or a site-specific soil investigation.

This information is used to calculate the applicant's water requirement over monthly and seasonal periods. The monthly volume outlined in Aqualinc is the estimated peak monthly usage for any one month in an irrigation season but is not intended to be used for every month over the course of the season i.e. seasonal volume does not equal the monthly volume multiplied by the months in the irrigation season. Commonly, the peak monthly rate is used for one to two months in an irrigation season; however, this is dependent on variables such as rainfall, climate and crop growth.

A seasonal limit on the volume of water has been given to reflect that less water is required during the 'shoulder' of the irrigation season. Aqualinc provides recommended seasonal volumes based on an average year; a one and two-year drought (80th percentile); a one in ten-year drought (90th percentile); and a maximum situation. For Otago, it is considered that a one in ten-year drought or 90th percentile is the most appropriate when considering efficient water use.

The applicant proposes to irrigate their vineyard and convert the method of frost fighting for approximately 27 ha of land from wind machine or helicopter to overhead sprinklers as shown below:

Table 7: Applicants proposed allocation summary (Source: Application)

Volume	Daily (m ³)	Monthly (m ³)	Annual (m ³) 100 th %ile
Irrigation volumes required (per Aqualinc calcs)	639	19,800	87,549
Current paper allocation	2,400 ⁵	73,000 ⁶	876,000
Frost fighting requirements (less redundant irrigation demand)	7,161	57,289	150,384
Volume sought	-	73,000	237,933

The applicants have set out the details of their efficiency of use calculations at Appendix E of the application. The efficiency of the various specific uses is discussed in further detail below.

7.7.2.1 Frost fighting

A maximum of 3mm/hour ($30\text{m}^3/\text{ha}$) and a maximum frost fighting duration of 10 hours per event is recommended (ORC's resource consent application form 4). Based on the climate data for Central Otago an average total of 12 spring frost events (September –November) and a total of nine autumn frost events are expected at this site. Spring frost events impact grapes and cherries and the autumn frosts impact grapes only. The applicant plans to use overhead sprinklers for frost fighting for 27 ha of vineyard. All other vineyards and orchards use helicopters or wind machines for frost fighting.

The applicant has calculated daily frost fighting volumes. Monthly and annual volumes sought were also calculated, however, monthly volume was calculated assuming a maximum of eight frost days in any one month (based on NIWA climate data) and annual volume was calculated assuming a maximum of 21 frost days.:.

- Daily frost fighting maximum: $30 \times 10 \times 26 = 7,800\text{m}^3$.
- Monthly frost fight volume = $7,800 \times 8 = 62,400\text{m}^3$.
- Annual frost fight volume= $7800 \times 21= 163,800\text{m}^3$.

7.7.2.2 Irrigation

The applicant seeks to irrigate 26.4 ha of existing and proposed vineyard. The existing vineyard comprises an area of 24.7 ha and 1.7 ha of vineyard is proposed. The Aqualinc efficiency demand is calculated as follows:

Table 8: Proposed Water Demand (Source: Application)

Landuse	Soil type	Area (ha)	MAR Zone	PAW	m ³ /day	m ³ /month	90%ile annual demand (m ³)	100%ile annual demand (m ³)
Existing Vineyard 1	Molyneux	3.30	350	40	79.9	2,475	8,514	10,857.00
Existing Vineyard 2	Waenga	21.4	350	60	517.9	16,050	53,072	71,048.00
Proposed Vineyard 1	Waenga	1.7	350	60	41.1	1,275	4,216	5644.00
Total		26.4			639.00	19,800	65,802	87,549

Based on the soil type and crop, the applicant seeks a monthly volume of 19,800 m³ and annual volume of 87,549 m³ for the purposes of irrigation. A daily volumetric limit is not being sought by the applicant. The application states that calculations assume that no irrigation water is needed for vineyards on days when frost fighting is required, meaning irrigation requirements for those

crops have been subtracted from those particular days. The volumes are based on an assumed demand calculated at the 100 percentile Aqualinc calculation.

In respect of the use of the 100 percentile Aqualinc calculation, if that approach was used as a precedent and applied region-wide in Otago it could result in locking up water that would rarely be used and that could not thereafter be allocated to other applicants. As such this is not an efficient use of a finite resource. In this case this is particularly relevant given the duration sought by the applicants. For example, a future review of the RPW could conceivably reduce the primary allocation or establish seasonal allocation limits. If the applicants are granted more water now than is the norm in many other regions, then that could well exclude other parties from accessing that water in future decades.

As such, it is recommended that the 90th percentile Aqualinc calculation be applied for the irrigation demand as follows:

- Monthly demand: 19,800 m³
- Annual demand: 65,802 m³

7.7.2.3 Summary of water use

Vineyards play a major role in the economy of the Central Otago District, producing world-class grapes and wine. The applicant is applying for less annual volume than has been historically used as shown by the water use data.

When considering the 90th percentile Aqualinc calculation for the irrigation demand, and the frost fighting demand, a monthly allocation of 82,200 m³ and an annual allocation of 229,602 m³ is assessed an efficient use of the water resource.

The applicant is seeking a monthly allocation of 73,000 m³ which is less than the calculated requirements. However, the applicant states that the monthly allocation sought has been capped at 73,000 m³, which is the existing maximum monthly volume that the applicant can theoretically take at 100,000 l/hour under 98526. This monthly limit is considered appropriate. The applicant has sought an annual volume of 237,933m³ and it is recommended that this is reduced to 229,602m³to align with the assessed efficient water requirements for the purposes of use.

The annual volumes calculated are also less than the maximum recorded abstractions and less than what the applicant can take under the existing consent. These reductions, along with the increase in area to be served by the water and that the frost-fighting method altered to overhead sprinkler, suggests that this is an efficient use of water. As such, if the permits were to be granted, it is recommended that a maximum monthly volume of **73,000 m³** and a maximum seasonal volume of **229,602 m³** is imposed.

With regard to the water taken under Deemed Permit 95789 (see application RM20.005), this equates to 2/54 shares and the applicant advises that this is only used if the proposed take cannot be exercised due to low flows. To prevent double dipping and the accessing of more water than what is required to efficiency irrigate and frost fight it is recommended that a condition be imposed that limits the maximum monthly and seasonal volumes that can be taken under both this permit and the applicant's share of the replacement of Deemed Permit 95789 to the volume above.

7.8 Efficiency of Water Transport, Storage and Application System

The water takes are transported via open race. According to Irrigation New Zealand open channels can cause more trouble in operating an irrigation system than any other conveyance method if not designed and maintained correctly. The water races are unlined which causes losses due to seepage and have evaporation losses (up to 10%) and are, therefore, not the most efficient form of transport. The applicants have indicated that improvements to the water race infrastructure and maintenance regimes are proposed but no details of the any race improvements have been provided.

It is recommended that a consent condition is imposed that a scheme management plan be developed within 12 months of the grant of the consent that describes the measures that have been implemented and are proposed to be implemented to improve the efficiency of the distribution, storage and application infrastructure. The condition also requires the applicant to outline a timeframe for improvements to be made and to review the plan every 5 years.

The applicant uses a low-waste drip system, ensuring over-use is avoided. Water harvesting and storage takes place within property the via a storage reservoir with a volume of approximately 6000 m³.

7.9 Alternative Water Sources

The RPW promotes the management of water in a way that enables continued access to suitable water, ensuring communities can provide for their social, cultural and economic wellbeing, now and for the future. It achieves this by requiring consideration of whether the applied for source of water is the nearest practicable given the proposed location of use including whether the take and use of the water is an efficient use of the water resource, whether there is another practically available and accessible water source, and the wider benefits (economic, social, environmental and cultural) of taking from the water source applied for compared to taking water from other sources (Policy 6.4.0C).

The water is proposed to be used locally. There is high demand from water along the Pisa Range face. The existing Park Burn abstraction is long-established and the conveyance and storage infrastructure is already in place. The applicant invests significantly to ensure that the current infrastructure is maintained in working condition. The conveyance scheme already exists in a highly modified landscape that has developed around the reliable water supply. With the ability to use gravity systems, the scheme has a relatively low carbon/energy footprint compared to many other irrigation systems.

The application notes that there are alternative sources of water within the take area including the Clutha River and groundwater. Both of these sources may provide viable irrigation and frost fighting water for the applicants, however both would require significant investment in order to establish a secure connection –particularly in the case of any Clutha River water as this would need substantial surveying, easements and resource consent investment along with pump and conveyance infrastructure capable of moving large volumes of water over a long distance (approx. 2.5 km) and up a steep ascent (approximately 80 m elevation gain).

The application sets out the alternative water sources available to the applicant:

Rockburn Wines Limited: Holds 2 out of 54 shares in Water Permit 95789. Rockburn Wines also hold Discharge Permit 98655 and Water Permit 98527 (surrendered). Water allocated under 95789 is taken from Mark II Ltd storage reservoir and is used as an

additional water supply when flows in the Park Burn are too low to exercise 98526.

The application notes that the abstractions are long-established, and the conveyance and storage infrastructure is already in place (at considerable cost to keep these in working condition). As such this water source represents the most practical means of taking water for the applicant's vineyard, given that the take points are located above the irrigable areas and the water can be gravity fed to the storage reservoir without pumping or electrical requirements.

Vineyards play a major role in the economy of the Central Otago District, producing world-class cherries, stone fruit and grapes along with productive pastures for sheep and beef farming. It is considered that the applicant has reasonably explored alternative water sources and, where possible, re-secured access to these alternative water sources. Overall, it is considered that the Park Burn is the most practicable means of taking water for the applicant's properties and can be conveyed to the irrigation areas by gravity without the need for pumping or other electrical requirements. The proposed source is the nearest practicable source given this information.

7.10 Water Take and Use Management

Water Management Groups are voluntary. They provide flexibility for two or more consent holders to cooperate in exercising their consents, but without the added formality associated with a water allocation committee. In this instance, there are two other water users on the Park Burn and there appears to be a co-operative relationship among these water users. Furthermore, it is noted that RM20.003, RM20.005, RM20.007 and RM20.020 relate primarily to replacement applications for the Park Burn and Amisfield Burn and were prepared simultaneously and collaboratively, suggesting that there is a good deal of co-operation within water users within the Pisa Range catchments overall.

8. Section 104 Evaluation

Section 104 of the Act sets out the matters to be considered when assessing an application for a resource consent. These matters are subject to Part 2, the purpose and principles, which are set out in Sections 5 to 8 of the Act.

The remaining matters of Section 104 to be considered when assessing an application for a resource consent are:

- (a) *the actual and potential effects on the environment of allowing the activity;*
- (ab) *any measure proposed or agreed to by the Applicants for the purpose of ensuring positive effects on the environment to offset or compensate for any adverse effects on the environment that will or may result from allowing the activity;*
- (b) *any relevant provisions of a national environmental standard, other regulations, a national policy statement, the Regional Policy Statement (RPS), the Regional Plan: Water (RPW); and*
- (c) *any other matter the Council considers relevant and reasonably necessary to determine the application.*

8.1 S104(1)(a) – Actual and potential effects on the environment of allowing the activity

Section 104(1)(a) of the RMA requires the council to have regard to any actual and potential effects on the environment of allowing the activity. This includes both the positive and the adverse effects.

Positive effects

The proposal will have the following positive effects:

- Enabling the continued operation of the vineyards which is considered to contribute to the local and regional economies
- The water take and much of the irrigation systems from this source are gravity fed and as such, energy consumption is kept to a minimum resulting in a more sustainable operation.
- Supporting the community by providing job opportunities, supporting local businesses through equipment and supply acquisition, and improving land value.
- Contributing to local tourism.

Adverse effects

In considering the adverse effects, the Consent Authority:

- may disregard those effects where the plan permits an activity with that effect; and
- must disregard those effects on a person who has provided written approval.

The assessment of adverse effects is undertaken at Section 7 of this report.

Summary

Taking into consideration the positive environmental effects above and the assessment of adverse effects done for notification purposes, actual and potential effects on the environment are considered to be no more than minor.

8.2 S104(1)(ab) – Offset or Compensation

The applicant has not proposed or agreed to any measures to offset or compensate for adverse effects that will or may result from allowing the activity.

8.3 S104(1)(b) Relevant Planning Documents

The relevant planning documents in respect of this application are:

- The National Environmental Standard for Sources of Human Drinking Water
- The National Policy Statement for Freshwater Management 2014 (amended 2017)
- The National Policy Statement for Freshwater Management 2020
- The National Policy Statement for Renewable Electricity Generation
- Resource Management (Measurement and Reporting of Water Takes) Regulations 2010
- The Operative Regional Policy Statement, Proposed Regional Policy Statement and Partially Operative Regional Policy Statement
- The Regional Plan: Water for Otago
- Proposed Plan Change 7 (Water Permits) (PPC7)

8.4 National Environmental Standard for Sources of Human Drinking Water

Regulations 7 and 8 of the National Environmental Standard for Sources of Human Drinking Water (NES) need to be considered when assessing water permits that have the potential to affect registered drinking water supplies that provide 501 or more people with drinking water for 60 or more calendar days each year.

There are no registered drinking supplies within the vicinity of the proposed takes.

8.5 National Policy Statement Freshwater Management 2014 (amended 2017) (NPSFM)

The National Policy Statement for Fresh Water Management 2014, revised 2017 (“NPS-FM”) provides a National Objectives framework to assist regional councils and communities to more consistently and transparently plan for freshwater objectives. The NPS-FM also directs how regional councils are to manage freshwater through their planning documents, and in the consideration of resource consent applications.

The Council has decided to progressively implement the policies in the NPS-FM in accordance with Policy E1, as set out in its Progressive Implementation Programme. The Council’s Progressive Implementation Programme provides that the Council will carry out a plan review to the RPW to implement the policies in the NPS-FM (including establishing freshwater management units, freshwater objectives, and attributes in accordance with Policy CA), to be notified by December 2023.

The objectives and policies in the NPS-FM are relevant when considering an application to replace a deemed permit.

Objective AA1 is to consider and recognise Te Mana o te Wai in the management of fresh water. Referring to the Environment Court’s interim decision on the Southland Regional Water and Land Plan, I consider Te Mana o te Wai to mean the need to provide for the health of the waterways. In this case the issue of residual flows is most relevant to the health of the waterways. In section 7.1, I discussed the need to impose residual flows and have specifically considered the relief sought in the submission of Aukaha in respect of the retention of the 50% of the natural flow in the waterways. On the basis of the natural flow regimes and the values supported by the Park Burn, I am of the opinion that a residual flow would not improve the health of the waterway, given the natural flows of this watercourse.

As the RPW is not an NPS-FM compliant plan, Objective B1 (safeguarding the life supporting capacity, ecosystem processes and indigenous species in sustainably managing the taking of freshwater), Objective B3 (improve and maximise the efficient allocation and use of water) and Objective B4 (protect significant values of wetlands and outstanding freshwater bodies) require consideration. It is considered that the proposed volumes of water, the efficient use of water, and the recommended consent duration will result in the activity being consistent with these Objectives.

Objective B1 seeks to safeguard the life supporting capacity, ecosystem processes and indigenous species. The ecological assessment has found that the effects of the proposed take to be no more than minor, subject to conditions of consent, and, in this regard the application is considered to be consistent with this objective.

Objective B2 is particularly important in the case of over-allocated catchments as allocation is not currently fully addressed in the RPW. Objective B2 seeks to “avoid any further over-allocation of fresh water and phase out existing over-allocation”.¹ If a particular catchment is considered to be over allocated, and the Council was to grant a new permit for the same volume as authorised under the current deemed permit, the decision would not avoid further over allocation in line with Objective B2. The decision to grant a new permit with the same volume in circumstances where the catchment is currently over allocated would not phase out existing over allocation. This proposal sees the rate of take remain at 28 l/s as currently authorised by 98526.V1 but annual allocation will reduce overall. The application is considered to be generally consistent with Objective B2.

Objective B3 seeks to improve and maximise the efficient allocation and use of water and the assessment above demonstrates that the application is consistent with this objective.

Objective B4 seeks to protect significant values of wetlands and outstanding freshwater bodies and the application is considered to be consistent with this objective.

With regard to Objective B5 which seeks “*to enable communities to provide for their economic well-being, including productive economic opportunities, in sustainably managing fresh water quantity, within limits.*” It is considered that proposed water takes will enable the continued operation of the applicant’s vineyard which are considered to contribute to the local and regional economies, while the supporting infrastructure provides for a low energy consumptive operation. The water use directly contributes to job opportunities, tourism, support of local businesses and land value improvements.

Policies B5 and B7, set out clear direction that decisions must not result in future overallocation. In this case, if the application are granted as recommended will not result in any future over allocation and represent reduced primary annual allocation from what is currently authorised under the deemed permit 98526.V1.

Aukaha raised concerns with the current planning framework not giving effect to the NPS-FM. The notification of PPC7 is a step towards addressing this issue. While the provisions of PPC7 cannot be afforded full weight, the recommended consent term is consistent with PPC7 and is considered an appropriate response to the issue.

8.6 National Policy Statement Freshwater Management 2020

The National Policy Statement Freshwater Management 2020 replaces the National Policy Statement for Freshwater Management 2014 (as amended in 2017). It comes into force on 3 September 2020. It is a relevant consideration when making a decision on this application as a decision will be made after this date.

The NPS-FM 2020 strengthens the concept of Te Mana o te Wai. This is a concept that refers to the fundamental importance of water and recognises that protecting the health of freshwater protects the health and well-being of the wider environment. Te Mana o te Wai is about restoring and preserving the balance between the water, the wider environment, and the community.

¹ The NPSFM defines over-allocation as:

the situation where the resource: a) has been allocated to users beyond a limit; or b) is being used to a point where a freshwater objective is no longer being met. This applies to both water quantity and quality.

The NPS-FM 2020 outlines that Te Mana o te Wai encompasses 6 principles relating to the roles of tangata whenua and other New Zealanders in the management of freshwater, and these principles inform the NPS-FM 2020 and its implementation. The 6 principles are:

- (a) Mana whakahaere: the power, authority, and obligations of tangata whenua to make decisions that maintain, protect, and sustain the health and well-being of, and their relationship with, freshwater
- (b) Kaitiakitanga: the obligation of tangata whenua to preserve, restore, enhance, and sustainably use freshwater for the benefit of present and future generations
- (c) Manaakitanga: the process by which tangata whenua show respect, generosity, and care for freshwater and for others
- (d) Governance: the responsibility of those with authority for making decisions about freshwater to do so in a way that prioritises the health and well-being of freshwater now and into the future
- (e) Stewardship: the obligation of all New Zealanders to manage freshwater in a way that ensures it sustains present and future generations
- (f) Care and respect: the responsibility of all New Zealanders to care for freshwater in providing for the health of the nation.

It is noted that all decisions in respect of the NPS-FM 2020 should be made based on the best and scientifically robust information available.

The objective of the NPS-FM 2020 is to ensure that natural and physical resources are managed in a way that prioritises: first, the health and well-being of water bodies and freshwater ecosystems second, the health needs of people (such as drinking water) and third, the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future.

In this case, the proposal seeks to maintain and improve the health and well-being of the water bodies and associated freshwater ecosystems by a reduction in the annual volume of water authorised to be taken. There are no current demands to use the resource for the health needs of people and the takes ultimately provide for people and communities to provide for their economic development. The proposal is generally consistent with the objective of the NPS-FM 2020.

The relevant policies of the NPS-FM 2020 are detailed below and assessed:

Policy 1: Freshwater is managed in a way that gives effect to Te Mana o te Wai.

Policy 2: Tangata whenua are actively involved in freshwater management (including decision making processes), and Māori freshwater values are identified and provided for.

Policy 3: Freshwater is managed in an integrated way that considers the effects of the use and development of land on a whole-of-catchment basis, including the effects on receiving environments.

Policy 4: Freshwater is managed as part of New Zealand's integrated response to climate change. Policy 5: Freshwater is managed through a National Objectives Framework to ensure that the health and well-being of degraded water bodies and freshwater ecosystems is improved, and the health and well-being of all other water bodies and freshwater ecosystems is maintained and (if communities choose) improved.

Policy 6: There is no further loss of extent of natural inland wetlands, their values are protected, and their restoration is promoted.

Policy 7: The loss of river extent and values is avoided to the extent practicable.

Policy 8: The significant values of outstanding water bodies are protected.

Policy 9: The habitats of indigenous freshwater species are protected.

Policy 10: The habitat of trout and salmon is protected, insofar as this is consistent with Policy 9. Policy 11: Freshwater is allocated and used efficiently, all existing over-allocation is phased out, and future over-allocation is avoided.

Policy 12: The national target (as set out in Appendix 3) for water quality improvement is achieved. Policy 13: The condition of water bodies and freshwater ecosystems is systematically monitored over time, and action is taken where freshwater is degraded, and to reverse deteriorating trends. 10 National Policy Statement for Freshwater Management 2020

Policy 14: Information (including monitoring data) about the state of water bodies and freshwater ecosystems, and the challenges to their health and well-being, is regularly reported on and published.

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.

It is noted that in respect of Te Mana o te Wai the NPS-FM 2020 directs that every regional council must engage with communities and tangata whenua to determine how Te Mana o te Wai applies to water bodies and freshwater ecosystems in the region. It is noted that this has not yet occurred for the Otago Region. The NPS-FM outlines that regional councils must give effect to Te Mana o te Wai, and outlines what must be involved in giving effect to. It is noted that the majority of this will occur as Otago Regional Council goes through the national objectives framework (NOF) process. By way of summary, the NOF process requires regional councils to undertake the following steps: (a) identify FMUs in the region, (b) identify values for each FMU, (c) set environmental outcomes for each value and include them as objectives in regional plans, (d) identify attributes for each value and set baseline states for those attributes, (e) set target attribute states, environmental flows and levels, and other criteria to support the achievement of environmental outcomes, (f) set limits as rules and prepare action plans (as appropriate) to achieve environmental outcomes. The ORC has identified FMUs in the region and this take is part of the Clutha River/Mata-Au FMU and Dunstan rohe. The Council is in the early stages of identifying the values for this FMU and rohe. Council will undertake the remaining steps in the NOF process in upcoming years and plans to notify the Land and Water Plan in accordance with the NPS-FM 2020 in late 2023. This will outline the limits that apply to these catchments. These will be considered when this replacement permit is replaced or via the review conditions that are recommended to be imposed.

In respect of Policy 3, *ki uta ki tai* is a relevant concept and requires that local authorities must: recognise the interconnectedness of the whole environment, from the mountains and lakes, down the rivers to hāpua (lagoons), wahapū (estuaries) and to the sea; and recognise interactions between freshwater, land, water bodies, ecosystems, and receiving environments; and manage freshwater, and land use and development, in catchments in an integrated and sustainable way to avoid, remedy, or mitigate adverse effects, including cumulative effects, on the health and well-being of water bodies, freshwater ecosystems, and receiving environments; and also encourage the co-ordination and sequencing of regional or urban growth. Consideration of the effects the takes have on the adjacent groundwater system and the Clutha River/Mata-Au itself has been given and recommended conditions, if consent were to be granted, require water use to be efficient, which should minimise associated water quality effects in the wider catchment. Implementation of Plan Change 8 to the RPW and the NES for Freshwater will also manage interrelated effects from the activity.

In respect of the other policies, it considered that tangata whenua have been involved in the consent process by being considered an affected party and the Maori values have been identified

within their submission. Not all of the relief within their submission has been provided for notably in respect of minimum flows and allocation volumes and these will be established as part of a new Land and Water Plan. The reasons for the consent term sought are discussed later in section 10 of this report (Policy 2). The proposal will not result in the loss of natural inland wetlands nor is there any information to suggest that natural inland wetlands will be adversely affected by the activities (Policy 6). The takes will maintain river values (Policy 7). No significant outstanding water bodies will be affected (Policy 8). The activities as proposed will not affect the habitats of any known indigenous freshwater fish species and the habitat of trout is protected, given the nature of current trout habitat and mitigation proposed (Policy 8 and 9). Future overallocation is avoided and water will be used efficiently in accordance with best practice (Policy 11).

It is noted that in terms of water allocation the NPS-FM 2020 directs that every regional council must make or change its regional plan(s) to include criteria for deciding applications to approve transfers of water take permits; and deciding how to improve and maximise the efficient allocation of water (which includes economic, technical, and dynamic efficiency). Further every regional council must include methods in its regional plan(s) to encourage the efficient use of water. It is recognised that these policies and methods will be developed as part of the Land and Water Plan. These applications have been assessed in accordance with the existing objectives and policies and efficiency of water use has been considered. Recommended conditions, if the consents were to be granted, require ongoing improvement to the efficiency of water distribution and use during the consent term.

Overall, it is considered that the application is in general accordance with the NPS-FM 2020 insofar as the objective and policies can be considered at this point.

8.7 National Policy Statement on Renewable Electricity Generation

The National Policy Statement on Renewable Electricity Generation (NPSREG) came into effect on 13 May 2011 and has the objective of recognising the national significance of renewable electricity generation activities by providing for the development, operation, maintenance and upgrading of new and existing renewable electricity generation activities. The Park Burn is a tributary of Lake Dunstan which is dammed by Contact Energy for renewable electricity generation.

The most relevant policies to this proposed take are:

- Policy A which relates to recognising the benefits of renewable electricity generation activities including maintaining electricity generation; and
- Policy B which relates to the practical implications of achieving New Zealand's target for electricity generation from renewable resources and requires decision makers to have regard to even minor reductions in the generation output of existing renewable generation activities.

No adverse effect on renewable electricity generation has been identified and the proposal is considered to be consistent with the NPSREG.

8.8 Resource Management (Measurement and Reporting of Water Takes) Regulations 2010

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

Abstraction under proposed application will continue to be metered and reported as per the current arrangement for 98526. One meter is located downstream of both take points and so captures all abstraction under this permit. WEX0164 authorises the location of this meter away from the points of take.

The Resource Management (Measurement and Reporting of Water Takes) Regulations 2010 are to be amended by the Resource Management (Measurement and Reporting of Water Takes) Amendment Regulations 2020, which come into force on 3 September 2020. These regulations introduce a staged timeline requiring holders of consents for more than 20 litres per second to measure their water use every 15 minutes, store their records, and electronically submit their records to the Council every day.

These daily reporting requirements do not come into force until 3 September 2022 for water takes of more than 20 litres per second. These regulations are also required to be complied with by consent holders regardless of whether they are included in a consent condition. It is noted that the recommended consent conditions, should the Commissioner be of mind to grant, are in accordance with the Resource Management (Measurement and Reporting of Water Takes) Amendment Regulations 2020 requirements with telemetry being proposed.

8.9 Regional Policy Statement, Proposed Regional Policy Statement and Partially Operative Regional Policy Statement

The Regional Policy Statement for Otago (RPS) provides an overview of Otago's resource management issues, and ways of achieving integrated management of natural and physical resources. The provisions of Chapter 6 (Water) are relevant to this application. The taking of water is consistent with the policies of the RPS, provided that it is done in a conservative manner that does not adversely affect instream biota, natural character, or other lawful water users. It is noted that the RPW gives full effect to the provisions of the RPS, therefore given the applications are consistent with the provisions of the RPW, it is also consistent with the RPS.

The proposed Regional Policy Statement (pRPS) was notified on 23 May 2015 and a decision was released 1 October 2016. Significant weight can be given to the pRPS as it is substantially through the statutory process. The pRPS was made partially operative on the 14th of January 2019 (PO-RPS), with the exception of all provisions and explanatory material in Chapter 3: Otago has high quality natural resources and ecosystems. The provisions that are the subject of court proceedings and are not made operative are shaded in grey below. Full consideration is given to the operative provisions of the PORPS. Weighted consideration is given to the provisions that have not been made operative in conjunction with the remaining operative provisions of the RPS, outlined above.

The relevant provisions of the pRPS/PORPS include:

- *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)
- Managing for freshwater values including
 - Maintain or enhance ecosystem health in all Otago aquifers, and rivers, lakes, wetlands, and their margins
 - Maintain or enhance the range and extent of habitats provided by fresh water, including the habitat of trout and salmon
 - Recognise and provide for the migratory patterns of freshwater species, unless detrimental to indigenous biological diversity
 - Avoid aquifer compaction and seawater intrusion in aquifers
 - Maintain good water quality, including in the coastal marine area, or enhance it where it has been degraded
 - Maintain or enhance coastal values
 - Maintain or enhance the natural functioning of rivers, lakes, and wetlands, their riparian margins, and aquifers
 - Maintain or enhance the quality and reliability of existing drinking and stock water supplies
 - Recognise and provide for important recreation values
 - Maintain or enhance the 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
 - Avoid, remedy, or mitigate adverse effects on existing infrastructure that is reliant on fresh water (Policy 3.1.1)
- Ensure the efficient allocation and use of water (Policy 3.1.3)
- Manage for water shortage by
 - 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

- *Encouraging water harvesting and storage, 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*

The proposal will enable the applicant to continue to irrigate their land, resulting in their own economic wellbeing. Cultural and Kai Tahu values have been considered and Aukaha and TAMI on behalf of the local Runanga were considered affected in accordance with Section 95E of the Act. Freshwater values have been considered in this report, and the adverse effects of them are considered to be consistent with the above objectives and policies . The volumes sought have been compared with the Aqualinc recommendations and the volumes recommended are considered an efficient use of water. The annual volume of water sought is reduced from what has historically been taken, and the proposed reduction in the annual volume in the catchment is considered a positive environmental change.

For the above reasons, the applications are considered consistent with the provisions of both the RPS and PO-RPS.

8.10 Regional Plan: Water for Otago

Regional Plan Water (Operative)

Resource consent is required under the RPW.

As the original permit (95789) was granted prior to 28 February 1998 and the applicant has applied more than 6 months prior to the consent expiring, the water take retains primary allocation status in accordance with Policy 6.4.2.

Restricted Discretionary Activity Rule 12.1.4.5

Taking and use of surface water as primary allocation applied for prior to 28 February 1998 in catchments not listed in Schedule 2A:

- (i) *This rule applies to the taking of surface water, as primary allocation, in catchment areas not listed in Schedule 2A, if the taking was the subject of a resource consent or other authority:*
 - (a) *Granted before 28 February 1998; or*
 - (b) *Granted after 28 February 1998, but was applied for prior to 28 February 1998; or*
 - (c) *Granted to replace a resource consent or authority of the kind referred to in paragraph (a) or (b).*
- (ii) *Unless covered by Rule 12.1.1A.1, the taking and use of surface water to which this rule applies is a restricted discretionary activity. The matters to which the Otago Regional Council has restricted the exercise of its discretion are set out in Rule 12.1.4.8.*
- (iii) *Unless covered by Rule 12.1.1A.1, the taking and use of surface water in the Waitaki catchment to which this rule applies is a restricted discretionary activity provided that by itself or in combination with any other take, use, dam, or diversions, the sum of the annual volumes authorised by resource consent, does not exceed the allocation to activities set out in Table 12.1.4.2. The matters to which the Otago Regional Council has restricted the exercise of its discretion are set out in Rule 12.1.4.8.*
- (iv) *Takes to which this rule applies will not be subject to a minimum flow condition until the minimum flow has been determined by investigation and added to Schedule 2A by a plan change.*

Note: If a minimum flow has been determined for a catchment previously not listed in Schedule 2A, and that minimum flow has been set by a plan change, the catchment will then be listed in Schedule 2A and Rule 12.1.4.2 or Rule 12.1.4.4 will apply.

Rule 12.1.4.8 Restricted Discretionary Activity considerations

In considering any resource consent for the taking and use of water in terms of Rules 12.1.4.2 to 12.1.4.7 and 12.2.3.1A, the Otago Regional Council will restrict the exercise of its discretion to the following:

- (i) *The primary and supplementary allocation limits for the catchment; and*
- (ii) *Whether the proposed take is primary or supplementary allocation for the catchment; and*
- (iii) *The rate, volume, timing and frequency of water to be taken and used; and*
- (iv) *The proposed methods of take, delivery and application of the water taken; and*
- (v) *The source of water available to be taken; and*
- (vi) *The location of the use of the water, when it will be taken out of a local catchment; and*
- (vii) *Competing lawful local demand for that water; and*
- (viii) *The minimum flow to be applied to the take of water, if consent is granted; and*
- (ix) *Where the minimum flow is to be measured, if consent is granted; and*
- (x) *The consent being exercised or suspended in accordance with any Council approved rationing regime; and*
- (xi) *Any need for a residual flow at the point of take; and*

- (xii) Any need to prevent fish entering the intake and to locate new points of take to avoid adverse effects on fish spawning sites; and
- (xiii) Any effect on any Regionally Significant Wetland or on any regionally significant wetland value; and
- (xiv) Any financial contribution for regionally significant wetland values or Regionally Significant Wetlands that are adversely affected; and
- (xv) Any actual or potential effects on any groundwater body; and
- (xvi) Any adverse effect on any lawful take of water, if consent is granted, including potential bore interference; and
- (xvii) Whether the taking of water under a water permit should be restricted to allow the exercise of another water permit; and
- (xviii) Any arrangement for cooperation with other takers or users; and
- (xix) Any water storage facility available for the water taken, and its capacity; and
- (xx) The duration of the resource consent; and
- (xxi) The information, monitoring and metering requirements; and
- (xxii) Any bond; and
- (xxiii) The review of conditions of the resource consent; and
- (xxiv) For resource consents in the Waitaki catchment the matters in (i) to (xxiii) above, as well as matters in Policies 6.6A.1 to 6.6A.6.

Overall, the application is considered to be a **restricted discretionary** activity under the RPW. All other relevant permitted activity rules set out in the operative plan are complied with.

Relevant objectives and policies from the RPW are considered below:

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| Objective 5.3.1 | <i>To maintain or enhance the natural and human use values, identified in Schedules 1A, 1B and 1C that are supported by Otago's lakes and rivers.</i> |
| Objective 5.3.2 | <i>To maintain or enhance the spiritual and cultural beliefs, values and uses of significance to Kai Tahu, identified in Schedule 1D, as these relate to Otago's lakes and rivers.</i> |

The application has less than minor effect on the values listed in Schedules 1A, 1B, 1C and 1D of the RPW and detailed in section 5.3 of this report. It is noted that these values only relate to the connecting body of Lake Dunstan and the Park Burn and its tributaries are not in these schedules. The application is therefore consistent with these objectives.

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| Objective 5.3.3 | <i>To protect the natural character of Otago's lakes and rivers and their margins from inappropriate subdivision, use or development.</i> |
| Objective 5.3.4 | <i>To maintain or enhance the amenity values associated with Otago's lakes and rivers and their margins.</i> |

The location of the point of take is on private property or has easements, is not considered to be an inappropriate use of the Park Burn and will have less than minor effect on the natural character

and amenity values. It is therefore considered that the application is consistent with these objectives.

Objective 5.3.6 *To provide for the sustainable use and development of Otago's water bodies, and the beds and margins of Otago's lakes and rivers.*

The applicants are proposing to increase amount of land irrigated with less overall water than is currently allocated. The irrigation methods are considered to be efficient. It is considered that the application offers a more sustainable use of the water resource and the proposed use of the water is consistent with this objective.

Policy 5.4.2 *In the management of any activity involving surface water, groundwater or the bed or margin of any lake or river, to give priority to avoiding, in preference to remedying or mitigating:*

- (1) *Adverse effects on:*
 - (a) *Natural values identified in Schedule 1A;*
 - (b) *Water supply values identified in Schedule 1B;*
 - (c) *Registered historic places identified in Schedule 1C, or archaeological sites in, on, under or over the bed or margin of a lake or river;*
 - (d) *Spiritual and cultural beliefs, values and uses of significance to Kai Tahu identified in Schedule 1D;*
 - (e) *The natural character of any lake or river, or its margins;*
 - (f) *Amenity values supported by any water body; and*
- (2) *Causing or exacerbating flooding, erosion, land instability, sedimentation or property damage.*

Policy 5.4.3 *In the management of any activity involving surface water, groundwater or the bed or margin of any lake or river, to give priority to avoiding adverse effects on:*

- (a) *Existing lawful uses; and*
- (b) *Existing lawful priorities for the use, of lakes and rivers and their margins.*

Policy 5.4.4 *To recognise Kai Tahu's interests in Otago's lakes and rivers by promoting opportunities for their involvement in resource consent processing.*

Policy 5.4.8 *To have particular regard to the following features of lakes and rivers, and their margins, when considering adverse effects on their natural character:*

- (a) *The topography, including the setting and bed form of the lake or river;*
- (b) *The natural flow characteristics of the river;*
- (c) *The natural water level of the lake and its fluctuation;*
- (d) *The natural water colour and clarity in the lake or river;*
- (e) *The ecology of the lake or river and its margins; and*
- (f) *The extent of use or development within the catchment, including the extent to which that use and development has influenced matters (a) to (e) above.*

Policy 5.4.9 *To have particular regard to the following qualities or characteristics of lakes and rivers, and their margins, when considering adverse effects on amenity values:*

- (a) *Aesthetic values associated with the lake or river; and*
- (b) *Recreational opportunities provided by the lake or river, or its margins.*

The proposed activity will have a no more than minor effect on the values listed in Schedule 1A. The natural character of the Park Burn is discussed by Mr Campbell and no adverse effects were

identified. DOC were served notice of the application but did not submit. The effects on Kai Tahu values are explained by Aukaha in their submission who sought to address adverse cultural effects by water metering, retaining 90% of flow in the creek or other flow share arrangement and a term of six years. The downstream permit holder was assessed as an affected party and submitted in support on the application. Due to the nature of the location of the takes, the effect on amenity, aesthetic, recreational or heritage values will be no more than minor and the proposal is assessed as consistent with these objectives and policies.

Objective 6.3.1 To retain flows in rivers sufficient to maintain their life-supporting capacity for aquatic ecosystems, and their natural character.

Objective 6.3.2 To provide for the water needs of Otago's primary and secondary industries, and community domestic water supplies.

Policy 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.*

The applicants are proposing to take less water per month than required for the purpose of the uses specified in their application. The use of the water has been assessed as efficient taking local climate, soil, pasture type and water availability into consideration. The proposal, subject to recommended conditions of consent, will maintain the life-supporting capacity for aquatic ecosystems and their natural character. The water is to be used for the needs of Otago's primary industries. The recommended annual allocation has been reduced from that applied for ensure efficient use of the water resource. Therefore, the proposed take is assessed as consistent with these objectives and this policy. The proposed take seeks a reduced annual allocation water but seeks to use this water over more land and for a wider purpose (irrigation and frost fighting) and as such the water use is considered to be more efficient.

Policy 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.

The applicant is seeking a rate of take which is less than has been taken under historic use.. Therefore, the application is consistent with Policy 6.4.2A.

Objective 6.3.3 To minimise conflict among those taking water.

Policy 6.4.12 To promote, establish and support appropriate water allocation committees to assist in the management of water rationing and monitoring during periods of water shortage.

Policy 6.4.12A To promote, approve and support water management groups to assist the Council in the management of water by the exercise of at least one of the following functions:

- (a) *Coordinating the take and use of water authorised by resource consent; or*

- (b) Rationing the take and use of water to comply with relevant regulatory requirements; or
- (c) Recording and reporting information to the Council on the exercise of resource consents as required by consent conditions and other regulatory requirements, including matters requiring enforcement.

<i>Policy 6.4.12B</i>	<i>To manage water rationing amongst water takes, Council may either</i>
	<i>(a) Support establishment of a water management group; or</i>
	<i>(b) Establish a water allocation committee.</i>
	<i>Council may also instigate its own water rationing regime or issue a water shortage direction.</i>
<i>Policy 6.4.12C</i>	<i>Where appropriate, to include in water permits to take water a condition that consent holders comply with any Council approved rationing regime.</i>
<i>Policy 6.4.13</i>	<i>To restrict the taking of water in accordance with any Council approved rationing regime.</i>
<i>Policy 6.6.0</i>	<i>To promote and support development of shared water infrastructure.</i>
<i>Policy 6.4.0B</i>	<i>To promote shared use and management of water that:</i>
	<i>(a) Allows water users the flexibility to work together, with their own supply arrangements; and</i>
	<i>(b) Utilises shared water infrastructure which is fit for its purpose.</i>

The applicant is encouraged to work collaboratively with Small Burn Limited and Mark II Limited but as these are the only two other water users on the Park Burn, it is considered that a water management group is not necessary. Overall, it is considered that the application is consistent with the objective and policies listed above. The applicant may choose to form a water management group in the future if a minimum flow is imposed on the catchment.

<i>Policy 6.4.0C</i>	<i>To promote and give preference, as between alternative sources, to the take and use of water from the nearest practicable source.</i>
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The applicant has investigated alternative water sources and the proposed water take is to be taken from the nearest practicable source and used locally. Therefore, the application is consistent with Policy 6.4.0C.

<i>Policy 6.4.1</i>	<i>To enable the taking of surface water, by:</i>
	<i>(a) Defined allocation quantities; and</i>
	<i>(b) Provision for water body levels and flows,</i>
	<i>except when</i>
	<i>(i) the taking is from Lakes Dunstan, Hawea, Roxburgh, Wanaka or Wakatipu, or the main stem of the Clutha/Mata-Au or Kawarau Rivers.</i>
	<i>(ii) All of the surface water or connected groundwater taken is immediately returned to the source water body.</i>
	<i>(iii) Water is being taken which has been delivered to the source water body for the purpose of that subsequent take.</i>

<i>Policy 6.4.4</i>	<i>For existing takes outside Schedule 2A catchments, minimum flows, for the purpose of restricting primary allocation takes of water, will be determined after</i>
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investigations have established the appropriate minimum flows in accordance with Method 15.9.1.3. The new minimum flows will be added to Schedule 2A by a plan change and subsequently will be applied to existing takes in accordance with Policy 6.4.5(d). For new takes in a catchment outside Schedule 2A, until the minimum flow has been set by a plan change, the minimum flow conditions of any primary allocation consents will provide for the maintenance of aquatic ecosystems and the natural character of the source water body.

No minimum flow has currently been established for the catchments. It is recommended that a review condition is imposed to enable a minimum flow condition to be applied once should a minimum flow be set via a plan change, in accordance with Policy 6.4.4.

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.*

This application to take surface water has primary allocation status, is not subject to a minimum flow. A residual flow is not considered necessary due to the nature of the Park Burn which dries naturally in the lower reaches. It is recommended that a review condition is imposed to enable a minimum flow condition to be applied once should a minimum flow be set via a plan change, in accordance with the above policies.

Policy 6.4.16 *In granting resource consents to take water, or in any review of the conditions of a resource consent to take water, to require the volume and rate of take to be measured in a manner satisfactory to the Council unless it is impractical or unnecessary to do so.*

The applicant has been measuring the water taken using a water meters and the data recorded electronically using a datalogger and sent to Council via telemetry. This monitoring will continue to occur should this consent be granted.

Policy 6.4.18 *Where a resource consent for the taking of water has not been exercised for a continuous period of 2 years or more, disregarding years of seasonal extremes, the Otago Regional Council may cancel the consent.*

The recommended water metering condition will allow the Council to monitor the rate and volumes of take, and ensure the water is being used efficiently. Should metering show the consent has been unexercised in accordance with this policy, the consent may be cancelled.

- 6.4.19** *When setting the duration of a resource consent to take and use water, to consider:*
- (a) *The duration of the purpose of use;*
 - (b) *The presence of a catchment minimum flow or aquifer restriction level;*
 - (c) *Climatic variability and consequent changes in local demand for water;*
 - (d) *The extent to which the risk of potentially significant, adverse effects arising from the activity may be adequately managed through review conditions;*
 - (e) *Conditions that allow for adaptive management of the take and use of water;*
 - (f) *The value of the investment in infrastructure; and*
 - (g) *Use of industry best practice.*

The recommended term is discussed in section 10 below where the seven points identified by this policy are discussed.

- Policy 6.6.2 To promote the storage of water at periods of high water availability through:*
- (a) The collection and storage of rainwater; and*
 - (b) The use of reservoirs for holding water that has been taken from any lake or river.*

The applicant currently uses a storage reservoir which is critical to its management of the water resource. The application is considered to be consistent with this policy.

Overall, the application is considered consistent with the provisions of the operative RPW.

8.11 Proposed Plan Change 7 (Water Permits)

Plan Change 7 (PPC7) was notified by the Council on the 18th of March and therefore the rules, objectives and policies in the plan change apply to the water permit. PPC7 was re-notified by the Environmental Protection agency on 6 July 2020.

For applications to renew deemed permits expiring in 2021, and any other water permits expiring prior to 31 December 2025, PPC7 establishes a controlled activity consenting framework for short duration consents which comply with the controlled activity conditions. PPC7 also establishes a non-complying consenting framework for consents where a longer duration is proposed or where the application fails to meet one or more of the controlled activity conditions.

As the applicant seeks to irrigate more land than currently irrigated and the consent duration sought is more than 6 years, the water take does not meet the conditions of Rule 10A.3.1.1 and is, therefore, a non-complying activity under Rule 10A.3.2.1.

Despite consent being required under Rule 10.3.2.1 as a non-complying activity, the application should continue to be processed as a restricted discretionary activity in accordance with section 88A(1A), being the activity status that applied under the RPW when the application was made.

The RPW was notified in 28 February 1998 and became operative in 1 January 2004. It is noted here, that the RPW was drafted before the NPS-FM 2014 (amended 2017) was notified and has not been updated to give effect to the NPS-FM. Council notified its Progressive Implementation Programme in December 2018 and has a plan to implement the NPS-FM. Part of this plan and as directed by the Minister for the Environment is that a plan change to the Water Plan was notified in March 2020. Issues with the Planning framework have also been raised in Environment Court cases, including the ‘Lindis’ decision by Judge Jackson (*Lindis Catchment Group Incorporated Vs Otago Regional Council ENV-2016-CHC-61*) on a plan change to the Water Plan specific to the Lindis catchment and a series of consents to take water to replace deemed permits.

The objective, policies and rules in PPC7 establish an interim planning and consenting framework to manage freshwater for the transition from deemed permits to RMA water permits while a long-term sustainable framework is prepared. PPC7 has been notified to implement the

recommendations of the Minister for the Environment² following Professor Skelton's investigation of freshwater management and allocation functions at Otago Regional Council.³

Professor Skelton's report and the Minister's recommendations both highlighted inadequacies of the current planning framework in giving effect to the higher order documents, in particular the NPS-FM. While the comprehensive overhaul of the ORC planning framework is underway, the Minister considers that there is an urgent need to ensure that an interim framework is in place between now and 31 December. In his recommendation to ORC the Minister stated:

"This is necessary to manage approximately 400-600 future consent applications in over allocated catchments. The possibility of up to 600 consents being granted under the current planning and consenting framework is problematic. I understand that around 70 per cent of ORC's currently issued water permits are for durations of 25-35 years, with various expiry dates. This includes over 50 permits that expire in 2050 or later, eight of which are 35 year permits issued this year. I am advised that there is a strong expectation from deemed and RMA water permit holders that their new consents will be for similarly long terms, and that the Council is likely to come under strong pressure to meet these expectations. In my view, long terms for these new consents would be unwise, as they would lock in unsustainable water use, inhibiting the council from effectively implementing the outcomes of its intended new RPS and LWRP."

In response to Professor Skelton highlighting the importance of having robust interim measures in place to provide for short-term consents until the new regional policy statement and land and water regional plan are completed, the Minister formally recommended, under section 24A of the RMA that ORC:

Prepare a plan change by 31 March 2020 that will provide an adequate interim planning and consenting framework to manage freshwater up until the time that new discharge and allocation limits are set, in line with the requirements in the National Policy Statement for Freshwater Management.

The Minister encouraged ORC to consider a narrow plan change that provides for a relatively low cost, and fast issuing of new consents on a short-term basis, as an interim measure until sustainable allocation rules are in place. These recommendations are reflected in Objective 10A.1.1 of PPC7 which provides:

Objective 10A.1.1 *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 water permits*

² Letter from David Parker (Minister for the Environment) to Otago Regional Council Councillors regarding the Minister's investigation of freshwater management and allocation functions at the Otago Regional Council (18 November 2019).

³ Peter Skelton "Investigation of freshwater management and allocation functions at Otago Regional Council: (report to the Minister for the Environment, November 2019).

expire prior to 31 December 2025, until the new Land and Water Regional Plan is made operative.

This objective is implemented by the following policies and rules:

Policy 10A.2.1

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:

- (a) *The deemed permit or water permit that is being replaced is a valid permit; and*
- (b) *There is no increase in the area under irrigation, if the abstracted water is used for irrigation; and*
- (c) *There is no increase in the instantaneous rate of abstraction; and*
- (d) *Any existing residual flow, minimum flow or take cessation condition is applied to the new permit; and*
- (e) *There is a reduction in the volume of water allocated for abstraction.*

Policy 10A.2.2

Irrespective of any other policies in this Plan concerning consent duration, only grant new resource consents for the take and use of water for a duration of no more than six years.

Policy 10A.2.3

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:

- (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*
- (b) *The resource consent granted will expire before 31 December 2035.*

Rule 10A.3.2.1

Despite any rule or rules in this Plan:

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

*That does not meet any one or more of the conditions of Rule 10A.3.1.1. is a **non-complying** activity.*

As these applications are for water permits to replace deemed permits, Policies 10A.2.1 and 10A.2.3 apply. Policy 10A.2.2 is not applicable as it only applies to new permits.

As PPC7 has been notified, regard must be had to its provisions as well as the provisions of the operative RPW. While regard must be given to the provisions of PPC7, this does not necessarily mean giving full effect to its context. It is up to the decision-maker as to the weight that should be afforded to each of the matters under section 104(1).

In terms of weight applied to proposed provisions, the following has been gathered from case law as relevant for the decision maker to consider the weight to be applied to proposed provisions:

- The extent that it has progressed through the plan-making process⁴;
- The extent that the proposed measure has been subject to independent testing or decision making⁵;
- Circumstances of injustice⁶;
- The extent to which a new measure, or the absence of one, might implement a coherent pattern of objectives and policies in a plan⁷; and
- Whether there has been a significant change in Council policy and the new provisions are in accordance with Part 2 of the RMA⁸.

Based on these matters outlined above, it is considered that while the provisions are in their initial stages of the plan making process, they are particularly directive (use of ‘avoid’) and are a significant change from the operative provisions of the plan. As these provisions have been proposed in response to the Minister’s recommendations as set out above, following an independent investigation undertaken by Professor Skelton with a particular focus on the management of freshwater, it is considered that they may better achieve the purpose and principles of the Act and the NPS-FM than current operative provisions. Otherwise, water permits granted under the current operative planning provisions have the potential to frustrate the new limits imposed in the new regional plan for land and water resources that is scheduled to be notified by December 2023, and made operative by December 2025.

While it is recognised that PPC7 is only an interim step to achieving the purpose of the RMA and giving full effect to the NPS-FM, the section 32 report for PPC7, identifies that it is a critical measure in order to achieve this purpose in a timely manner and ensures the current planning framework is more in accordance with Part 2 of the RMA in the interim period.⁹ Furthermore, it is assessed that PPC7 implements a coherent pattern of objectives and policies as it is designed to be a standalone consenting regime for replacement deemed permits and water permits expiring before 31 December 2025.

It is recognised that this application was lodged prior to notification of PPC7 and, as such, the applicant has not had the benefit of the new controlled activity rule under PPC7 to obtain a relatively low cost, short term consent. Rather, the applicant has engaged several experts to prepare a comprehensive assessment of environmental effects which consider the adverse effects are no more than minor.

⁴ *Queenstown Central Ltd v Queenstown Lakes District Council* [2013] NZHC 815 at [9].

⁵ *Hanton v Auckland City Council* [1994] NZMRA 289 (PT).

⁶ *Keystone Ridge Ltd v Auckland Bity Council* (HC Auckland, AP24/01, 3 April 2001) at [16] and [37]; *Mapara Valley Preservation Society Incorporated v Taupo District Council EnvC Auckland A083/07*, 1 October 2007, at [51].

⁷ *Keystone Ridge Ltd v Auckland Bity Council* (HC Auckland, AP24/01, 3 April 2001) at [16] and [37]; *Mapara Valley Preservation Society Incorporated v Taupo District Council EnvC Auckland A083/07*, 1 October 2007, at [51].

⁸ *Keystone Ridge Ltd v Auckland Bity Council* (HC Auckland, AP24/01, 3 April 2001) at [16].

⁹ Section 32 Evaluation Report for PPC7 dated 18 March 2020, p 18.

The provisions in PPC7 represent a significant shift in Council policy and that granting new consents for all expiring deemed permits would inhibit the Council from effectively implementing the outcomes of its intended new regional policy statement and land and water plan. As such, it is assessed that some weight should be placed, on the notified provisions. An assessment against the provisions below has been undertaken.

The objective in PC7 requires a ‘transition’ toward long-term sustainable management of surface water. This relates to the management of surface water generally and the issues relating to large quantities of water being allocated to deemed permits or historic water permit (pre-RMA).

Policy 10A.2.1, provides strong direction to ‘avoid’ granting consent except where the provisions in (a) – (e) are met. As confirmed in the *King Salmon*¹⁰case, the word ‘avoid’ takes its ordinary meaning of ‘not allow’ or ‘prevent the occurrence of’. In respect to this policy, it directs that the Council must avoid granting the consent, unless all of the provisions of (a) – (e) are met. In relation to these matters, the water permit that is to be replaced is ‘valid’; there is an increase to the area of irrigation; there is no increase to the instantaneous rate of take; there was no existing residual or minimum flow on the current water permit and there is a reduction in the volume of water allocated of abstraction. As all of clauses (a) to (e) of Policy 10A.2.1 are not met, due to the increase in area of irrigation and term of consent sought, the granting of this application is contrary to this policy, specifically due to the directive nature of the policy.

Policy 10A.2.3 applies irrespective of any other policies concerning consent duration. It directs that new resource consents to replace deemed permits only be granted for a duration of no more than 6 years except where 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. In that case a consent may be granted with an expiry of up to 31 December 2035. Notwithstanding the adverse effects, the applicant is seeking a duration of 35 years and the application is considered to be contrary to this policy in its current form. These policies are considered further in Section 10 of this report.

The activity would be a non-complying activity under the notified plan in accordance with rule 10A.3.2.1. However, it retains its activity status of Restricted Discretionary as it was lodged prior to the notification of PPC7. A non-complying activity status introduces the most onerous test for a consent application being the Section 104D ‘gateway’ test. This being that the consent authority may only grant consent if the application is not contrary to provisions of all planning documents or causes a no more than minor adverse effect. Given this application was lodged prior to the notification of PPC7 it retains the operative rule and its corresponding activity status and no further consideration to S104D is given.

8.12 Section 104(1)(c) - Any other matters

The Ngāi Tahu ki Murihiku Natural Resource and Environmental Iwi Management Plan 2008

The Ngāi Tahu ki Murihiku Natural Resource and Environmental Iwi Management Plan 2008 - The Cry of the People, Te Tangi a Tauira is a relevant other matter for the consideration of this application. This is because the RPW is yet to be amended to take into account this Plan and this

¹⁰ *Environmental Defence Society Incorporated v The New Zealand King Salmon Company Limited* [2014] NZSC 38 (King Salmon).

Plan expresses the attitudes and values of the four Rūnanga Papatipu o Murihiku – Awarua, Hokonui, Ōraka/Aparima and Waihōpau.

The following objectives and policies are of most relevance to these applications:

- Adopt the precautionary principle when making decisions on water abstraction resource consent applications, with respect to the nature and extent of knowledge and understanding of the resource.
- Support and encourage catchment management plans, based on the principle of *ki uta ki tai*, to manage the cumulative impacts of water abstractions in a given area.
- Require that scientifically sound, understandable, and culturally relevant information is provided with resource consent applications for water abstractions, to allow Ngāi Tahu ki Murihiku to fully and effectively assess cultural effects.
- Recommend, as a condition of consent, that any application for irrigation puts in on-farm rainwater holding facilities, to help with dairy washdown and irrigation.
- Encourage the installation of appropriate measuring devices (e.g. water meters) on all existing and future water abstractions, to accurately measure, report, and monitor volumes of water being abstracted, and enable better management of water resources.
- Advocate for durations not exceeding 25 years on resource consents related to water abstractions.
- Require that Ngāi Tahu are provided with the opportunity to participate through pre-hearing meetings or other processes in the development of appropriate consent conditions including monitoring conditions to address our concerns.
- Avoid adverse effects on the base flow of any waterway, and thus on the mauri of that waterway and on mahinga kai or taonga species.
- Ngāi Tahu's right to development, as per the Treaty of Waitangi, must be recognised and provided for with respect to water allocation from freshwater resources.
- Encourage water users to be proactive and use water wisely. To encourage best practice and efficient use of water, particularly in terms of:
 - sustainable irrigation design, delivery and management;
 - making best use of available water before water levels get too low;
 - reducing the amount of water lost through evaporation by avoiding irrigating on hot windy days.
- Consideration of consent applications for water abstractions should have particular regard to questions of:
 - how well do we understand the nature and extent of the water resource;
 - how well can we monitor the amount of water abstracted;
 - whether land capability (e.g. soil type, vulnerability of underlying groundwater resources) matches the land use enabled by irrigation;
 - what might happen in the future (e.g. rainfall and recharge of aquifers, climate change).
- Applications for water abstractions may be required to justify the quantities of water requested. Information may need to be provided to Te Ao Mārama Inc. regarding the proposed water use per hectare, estimated water losses, stocking rates, and the level of efficiency for the scheme. This will enable iwi to put the quantity of water sought in context and ensure that a test of reasonableness can be applied to consents.

- Require catchment based cumulative effects assessments for activities involving the abstraction of water.
- The establishment of environmental flow regimes must recognise and provide for a diversity of values, including the protection of tangata whenua values.
- Ensure that environmental flow allocation and water management regimes for rivers recognise and provide for the relationship between water quality and quantity.
- Avoid compromising fisheries and biodiversity values associated with spring fed creeks and rivers for the purposes of water abstractions.

The application has been assessed to be in general accordance with this plan. The applicants have applied for a term more than 25 year which is inconsistent with the plan and would not be taking a precautionary approach. The applicants are seeking to take volume of water that is less than their historic use and the water use has been assessed as efficient for the land being irrigated and frost fighting. The applicant currently meters its water takes and this monitoring will continue.

The applicant currently uses drip irrigation, with any future vineyard expansions utilising the same method of irrigation. This is considered to be an efficient method by industry best standard. Furthermore, frost fighting is currently carried out via helicopter, but the applicant intends to replace this method with an overhead sprinklers for its frost fighting needs in future. The reason for this shift is that helicopters are inherently unreliable for frost fighting as demand means they are not always available in a timely manner. In addition, increased residential activity in the area means that helicopter use can introduce noise and disturbance effects on this sensitive environment Te Ao Marama, Incorporated and TRONT were provided an opportunity to be involved in this application but no submissions were received from these parties.

Kai Tahu ki Otago Natural Resource Management Plan 2005

The Kai Tahu ki Otago Natural Resource Management Plan 2005 (NRMP) is considered to be a relevant other matter for the consideration of this application because the RPW is yet to be amended to take into account the NRMP. The NRMP expresses the attitudes and values of the four Papatipu Rūnaka: Te Rūnanga o Moeraki, Kāti Huirapa Rūnaka ki Puketeraki, Te Rūnanga o Ōtākou and Hokonui Rūnanga. The following objectives and policies are of most relevance to this application:

- To require that resource consents applications seek only the amount of water actually required for the purpose specified in the application.
- To require that all water takes are metered and reported on, and information be made available upon request to Kai Tahu ki Otago.
- To oppose the granting of water take consents for 35 years.
- To encourage those that extract water for irrigation to use the most efficient method of application.
- To discourage over-watering.

The granting of this consents with the recommended terms and conditions is generally consistent with these requirements. The applicants are seeking an amount that has been assessed as efficient and have proposed to meter the take. As noted above, the applicants currently use drip irrigation system which is the most efficient method of irrigating grapes. The on-site reservoir will ensure that water is used when it is needed but stored when it is not, meaning very little abstracted water should be wasted.

A term of 35 years has been applied for which is inconsistent with the NRMP whose policies oppose the granting of water take consents for 35 years. Aukaha Limited has submitted opposing the application requesting a term no longer than 6 years. The precautionary approach promoted by this Plan is particularly relevant given the inadequacy of the current planning framework.

Te Rūnanga o Ngāi Tahu Freshwater Policy Statement 1999

The Ngāi Tahu Freshwater Policy Statement 1999 (NTFP) is considered to be a relevant other matter for the consideration of this application because the RPW is yet to be amended to take into account the NTFP. The NTFP expresses the attitudes and values of Te Rūnanga o Ngāi Tahu

The following objectives and policies are of most relevance to this application:

6.1 – Wāhi Tapu: To afford total protection to waters that are of particular spiritual significance to Ngai Tahu.

- *Identify sites for immediate protection because of their significance as wāhi tapu.*

The location of the take has not been identified as a site of significance as wāhi tapu.

6.2 – Mauri: To restore, maintain and protect the mauri of freshwater resources.

- *Identify freshwater resources where:*
 - *Mauri is unaffected by modification and human activity so that these waterbodies can be afforded total protection; and*
 - *Mauri is adversely affected, and the activities that cause such affects.*
 - *Accord priority to ensuring the availability of sufficient quantities of water of appropriate water quality to restore, maintain and protect the mauri of a waterbody, in particular priority is to be accorded when developing water allocation regimes.*

The application is for water takes within an area that has been modified by human activity and where water is currently taken from. Aukaha Limited made a submission on behalf of Kāti Huirapa Rūnaka ki Puketeraki, Te Rūnanga o Ōtākou and Hokonui Rūnanga (Ngā Rūnanga) and stated that a resource's mauri is desecrated if it no longer supports the traditional uses and values. A water body or other natural resource can be desecrated by improper resource management activities. These may extinguish the mauri and in turn diminish the association upon which a range of values are based, including mahika kai, for Ngā Rūnanga who hold traditional rights and responsibilities in respect to the resource.

6.3 – Mahinga Kai: To maintain vital, healthy mahinga kai populations and habitats capable of sustaining harvesting activity.

- *Protect critical mahinga kai habitats and identified representative areas*
- *Restore and enhance the mahinga kai values of lakes, rivers, streams, wetlands, estuaries and riparian margins.*
- *Ensure that activities in the upper catchment have no adverse effects on mahinga kai resources in the lower catchments*
- *Restore access to freshwater resources for cultural activities, including the harvest of mahinga kai.'*

Aukaha has stated in its submission that the Clutha/Mata-au River was part of ara tawhito, mahika kai trail that led inland. Mahika kai sourced from the Clutha/Mata-au Catchment includes indigenous ika and manu such as: tuna, kanakana, kōkōpu, moa, inaka, weka. Ecological effects of the take are limited due to the Park Burn naturally going to ground and conditions of consent will ensure any adverse ecological are managed such that these are no more than minor.

It is considered that, overall, the application is generally consistent with the objectives and policies of the NTFP.

Professor Skelton's Report and Minister's Recommendations

Professor Peter Skelton was engaged by the Hon David Parker, Minister for the Environment (the Minister) to investigate whether the ORC is adequately carrying out its functions under section 30(1) of the RMA in relation to freshwater management and allocation, particularly the implementation of the NPS-FM.

The October 2019 report concluded that the current planning framework in Otago is not fit for purpose to appropriately consider resource consent applications for new water permits before the expiry of deemed permits in October 2021. It also identified the need for an accelerated full review of the Water Plan (to notify a new Land and Water Plan by December 2023) and a full review of the Regional Policy Statement (to notify by November 2020).

To bridge the gap between the expiry of deemed permits in Otago in 2021 and other water permits expiring prior to a full plan review, and when a new Regional Policy Statement and Land and Water Plan for Otago will be operative, the Minister has recommended an interim change to the Water Plan. This has recently been notified as Proposed Plan Change 7 (Water Permits) (PPC7).

However, the weight placed on these matters is not determinative of the consent application in regard to granting the consent. This report has been considered but has not changed the recommendation to grant the consent.

8.13 Section 104(2A) Value of Investment

When considering an application affected by Section 124 of the Act, the Council must have regard to the value of the investment of the existing consent holder. The applicant has provided the following evidence of the value of current and proposed investment as follows:

The existing water distribution infrastructure and irrigation systems represent a significant investment. With standard costs of around \$15,000/ha on subsoil irrigation, \$50,000/ha on above-ground vineyard works, up to \$50,000 on the reservoir, and further expenditure on pump and electrical infrastructure, investment in this property far exceeds \$1.5 million. Further investment will be required for ongoing maintenance of the infrastructure, and any future expansions”

Overall, it is considered that the applicants have demonstrated an adequate level of investment.

8.14 Section 124B Applications by Existing Holders of Resource Consents

The following criteria must be considered when a person who holds an existing resource consent makes an application within Section 124 timeframes, and the consent authority receives one or

more other applications to use some or all of the natural resource to which the existing consent relates:

- (a) the efficiency of the person's use of the resource; and
- (b) the use of industry good practice by the person; and
- (c) if the person has been served with an enforcement order not later cancelled under section 321, or has been convicted of an offence under section 338,
 - (i) how many enforcement orders were served or convictions entered; and
 - (ii) how serious the enforcement orders or convictions were; and
 - (iii) how recently the enforcement orders were served or the convictions entered.

While there are no such other applications currently before the Council, the factors have been assessed for completeness and in the event any other application is lodged before this application is determined.

The applicant has applied for irrigation water which is considered efficient by Aqualinc plus frost fighting water. The applicants seek to take less volume of water than currently allocated but will apply it to a greater land area. The irrigation method for the land is considered to be efficient. The applicant will also convert from helicopter frost fighting to overhead sprinklers. The applicant has invested to improve efficiency such as race maintenance and water storage options and further improvements are proposed. These have been cemented by recommended conditions.

It is noted that the applicant has exceeded the rate of take authorised by 98526 but explains this as a misunderstanding introduced by a condition of consent which provided for a combined rate of take of 112 l/s. No enforcement orders have been issued against the holder of 98526.

8.15 Part 2 of the Act

Under Section 104(1) of the RMA, a consent authority must consider resource consent applications "subject to Part 2" of the RMA, specifically, sections 5, 6, 7 and 8.

The Court of Appeal has recently clarified how to approach the assessment of "subject to Part 2" in section 104(1). In *R J Davidson* the Court of Appeal found that (in summary):¹¹

Decision makers must consider Part 2 when making decisions on resource consent applications, where it is appropriate to do so. The extent to which Part 2 of the RMA should be referred to depends on the nature and content of the planning documents being considered.

Where the relevant planning documents have been prepared having regard to Part 2 of the RMA, and with a coherent set of policies designed to achieve clear environmental outcomes, consideration of Part 2 is not ultimately required. In this situation, the policies of these planning documents should be implemented by the consent authority. The consideration of Part 2 "would not add anything to the evaluative exercise" as "genuine consideration and application of relevant plan considerations may leave little room for Part 2 to influence the outcome". However, the consideration of Part 2 is not prevented, but Part 2 cannot be used to subvert a clearly relevant restriction or directive policy in a planning document.

Where it is unclear from the planning documents whether consent should be granted or refused, and the consent authority has to exercise a judgment, Part 2 should be considered.

¹¹ *R J Davidson Family Trust v Marlborough District Council* [2018] NZCA 316.

If it appears that the relevant planning documents have not been prepared in a manner that reflects the provisions of Part 2, the consent authority is required to consider Part 2. I have assessed matters in Part 2 as to assist the decision maker.

The relevant matters under section 6 of the Act, have been recognised and provided for. The natural character of the waterbody will be unaffected by the proposed abstraction (section 6(a)). The proposal will not affect any outstanding natural features or landscapes (section 6(b)). The Park Burn does not provide habitat for any significant indigenous fauna (section 6(c)). Where public access exists, this will be maintained (section 6(d)). The relationship of Maori and their culture and traditions with water has been recognised through the identification of iwi as affected parties. The submission of Aukaha has been considered and the recommendations of this report have provided for the relief sought where appropriate (section 6(e)).

Particular regard has been given to kaitiakitanga (section 7(a)). It is considered that the rates and volumes of abstraction will not cause the mauri of the waterbodies to be degraded beyond its current state. This will ensure that a degree of kaitiakitanga is maintained which recognises the relationship between Maori and the water. Particular regard has also been given to the efficient use and development of natural and physical resources and the Applicants efficient use of water has been recognised (section 7(b)). The need to protect the habitat of trout has been considered and it is considered that the fish screening will be an appropriate measure to do this (section 7(h)). With the recommended conditions, particularly fish screening and the requirement to provide water efficiency reporting, I consider the application is consistent with the “other matters” of Section 7 of the Act.

The principals of Te Tiriti o Waitangi, including active protection, equity and participation, have been taken into account in accordance with section 8. Of significance is the Treaty principle of active protection. This needs to be understood as it relates to the mauri of waterbodies. Degradation of mauri can diminish associations and prevent cultural uses, which may occur when an application is taking a significant proportion or all of a waterbody over a long period of time. The proposed conditions and the consent term of 15 years should address this issue. However, it is acknowledged that Aukaha have requested a duration of 6 years in their submission. Active protection is linked to Article Two of the Treaty and partnership responsibilities. When the mauri of waterbodies is degraded, this demonstrates a lack of active protection. Addressing degradation of mauri aligns with national direction around Te Mana o te Wai, which has been assessed in the section of this report on the NPS-FM.

8.15 Section 108 and 108AA of the Act

The attached conditions on RM20.003.01 are recommended in accordance with Sections 108 and 108AA of the Act.

With regard to abstraction levels, the rate of take below is less than that which has been taken historically. The volumes of 73000m³ per month reflects the maximum volume able to be taken under 98526.V1 and the annual volume is assessed as an efficient use of water

- The rate of take must not exceed 28 l /second
- The monthly volume must not exceed 73,000 m³
- The annual volume must not exceed 229,602 m³

In addition to rate and volume conditions, the following conditions have been offered by the applicant:

- *The consent holder shall maintain a water meter to record the water take, at or close to the point of take, within an error accuracy of +/-5% over the meter's nominal flow range, and a telemetry compatible datalogger with at least 24 months data storage and a telemetry unit to record the rate and volume of take, and the date and time this water was taken. The datalogger must record the date, time and flow in L/s. Data shall be provided to the Consent Authority by means of telemetry. The consent holder must ensure data compatibility with the Consent Authority's time-series database. The water meter must be installed according to the manufacturer's specifications and instructions. There must be enough space in the pipe/flume to allow for verification of the accuracy of the meter under Condition (X).*
- *The Consent Holder must ensure the full operation of the water meter, data logger and telemetry unit at all times during the exercise of this consent. All malfunctions of the water meter and/or datalogger during the exercise of this consent shall be reported to the Consent Authority within 5 working days of observation and appropriate repairs must be performed within 5 working days. Once the malfunction has been remedied, a Water Measuring Device Verification Form completed with photographic evidence must be submitted to the Consent Authority within 5 working days of the completion of repairs.*
- *If a mechanical insert water meter is installed it shall be verified for accuracy each and every year from the first exercise of this consent. An electromagnetic or ultrasonic flow meter shall be verified for accuracy every 5 years from the first exercise of this consent. Each verification must be undertaken by a Consent Authority approved operator and a Water Measuring Device Verification Form must be provided to the Consent Authority within 5 days of the verification being performed, and at any time upon request.*
- *The consent holder shall take all practicable steps to ensure that:*
 - *There is no leakage from pipes and structures;*
 - *The use of water is confined to the target areas.*
- *The Consent Authority may, in accordance with Sections 128 and 129 of the RMA1991, serve notice on the consent holder of its intention to review the conditions of this consent within 3 months of each anniversary of the commencement of this consent for the purpose of:*
 - *Adjusting the consented rate or volume of water under Conditions X and X, should monitoring under Condition X or future changes in water use indicate that the consented rate or volume is not able to be fully utilised; or*
 - *Determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; or*
 - *Ensuring the conditions of this consent are consistent with any NES, relevant plans and/or the Otago RPS; or*
 - *Adjusting or altering the method of water take data recording and transmission.*

The above conditions are considered appropriate and it is recommended that these be applied to the consent apart from minor adjustments to ensure consistency with ORC standard formatting.

With regard to fish screening, the ORC RSU recommends that screens are installed at the outlet of each storage pond to ensure that fish are not pumped out of the conveyance system.

Finally, conditions requiring an annual water use efficiency report and Scheme Management Plan to be prepared and submitted which addresses:

Annual Water Use Efficiency Report

- a) Area, crop type, number of harvests per year, and timing;
- b) Annual summary of water usage (month by month, and related to crops in the ground);
- c) Reasons why use may have varied from the previous year;
- d) A record of frost fighting events (date, duration, volume of water used)
- e) Information demonstrating irrigation equipment that has been used and decision-making regarding efficiency of use (e.g. soil moisture data, irrigation scheduling, meter accuracy checks, computer control of irrigation) and any changes planned for the coming year;
- f) Any changes or modifications to irrigation (and water conveyance) infrastructure; and
- g) Water conservation steps taken.

Scheme Management Plan

- a) Within 6 years of the commencement of this resource consent, the Consent Holder must submit a Scheme Management Plan to the Consent Authority for certification. The objective of the Scheme Management Plan is to ensure the efficiency of water use and conveyance of water is improved over time. The Scheme Management Plan must include, but not necessarily be limited to, the following:
 - i. A plan identifying the irrigation area at the commencement of this consent with the number of hectares specified;
 - ii. A plan identifying any new areas of irrigation developed after the commencement of this consent with the number of hectares specified;
 - iii. A plan identifying proposed new areas of irrigation still to be developed with the number of hectares specified;
 - iv. A description of the measures that have been implemented to improve efficiency of water use or conveyance of water since the commencement of this consent including any:
 - (i) Upgrades to existing open races, including piping; and
 - (ii) Establishment of any water storage infrastructure;
 - i. A description of the measures that are planned to be implemented within the next five years to improve efficiency of water use and conveyance of water, including the timeframes proposed for their implementation.
- b) The Consent Holder must review and update the Scheme Management Plan at five yearly intervals. Each updated Plan must be provided to the Consent Authority for certification in the month of June of the year in which the review occurs.

9. Recommendation

9.1 Reason for Recommendation

It is recommended that this consent application is approved subject to the appended conditions and for the recommended term of 15 years because:

- a. The adverse effects are assessed as no more than minor.
- b. The proposed activity is consistent with the objectives and policies of the Regional Plan: Water specifically as the applicant is applying for less annual volume than that which was previously consented.
- c. The use of the water is efficient and the volumes applied for have been shown to be efficient through Aqualinc and other calculations.
- d. No additional water beyond that taken in the past five years (as confirmed by data analysis) is recommended.
- e. The application is consistent with the NPS-FM as the proposed take does not result in any further allocation and is reducing overall annual allocation and using the water more sustainably.
- f. The proposal will not hinder the implementation of an NPS-FM compliant Plan as future allocation limits can be imposed upon renewal of this consent.
- g. No matters have arisen in the assessment of the application that would indicate the application should have been publicly notified.

10. Term of Consent (Section 123)

The applicant has requested a duration of 35 years to ensure financial security and reflect the existing and proposed level of investment. It is considered that a duration of 15 years is more appropriate. In reaching this recommendation the following relevant factors have been considered:

- The duration of a resource consent should be decided in a manner which meets the RMA's purpose of sustainable management;
- Whether adverse effects would be likely to increase or vary during the term of the consent;
- Whether there is an expectation that new information regarding mitigation would become available during the term of the consent;
- Whether the impact of the duration could hinder implementation of an integrated management plan (including a new plan);
- That conditions may be imposed requiring adoption of the best practicable option, requiring supply of information relating to the exercise of the consent, and requiring observance of minimum standards of quality in the receiving environment;
- Whether review conditions are able to control adverse effects;
- Whether the relevant plan addresses the question of the duration of a consent;
- The life expectancy of the asset for which consents are sought;
- Whether there was significant capital investment in the activity/asset; and
- Whether a particular period of duration would better achieve administrative efficiency.

Policy 6.4.19 of the RPW states that when considering the duration of a resource consent to take and use water the following are considered:

- The duration of the purpose of use;
- The presence of a catchment minimum flow or aquifer restriction level;

- Climatic variability and consequent changes in local demand for water;
- The extent to which the risk of potentially significant adverse effects arising from the activity may be adequately managed through review conditions;
- Conditions that allow for the adaptive management of the take and use of water;
- The value of the investment in infrastructure; and
- Use of industry best practice.

The explanation to the policy states the following:

The duration of each resource consent to take and use water should have regard to the particular circumstances of the activity and its likely environmental effects, but there needs to be good reason for Council to reduce the duration of consents from that required for the purpose of use. There can be tension between granting sufficiently long consent durations to enable continued business viability and managing the greater environmental risk associated with long duration consents.

Where more is known about a water resource, such as when a catchment minimum flow has been specified in Schedule 2B, or an aquifer restriction level has been specified in Schedule 4B, and a council approved rationing regime will be adhered to, the risk of adverse effects being unforeseen is reduced and longer duration consents may be appropriate.

Consent review provisions provide an opportunity to allow longer consent durations while ensuring the requirements of this Plan are met over time. Where there is a higher degree of risk of adverse effects, uncertainty of longer term availability of the water resource, or the applicant is unwilling to volunteer adaptive management conditions (it may be too difficult to set suitable review conditions), a shorter duration consent may be appropriate.

Adaptive management provisions may be volunteered in situations where there is uncertainty about the response required to meet future change, including rapidly changing technology or a rapidly changing environment. Such provisions enable a proposal to proceed with sufficient, but not exhaustive, assessments of all risks and contingencies. Environmental standards initially set may be varied to be more or less restrictive over the life of the consent, in light of changing circumstances and community expectations.

Policy 6.4.19 of the RPW addresses consent duration for consents to take and use water. It does not recommend actual durations but instead contains seven criteria for to consider. In this case:

- Criteria (a) - the proposed purposes of the abstractions are enduring; being irrigation and frost fighting uses.
- Criteria (b) - there are no minimum flows on the catchments within the application.
- Criteria (c) - climatic variability is certain to occur but no detailed evidence of its relevance has been supplied.
- Criteria (d) - potential adverse effects (such as inadequate residual flows or downstream minimum flow) can be addressed through robust review conditions. However, there are limitations on how the Council can deal with allocation through the review of consent

conditions and the extent of changes that can be made given that the effect of the change of conditions on the continued viability of the activity must be considered as part of any review. It is not yet known what the outcome of the Council's future planning programme may be and therefore the extent of changes required to conditions to bring the consent into line with the new planning framework. As such, a longer term of 35 years which relies on a review condition to manage effects is not considered appropriate.

- Criteria (e) - the applicant has not proposed adaptive management, although review conditions will allow allocation and residual flow matters to be addressed in the future should the need arise.
- Criteria (f) -the applicant has invested in irrigation infrastructure, water storage and seeks to convert from helicopter frost fighting to overhead sprinklers.
- Criteria (g) - The irrigation method for the land is a low-waste drip system, ensuring over-use is avoided. Water harvesting and storage takes place within property the via a storage reservoir with a volume of approximately 6000m³. The applicant will also convert from helicopter frost fighting to overhead sprinklers. The applicant has invested to improve efficiency such as race maintenance and water storage options and further improvements are proposed.

The Kai Tahu ki Otago Natural Resource Management Plan 2005 oppose consents granted for up to 35 years and the Ngāi Tahu ki Murihiku Natural Resource and Environmental Iwi Management Plan 2008 advocate for terms of consent not greater than 25 years. Aukaha in their submission have sought 6 years primarily on the inadequacy of the current planning framework. The recommended term of 15 years is consistent with the relevant iwi management plans and is in accordance with PPC7, which is the first step by Council to align the planning framework with the NPS-FM 2014 (amended 2017).

As noted in Section 8.10, Policy 10A.2.3 proposed by PPC7 relates to the duration of new resource consents that replace deemed permits:

<i>Policy 10A.2.3</i>	<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>
	<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>
	<i>(b) The resource consent granted will expire before 31 December 2035.</i>

Policy 10A.2.3 of PPC7 directs that new consents to replace deemed permits only be granted for no more than 6 years except where there are no more than minor adverse effects (including 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. This is irrespective of any other

policies in the Plan concerning consent duration, i.e. Policy 6.4.19. Considering this direction, granting the consent duration sought by the applicants would be contrary to the provisions of PPC7. Given the overall effects conclusion that the adverse effects (including cumulative effects) on aquatic ecology and hydrology are no more than minor, a duration of 15 years would be consistent with Policy 10A.2.3. As discussed in Section 8.10, while weight can be given to PPC7, it is appropriate to continue to give weight to Policy 6.4.19 of the RPW.

In this instance, I consider that a 15 year consent term is appropriate for all activities on the basis that:

- A 15-year duration will provide the applicant with security of access to surface water resources, ensures efficient use of water and safeguards the life-sustaining capacity of the watercourses.
- A term of 15 years is considered to strike an appropriate balance between the term sought by the applicants and the significant shift in Council policy under PPC7 to have interim measures in place to provide for short term consents until the new regional policy statement and land and water regional plan are completed.
- PPC7 contains a coherent set of policies and is intended as a stand-alone consenting regime and an interim step in giving full effect to the NPS-FM;
- The adverse effects of the proposed take are no more than minor and ultimately acceptable; and
- Unforeseen adverse effects can be managed by review conditions during the consent term.

It is recommended that a lapse duration of 2 years is applied rather than the default 5 years provided for by section 125 of the RMA. This lapse period recognises the finite nature of the resource and competing local demand and prevents the resource being tied up. Overall, it ensures efficiency of resource use.

Appended: Recommended Conditions of Consent

Appended: Evidence of Ciaran Campbell – ORC Freshwater Ecologist

Appended: Analysis of Sarah McCorrie – ORC Systems and Data Analysis

Appended: Assessment of Cameron Jasper – Pattle Delamore Partners Limited



Kirstyn Lindsay
Consultant Planner
Southern Planning Solutions