



## Otago Regional Council

### Section 42A Staff Recommending Report

Water Permit Application RM20.039

Pig Burn Gorge Limited, Natasha Lee Burrell, Ian Joseph Burrell and Canterbury Trustees (2016) Limited being trustees of the Duncan Cleugh Farming Trust, Janine Ruth Smith, En Hakkore Limited, Greenbank Pastoral Limited, Hamilton Runs Limited, Hamiltons Dairy Limited, Concept Farms Limited, Sophic Trust, Christopher Patrick Mulholland and Dale Evelyn Mulholland

***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 has no greater weight than any other evidence that the Hearing Commissioners will hear and consider.***

Alexandra King  
**Team Leader Consents**

24 August 2021

## Executive Summary of Recommendation

Pig Burn Gorge Limited, Natasha Lee Burrell, Ian Joseph Burrell and Canterbury Trustees (2016) Limited (being trustees of the Duncan Cleugh Farming Trust), Janine Ruth Smith, En Hakkore Limited, Greenbank Pastoral Limited, Hamilton Runs Limited, Hamiltons Dairy Limited, Concept Farms Limited, Sophic Trust, Christopher Patrick Mulholland and Dale Evelyn Mulholland have applied for resource consent (RM20.039) for new water permits replacing deemed permits which allow the take and use of water from the Pig Burn, and Harpers Creek. The application also seeks to transfer the location of the take. The volumes of water sought to be taken under RM20.039 represent a reduction in the rate of take consented by the existing Deemed Permits.

The Applicant has applied for a 35-year term. The application was limited notified and there were 2 submissions.

The key issues arising from this Application are the proposed rate of take, allocation, residual flow, fish screens and the consent duration.

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, the recommendation of the reporting officer is that the applications for consent are **granted** with a term expiring **31 December 2035** subject to the recommended conditions of consent.

## Report writer

Please note that this report contains the recommendations of the Consent Officer and represents the opinion of the author. It is not a decision on the Application, nor is it Council policy.

### Alexandra King

My name is Alexandra King. I am a Team Leader Consents – Coastal Otago employed by the Otago Regional Council. I have been employed by the Council as a Consents Officer and Senior Consents Officer since 2018.

I hold the qualifications of a Master of Science (Hydrology) and a Bachelor of Science (Geography and Environmental Management) both from the University of Otago. I am an Associate Member of the New Zealand Planning Institute.

I am a certified decision maker under the Ministry for the Environment 'Making Good Decisions' programme.

I have been involved with the Pig Burn application since it was lodged and received in early 2020. I attended a site visit in July 2020.

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

<b>ID Ref:</b>	<b>A1357654</b>
<b>Application No(s):</b>	<b>RM20.039</b>
<b>Prepared For:</b>	<b>Hearing panel</b>
<b>Prepared By:</b>	<b>Alexandra King, Team Leader Consents</b>
<b>Date:</b>	<b>24/08/2021</b>
<b>Subject:</b>	<b>Section 42A Recommending Report – Water permit application for Pig Burn Gorge Limited, Natasha Lee Burrell, Ian Joseph Burrell and Canterbury Trustees (2016) Limited being trustees of the Duncan Cleugh Farming Trust, Janine Ruth Smith, En Hakkore Limited, Greenbank Pastoral Limited, Hamilton Runs Limited, Hamiltons Dairy Limited, Concept Farms Limited, Sophic Trust, Christopher Patrick Mulholland and Dale Evelyn Mulholland</b>

### **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 Pig Burn Gorge Limited, Natasha Lee Burrell, Ian Joseph Burrell and Canterbury Trustees (2016) Limited being trustees of the Duncan Cleugh Farming Trust, Janine Ruth Smith, En Hakkore Limited, Greenbank Pastoral Limited, Hamilton Runs Limited, Hamiltons Dairy Limited, Concept Farms Limited, Christopher Patrick Mulholland and Dale Evelyn Mulholland (the Applicants). Section 42A allows local authorities to require the preparation of such a report on an application for resource consent and allows the consent authority to consider the report at any hearing. The purpose of the report is to assist the Hearing Panel in deciding on the application.

The report assesses the application in accordance with Sections 104 and 104B of the RMA and makes a recommendation as to whether the application should be granted, and a recommendation on the duration of the consent and appropriate conditions.

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

### **2. Summary of the Application**

## 2.1 Overview

**Table 1: Overview of the application**

<b>Applicant:</b>	<ul style="list-style-type: none"> <li>• Pig Burn Gorge Limited;</li> <li>• Natasha Lee Burrell, Ian Joseph Burrell and Canterbury Trustees (2016) Limited (being trustees of the Duncan Cleugh Farming Trust);</li> <li>• Janine Ruth Smith;</li> <li>• En Hakkore Limited;</li> <li>• Greenbank Pastoral Limited;</li> <li>• Hamilton Runs Limited;</li> <li>• Hamiltons Dairy Limited;</li> <li>• Concept Farms Limited;</li> <li>• Sophic Trust; and</li> <li>• Christopher Patrick Mulholland and Dale Evelyn Mulholland.</li> </ul>
<b>Applicant's Agent</b>	Susie McKeague, McKeague Consultancy Limited
<b>Deemed Permits</b>	2000.136, 2000.245, 2000.244, 2002.010, 96394, 97210, 96230.V1, 97128, 2000.498, 96254
<b>Consents sought:</b>	<ul style="list-style-type: none"> <li>• Water permits to take and use surface water from the Pig Burn;</li> <li>• A discharge permit to discharge water to Harpers Creek, Taieri Catchment;</li> <li>• An augmented take permit to take and use surface water from Harpers Creek; and</li> <li>• Transfer of take, including a partial transfer of location and a full transfer of location.</li> </ul>
<b>Purpose of take</b>	Irrigation, storage, stock water and domestic supply
<b>Notification</b>	The application was lodged with Council on 12 February 2020 and was limited notified to 3 parties on 29 February 2020 and 28 September 2020
<b>Submissions</b>	2 with both submitters opposing and wishing to be heard
<b>Pre-hearing meeting</b>	<p>Held on 30 July 2020 attended by:</p> <ul style="list-style-type: none"> <li>• Council reporting officer;</li> <li>• Dr Richard Allibone on behalf of Council Science;</li> <li>• Applicants;</li> <li>• Sally Dicey, McKeague Consultancy, Applicant's planner</li> <li>• Matt Hickey, Water Resource Management Ltd, Applicant's hydrology/ecology expert</li> <li>• Courtney Guise from Aukaha on behalf of Kāti Huirapa Rūnaka ki Puketeraki, Te Rūnanga o Ōtākou and Hokonui Rūnanga (Kā Rūnaka)</li> <li>• Nigel Paragreen and Helen Trotter for Otago Fish and Game</li> </ul>
<b>Site Visit</b>	Processing officer attended site visit with Dr Richard Allibone of Water Ways Consulting on 15 July 2020.
<b>Key issues</b>	<ul style="list-style-type: none"> <li>• Consent duration;</li> <li>• Allocation;</li> <li>• Rate and volume of take;</li> <li>• Residual flows; and</li> <li>• Fish screening.</li> </ul>

## 3. Description of the Proposed Activity

The Applicant has applied for:

- Water permits to take and use surface water from the Pig Burn (Table 2);
- An augmented take permit to take and use surface water from Harpers Creek; and
- Transfer of take, including a partial transfer of location and a full transfer of location.

**Table 2: Rates and Volumes Applied For**

<b>Take</b>	<b>Consent holder and numbers</b>	<b>Purpose of take</b>	<b>Rates and volumes applied for</b>
Take 1: Pig Burn shared take	- Duncan Cleugh Farming Trust (1/3 share)	Irrigation: 48 hectares pasture Stock: 1212 Sheep 287 Beef Cattle	The rate of abstraction must not exceed: a) 56 Litres per second (L/s) b) 500,000 m <sup>3</sup> during period 1 July to 30 June in the following year
Take 1: Pig Burn shared take	- Pig Burn Gorge Limited (1/3 share)	Irrigation: 80 hectares pasture Stock: 1000 Sheep	
Take 1: Pig Burn shared take	- Janine Ruth Smith (1/3 share)	Irrigation: 60 hectares pasture Stock: 750 Sheep	
Take 2: Bradfields/En Hakkore	En Hakkore Limited	Irrigation: 30 hectares pasture Stock: 200 Sheep 4 Cows Domestic: 12 houses (not permanently occupied) 1 house permanently occupied	The rate of abstraction must not exceed: a) 7 Litres per second (L/s) b) 70,000 m <sup>3</sup> during period 1 July to 30 June in the following year
Take 4: Weir	Hamilton Runs Limited	Irrigation: 380 Hectares pasture Stock: 9500 Sheep 700 Beef Cattle Domestic: 2 houses	The rate of abstraction must not exceed: a) 55.6 Litres per second (L/s) b) 895,000 m <sup>3</sup> during the period from 1 July to 30 June in the following year.

Take 3: Herlihy Gorge take	Greenbank Pastoral Limited, Hamiltons Dairy Limited	Combined between Takes 3 and 5 Irrigation: 875 hectares pasture Stock: 1640 Dairy cows 1200 Beef Cattle Dairy shed: 1640 Cows	The rate of abstraction must not exceed: a) 42 Litres per second (L/s) b) 454,120 m <sup>3</sup> during the period from 1 July to 30 June in the following year.
Take 5: Herlihy Ford	Greenbank Pastoral Limited, Hamiltons Dairy Limited		The rate of abstraction must not exceed: a) 70 Litres per second (L/s) b) 459,875 m <sup>3</sup> during period 1 July to 30 June in the following year as a combined total with the annual volume for Take 6.
Take 6: Combined take	<b>Concept</b> Farms Ltd/ <b>Sophic</b> Trust	Irrigation: 760 Hectares pasture (from two takes) Stock: 2480 Dairy cows Dairy shed: 2480 cows	The rate of abstraction must not exceed: a) 60 litres per second as a combined total between the consent holders taking water pursuant to this consent when flow immediately below the point of take is less than 200 litres per second b) 100 litres per second as a combined total between the Mulhollands and Concept/Sophic when flow immediately below the point of take is equal to or greater than 200 litres per second c) 920,655m <sup>3</sup> during the period from 1 July to 30 June in the following year by <b>Concept /Sophic</b> d) 768,615m <sup>3</sup> during the period from 1 July to 30 June in the following year by <b>Mulholland</b> e) 459,875m <sup>3</sup> during the period from 1 July to 30 June in the following year by <b>Hamiltons Dairy</b> Limited as a combined total with the annual volume authorised to be taken by Take 3 and 5.
Take 6: Combined take	Christopher Patrick <b>Mulholland</b> and Dale Evelyn Mulholland	Irrigation: 320 Hectares pasture Stock: 2500 Sheep 100 Beef Cattle	
Take 6: Combined take	<b>Hamiltons</b> <b>Dairy</b> Limited	Same as Takes 3 and 5.	

Take 7: Concept North	Concept Farms Ltd/ Sophic Trust	Irrigation: 760 Hectares pasture (from two takes) Stock: 2480 Dairy cows Dairy shed: 2480 cows	The rate of abstraction must not exceed: a) 42 Litres per second (L/s) b) 1,697,665 m <sup>3</sup> during the period from 1 July to 30 June in the following year.
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This application was lodged with the Council at least six months before the expiry date of the water permits being replaced. In accordance with Section 124 of the Act, the Applicant may continue to undertake the activities authorised under Permits 2000.136, 2000.245, 2000.244, 2002.010, 96394, 97210, 96230.V1, 97128, 2000.498 and 96254 until a decision on this application is made and all appeals are determined.

### 3.1 Application Documents

The application was lodged with Council on 12 February 2020. The application included the following appendices:

- Appendix A Certificates of title
- Appendix B Photos
- Appendix C Instream Ecology Assessment
- Appendix D Pig Burn Water Users Report
- Appendix E Methodology for Aqualinc Calculations

Further information was requested on 24 February 2020 and a response was received on 3 April 2020. An amended application was lodged on 11 September 2020.

### 3.3 Notification Decision

Council made the decision under Section 95B of the RMA to process the application on a limited notified basis on 29 February 2020. The notice was served on 30 February 2020 and the submission period closed on 28 May 2020. The application was subsequently amended and re-notified (to the same parties as originally notified) on 28 September 2020. The submission period closed on 27 October 2020. The following persons were determined to be adversely affected and were notified:

**Table 3: Parties considered affected to the application.**

Party	Why affected	Level of effect
Aukaha on behalf of Kāti Huirapa Rūnaka ki Puketeraki, Te Rūnanga o Ōtākou and Hokonui Rūnanga (Kā Rūnaka)	Cultural values in the area may be affected by the activity. This is because the taking of water may affect the mauri of the water and or the recognised cultural values of the water as displayed in Schedule 1D.	The removal of water from the river as a consumptive take is considered to have a minor effect on the mauri of the water.

Otago Fish and Game	The various watercourses within the Taieri catchment have sport fishery values. Fish and Game under the Conservation Act is a body corporate which has the rights, powers and privileges of a natural person. The primary function of Fish and Game is to manage, maintain and enhance sports fish and game resources in the recreational interest of anglers and hunters.	The Applicant is proposing to take a high volume of water from various watercourses within the Taieri catchment. This will cause a minor effect to the sport fishery values.
Department of Conservation	Longfin eels have been recorded within the Pig Burn as well as natural character and Schedule 1 values. DOC, who represent the Director-General of Conservation, have a statutory responsibility to manage freshwater fish habitats. Because of the potential effects on the Longfin eel, the values of the watercourse, and DOC's requirement to preserve freshwater fish habitats and protect significant habitats of indigenous fauna DOC is considered an affected person.	As the Applicant proposes a hydrological alteration of the natural flow regime, this will cause a minor effect to the natural environment and character of the Creeks, in turn ecological habitat. Therefore, the effects on the ecological values and natural character are minor.

The effects on the following parties have been assessed and they were not considered to be affected by the application:

- Forest and Bird – there are no regionally significant wetlands in proximity to the takes.
- Downstream users - all users from within the Pig Burn catchment form part of this application. Therefore, there are no downstream users.

In making the above assessments I have taken into account the permitted activity baseline provided for by section 12.1 of the Regional Plan Water and have had regard to statutory acknowledgements provided by Ngai Tahu Claims Settlement Act 1998.

### 3.4 Submissions received

Submissions were received by the following persons:

- Aukaha on behalf of Kāti Huirapa Rūnaka ki Puketeraki, Te Rūnanga o Ōtākou and Hokonui Rūnanga (Kā Rūnaka)
- Otago Fish and Game (F & G)



Aukaha on behalf of Kāti Huirapa Rūnaka ki Puketeraki, Te Rūnanga o Ōtākou and Hokonui Rūnanga (Kā Rūnaka) **opposed** the application as it currently stands, but would support an amended application that included the following provisions:

- The term is no longer than 6 years;
- A minimum flow of 90% of the mean annual low flow (MALF) as calculated by the Regional Council;
- Above the minimum flow, at least 50% of the flow in the waterway is left in the waterway;
- A fish screen is installed over the intake structure at each point of take; and
- The water take is metered and results recorded and reported via telemetry.

F & G **opposed** the application as it currently stands, but would support an amended application that included the following provisions:

- The consent term is no longer than 6 years;
- The residual flow be increased;
- An additional residual flow be imposed to provide for brown trout spawning;
- A water harvesting regime be implemented which enables at least a 50:50 sharing of harvested flows; and
- Hydrology and ecology monitoring programmes are implemented over the life of the consent.

Both Aukaha and F & G raised concerns with the current regional planning framework. Both submitters wish to be heard.

DoC did not submit on the application and commented in an email to the Applicant's consultant the application contains a robust assessment of hydrological and ecological effects, there are relatively low conservation values potentially affected, and the revised abstraction regime and mitigation measures have done a good job of addressing effects.

## **4. Description of the Environment**

### **4.1 Description of the Site and Surrounding Environment**

This application concerns water takes from an unnamed tributary of the Taieri River known locally as Harpers Creek and the Pig Burn. The Pig Burn has its headwaters in the northern end of the Rock and Pillar Ranges in Otago and flows down the north eastern flanks of this range (Figures 1 and 2). The Pig Burn catchment is 50.8 square kilometres (km<sup>2</sup>), with the highest point in the catchment at 1324 metres (m). The upper sections of the Pig Burn are characterised by confined gorges until it reaches the foothills of the Rock and Pillar Ranges. Below these foothills the Pig Burn flows across the Maniototo Plain before entering the Taieri River between Patearoa and Waipiata.

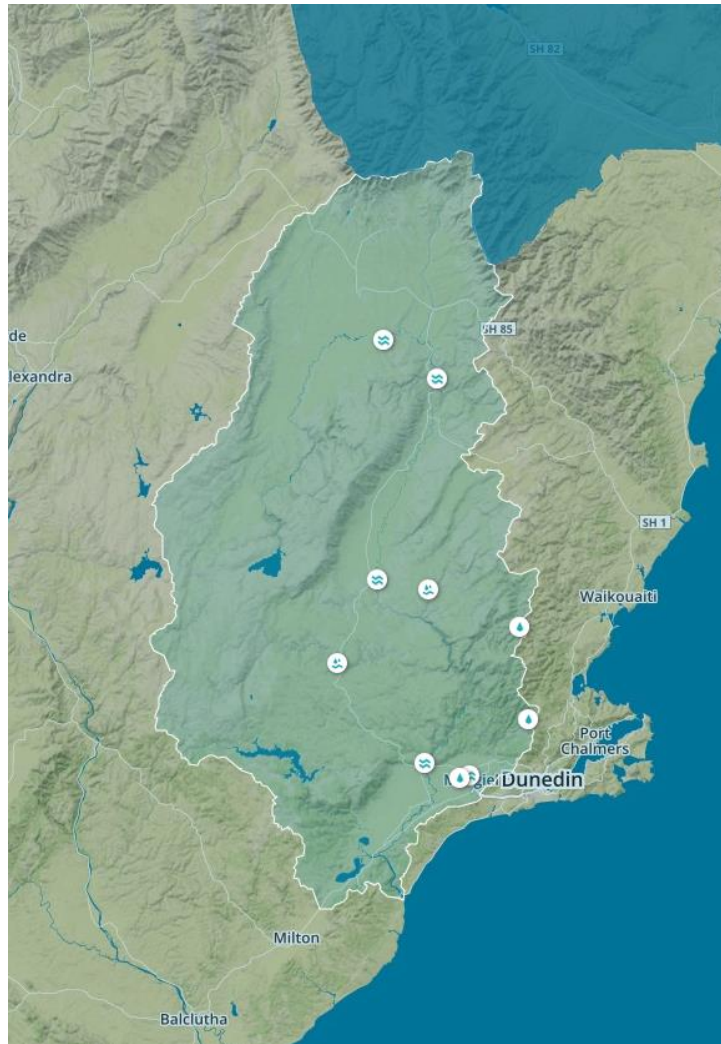
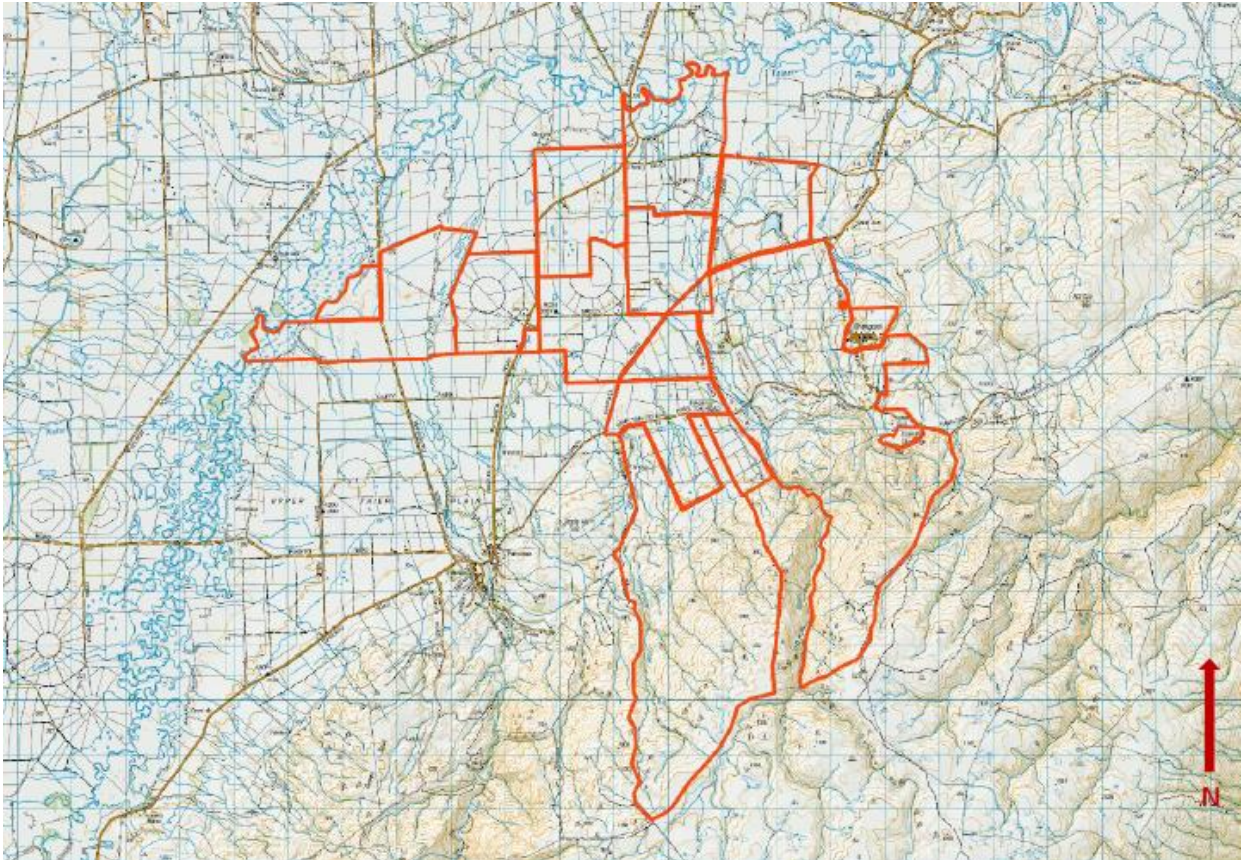


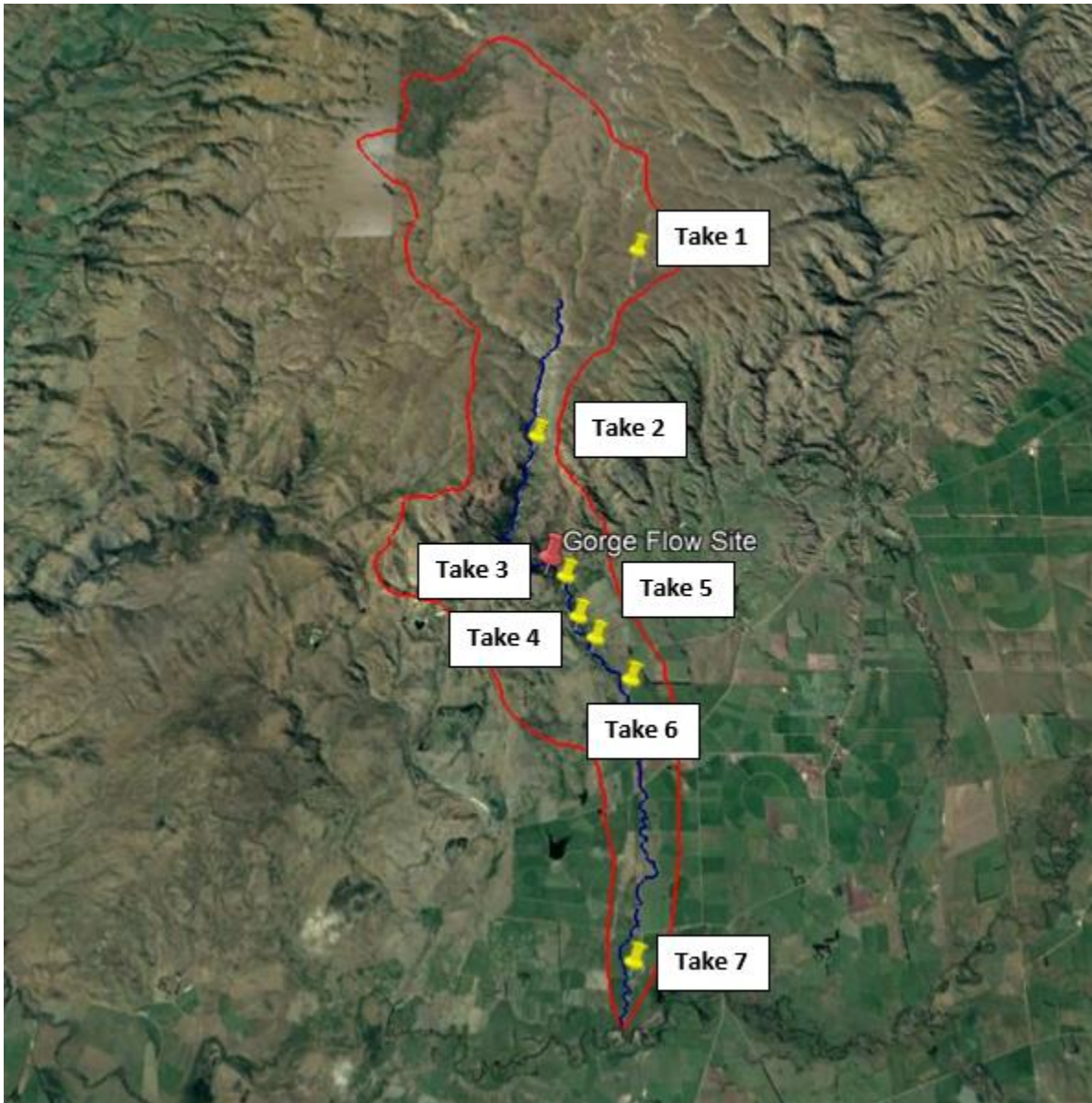
Figure 1: The Taieri Catchment in relation to Dunedin (Source: LAWA).



**Figure 2: Location of the properties which relate to the consent application and how they are located in the wider Taieri catchment. (Source: Application)**

The flows in the Taieri River tributaries vary, reflecting a range of rainfalls, from 600 millimetres (mm) per annum on the river flat to more than 1600 mm per annum on the often-snowy tops of the Rock and Pillar Range. Creeks on Taieri Ridge frequently dry up in summer. The Taieri River catchment holds a significant sports fishery and numerous species of native fish, many of which are of high conservation value. The river is extensively used for irrigation of the surrounding dry land. Figure 3 below shows the locations of the takes within the Pig Burn.





**Figure 3: Location of the takes within the Pig Burn catchment. (Source: Application and Otago Maps)**

**Take 1: Pigburn Gorge Ltd, Duncan Cleugh Farming Trust (DCFT) and Janine Smith**

The intake is situated in the upper reaches of the Pig Burn at an altitude of 900 meters above sea level on one of the unnamed headwater tributaries of the Pig Burn. Water is taken via a pipe that is situated in the waterway (Figure 4). The water is then conveyed in an open race for approximately 3 km through a saddle between the Pig Burn and Harpers Creek catchments and is discharged into Harpers Creek. At an altitude of approximately 500m above sea level it re-enters another open race and is gravity-fed to the three properties associated with this abstraction. The conveyance from the take point to the augmented re-take is approximately 6km to 8km long.



**Figure 4: Shared take intake from Pig Burn and looking downstream at the race. (Source: Application)**

**Take 2: En Hakkore Limited**

Water is taken from the Pig Burn gorge through a piped intake (Figure 5) and is piped for approximately 5 km. The amount taken is limited by the size of the pipe, rather than the amount in the Pig Burn, as there is always water in the Pig Burn at this point of take. The intake has a fish screen.





**Figure 5: Looking upstream of En Hakkore Take. (Source: Application)**

**Take 3: Greenbank Pastoral Limited Limited/ Herlihy Gorge Take**

Water is taken from the Pig Burn via a race with a control gate (Figures 6 and 7) with a bywash back to the Pig Burn. The water from this take is used for pasture irrigation on 'Gahams Block'.



**Figure 6: Herlihy Gorge intake, standing upstream of take and looking downstream at intake (flowing into race on the right). (Source: Application).**



**Figure 7: Herlihy Gorge intake, gate on race with by wash back to Pig Burn. (Source: Application).**

**Take 4: Hamilton Runs Limited - Weirs**

Water is currently taken from the Pig Burn through a short section of pipe to an open race and water is gravity fed to the property (Figure 8). The intake site is not ideal as the Pig Burn fans out at this point and water is lost via the gravels. The water is currently delivered by race to storage dams on the property and is primarily piped around the farm from there.





**Figure 8: Weirs point of take, standing across Pig Burn looking at race intake via submerged pipe. Pig Burn flows from right to left in the foreground. (Source: Application)**

**Take 5: Hamilton Dairy Limited/ Herlihy Ford Take**

Water is taken via a channel into an open race and is gravity fed (Figure 9). This take provides water for Hamilton Dairy, Crieve Dairy, Greenbank Grazing along with shares in MESIS and takes from the Sowburn.





**Figure 9: Herlihy ford take looking downstream from the point of take (Race is flowing on the left). (Source: Application)**

**Take 6: Concept South (Proposed combined take)**

This take is also via an open channel and is metered 50m downstream of the intake (Figure 10). Water is conveyed along an open race to a pump shed where it is combined with Maniototo East Side Irrigation Company (MESIC) water and then used to irrigate with k-line. The Concept South intake is the proposed combined take location which proposes to:

1. Move the Mulholland Take to the location of the existing Concept South Take – the Mulholland existing take point would no longer be used for the abstraction of primary allocation water. This application does not seek to replace the existing Mulholland take point, or primary allocation abstraction at that point.
2. Continued use of the Herlihy Ford Take (only during high to moderate flows). This application seeks to partially replace this take point on this basis.

The Mullholland's current take is approximately 500 m downstream of the combined take location. The Herlihy Ford take (Take 5) is approximately 1 km upstream of the combined take location.



**Figure 10: Concept south take at point of take looking downstream with race on the right. (Source: Application)**

**Take 7: Concept North**

This take is via an open channel (Figure 11) and is metered 50 m downstream of the intake. Water is conveyed along an open race to a pump shed on Ryders Terrace where it is combined with MESIC water and then used to irrigate with k-line.





Figure 11: Concept North point of take and looking upstream. (Source: Application)

## 4.2 Description of Surface Water Body

### *Hydrology*

The Pig Burn flows through a gorge before it emerges onto the Maniototo Plain. As the river flows through the Maniototo Plain (total length of approximately 10 km) it loses to and gains from groundwater. Based on observations made by the Pig Burn Water Users Group, Hickey (2020) identified two (natural) losing reaches and two (natural) gaining reaches in the Pig Burn. Mr Hickey identified that the Pig Burn loses flow between the ORC gorge flow recorder site and Hamilton Runs Ford. From this location the stream gains flow through to the Waipiata Patearoa Road Bridge. The second losing reach is between Waipiata Patearoa Road Bridge and approximately 1 km upstream of O'Neill Rd Bridge from which point the river is gaining flow again through to its confluence with the Taieri River (Figure 12). As acknowledged in the application there appears to be significant variation in losses especially in the lower losing reach.



**Figure 12: Known losing (shown in red) and gaining/neutral (shown in green) reaches in the Pig Burn downstream of the Gorge Flow Site (red pin). Bridges are shown (green pins). (Source: Application)**

Flows in the Pig Burn vary greatly between the summer period and the remainder of the year. Winter and spring flows are higher, fed by rainfall and snowmelt in the upper catchment. These higher flows drop off markedly as summer approaches. Flows during the irrigation season can recover if there is a significant rain event. Typically, during the irrigation season flows in the Pig Burn are low, with numerous drying reaches after the Pig Burn leaves the Rock and Pillar Range and flows across the foothills and Maniototo Plains. The Pig Burn is prone to major floods when easterly rains prevail in the Rock and Pillar Range. The shared take (Take 1) is the most upstream take in the catchment, as it is in the headwaters of the Pig Burn, near the top of the Rock and Pillar Range. Observations by the holders of this permit are that surface water will remain in the Pig Burn at and below this point of take, even during dry periods. After leaving the top of the Rock and Pillar Range the upper Pig Burn flows through a confined gorge, with no obvious gaining or losing reaches. From the end of the gorge to the confluence with the Taieri River the Pig Burn

has several losing and gaining reaches. Most abstraction occurs at or below the base of the gorge, and are therefore impacted by, or can impact these losing and gaining reaches. There is limited hydrological data available for the Pig Burn and there are uncertainties associated with any 7D MALF estimate. Therefore, a range between 30 – 80 L/s was considered appropriate in the pre-hearing meeting held 20 July 2020. Table 4 outlines the hydrological characteristics of the Pig Burn.

**Table 4: Overview of indicative characteristics of the Pig Burn**

Minimum flow rates	2 – 10 L/s
Maximum flow rates	1000 L/s +
Natural 7-day Mean Annual Low Flow	30 L/s – 70 L/s

### *Ecology*

Dr Richard Allibone has undertaken an assessment of the application on behalf of Council's Resource Science Unit (RSU). Fish surveys of the Pig Burn reported in the New Zealand freshwater fish database (NZFFD) have reported brown trout and longfin eel present in the stream. The upper limits of the two species have not been identified and they are expected to be able to penetrate upstream as far as the En Hakkore take (Take 2). Fish surveys at the shared take (Take 1) in the Pig Burn tributary and two other fish survey sites in the upper Pig Burn (NZFFD) report no fish so it is expected that the upstream limit of the two fish species is upstream of En Hakkore take (Take 2) but downstream of the Shared take (Take 1).

The fish surveys report no threatened fish species in the Pig Burn. The two most likely threatened fish to be present are Central Otago roundhead galaxias and Taieri flathead. There have been sufficient fish surveys in the lower Pig Burn to detect this fish if it was present and Dr Allibone notes that its absence may be due to the presence of brown trout, or it may never have been present in the stream. Longfin eel is also reported in the lower Pig Burn but the abundance of this species is unknown and the limitation on its occurrence are also unknown. The NZFFD records report only two longfin eels have been caught.

The lower Pig Burn is a significant brown trout spawning area and can provide recruits to the Taieri River and sports fishery in the river. Dr Allibone notes that the brown trout are either stream resident individuals or Taieri River residents that move into the Pig Burn in April through to June for spawning before returning to the Taieri River. The stream resident brown trout in the Pig Burn have limited if any sports fishing as the Pig Burn itself is not considered a sports fishing area.

### *Cultural landscape*

Kāi Tahu is the principal Māori iwi of the southern region of New Zealand. In Otago the four Papatipu Rūnaka and associated whānau and rōpū are:

- Te Rūnanga o Moeraki
- Kāti Huirapa Rūnaka ki Puketeraki
- Te Rūnanga o Ōtākou
- Hokonui Rūnanga

Associated whānau and rōpū include:

- Moturata Taieri Whānau
- Waikoau Ngāi Tahu Rūnanga

The Taieri Catchments remain of great significance to Kāi Tahu ki Otago and their long association and interaction with the catchment is widely recorded. Existing in the consciousness of Kāi Tahu ki Otago is awareness of a significant cultural landscape dominated physically by a series of block mountain ranges and valleys running parallel to the coast.

#### 4.3 Schedule 1 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. Some of the takes are from an unnamed tributary of the Taieri River and are not named within this Schedule. However, the Taieri River is identified as having the following values:

- Large water body supporting high numbers of particular species, or habitat variety, which can provide for diverse life cycle requirements of a particular species, or a range of species.
- Access within the main stem of the catchment through to the sea or lake unimpeded by artificial means such as weirs and culverts.
- Gravel and sand bed composition of importance to resident biota.
- Absence of aquatic pest plants identified in the Pest Plant Management Strategy for the Otago Region.
- Presence of significant fish spawning areas for trout.
- Presence of significant areas for development of juvenile trout.
- Presence of riparian vegetation of significance to aquatic habitats.
- Presence of indigenous fish species threatened with extinction.
- Significant presence of trout, salmon and eel.
- Presence of significant indigenous aquatic vegetation.

The Pig Burn is identified as having the following values:

- Presence of significant fish spawning areas for trout.
- Presence of significant areas for development of juvenile trout.
- Significant presence of trout.

Schedule 1B of the RPW identifies water takes used for public supply purposes (current at the time the RPW was notified in 1998), while Schedule 1C identifies registered historic places which occur in, on, under or over the beds or margins of lakes and rivers. There are no Schedule 1B and 1C values in the RPW listed in close proximity to the proposed activity.

Schedule 1D of the RPW identifies the spiritual and cultural beliefs, values and uses associated with water bodies of significance to Kai Tahu. Taieri River 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 raupe and paru) and rongoa (medicines).

#### **4.4 Schedule 2 of the Regional Plan: Water**

Schedule 2A of the RPW identifies specific minimum flows for primary allocation takes in accordance with Policy 6.4.3, and primary allocation limits in accordance with Policies 6.4.2(a) and 6.4.1A. The Taieri catchment has a minimum flow set within this Schedule between Paerau and Waipiata as 1,000 L/s at Taieri River at Waipiata. The primary allocation limit within the plan is 4,860 L/s for the Taieri River catchment from the mouth to its headwaters. However, Policy 6.4.2 requires the greater of Schedule 2A or consented allocation to be considered the limit. The consented allocation is 28,254 L/s.

#### **4.5 Regionally Significant Wetlands**

Concept Farms Limited which is located adjacent to the Taieri River incorporates part of the Upper Taieri Wetland Complex, a regionally significant wetland. Large areas of wetland within Ryders Terrace as well as other waterways within Concept Farms are fenced off and no irrigation occurs within the wetland. The Concept Farms take is located approximately 800 m from the Upper Taieri Wetland Complex.

### **5. Status of the Application**

Resource consent is required under the operative Regional Plan: Water (RPW) and proposed Plan Change 7 (Water Permits) of the RPW (PPC7). PPC7 was notified for submissions on 18 March 2020 and has immediate legal effect in accordance with section 86B(3) of the Act. PPC7 introduces two new rules relating to water takes. As these rules have immediate legal effect upon notification, they must be complied with.

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. However, the rules in PPC7 still apply when considering the application under s104, which I address further below. The following rules are applicable to the application:

#### **5.1 Regional Plan Water (Operative)**

##### ***Take and use of water:***

**Restricted Discretionary Activity Rule 12.1.4.4**

*Taking and use of surface water as primary allocation applied for prior to 28 February 1998 in the following Schedule 2A catchments, shown on the B-series maps:*

*Luggate Catchment,*

*Manuherikia Catchment Upstream of Ophir,*

*Taieri Catchment Paerau to Waipiata,*

*Taieri Catchment Waipiata to Tiroiti, and*

*Taieri Catchment Tiroiti to Sutton:*

- (i) This rule applies to the taking of surface water, as primary allocation, in the above catchment areas, 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) The minimum flows set out in Schedule 2A of this Plan for the above catchments shall affect the exercise of every resource consent or other authority, of the kind referred to in paragraph (i) of this rule, in the Luggate catchment area, Manuherikia catchment area (upstream of Ophir) and Taieri catchment areas Paerau to Waipiata, Waipiata to Tiroiti and Tiroiti to Sutton, upon review of consent conditions.*
- (iv) The conditions of all such consents will be reviewed by the Otago Regional Council under Sections 128 to 132 of the Act to enable the minimum flows set by Schedule 2A to be met, the volume and rate of take to be measured in accordance with Policy 6.4.16 and the taking to be subject to Rule 12.1.4.9.*
- (v) The minimum flows set in Schedule 2A for the Luggate catchment area, Manuherikia catchment area (upstream of Ophir) and Taieri catchment areas Paerau to Waipiata, Waipiata to Tiroiti and Tiroiti to Sutton, shall not apply to any consents referred to in clause (i), paragraphs (a) to (c) of this rule until the review of consent conditions set out in clause (iv) of this rule occurs.*

**Retaking of water:**

Pig Burn Gorge Ltd, Duncan Cleugh Farming Trust and Janine Smith hold 3 permits in common which enable them to take water from the uppermost reaches of the Pig Burn (Consent 2000.136), discharge it to Harpers Creek (Consent 2000.245) and then retake it at the base of the Rock and Pillar Range (Consent 2000.244), from there it is conveyed along an open race for use on the permit holders' properties.

**Restricted Discretionary Activity Rule 12.1.4.1**

*The taking and use of surface water from any lake or river which has already been delivered to that lake or river for the purpose of this subsequent taking.*

*In considering any resource consent for the taking and use of water in terms of this rule, the Otago Regional Council will restrict the exercise of its discretion to the following:*



- (a) *The amount of water which can be taken, having regard to the amount delivered to the lake or river and any losses that may have occurred between the point of augmentation and the take; and*
- (b) *Any need to prevent fish entering the intake; and*
- (c) *The duration of the resource consent; and*
- (d) *The information and monitoring requirements; and*
- (e) *Any bond; and*
- (f) *The review of conditions of the resource consent.*

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

**Transfer point of take:**

The transfer of Mullholland's take to the combined take location and the partial transfer of the Herlihy gorge take (Take 5) to the combined location require consent. The proposal is for an unclassified activity being a transfer pursuant to Section 136 (2) (b) (ii) of the Act, which states:

- (2) *The holder of a water permit granted other than for damming or diverting water may transfer the whole or any part of the holder's interest in the permit –*
  - (b) *To another person on another site, or to another site, if both sites are in the same catchment (either upstream or downstream), aquifer, or geothermal field, and the transfer—*
    - (ii) *Has been approved by the consent authority that granted the permit on an application under subsection (4).*
- (4) *An application under subsection (2)(b)(ii)—*
  - (b) *Shall be considered in accordance with sections 88 to 115, 120, and 121 as if—*
    - (i) *The application for a transfer were an application for a resource consent; and*
    - (ii) *The consent holder were an Applicant for a resource consent,— except that, and in addition to the matters set out in section 104, the consent authority shall have regard to the effects of the proposed transfer, including the effect of ceasing or changing the exercise of the permit under its current conditions, and the effects of allowing the transfer.*
- (5) *Where the transfer of the whole or part of the holder's interest in a water permit is notified under subsection (3), or approved under subsection (2)(b)(ii), the original permit, or that part of the permit transferred, shall be deemed to be cancelled and the interest or part transferred shall be deemed to be a new permit...*
  - (a) *On the same conditions as the original permit (where subsection (3) applies); or*
  - (b) *On such conditions as the consent authority determines under subsection (4) (where that subsection applies).*

As such, the activity is **discretionary**, and the Council may grant or decline the application and, if granted, may impose conditions in accordance with Section 108 of the Act.

**Bundling:**

Applications involving a number of different activity status can be bundled together, so that the most restrictive activity classification is applied to the overall proposal. The bundling approach developed from case law to enable appropriate consideration of the effects of an activity, or group of activities. The most restrictive activity status applying to the activities subject to this application

is a discretionary activity, as it applies to the discharge into Harpers Creek, and the transfer of location for the Herlihy Ford (during lower flows) and Mulholland Takes. The Applicants have accepted a bundling approach, on the basis that they are applying as an informal group, with a collective focus on management of effects on the Pig Burn. On this basis this application has a **discretionary activity status**.

#### **Permitted activities:**

The discharge from one tributary to another is a permitted discharge under Rule 12.C.1.1. When defining catchment boundaries for the purpose of the 12.C rules, the boundaries of Schedule 16 are used and therefore, these creeks are within the same catchment.

#### **Plan Change 7 to the Water Plan (Notified)**

Plan Change 7 was notified by the Council on 18 March 2020 and therefore the rules, objectives and policies in the plan change apply to the application. The rules in PPC7 have immediate legal effect in accordance with section 86B(3) of the RMA, as they relate to water, and therefore they must be complied with.

However, 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.

For applications to renew deemed permits expiring in 2021, and any other water permits expiring prior to 31 December 2025, PC7 establishes a controlled activity consenting framework for short duration consents which comply with the controlled activity conditions. Where a longer consent duration is sought or the application fails to meet one of the controlled activity conditions, the application is a non-complying activity.

As the duration applied for is 35 years the application does not meet the conditions of Rule 10A.3.1.1 and therefore is a non-complying activity under Rule 10A.3.2.1. Despite consent being required under Rule 10.3.2.1 for a non-complying activity, the application should continue to be processed as a **discretionary activity** in accordance with section 88A(1A), being the activity status that applied under the RPW when the application was made.

All relevant permitted activity rules are complied with.

## **6. Section 104 Evaluation**

Section 104 of the RMA 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 RMA.

The matters of Section 104(1) 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) partially operative Regional Policy Statement (PORPS), the Regional Plan: Water (RPW), Plan Change 7; and
- (c) any other matter the Council considers relevant and reasonably necessary to determine the application.

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

### Permitted Baseline

Section 104(1)(a) of the Act requires the Council to have regard to any actual and potential effects on the environment of allowing the activity, including both positive and adverse effects. In considering the adverse effects, the Consent Authority may disregard those effects where the plan permits an activity with that effect, otherwise known as the “permitted baseline”. In the case of this Application, there is one rule where the permitted baseline may be applied being:

- Permitted Rule 12.1.2.5 of the RPW would authorise the take and use of up to 25,000 litres per day at a rate of 1 L/s by each Applicant from Pig Burn. Although each abstraction exceeds this, the portion of the abstraction that would meet this rule should be discounted when considering the actual and potential adverse effects of the abstraction.

The actual and potential adverse effects of the activity, while taking into account the permitted baseline, is outlined in the sections below.

### Existing Environment Assessment

When processing a resource consent regard must be had to what constitutes the “environment” to inform the assessment of the effects of a proposal. Section 104(1)(a) requires an assessment of the actual and potential effects on the environment.

The existing environment beyond the subject site includes permitted activities under the relevant plans, lawfully established activities (via existing use rights or resource consent), and any unimplemented resource consents that are likely to be implemented. For resource consents issued by regional councils that are of limited duration, case law has confirmed that for activities that are seeking to be re-consented, the activities subject to those consents should not form part of the existing environment, unless it is fanciful to do so, as it cannot be assumed that existing consents with finite terms will in fact be replaced or replaced on the same conditions. Similarly, the consent term of resource consents for lawfully established activities needs to be considered when considering the effects of the proposed activity on them (i.e. they may also have a finite term and cannot assume they will be replaced or replaced on the same conditions in the future).

The consideration of whether water permits form part of the existing environment is not influenced by any s124 continuation rights. As such, when assessing the taking of water as part of the replacement process for deemed permits and water permits, the effects on the environment from the take need to be considered as if the take on the subject site does not currently occur. In this case, the existing effects of the water permit/deemed permit that is being replaced are not considered part of the receiving environment. When assessing effects on the environment of the proposal, consideration has been given to the naturalised flows of the waterbody and the existing

values (natural and human use) of the waterbody and how these values will be affected by the proposed take.

### **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.

## **7. Assessment of Environmental Effects**

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

- Allocation availability
- Minimum flows
- Instream values and hydrology
- Natural Character and Amenity values
- Cumulative effects
- Cultural values

### **7.1 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.”*

The Taieri River catchment from the mouth to its headwaters is listed in Schedule 2A of the RPW as having a primary allocation limit of 4,860 L/s. Currently 28,254 L/s has been allocated as primary allocation through resource consents within the Taieri River. Although the allocation limit set within the plan is significantly exceeded, Policy 6.4.2(b)) states the primary allocation limit is "the greater of" the different limits and therefore the consented total (28,254 L/s) is the relevant allocation limit.

The takes are not part of the existing environment, however, the primary allocation limit is set by Policy 6.4.2(b) and as such there is effectively water available for allocation. Reducing the combined total of the takes from 454 L/s to 332 L/s during high flow and 262 L/s during low flow puts 122 L/s and 192 L/s respectively back into the allocation for the Catchment. Therefore, the primary allocation of the Taieri catchment with the reduced allocation of this application is 28,132 L/s during high flows and 28,062 L/s during low flows.

The transfer point of take and partial transfer point of take are within the same catchment and therefore, have primary allocation.

In their submission Aukaha request that above the minimum flow, at least 50% of the flow in the waterway is left in the waterway. It is understood that this is referring to allocation. Based on the MALF range for Pig Burn this would equate to approximately 15 - 35 L/s. I consider that if a new allocation limit is to be set, it should be set through the Schedule 1 process as it relates to a full catchment and needs to consider a wider range of factors that cannot be considered through this consent process.

## **7.2 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.

As this take is primary allocation from the Taieri catchment the minimum flow set in Schedule 2A of the RPW is 1,000 L/s at Waipiata. The Applicant has proposed to have the minimum flow condition on the Pig Burn takes and has used the minimum flow as a basis for the effects assessment. I agree that the minimum flow conditions be imposed on the new consents. I discuss this further in Section 8.7.

## **7.3 Effects on Fish, Instream Values and Hydrology**

With regard to the effects on the hydrology and 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 and to locate new points of take to avoid adverse effects on fish spawning sites;
- the need for fish barriers; and

- any effect on any Regionally Significant Wetland or on any regionally significant wetland value.

In addition to a minimum flow, a residual flow may be set at the point of take, for the purpose of providing for instream values of the source water body. As discussed in Section 4.2 and 4.3, the Pig Burn has some instream values.

Dr Richard Allibone from Water Ways Consulting on behalf of Council's Resource Science Unit (RSU) assessed the application, his assessment is attached as Appendix 2. Dr Allibone made the recommendations in Table 5.

**Table 5: The recommended and proposed fish screen and residual flow conditions for each take on the Pig Burn.**

<b>Take</b>	<b>Recommended residual conditions</b>	<b>Recommended fish screen conditions</b>	<b>Proposed conditions by Applicant</b>
Take 1: Pig Burn shared take	Visually connected residual	No	No residual flow with fish screen
Take 2: Bradfields/En Hakkore	No residual	Mesh screen as currently on intake	No residual flow with fish screen
Take 3: Herlihy Gorge take	No residual	Less substantial fish screens may be more appropriate at these locations. These screens should be capable of preventing the majority of juvenile salmonids entering the takes	No residual flow with fish screen
Take 4: Weir	No residual	Less substantial fish screens may be more appropriate at these locations. These screens should be capable of preventing the majority of juvenile salmonids entering the takes	No residual flow with fish screen
Take 5: Herlihy Ford	70 L/s residual flow (likely 90% MALF)	3x3 mm fish screens are required with appropriate sweeping velocities to prevent small fish entrainment	70 L/s residual flow (likely 90% MALF) with fish screen
Take 6: Combined take	10 L/s residual flow years 0 -5 20 L/s residual flow years 6 - 14 Combined take abstraction of 110 L/s	3x3 mm fish screens are required with appropriate sweeping velocities to prevent small fish entrainment	10 L/s residual flow Combined take abstraction of 110 L/s with a residual flow of 200 L/s with fish screen

	with a residual flow of 200 L/s		
Take 7: Concept North	10 L/s residual flow years 0 -5 20 L/s residual flow years 6 - 14	3x3 mm fish screens are required with appropriate sweeping velocities to prevent small fish entrainment	10 L/ residual flow with fish screen

In their submission, Aukaha stated a preference for a minimum flow of 90% of MALF and above the minimum flow at least 50% of the flow in the waterway is left in the waterway. However, the Pig Burn has gaining and losing reaches downstream of the gorge flow recorder. This means the observed and natural 7-day MALFs at sites downstream from the gorge flow recorder will be different and often less than the gorge flow recorder 7-day MALF. To set residual flows via this method 7-day MALF would be required at all take points. Dr Allibone has worked through each of the sites and made a recommendation based on the ecological values present and the hydrological conditions at the take location.

Dr Allibone has recommended the 10 L/s residual flow proposed at the combined take (Take 6) and the Concept North takes (Take 7) by the Applicant be increased to 20 L/s throughout the duration of the consents (10 L/s years 0-5 and 20 L/s years 6 – 14). The reason for this is to reduce the presence and duration of the lower drying reach and improve aquatic habitat in the lower Pig Burn. Dr Allibone states that the 10 L/s residual flow proposed by the Applicant will not provide a connecting flow given the estimated loss is 30 L/s along this reach (Hickey 2020). The existing habitat model has been built to model this reach and the 10 L/s residual flow provides little habitat for any fish species. The increase in residual flow with address concerns raised in submission by Otago Fish and Game. The increase also will address concerns Aukaha have regarding connection of water from mountains to sea this is discussed in more detail in Section 7.7.

In addition to the residual flows proposed and recommended the Applicant has proposed to carry over the Taieri River minimum flow at Waipiata. This will require the Pig Burn consent holders to contribute water to the mainstem of the Taieri River during low flow periods. The effect of the minimum flow restriction on water takes has not been assessed but this will provide flow in the gaining reaches of the lower Pig Burn and if the Pig Burn still has a flow greater than 30 L/s the lower drying reach should also have a small flow.

The Applicant is also seeking to take 110 L/s from the combined take location (Take 6) when a residual flow of 200 L/s can be maintained at this take point. Dr Allibone comments that a 200 L/s residual flow will provide a flow greater than 150 L/s through the lower drying reach and will provide fish passage in both up and downstream directions. In their submission Otago Fish and Game request that a water harvesting regime be implemented which enables at least a 50:50 sharing of harvested flows. The combined take proposal to take 110 L/s whilst leaving 200 L/s is enabling more than a 50:50 flow sharing of harvested flow. Dr Allibone stated that he does not expect this water take to effect fish passage nor given the natural variability in flow to impact on trout spawning in the lower Pig Burn and therefore should address concerns by Otago Fish and Game.

In their submission Otago Fish and Game has requested that a residual flow be imposed to provide for brown trout spawning. Dr Allibone has commented that he expects the spawning from O'Neil's Road to near the Gorge will continue occurring under the proposed and recommended residual flows. The benefit of the proposed abstraction regime is the 70 L/s residual flow at the Herlihy Ford take (Take 5) which provides perennial flow conditions immediately downstream and provides habitat for juvenile brown trout when their spawning reach dries.

Dr Allibone has recommended fish screens on all but the shared intake (Take 1), as there are no fish located at this take. I consider the fish screens will address concerns raised in the submission by Aukaha.

In their submission Otago Fish and Game request that hydrology and ecology monitoring programmes are implemented over the life of the consent. It is my opinion that if anything, long term ecology and hydrology monitoring might be something Council undertakes as part of its mandatory state of the environment monitoring obligations under ss35(1)(a), (b) and (d) of the RMA.

The proposed rate, volume, timing and frequency of water to be taken and used will be dependent on the water availability and need. Some of the Applicants have storage which provides surety of supply during low flow periods and less dependence on taking.

Based on the recommendations listed above specifically in relation to the residual flows and minimum flow, it is expected that there will be no more than a minor effect on hydrology and instream values. Overall, the adverse effects of the proposed takes on instream values will be appropriately avoided, remedied or mitigated.

The Upper Taieri Wetland Complex is a regionally significant wetland, however, it is located approximately 800 m below the Concept North take and it is considered that no regionally significant wetland values will be affected by the proposed water take.

#### **7.4 Natural character, recreational and amenity values**

The taking of water can influence flows of a river thereby altering its natural character as well as adversely affect the recreational and amenity values associated with it. As noted in Section 4.3 of this Report, the Taieri River and Pig Burn are identified in Schedule 1A having values. The upper reaches of the Pig Burn from its headwaters through to the bottom of the gorge have a high degree of natural character as the land use surrounding these reaches are more undeveloped in nature, as is the Pig Burn itself. The Shared take (Take 1), the En Hakkore take (Take 2) and the Herlihy's Gorge Take (Take 3) are located in these reaches. The lower reaches of the Pig Burn is a more developed pastoral landscape, with dairy farms and sheep and beef farms adjacent to the Pig Burn, and roads, fords and bridges cross the Pig Burn in places. This is consistent with the lower reaches of other streams draining the western slopes of the Rock and Pillar Ranges. Structures related to irrigation and farming are common in this landscape, including races, measuring devices and intake structures.

The Pig Burn is not recognised as a sport fishery but it is likely to be a nursery in providing recruitment for the regionally significant sport fishery of the upper Taieri River. The Applicants' intakes may impact downstream recreational values by reducing flows during the irrigation season. However, recreational and amenity values relate more to the presence of flowing water in the bed which this application is seeking to maintain via the proposed residual flow arrangement



and proposal to adhere to the minimum flow. Therefore, effects on natural character, recreational and amenity values is considered no more than minor.

### **7.5 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*'. Westlaw NZ expands on this definition by drawing from case law. This case law advises that a cumulative effect is an effect that will occur as opposed to a 'potential effect'. I understand a cumulative effect to relate to a gradual build up of consequences as a result of a combination of effects.

In relation to this application, consideration of the cumulative effects become a question of scale. The takes are located in Pig Burn which is a tributary of the wider Taieri Catchment. Cumulative effects could be considered on two different scales, either the cumulative effects within the Pig Burn or the cumulative effects on the Taieri River Catchment. The application includes all primary allocation water permits within Pig Burn and therefore all takes from the Pig Burn would also be subject to the minimum flow at Waipiata. The inclusion of the minimum flow would ensure that the cumulative effects of these takes, in combination with all other takes above Waipiata, would be managed to ensure that effects on the ecological values of the Taieri River would be appropriately mitigated. Further, there are no other consented water permits within the Pig Burn catchment. In relation to the Taieri River, while the consented rate of abstraction does significantly exceed the allocation limit set in Schedule 2A, there is no evidence of a more than minor cumulative effect due to this application and the minimum flow which has been set in Schedule 2A looks to maintain the values within the Taieri River.

Overall, any cumulative effect is considered no more than minor.

### **7.6 Effects on Other Water Users**

There are no downstream users on the Pig Burn.

### **7.7 Effects on Cultural values**

While Pig Burn is not identified in Schedule 1D of the RPW, the Taieri River is, and it is recognised that the Pig Burn may still have cultural significance. Kāti Huirapa Rūnaka ki Puketeraki, Te Rūnanga o Ōtākou and Hokonui Rūnanga (Kā Rūnaka) have submitted opposing the application. In their submission they discuss that Kāi Tahu has a cultural, spiritual, historic and traditional relationship with the Taieri Catchment.

The Taieri Catchments remain of great significance to Kāi Tahu ki Otago and their long association and interaction with the catchment is widely recorded. The mountains are recognised for their shape and appearance which is likened to the combers and rolling waves of the ocean. The area subject to the application and the broader cultural landscape in which it is located were traditionally part of an important mahika kai network associated with the Taieri River and its tributaries and wetlands. Kā Rūnaka have knowledge of numerous mahika kai sites that were used in and near the area. The Taieri Catchment was therefore highly valued by all the different hapū and their whānau who used it. The primary management principle for Kā Rūnaka is the maintenance and enhancement of the mauri or life-giving essence of a resource. The Aukaha

submission notes that mauri can be tangibly represented in terms of elements of the physical health of the land, a river, or surrounding biodiversity. The forest, waters, the life supported by them, together with natural phenomena such as the mist, wind and rocks, possess a mauri or life-force. While there are also many intangible qualities associated with the spiritual presence of a resource, elements of physical health which Kā Rūnaka 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.

Indigenous biodiversity, life-supporting capacity and eco-system robustness are also physical indicators of the status of mauri. Based on the evidence of Dr Allibone, and the findings of fish survey work, Pig Burn has life-supporting capacity. In my opinion, based on the application and technical reports, the abstractions from Pig Burn have no more than minor adverse effects on life-supporting capacity and eco-system robustness. The takes reduce the amount of water below the intake locations, however the recommended residual flows paired with the minimum flow look to maintain eco-system capacity and robustness. I cannot comment on whether the residual flow proposed or recommended will maintain mauri and mahika kai.

Another key aspect in terms of effects on waterways from a cultural perspective is the concept of ki uta ki tai. At a more literal level this concept may be applied in terms of flow from the mountains from the sea and considering effects (including cumulative effects) along the whole length of a waterway. In the context of this application, this would relate to the wider Taieri Catchment. The effects of the abstractions on surface water flows are considered no more than minor based on the recommended residual flow and minimum flow. There is interaction between the surface water and groundwater which has been confirmed with the losing and gaining reaches. Surface water takes can affect groundwater via a reduction in groundwater recharge, especially when an abstraction affects an intermittent surface waterway. Based on this, I consider the proposed abstractions are likely to impact upon the concept of ki uta ki tai within the Taieri catchment in a minor way.

Aukaha in their submission would not oppose the application should the following conditions be imposed to manage effects on cultural and Kāi Tahu values:

- That the term is no longer than 6 years;
- A minimum flow of 90% of the mean annual low flow (MALF) as calculated by the Regional Council;
- That above the minimum flow, at least 50% of the flow in the waterway is left in the waterway;
- That a fish screen is installed over the intake structure at each point of take; and
- That the water take is metered and results recorded and reported via telemetry.

In relation to these matters, it is understood that the duration of 6 years is sought to ensure consistency with proposed PPC7 and to give effect to Te Mana o Te Wai. I have given consideration to this in Sections 8.4, 8.6 and 10 of this report.

In relation to the metering, I agree that this should continue and have recommended conditions that require it in accordance with the Resource Management (Measurement and Reporting of

Water Takes) Regulations 2020. I consider this addresses this matter raised in Aukaha's submission.

In their submission Aukaha request that above the minimum flow, at least 50% of the flow in the waterway is left in the waterway. It is understood that this is referring to allocation. Based on MALF range for Pig Burn this would equate to approximately 15 - 35 L/s. I consider that if a new allocation limit is to be set, it should be set through the Schedule 1 process as it relates to a full catchment and needs to consider a wider range of factors that cannot be considered through this consent process. I remain of the opinion that allocation must be considered based on the current provisions of the RPW and the provisions of PPC7.

I have considered the requested minimum flow of 90% of MALF in an ecological and hydrological context above in Section 7.1 and consider that it is not practical to set a residual flow based on the MALF with the losing and gaining reaches of the Pig Burn. Dr Allibone has worked through each of the sites and made a recommendation based on the ecological values present and the hydrological conditions at the take location. Dr Allibone states that the Herlihy Ford take (Take 5) proposed residual of 70 L/s provides near natural low flows when the upper drying reach has established. Therefore, the Pig Burn from the top take (Take 1) to the combined take (Take 6) will be near natural during low flows. The recommended residual flow at the Combined take (Take 6) and the Concept North take (Take 7) of 10 L/s years 0-5 and 20 L/s years 6 – 14 is aiming to ensure the connection of water from mountains to sea is maintained. However, I am aware that the proposed abstraction is high and therefore has a minor effect on Te Mana o te Wai/ki uta ki tai.

When I speak about Te Mana o te Wai I are referring to the integrated and holistic wellbeing of a freshwater body. Upholding Te Mana o te Wai acknowledges and protects the mauri of water. While mauri is not defined under the NPS-FM the mauri of water sustains hauora (health): the health of the environment, the health of the water body and the health of the people.

Overall, I consider adverse effects on cultural values to be minor as the application is inconsistent with Te Mana o te Wai/ki uta ki tai.

### **7.8 Positive effects**

The proposal will have the following positive effects:

- Economic well-being of the farming operation and flow-on effects from this on the local economy and community;
- Social benefits by supporting the families and workers who directly rely on the farms;
- Provides greater certainty for the farming production than is possible with dryland farming; and
- Maintenance of pasture quality over a critical dry period/crops are not affected by moisture stress at critical growing times.

### **7.9 Summary**

- The Applicant's proposal meets the definition of primary allocation under Policy 6.4.2 in that it seeks the replacement of the Applicant's previous primary allocation consents with new consents for the same and similar activity. The proposal is, therefore, considered consistent with key policy parameters in the current operative RPW designed to protect surface water from becoming over-allocated. To this extent, re-allocation of this water is considered to result

in less than minor impacts on water sustainability in the context of the policies in the operative RPW. It is important to note that there is a difference between phasing out of overallocation under the NPS-FM, as the RPW is not a NPS-FM compliant plan. Therefore, over allocation in the context of the NPS-FM has not yet been determined.

- The effects on instream values and hydrology is considered no more than minor with the recommended residual flows and fish screens paired with the proposed minimum flow.
- The effect on natural character, amenity and recreational values is considered no more than minor.
- The cumulative effects of the takes are considered no more than minor based on the proposed and recommended conditions.
- The proposal is considered to have a minor adverse effect on cultural values.

Taking into consideration the positive and adverse environmental effects associated with this Application, the actual and potential effects on the environment are considered to be minor and appropriately managed by the recommended conditions.

## **7.10 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, stock water and domestic supply.

### **7.10.1 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:

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

Although theoretically straightforward there is no specific method set in the Water Plan for calculating actual use. With the introduction of PPC7 as notified there has been a change to how historic water use is assessed, specifically due to the method in Schedule 10A.4. The Schedule 10A.4 method is Council's most up to date way of calculating instantaneous rate and it seeks to ensure that there is a method in the plan, and that that method is objective and certain in terms

of its Application and outcomes. The Schedule 10A.4 method considers the period 1 July 2012 to 30 June 2017. As the Applicants have been using the water prior to 2012 and past 2017 it was practical to include all water use years.

A water use analysis was undertaken by Council's Systems and Information Analyst, Sean Leslie.

## **7.10.2 Efficiency of Water Take and Use**

### **7.10.3 Irrigation**

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 (80<sup>th</sup> percentile); a one in ten-year drought (90<sup>th</sup> percentile); and a maximum situation. For Otago it is considered that a one in ten-year drought or 90<sup>th</sup> percentile is the most appropriate when considering efficient water use.

In terms of adjoining regions and their more contemporary regional plans, we are aware that the Environment Canterbury Land and Water Regional Plan (Schedule 10) assumes an irrigation application efficiency of 80%, a system capacity to meet peak demand, a nominal irrigation season from 1 September to 30 April, demand conditions that occur 9 out of 10 years (equivalent to a 90-percentile demand) and a land use of intensive pasture production. Similarly, the Southland Water and Land Plan (Appendix O) stipulates use of a field-validated daily time-step irrigation demand model to calculate the annual irrigation volume for 90 percent (9 in 10 year) reliability taking account of crop and soil type, climatic factors and an irrigation application efficiency of 80%. Other Regional Councils that we are familiar with and who also allocate irrigation water for a 9 in 10 years security of supply include Hawke's Bay,<sup>1</sup> Waikato<sup>2</sup> and Northland.<sup>3</sup>

#### **10.2.4 Communal Domestic Supply**

The proposed takes will supply potable water to households. The Council considers 1,000 L/day during winter and 3,000 L/day during summer to be efficient volumes for each domestic residence. The additional volumes in summer provide for minor curtilage irrigation.

#### **7.10.5 Stock Water Supply**

Stock unit demand is supplied as per the Ministry of Agriculture's guidelines, 45 litres/head/day for beef cattle, 70 litres/head/day for dairy cows and 5 litres/head/day for sheep. Each user of stock water has provided stock numbers which have been calculated in the water use assessment below.

#### **7.11 Total Volumes Recommended**

Table 6 below shows the Applicant, what they have applied for, what Council considered efficient, what the Applicant has used historically and recommended rate and volume of take. The recommended rate of take, monthly and seasonal limits ensure that the quantity of water granted to take is no more than that required for the purpose of use, more than applied for or used historically.

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<sup>1</sup> *Regional Resource Management Plan, Policy 32 for groundwater. For surface water the security of supply is 1 in 5 years (Policy 42).*

<sup>2</sup> *Waikato Regional Plan, section 3.4.3 Policy 2.*

<sup>3</sup> *Northland Regional Plan, section D.4.13.*

**Table 6: The efficient use calculations, historic use records, amount applied for and recommended rates and volumes for each Applicant.**

Take	Consent holder(s)	Efficient volumes	Historic water use	Rates and volumes applied for	Recommended rates and volumes
Take 1: Pig Burn shared take	<b>Duncan Cleugh</b> Farming Trust (Names of trustees updated 1 October 2018) (1/3 share)	<b>Irrigation</b> Monthly: 60,242 m <sup>3</sup> Annual: 292,103 m <sup>3</sup>  <b>Stock</b> Monthly: 569 m <sup>3</sup> Annual: 6,831 m <sup>3</sup>	86 L/s  223,200 m <sup>3</sup> /month  2,548,709 m <sup>3</sup> /year	The rate of abstraction must not exceed:  a) 56 Litres per second (L/s)  b) 500,000 m <sup>3</sup> during period 1 July to 30 June in the following year	Applied for is less than historic  56 L/s  No monthly as 223,200 (historic) is more than 56 L/s over month  500,000 m <sup>3</sup> /year
Take 1: Pig Burn shared take	- <b>Pig Burn Gorge</b> Limited (1/3 share)	<b>Irrigation</b> Monthly: 104,178 m <sup>3</sup> Annual: 494,487 m <sup>3</sup>  <b>Stock</b> Monthly: 35 m <sup>3</sup> Annual: 420 m <sup>3</sup>			
Take 1: Pig Burn shared take	- Janine Ruth <b>Smith</b> (1/3 share)	<b>Irrigation</b> Monthly: 85,800 m <sup>3</sup> Annual: 386,400 m <sup>3</sup>  <b>Stock</b> Monthly: 112 m <sup>3</sup> Annual: 1,350 m <sup>3</sup>			
Take 2: Bradfields/En Hakkore	<b>En Hakkore</b> Limited	<b>Irrigation</b> Monthly: 42,900 m <sup>3</sup> Annual: 193,200 m <sup>3</sup>  <b>Stock</b> Monthly: 35 m <sup>3</sup> Annual: 424 m <sup>3</sup>	7 L/s  18,600 m <sup>3</sup> /month  155,511 m <sup>3</sup> /year	The rate of abstraction must not exceed:  a) 7 Litres per second (L/s)  b) 70,000 m <sup>3</sup> during period 1 July to 30	Applied for is less than efficient and historic  7 L/s  18,600 m <sup>3</sup> /month  70,000 m <sup>3</sup> /year

				June in the following year	
Take 4: Weir	<b>Hamilton Runs Limited</b>	<b>Irrigation</b> Monthly: 545,080 m <sup>3</sup> Annual: 2,808,800 m <sup>3</sup>  <b>Stock</b> Monthly: 2,370 m <sup>3</sup> Annual: 28,440 m <sup>3</sup>  <b>Domestic</b> Monthly: 120 m <sup>3</sup> Annual: 1,440 m <sup>3</sup>	55.6 L/s  77,844 m <sup>3</sup> /month  465,044 m <sup>3</sup> /year	The rate of abstraction must not exceed:  a) 55.6 Litres per second (L/s)  b) 895,000 m <sup>3</sup> during the period from 1 July to 30 June in the following year.	Applied for is considered efficient but volumes are more than historically used.  55.6 L/s  77,844 m <sup>3</sup> /month  465,044 m <sup>3</sup> /year



Take 3: Herlihy Gorge take	<b>Hamiltons Dairy Limited and Greenbank Pastoral Limited</b>	<b>Irrigation</b> Monthly: 1,069,550 m <sup>3</sup> Annual: 5,541,650 m <sup>3</sup>  <b>Stock</b> Monthly: 5,066 m <sup>3</sup> Annual: 60,796 m <sup>3</sup>  <b>Dairy shed:</b> Monthly: 2,460 m <sup>3</sup> Annual: 29,520 m <sup>3</sup>	42 L/s  111,820 m <sup>3</sup> /month  571,695 m <sup>3</sup> /year	The rate of abstraction must not exceed:  a) 42 Litres per second (L/s)  b) 454,120 m <sup>3</sup> during the period from 1 July to 30 June in the following year.	Applied for is less than historic  42 L/s  111,820 m <sup>3</sup> /month  454,120 m <sup>3</sup> /year
Take 5: Herlihy Ford	<b>Hamiltons Dairy Limited and Greenbank Pastoral Limited</b>	Same as take 3	91.1 L/s  177,017 m <sup>3</sup> /month  620,275 m <sup>3</sup> /year	The rate of abstraction must not exceed:  a) 70 Litres per second (L/s)  b) 459,875 m <sup>3</sup> during period 1 July to 30 June in the following year as a combined total with the annual volume authorised under Take 6	Applied for is less than historic  70 L/s  177,017 m <sup>3</sup> /month  459,875 m <sup>3</sup> /year
Take 6: Combined take	- <b>Concept Farms Ltd (South take)</b>	<b>Concept Irrigation</b>	55.5 L/s		Applied for is considered efficient,

		<p>Monthly: 1,093,780 m<sup>3</sup> Annual: 5,422,260 m<sup>3</sup></p> <p><b>Stock</b> Monthly: 5208 m<sup>3</sup> Annual: 62,496 m<sup>3</sup></p> <p><b>Dairy Shed:</b> Monthly: 3,720 m<sup>3</sup> Annual: 44,640 m<sup>3</sup></p>	<p>148,800 m<sup>3</sup>/month 816,519 m<sup>3</sup>/year</p>	<p>The rate of abstraction must not exceed:</p> <p>a) 60 Litres per second (L/s) as a combined total between the consent holders taking water pursuant to this consent.</p> <p>b) 100 litres per second as a combined total between the Mulhollands and Concept/Sophic when flow immediately below the point of take is equal to or greater than 200 litres per second</p>	<p>Concept has applied for more than used historically for annual volume.</p> <p>60 L/s</p> <p>110 L/s (with 200 L/s residual)</p> <p>a. 148,800 m<sup>3</sup>/month</p> <p>816,519 m<sup>3</sup>/on their year by <b>Concept Farms Ltd</b></p> <p>b. 114,000 m<sup>3</sup>/month</p> <p>768,615m<sup>3</sup>/on their year by <b>Mulholland</b></p> <p>c. 117,017 m<sup>3</sup>/month</p>
Take 6: Combined take	- Christopher Patrick <b>Mulholland</b> and Dale Evelyn Mulholland	<p><b>Irrigation</b> Monthly: 453,702 m<sup>3</sup> Annual: 2,238,174 m<sup>3</sup></p> <p><b>Stock</b> Monthly: 510 m<sup>3</sup> Annual: 6,120 m<sup>3</sup></p>	<p>55.6 L/s 114,000 m<sup>3</sup>/month 764,070 m<sup>3</sup>/year</p>		
Take 6: Combined take	<b>Hamiltons Dairy Limited</b> and <b>Greenbank Pastoral Limited</b>	Same as Take 3	Same as Take 3	<p>c) 920,655 m<sup>3</sup> during the period from 1 July to 30 June in the following year by <b>Concept Farms Ltd</b></p> <p>d) 768,615m<sup>3</sup> during the period from 1 July to 30 June in the following year by <b>Mulholland</b></p> <p>e) 459,875m<sup>3</sup> during the period from 1 July to 30 June in the following year by <b>Hamiltons Dairy</b></p>	<p>459,875m<sup>3</sup> /on their year <b>Hamiltons Dairy Limited</b> as a combined total with the annual volume authorised to be taken by Consent XXX</p>

				Limited as a combined total with the annual volume authorised to be taken by Consent XXX [insert consent number for <b>Hamiltons Dairy</b> Limited consent i.e Herlihy Ford Take]	
Take 7: Concept North	Concept Farms Ltd (North take)	<p><b>Irrigation</b>  Monthly: 1,093,780 m<sup>3</sup>  Annual: 5,422,260 m<sup>3</sup></p> <p><b>Stock</b>  Monthly: 5,208 m<sup>3</sup>  Annual: 62,496 m<sup>3</sup></p> <p><b>Dairy Shed:</b>  Monthly: 3,720 m<sup>3</sup>  Annual: 44,640 m<sup>3</sup></p>	42 L/s 112,344 m <sup>3</sup> /month 1,028,478 m <sup>3</sup> /year	The rate of abstraction must not exceed: a) 42 Litres per second (L/s) b) 1,697,665 m <sup>3</sup> during the period from 1 July to 30 June in the following year.	Applied for is considered efficient but more than used at this site annually. 42 L/s 112,344 m <sup>3</sup> /month 1,028,478 m <sup>3</sup> /year

### 7.3 Efficiency of Water Transport, Storage and Application System

Each Applicant has different water transport, storage, infrastructure and application methods as shown in Table 7 below. 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. As most if not all races as part of this application are old it is likely the bottom of the race has hardened and created a natural lining.

According to Irrigation New Zealand centre pivots and k-line allow irrigators to tailor their water discharge and are therefore efficient application types. Irrigation New Zealand state that border dyke and contour flood irrigation is used in older Otago schemes, however provides no guidance for efficiency which implies that it is an out of date and inefficient application system. Some Applicants are currently using flood irrigation methods and these are considered inefficient.

Some of the Applicants currently use spray irrigation methods (k-line, travelling hoses, pop-up sprinklers or pivots). According to Irrigation New Zealand spray methods allow irrigators to tailor their water discharge and are therefore efficient application types. Some Applicants also have storage ponds. These ponds provide the Applicant greater on-site water retention and security.

It is recommended to have a condition of consent that the Consent Holders must supply a water use efficiency report to the Consent Authority annually. The report includes the Consent Holder supplying information on water usage (month by month, and related to crops in the ground), reasons why the use may have varied. Information on any measures undertaken to avoid loss or wastage of water specifically from the race system, and whether there have been any changes or modifications to irrigation (and water conveyance) infrastructure.

**Table 7: Comments on efficiency of water transport, storage and application for each Applicant**

Take	Applicant	Efficiency of water transport, storage and application comments
Take 1	Pig Burn Gorge Limited	Flood irrigation but have moved to k-line and increased productivity. Storage dam 25,000 m <sup>3</sup> . Water is transported via a race
Take 1	Duncan Clugh	Historically flood but have moved most to k-line, only small storage in race due to topography of farm 36 ha k-line 12 flood. Water is transported via a race.
Take 1	Smith farm	Flood irrigation no storage. Water is transported via a race.
Take 2	En Hakkore	Sprinkler application method, 20,000 m <sup>3</sup> storage dam, piped take.

Take 4	Hamilton runs	Open race to storage dams and then piped around the farm, irrigation is pivot, k-line, hard hose gun and wild flood. Storage: Hamilton's Dam 50,000-60,000 m <sup>3</sup> Buffer Dam 7,000 m <sup>3</sup> Middle Dam 23,000-25,000 m <sup>3</sup> Lower Dam 19,000 – 20,000 m <sup>3</sup> Total 99,000-112,000 m <sup>3</sup>
Takes 3, 5 and 6	Greenbank Pastoral and Hamilton's dairy ltd	Flood irrigation for Herlihy's take with no upgrades in foreseeable future and no storage. Ford take with storage 380,000 m <sup>3</sup> boarder dyke, centre pivot and k-line
Take 6	Mulholland	Contour flooding proposing to upgrade to pivots and storage, raced.
Takes 6 and 7	Concept Farms	Raced with application methods including k-line and pivots

It is noted Mullholland (Take 6) is proposing a consent condition which requires that 100 ha of the property will be spray irrigated within 5 years.

#### 7.4 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).

Some Applicants have investigated other sources including groundwater which have been unsuccessful. There are no other reliable sources of water in the vicinity of these properties that have primary allocation water available. On this basis no realistic alternatives are available for a sufficient supply of reliable water for the purpose of irrigating these properties.

The proposal seeks to enable the continued taking of water from the nearest practicable source.

#### 7.5 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. If a water management group is developed, the Applicants should give

consideration to joining, as they are a useful means of managing takes in a catchment to ensure the minimum flow is not reached.

The Pig Burn water users have chosen to replace their individual permits collectively and have developed the proposal in this application as a group. Acting collectively was a logical choice for the water users of the Pig Burn:

1. All takes will be managed relative to the Minimum Flow site at Waipiata on the Taieri River.
2. It enabled them to recognise the historical system of priorities and the impact this has on access to the water resource, in addition to consented rates of abstraction.
3. Using local knowledge to understand the river and manage abstractions makes good sense.

The Pig Burn water users are not proposing to form a Water Management Group. This application proposes the amalgamation of 3 takes into one take point, residual flows and compliance with the minimum flow at Waipiata.

## **8. S104(1)(ab) – Offset or Compensation**

I am not aware of any relevant measure proposed by either Applicants under section 104 (1) (ab) relating to the offset or compensation for adverse effects.

### **8.1 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
- Resource Management (National Environmental Standards for Freshwater) Regulation 2020
- Resource Management (Measurement and Reporting of Water Takes) Regulations 2010 and Amendment Regulations 2020
- The National Policy Statement for Freshwater Management 2020
- The two Partially Operative Regional Policy Statements and the new Proposed Regional Policy Statement
- The Regional Plan: Water for Otago
- Proposed Plan Change 7 (Water Permits) (PPC7)

### **8.2 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.

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

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

The Upper Taieri Wetland complex is classed as a Regionally significant and natural inland wetland. The Concept North take is located 800 m upstream of the wetland and therefore, there are no consents required under the NESFW 2020.

#### **8.4 National Policy Statement Freshwater Management (NPS-FM)**

The NPS-FM came into force on 3 September 2020, replacing the previous 2014 NPS-FM (amended in 2017). Although it retains some of the same principles as the NPS-FM 2014, including a strengthened focus on Te Mana o te Wai, the NPS-FM 2020, amongst other things:

- Sets out a framework of objectives and policies to manage activities affecting freshwater in a way that prioritises first, the health and well-being of water bodies and freshwater ecosystems, second, the health needs of people, and third, the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future.
- Requires regional councils to develop long-term visions for freshwater in their region and include those long-term visions as objectives in their regional policy statement.
- Requires every local authority to actively involve tangata whenua in freshwater management.
- Sets out a more expansive National Objectives Framework, and Freshwater Management Unit, environmental flows and levels setting, and limit setting processes. This includes 13 new attribute states for ecosystem health, including national bottom lines and national targets.
- Specific requirements to protect streams and wetlands and to provide for fish passage – including new policies which must be included in all regional plans.

Part 2 of the NPS-FM sets out the national objective for future freshwater management and 15 separate policies that support this objective.

An assessment of the objective and relevant policies is provided below.

The NPS-FM 2020 sets one objective being:

*The objective of this National Policy Statement is to ensure that natural and physical resources are managed in a way that prioritises:*

*(a) first, the health and well-being of water bodies and freshwater ecosystems*

*(b) second, the health needs of people (such as drinking water)*

*(c) third, the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future*

This objective sets a hierarchy and gives clear direction that priority must be given first to the environment before the needs of people. While the proposal will result in a benefit for the people and the community, I consider that priority must be given to first ensuring the well-being of water bodies and freshwater ecosystems is provided for. Effects on Pig Burn and its freshwater

ecosystems are likely to be no more than minor. Further, health needs of people are not likely to be negatively impacted upon as a result of the activity.

I consider that the following policies are also relevant:

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

The NPS-FM defines the concepts of Te Mana o Wai as being:

*“Te Mana o te Wai 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. It protects the mauri of the wai. Te Mana o te Wai is about restoring and preserving the balance between the water, the wider environment, and the community.”*

The NPS-FM 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 its region. It is noted that the Proposed Otago Regional Policy Statement has defined Te Mana o te Wai for the Otago Region; this is discussed in Section 8.6 below. The reduction in takes, imposition of the residual flow and consent duration may go part way towards giving effect to Te Mana o te Wai, but it is recognised that the points raised in the submission of Aukaha have not been fully addressed so the application may not be consistent with this policy. The ORC has identified FMUs in the region. These takes are part of the Taieri FMU. The Council is in the early stages of identifying the values for this FMU. Council will undertake the remaining steps in the National Objectives Framework process in upcoming years and plans to notify a new Land and Water Plan in accordance with the NPS-FM 2020 in late 2023. This will set the limits that apply to these catchments. The application of these limits to this activity will be considered when this replacement permit is replaced (should consent be granted) or as part of a review of consent conditions, or both.

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

Tangata whenua have been actively involved in this consent process through Section 95E. Maori freshwater values are defined in the NPS-FM however these values have not yet been identified in this area as the NPS-FM establishes a prescribed process through which this must be achieved. However, consideration has been given to Māori freshwater values identified by tangata whenua within their submission and based on direction provided in the RPW and the iwi management plan. Not all of the relief within their submission has been provided for, notably in respect of allocation and term. Allocation limits will likely 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.

Māori freshwater values are defined in the NPS-FM as being: *“the compulsory value of mahinga kai and any other value (whether or not identified in Appendix 1A or 1B) identified for a particular FMU or part of an FMU through collaboration between tangata whenua and the relevant regional council”*. The Māori freshwater values are yet to be identified through the prescribed process.

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



Based on the information provided and my observations during a site visit, I understand there are no natural inland wetlands in close proximity to the abstraction.

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

*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.*

It is considered the Application with recommended amendments is consistent with Policy 7 as there are proposed minimum and residual flows which will provide for no loss of river extent or values. The Application is also consistent with Policy 9 and 10. The ecological assessment of the proposal has indicated that Pig Burn has longfin eel and spawning habitat for trout. Both of these species will be protected via the recommended minimum, residual flows and fish screens.

*Policy 11: Freshwater is allocated and used efficiently, all existing over-allocation is phased out, and future over-allocation is avoided.*

I consider that the rate and volume that would be allocated will be efficiently used. I am unable to comment on future allocation as Council has not gone through the NOF process and therefore, I do not know what the allocation limit will be under a new NPS-compliant planning framework. Using the current plan framework the allocation limit will be reduced by 122 L/s.

*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.*

The proposal will provide benefit for the Applicant and the recommended residual flows will provide for social and cultural wellbeing.

Overall, the proposal is consistent with the NPS-FM subject to the recommended conditions and consent duration. This is to the extent I am able to determine given the various steps in the NPS-FM that the Council is still to work through. I am satisfied that the Application subject to my recommendations is prioritising the health and wellbeing of the waterbody over the ability of people and communities to provide for their social, economic and cultural wellbeing.

Both submitters 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.

## **8.5 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 Resource Management Regulations 2010 apply to holders of water permits that allow fresh water to be taken at a rate of 5 L/s or more, specifically:

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

The proposed takes are greater than 5 L/s. The takes are currently measured by telemetry water monitoring stations. The Applicants are proposing to keep the metering on all takes. The Applicant has two authorised notice of exemptions, WEX0238, WEX0232, WEX0063, WEX0062, WEX0168, and WEX0049. This should address concerns raised by Aukaha regarding measuring and reporting.

The Resource Management (Measurement and Reporting of Water Takes) Regulations 2010 have been amended by the Resource Management (Measurement and Reporting of Water Takes) Amendment Regulations 2020, which came 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. If consent were to be granted, the recommended measuring conditions align the consent with the Amendment Regulations.

## **8.6 Partially Operative Regional Policy Statement and Proposed Otago Regional Policy Statement**

The proposed RPS was made partially operative on the 14th of January 2019 (“PO-RPS”) and through various court orders. Since then there have been a number of appeals resolved through the Environment Court. On 15 March 2021, the Council approved and provided notice for these further provisions to be made operative. The provisions that are the subject of court proceedings and are not made operative are now limited to Policy 4.3.7 (significant infrastructure) and specific methods of Chapter 3. None of these remaining proposed provisions are applicable to the application, therefore full weight and consideration can be provided to the PO-RPS.

On 26 June 2021 Council notified the new proposed Otago Regional Policy Statement. This RPS gives effect to the NPS-FW 2020 and includes freshwater visions, FMUs and rohe. As this RPS has been notified, it has been included and assessed below.

The relevant provisions of the PO-RPS 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)*
- *Safeguard the life-supporting capacity of fresh water and manage fresh water to:*
  - *Maintain good quality water and enhance water quality where it is degraded, including for:*
    - *Important recreation values, including contact recreation; and,*
    - *Existing drinking and stock water supplies;*
  - *Maintain or enhance aquatic:*
    - *Ecosystem health;*
    - *Indigenous habitats; and,*
    - *Indigenous species and their migratory patterns.*
  - *Avoid aquifer compaction and seawater intrusion;*
  - *Maintain or enhance, as far as practicable:*
    - *Natural functioning of rivers, lakes, and wetlands, their riparian margins, and aquifers;*
    - *Coastal values supported by fresh water;*
    - *The habitat of trout and salmon unless detrimental to indigenous biological diversity; and*
    - *Amenity and landscape values of rivers, lakes, and wetlands;*
  - *Control the adverse effects of pest species, prevent their introduction and reduce their spread;*
  - *Avoid, remedy or mitigate the adverse effects of natural hazards, including flooding and erosion; and,*
  - *Avoid, remedy or mitigate adverse effects on existing infrastructure that is reliant on fresh water. (Policy 3.1.1)*
- *Manage the allocation and use of fresh water by undertaking all of the following:*
  - *Recognising and providing for the social and economic benefits of sustainable water use;*
  - *Avoiding over-allocation, and phasing out existing over-allocation, resulting from takes and discharges;*
  - *Ensuring the efficient allocation and use of water by:*
    - *Requiring that the water allocated does not exceed what is necessary for its efficient use;*
    - *Encouraging the development or upgrade of infrastructure that increases efficiency;*
    - *Providing for temporary dewatering activities necessary for construction or maintenance. (Policy 3.1.3)*
- *Manage for water shortage by undertaking all of the following:*
  - *Encouraging land management that improves moisture capture, infiltration, and soil moisture holding capacity.*
  - *Encouraging collective coordination and rationing of the take and use of water when river flows or aquifer levels are lowering, to avoid breaching any minimum flow or aquifer level restriction to optimise use of water available for taking;*
  - *Providing for water harvesting and storage, subject to allocation limits and flow management, to reduce demand on water bodies during periods of low flows. (Policy 3.1.4)*
- *Identify and protect outstanding freshwater bodies (Policy 3.2.13 & 3.2.14)*

- *Identify and protect the significant values of wetlands (Policy 3.2.15 & 3.2.16)*
- *Apply an adaptive management approach, to avoid, remedy or mitigate actual and potential adverse effects that might arise and that can be remedied before they become irreversible (Policy 5.4.2)*
- *Apply a precautionary approach to activities where adverse effects may be uncertain, not able to be determined, or poorly understood but are potentially significant (Policy 4.4.3)*
- *Consider the offsetting of indigenous biological diversity, when:*
  - *Adverse effects of activities cannot be avoided, remedied or mitigated;*
  - *The offset achieves no net loss and preferably a net gain in indigenous biological diversity;*
  - *The offset ensures there is no loss of rare or vulnerable species;*
  - *The offset is undertaken close to the location of development, where this will result in the best ecological outcome;*
  - *The offset is applied so that the ecological values being achieved are the same or similar to those being lost;*
  - *The positive ecological outcomes of the offset last at least as long as the impact of the activity*

The continued use of water will enable the Applicants to continue to irrigate their land, resulting in their own economic wellbeing. Cultural and Kai Tahu values have been considered and Aukaha on behalf of the local Runanga were considered affected in accordance with Section 95E of the Act. Specific consideration has been given to the iwi management plans in Section 8.9 of this report. No specific sites of cultural significance have been identified by Kai Tahu and the application does not relate to Māori land. Freshwater values have been considered in this report, and the adverse effects on them are considered to be no more than minor. Implementing the recommended residual flows will maintain and enhance natural character and aquatic values including the range and extent of habitats. The volumes sought have been compared with the Aqualinc recommendations and are considered an efficient use of water.

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

### **Proposed Otago Regional Policy Statement (P-ORPS 2021)**

The relevant provisions of the P-ORPS 2021 are set out below:

#### ***MW-O1 – Principles of Te Tiriti o Waitangi***

The principles of Te Tiriti o Waitangi are given effect in resource management processes and decisions, utilising a partnership approach between councils and Papatipu Rūnaka to ensure that what is valued by mana whenua is actively protected in the region.

#### ***MW-P2 – Treaty principles***

*Local authorities exercise their functions and powers in accordance with Treaty principles, by:*

1. *recognising the status of Kāi Tahu and facilitating Kāi Tahu involvement in decision-making as a Treaty partner,*
2. *including Kāi Tahu in resource management processes and implementation to the extent desired by mana whenua,*
3. *recognising and providing for Kāi Tahu values and resource management issues, as identified by mana whenua, in resource management decision-making processes and plan implementation,*

4. recognising and providing for the relationship of Kāi Tahu culture and traditions with their ancestral lands, water, sites, wāhi tapu, and other taoka by ensuring that Kāi Tahu have the ability to identify these relationships and determine how best to express them,
5. ensuring that regional and district plans recognise and provide for Kāi Tahu relationships with Statutory Acknowledgement Areas, tōpuni, nohoaka and customary fisheries identified in the NTCSA 1998, including by actively protecting the mauri of these areas,
6. having particular regard to the ability of Kāi Tahu to exercise kaitiakitaka,
7. actively pursuing opportunities for:
  - a. delegation or transfer of functions to Kāi Tahu, and
  - b. partnership or joint management arrangements, and
8. taking into account iwi management plans when making resource management decisions.

**MW-P3 – Supporting Kāi Tahu well-being**

The natural environment is managed to support Kāi Tahu well-being by:

- i. protecting customary uses, Kāi Tahu values and relationships of Kāi Tahu to resources and areas of significance, and restoring these uses and values where they have been degraded by human activities,
- ii. safeguarding the mauri and life-supporting capacity of natural resources, and
- iii. working with Kāi Tahu to incorporate mātauraka in resource management.

**IM-O2 – Ki uta ki tai**

Natural and physical resource management and decision making in Otago embraces ki uta ki tai, recognising that the environment is an interconnected system, which depends on its connections to flourish, and must be considered as an interdependent whole.

**IM-P2 – Decision priorities** Unless expressly stated otherwise, all decision making under this RPS shall:

1. first, secure the long-term life-supporting capacity and mauri of the natural environment,
2. secondly, promote the health needs of people, and
3. thirdly, safeguard the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future.

**IM-P5 – Managing environmental interconnections**

Coordinate the management of interconnected natural and physical resources by recognising and providing for:

- b. situations where the value and function of a natural or physical resource extends beyond the immediate, or directly adjacent, area of interest,
- c. the effects of activities on a natural or physical resource as a whole when that resource is managed as sub-units, and
- d. the impacts of management of one natural or physical resource on the values of another, or on the environment.

**IM-P6 – Acting on best available information.** Avoid unreasonable delays in decision-making processes by using the best information available at the time, including but not limited to mātauraka Māori, local knowledge, and reliable partial data.

**IM-P13 – Managing cumulative effects** Otago’s environmental integrity, form, function, and resilience, and opportunities for future generations, are protected by recognising and specifically managing the cumulative effects of activities on natural and physical resources in plans and explicitly accounting for these effects in other resource management decisions.

**IM-P14 – Human impact** Preserve opportunities for future generations by:

1. identifying limits to both growth and adverse effects of human activities beyond which the environment will be degraded,

2. *requiring that activities are established in places, and carried out in ways, that are within those limits and are compatible with the natural capabilities and capacities of the resources they rely on, and*
3. *regularly assessing and adjusting limits and thresholds for activities over time in light of the actual and potential environmental impacts*

**IM-P15 – Precautionary approach** *Adopt a precautionary approach towards proposed activities whose effects are uncertain, unknown or little understood, but could be significantly adverse, particularly where the areas and values within Otago have not been identified in plans as required by this RPS.*

**LF-WAI-O1 – Te Mana o te Wai** *The mauri of Otago’s water bodies and their health and well-being is protected, and restored where it is degraded, and the management of land and water recognises and reflects that:*

1. *water is the foundation and source of all life – na te wai ko te hauora o ngā mea katoa,*
2. *there is an integral kinship relationship between water and Kāi Tahu whānui, and this relationship endures through time, connecting past, present and future,*
3. *each water body has a unique whakapapa and characteristics,*
4. *water and land have a connectedness that supports and perpetuates life, and*
5. *Kāi Tahu exercise rakatirataka, manaakitaka and their kaitiakitaka duty of care and attention over wai and all the life it supports.*

**LF-WAI-P1 – Prioritisation** *In all management of fresh water in Otago, prioritise:*

1. *first, the health and well-being of water bodies and freshwater ecosystems, te hauora te wai and te hauora o te taiao, and the exercise of mana whenua to uphold these,*
2. *second, the health and well-being needs of people, te hauora o te tangata; interacting with water through ingestion (such as drinking water and consuming harvested resources) and immersive activities (such as harvesting resources and bathing), and*
3. *third, the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future.*

**LF-WAI-P2 – Mana whakahaere** *Recognise and give practical effect to Kāi Tahu rakatirataka in respect of fresh water by:*

1. *facilitating partnership with, and the active involvement of, mana whenua in freshwater management and decision-making processes,*
2. *sustaining the environmental, social, cultural and economic relationships of Kāi Tahu with water bodies,*
3. *providing for a range of customary uses, including mahika kai, specific to each water body, and*
4. *incorporating mātauraka into decision making, management and monitoring processes.*

**LF-WAI-P3 – Integrated management/ki uta ki tai** *Manage the use of freshwater and land in accordance with tikanga and kawa, using an integrated approach that:*

1. *recognises and sustains the connections and interactions between water bodies (large and small, surface and ground, fresh and coastal, permanently flowing, intermittent and ephemeral),*
2. *sustains and, wherever possible, restores the connections and interactions between land and water, from the mountains to the sea,*
3. *sustains and, wherever possible, restores the habitats of mahika kai and indigenous species, including taoka species associated with the water body,*
4. *manages the effects of the use and development of land to maintain or enhance the health and well-being of freshwater and coastal water,*

5. *encourages the coordination and sequencing of regional or urban growth to ensure it is sustainable,*
6. *has regard to foreseeable climate change risks, and*
7. *has regard to cumulative effects and the need to apply a precautionary approach where there is limited available information or uncertainty about potential adverse effects.*

**LF-WAI-P4 – Giving effect to Te Mana o te Wai**

*All persons exercising functions and powers under this regional policy statement and all persons who use, develop or protect resources to which this regional policy statement applies must recognise that LF-WAI-O1, LF-WAI-P1, LF-WAI-P2 and LF-WAI-P3 are fundamental to upholding Te Mana o te Wai, and must be given effect to when making decisions affecting freshwater, including when interpreting and applying the provisions of the LF chapter.*

**LF-VM-O4 – Taieri FMU vision**

*By 2050 in the Taieri FMU:*

1. *freshwater is managed in accordance with the LF-WAI objectives and policies,*
2. *the ongoing relationship of Kāi Tahu with wāhi tūpuna is sustained,*
3. *healthy wetlands are restored in the upper and lower catchment wetland complexes, including the Waipori/Waihola wetlands, Tunaheketaka / Lake Taieri, scroll plain, and tussock areas,*
4. *the gravel bed of the lower Taieri is restored and sedimentation of the Waipori/Waihola complex is reduced,*
5. *creative ecological approaches contribute to reduced occurrence of didymo,*
6. *water bodies support healthy populations of galaxiid species,*
7. *there are no direct discharges of wastewater to water bodies, and*
8. *innovative and sustainable land and water management practices support food production in the area and improve resilience to the effects of climate change.*

**LF-VM-O7 – Integrated management**

*Land and water management apply the ethic of ki uta ki tai and are managed as integrated natural resources, recognising the connections and interactions between freshwater, land and the coastal environment, and between surface water, groundwater and coastal water.*

**LF-FW-O8 – Freshwater** *In Otago’s water bodies and their catchments:*

1. *the health of the wai supports the health of the people and thriving mahika kai,*
2. *water flow is continuous throughout the whole system,*
3. *the interconnection of freshwater (including groundwater) and coastal waters is recognised,*
4. *native fish can migrate easily and as naturally as possible and taoka species and their habitats are protected, and*
5. *the significant and outstanding values of Otago’s outstanding water bodies are identified and protected.*

**LF-FW-P7 – Freshwater** *Environmental outcomes, attribute states (including target attribute states) and limits ensure that:*

1. *the health and well-being of water bodies is maintained or, if degraded, improved,*
2. *the habitats of indigenous species associated with water bodies are protected, including by providing for fish passage,*
3. *specified rivers and lakes are suitable for primary contact within the following timeframes:*
  - a. *by 2030, 90% of rivers and 98% of lakes, and*
  - b. *by 2040, 95% of rivers and 100% of lakes, and*
4. *mahika kai and drinking water are safe for human consumption,*
5. *existing over-allocation is phased out and future over-allocation is avoided, and*
6. *freshwater is allocated within environmental limits and used efficiently.*

**LF-FW-P13 – Preserving natural character** *Preserve the natural character of lakes and rivers and their beds and margins by:*

1. *avoiding the loss of values or extent of a river, unless:*
  - a. *there is a functional need for the activity in that location, and*
  - b. *the effects of the activity are managed by applying:*
    - i. *for effects on indigenous biodiversity, either ECO-P3 or ECO-P6 (whichever is applicable), and*
    - ii. *for other effects, the effects management hierarchy,*
2. *not granting resource consent for activities in (1) unless Otago Regional Council is satisfied that:*
  - a. *the application demonstrates how each step of the effects management hierarchies in (1)(b) will be applied to the loss of values or extent of the river, and*
  - b. *any consent is granted subject to conditions that apply the effects management hierarchies in (1)(b),*
3. *establishing environmental flow and level regimes and water quality standards that support the health and well-being of the water body,*
4. *wherever possible, sustaining the form and function of a water body that reflects its natural behaviours,*
5. *recognising and implementing the restrictions in Water Conservation Orders,*
6. *preventing the impounding or control of the level of Lake Wanaka,*
7. *preventing modification that would reduce the braided character of a river, and*
8. *controlling the use of water and land that would adversely affect the natural character of the water body.*

**LF-FW-P14 – Restoring natural character** *Where the natural character of lakes and rivers and their margins has been reduced or lost, promote actions that:*

1. *restore a form and function that reflect the natural behaviours of the water body,*
2. *improve water quality or quantity where it is degraded,*
3. *increase the presence, resilience and abundance of indigenous flora and fauna, including by providing for fish passage within river systems,*
4. *improve water body margins by naturalising bank contours and establishing indigenous vegetation and habitat, and*
5. *restore water pathways and natural connectivity between water systems.*

**LF-LS-O11 – Land and soil**

*The life-supporting capacity of Otago’s soil resources is safeguarded and the availability and productive capacity of highly productive land for primary production is maintained now and for future generations.*

The activity is consistent with the above provisions with the recommended conditions and consent term as the effects of the activity will be less than minor on the ecology and instream values. The application is inconsistent with the Te Mana o te Wai as effects on this are classed as minor which is discussed in Section 7.7, therefore, inconsistent with those policies. The activity will provide for the economic wellbeing of the Applicant and indirectly the wider region. The water will be used efficiently apart from takes which include inefficient irrigation methods, however, condition of consent have been recommended to ensure irrigation use is efficient. The application with the recommended conditions prioritises the health and wellbeing of the water body and freshwater ecosystem first. Overall, the application is inconsistent with the Proposed Otago RPS.



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 2020) was notified and has not been updated to give effect to the NPS-FM. The Council has recently included objectives and policies required by clause 3.22(1) (natural inland wetlands), clause 3.24(1) (rivers) and clause 3.26(1) (fish passage). 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 (PPC7). 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 in this catchment.

Relevant objectives and policies from the RPW are considered below:

*Objective 5.3.1 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.*

*Objective 5.3.2 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.*

The application has less than minor effect on the values listed in Schedules 1A, 1C and 1D of the RPW and detailed in Section 4.3 of this report with the recommended conditions. However, the application has minor effects on cultural values and therefore is inconsistent with these objectives.

*Objective 5.3.3 To protect the natural character of Otago's lakes and rivers and their margins from inappropriate subdivision, use or development.*

*Objective 5.3.4 To maintain or enhance the amenity values associated with Otago's lakes and rivers and their margins.*

The location of the take points are not considered to be an inappropriate use of the water bodies and will have a low 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.*

Some Applicants are utilising inefficient irrigation methods, however it is recommended to grant them what is considered efficient which in turn will result in the resource being used in a more sustainable manner, and likely more efficient irrigation methods. It is considered that 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 recommended residual, fish screens and minimum flow will ensure the activities will have a no more than minor effect on the values listed in Schedule 1A for the Taieri River and the natural character of Pig Burn due to a proposed residual flow. Therefore, the application is consistent with Policy 5.4.8. The effects on Schedule 1D are explained by Aukaha in their submission opposing the application. The recommended residual flows and minimum flow will ensure a connection from the mountains to sea and will mitigate any effects on natural character and instream values and in turn the mauri of the waterbody. There are no downstream users. Due to the nature of the location of the takes the effect on amenity, aesthetic, recreational or heritage values will be low and therefore the application is consistent with Policies 5.4.2 and 5.4.9.

*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 no more water than required for the purpose of the uses specified in their application, and the use of the water has been assessed as efficient taking local climate, soil, pasture type and water availability into consideration. Proposed residual flows have been recommended that will ensure flow is retained to maintain the life-supporting capacity for aquatic ecosystems and their natural character. The water is to be used for the needs of one of Otago's primary industries. Therefore, the proposed takes are consistent with these objectives and these policies.

*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 majority of the proposed rates and volumes applied for are the same as water that has been taken under the relevant existing consents in the previous five years. There is one take (Take 4) where they have applied for a higher annual volume, but it is recommended that the volumes are aligned with historic use. Therefore, the application is inconsistent with Policy 6.4.2A. However, most of the Takes have applied for less than historic use and are consistent with this policy.

*Policy 6.4.5 The minimum flows established by Policies 6.4.3, 6.4.4, 6.4.6, 6.4.9 and 6.4.10 will apply to resource consents for the taking of water, as follows:*

- (a) In the case of new takes applied for after 28 February 1998, upon granting of the consent; and*
- (b) In the case of any resource consent to take water from within the Taieri above Paerau and between Sutton and Outram, Welcome Creek, Shag, Kakanui, Water of Leith, Lake Hayes, Waitahuna, Trotters, Waianakarua, Pomahaka, Waiwera and Lake Tuakitoto catchment areas as defined in Schedule 2A, subject to the review of consent conditions under Sections 128 to 132 of the Resource Management Act; and*
- (c) In the case of any existing resource consent to take water from the Luggate catchment area, Manuherikia catchment area (upstream of Ophir) and the Taieri catchment areas Paerau to Waipiata, Waipiata to Tiroiti and Tiroiti to Sutton, as defined in Schedule 2A, upon collective review of consent conditions within those catchments under Sections 128 to 132 of the Resource Management Act; and*
- (d) In the case of any existing resource consent to take water within a catchment area not specified in Schedule 2A, upon the establishment of a minimum flow set for the water body by a plan change, subject to the review of consent conditions under Sections 128 to 132 of the Resource Management Act.*

The applicant proposes that the minimum flow condition does not apply to the consents until after collective review. However, in the explanation of this policy it states that application of minimum flows may coincide with applications to replace deemed permits. Therefore, I read Policy 6.4.5 as applying until the permits expire in 2021 i.e., it does not apply upon the replacement of those consents. In the case of the Pig Burn as the whole catchment are applying together it is entirely appropriate to apply the minimum flow through this consenting processes. There is also

environmental benefit resulting from applying minimum flows to resource consents in this catchment.

*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.*

*Policy 6.4.12B To manage water rationing amongst water takes, Council may either*  
*(a) Support establishment of a water management group; or*  
*(b) Establish a water allocation committee.*  
*Council may also instigate its own water rationing regime or issue a water shortage direction.*

*Policy 6.4.12C Where appropriate, to include in water permits to take water a condition that consent holders comply with any Council approved rationing regime.*

*Policy 6.4.13 To restrict the taking of water in accordance with any Council approved rationing regime.*

*Policy 6.6.0 To promote and support development of shared water infrastructure.*

*Policy 6.4.0B To promote shared use and management of water that:*  
*(a) Allows water users the flexibility to work together, with their own supply arrangements; and*  
*(b) Utilises shared water infrastructure which is fit for its purpose.*

The creation of the combined take is shared use and management of water. The Applicants will also have to work together to adhere to their minimum flow and residual flow conditions. Therefore, the application is consistent with this policy.

*Policy 6.4.0C To promote and give preference, as between alternative sources, to the take and use of water from the nearest practicable source.*

The Applicants have proposed for the water to be taken from the nearest practicable source and used locally. Therefore, the application is consistent with Policy 6.4.0C.

*Policy 6.4.1 To enable the taking of surface water, by:*  
*(a) Defined allocation quantities; and*  
*(b) Provision for water body levels and flows,*  
*except when*

- (i) *the taking is from Lakes Dunstan, Hawea, Roxburgh, Wanaka or Wakatipu, or the main stem of the Clutha/Mata-Au or Kawarau Rivers.*
- (ii) *All of the surface water or connected groundwater taken is immediately returned to the source water body.*
- (iii) *Water is being taken which has been delivered to the source water body for the purpose of that subsequent take.*

This application to take surface water has primary allocation status, is subject to a minimum flow and the Applicants have proposed residual flows. Therefore, the application is consistent with Policy 6.4.1.

*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.*

Residual flows have been proposed, considered and recommended, to allow for the protection of the aquatic habitat and natural character of these water bodies. The application is therefore consistent with Policy 6.4.7.

*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 Applicants have been and propose to continue measure the water taken using water meters, to record the data electronically using a datalogger and to send to Council via telemetry. This should be secured by a condition of consent.

*Policy 6.4.17                    To approve an application to transfer a consent holder's interest in a resource consent to take and use water in terms of Section 136(2)(b)(ii) of the Resource Management Act, retaining the take's allocation status, providing:*  
*(a) The transfer is within the same catchment or aquifer as the original consent, or both sites are connected in terms of Policy 6.4.1A(a) or (b); and*  
*(b) The total take from the water body following transfer does not exceed that occurring prior to the transfer, as a result of the transfer; and (c) The quantity of water taken is no more than that required for the purpose of use of that water, having regard to the local conditions; and (d) There is no more than minor adverse effect on any other take, any right to store water, or on any natural or human use value, as a result of the transfer.*

The Applicant proposes the transfer of a point of take which is within the same catchment as the original consent and are not proposing to take any more than has been used in the past. The application is consistent with this policy.

*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

ceased to be exercised in accordance with this policy, the consent may be cancelled. A condition to this effect has been recommended.

- 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 above are discussed.

- 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.*

Some of the Applicants currently have storage. Those Applicants without storage will be needing to consider it based on the recommended rates and volumes of take meaning they will need to be more efficient in their use.

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

## **8.8 Proposed Plan Change 7 (Water Permits)**

Plan Change 7 (PPC7) was notified by the Council on 18 March 2020 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.

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 Environment<sup>4</sup> following Professor Skelton's investigation of freshwater management and allocation functions at Otago Regional Council.<sup>5</sup>

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:

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<sup>4</sup> 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).

<sup>5</sup> Peter Skelton "Investigation of freshwater management and allocation functions at Otago Regional Council: (report to the Minister for the Environment, November 2019).

*“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 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.*

As this Application is for a water permit to replace deemed permits, Policies 10A.2.1 and 10A.2.3 apply.

As PC7 has been notified, regard must be had to its provisions as well as the provisions of the operative RPW. While regard must be had to the provisions of PPC7, this does not necessarily mean giving full effect to its content. It is up to the decision-maker as to the weight that should be afforded to each of the matters under section 104(1).

Environment Court hearings on the submissions on PPC7 took place from March to July. A number of amendments to PPC7 have been recommended by the Council. However, until a decision is issued by the Environment Court it is the notified version of PPC7 that is the version to be considered under section 104(1)(b)(vi). When the Environment Court issues a decision, if that decision confirms a version of PC7, the decision's version will be the relevant version to consider under section 104(1)(b)(iv). This is addressed further in the Memorandum of Wynn Williams attached as Appendix 3. Further advice can be provided should the Court's decision issue prior to the close of the hearing on this application.

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

- The extent that it has progressed through the plan-making process<sup>6</sup>;
- The extent that the proposed measure has been subject to independent testing or decision making<sup>7</sup>;
- Circumstances of injustice<sup>8</sup>;

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<sup>6</sup> *Queenstown Central Ltd v Queenstown Lakes District Council* [2013] NZHC 815 at [9].

<sup>7</sup> *Hanton v Auckland City Council* [1994] NZMRA 289 (PT).

<sup>8</sup> *Keystone Ridge Ltd v Auckland City 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].

- The extent to which a new measure, or the absence of one, might implement a coherent pattern of objectives and policies in a plan<sup>9</sup>; and
- Whether there has been a significant change in Council policy and the new provisions are in accordance with Part 2 of the RMA<sup>10</sup>.

Based on these matters outlined above, I consider 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 RWP. As these provisions have been proposed in response to the Minister's recommendations that I have set out above, following an independent investigation undertaken by Professor Skelton with a particular focus on the management of freshwater, I consider that they 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.

I recognise that PC7 is only an interim step to achieving the purpose of the RMA and giving full effect to the NPS-FM, however as set out in the section 32 report for PC7, 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.<sup>11</sup> Further, PC7 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.

I do acknowledge however, that this Application was in the system before the notification of the plan change 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. It is inevitable that some Applicants may be caught up in a change of planning framework and this does need to be weighed against the manner in which 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 new regional policy statement and intended new land and water plan. As I consider some weight should be placed on the notified provisions of PPC7 I have provided an assessment against the provisions below.

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 permits (pre-RMA). Transition insinuates a process or period of changing which through the preceding policies and rules is achieved through limiting the duration of consents and thereby reducing risk for water to be allocated for a long duration under the current framework. By ensuring the Application is consistent with the corresponding policies, ensures the Application is consistent with this objective. I have considered these policies further below and the duration in Section 10 of this report.

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<sup>9</sup> *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].

<sup>10</sup> *Keystone Ridge Ltd v Auckland Bity Council* (HC Auckland, AP24/01, 3 April 2001) at [16].

<sup>11</sup> *Section 32 Evaluation Report for PPC7 dated 18 March 2020, p 18.*

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*<sup>12</sup> case, 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 refuse 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 no 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 (however residual flows have been proposed) and there is a proposed reduction in the volume of water allocated of abstraction. All of these provisions are met, so granting of this Application is consistent with this 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. As the Applicants have sought a duration of 35 years, the application is contrary to this policy. I have considered these policies further in Section 10 of this report.

The activity would be a non-complying activity under the notified plan change in accordance with rule 10A.3.2.1. However, it retains its activity status of discretionary as it was in the system before notification of PC7. 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 relevant provisions of all planning documents or causes a no more than minor adverse effect. Given this Application was lodged prior to the notification of PC7 it retains the operative rule and its corresponding activity status. I therefore will give no further consideration to this proposed rule.

### **8.9 Section 104(1)(c) - Any other matters**

#### ***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. This is because the RPW is yet to be amended to take into account this Plan and this Plan 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.

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<sup>12</sup> *Environmental Defence Society Incorporated v The New Zealand King Salmon Company Limited* [2014] NZSC 38 (*King Salmon*).

The granting of these consents with the recommended terms and conditions is contrary with these requirements specifically the term of 35 years. The Applicants are proposing to meter the take and are seeking an amount that has been assessed as efficient, however this is more than they have used historically in one instance. Some of the Applicants currently flood irrigate which is not industry best practice. However, it is recommended to impose conditions to ensure those Applicants upgrade methods to best standard.

A term of 35 years has been applied for which is contrary to this management plan. Aukaha was given the opportunity to be involved in the process. Aukaha has submitted opposing the application requesting a term no longer than 6 years.

### ***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. This is because the RPW is yet to be amended to take into account the NTFP and 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 takes 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 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 Kā Rūnaka 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 Taieri Catchments remain of great significance to Kāi Tahu ki Otago and our long association and interaction with the catchment is widely recorded. Aukaha state that they would support an application that left at least 90 % of the MALF in the water.

It is considered that overall the application is generally inconsistent 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 was notified in March 2020 as Proposed Plan Change 7 (Water Permits) (PPC7). The Minister called in the plan change as part of a proposal of national significance.

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.

### **8.10 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 Applicants have provided the following evidence of the value of investment:

The existing intakes, water distribution infrastructure and irrigation systems represent significant investment. Further investment will be required for ongoing maintenance of the infrastructure, upgrades to allow the extension of the existing takes.

- Pig Burn Gorge estimate that approximately \$150,000 has been spent to date on infrastructure relating to irrigation on the farm, with future projects estimated to require a further \$60,000 of investment.
- In the 2015-2016 financial year the DCFT spent \$55,000 on the gravity fed k-line scheme on Tearoa for irrigation with water from the Pig Burn .

- The Smith family estimate that they have spent \$40,000 on metering devices, maintaining the water race and on-farm infrastructure associated with irrigation in the past few years.
- For En Hakkore (Bradfield family), investment in the last 3 years is estimated to be approximately \$100,000. This includes:
  - 3km of 140mm in 18 lengths pipe, joined by electro fused couplings;
  - 2km was buried so digger hire was required; maintenance of track and construction of 3 bridges near intake;
  - On farm – burying a new 500m x 75mm alkathene pipe, hiring a digger to do this; purchase 10 three-quarter sprinklers; 1000m inch pipe and fittings.
  - Prior to this approximately \$50,000 was spent on the existing dam. Upcoming investment or costs for En Hakkore will include purchasing of a digger to construct a dam, and fencing of dam.
- The Herlihy's have invested heavily in the last 2 decades in irrigation infrastructure to improve the efficiency of use of their available water resource. Six pivots now irrigate 624ha with a further 185ha irrigated by K-line. Further the three recent pivots installed are fitted with variable rate irrigation technology which results in proven environmental outcomes in the use of this water. The Herlihy's have conservatively estimated that \$5,500,000 has been spent to achieve these efficiencies. In addition, in 2005, the Herlihy's invested in a 380,000m<sup>3</sup> storage dam, with a surface area of 8ha, at a cost of a further \$1 million.
- The Weirs have invested approximately \$1,400,000 to date in on farm infrastructure directly associated with irrigation. This includes dams, pivots and redesigning irrigation systems and paddocks.
- The Mulholland's are committed to spend approximately \$500,000 on developing the dam, and a further \$500,000 on pivots and setting up power and pumps to service these pivots. Fencing and reticulation associated with setting up the pivots is expected to be in the range of at least \$50,000.
- Concept Farms estimate that to date they have invested approximately \$750,000 (2009) in 3 pivots, \$100 000 on variable drives and pumps, and \$100,000 on land contouring, fencing and crossings.

### **8.11 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:

- (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.

The Applicant is mostly seeking lower rates of take than historically used, however one take (Take 4) has applied for volumes more than historically used compared to the calculations by Council. The water use for irrigation of pasture has been assessed as efficient, however the annual

volumes they have requested the maximum compared to Council's use of the 90<sup>th</sup>% maximum. The stock water use and domestic use is considered efficient. Efficiency and use of industry best practice is discussed in Section 7.3.

A review of the compliance records confirmed that no enforcement action has been taken against the Applicants. All audits were last completed in 2013, except in the case for the shared take (Take 1) being audited in 2017. No enforcement issues were highlighted. Table 8 below has comments on the compliance history of each Applicant. The exceedance non-compliances were discussed in the s92 response provided by the Applicants dated 3 April.

**Table 8: Compliance history comments for each Applicant.**

<b>Take</b>	<b>Consent number and Applicant</b>	<b>Comments on compliance history</b>
Take 1	<b>Shared take (2000.136; 2000.245; 2000.244):</b>	Low-Risk Non-Compliances have been associated with data logger return due dates.
Take 2	<b>2002.010 (En Hakkore):</b>	Data Review graded Low-Risk Non-Compliant due to exceedance of 7l/s and 25,000l/hour limits
Take 3 and 5	<b>96394 (Herlihy):</b>	Data Review graded Moderate Non-Compliant given the current and historical exceedances of the consented limits.
Take 4	<b>97210 (Hamilton Runs):</b>	Data Review graded Moderate Non-Compliant given the current and historical exceedances of the consented limits.
Take 6	<b>97128 (Concept Farms Ltd):</b>	Data Review graded Moderate Non-Compliant given the current and historical exceedances of the consented limits. Abstractions are taken consistently above 115l/s.
Take 6	<b>2000.498 (Mulholland):</b>	Only Low-Risk Non-Compliances have been associated with data logger return due dates.
Take 7	<b>96254 (Concept Farms Ltd):</b>	Data Review graded Significant Non-Compliant given the current and historical gross exceedances of the consented limits. Enforcement action cannot be taken in this instance however, given that this review is tied to a consent application process.

### **8.12 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 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):<sup>13</sup>

- a. 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.
- b. 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.
- c. 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.
- d. 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.

As noted, the Minister for the Environment commissioned an investigation into the allocation and freshwater management provisions of Otago. Following this, direction was provided for an interim framework to be put in place while a longer-term allocation and freshwater management framework can be established. PPC7 has been established in response to this. As there has been identified to be an ineffective allocation framework currently in place and PPC7 remains in its initial stages, there is an indication of incomplete coverage in the current regional planning document and the RPW does not give effect to the NPSFM 2020 and a new RPS has been notified. I therefore consider it appropriate to consider the relevant matters of Part 2 of the Act.

The taking of water from Pig Burn for the purpose of irrigation, domestic supply and stock water, subject to the recommended conditions of consent and term is consistent with the purpose of the Act, as outlined in Section 5. The granting of the application will help the Applicant and the community meet their social and economic needs, while sustaining the life supporting capacity of the river and its continuously flowing tributaries and avoid or mitigate the more significant adverse effects of the taking of water from the river.

The matters under Section 6 of the Act have been recognised and provided for. The natural character of the Pig Burn will be preserved (section 6(a)). The proposal will not affect any outstanding natural features or landscapes (section 6(b)). There is no presence of the nationally endangered and nationally vulnerable indigenous fish (section 6(c) of the Act). 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 an affected party. 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

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<sup>13</sup> *R J Davidson Family Trust v Marlborough District Council* [2018] NZCA 316.

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 the effect on trout is considered no more than minor (section 7(h)). With the recommended conditions, particularly the requirement to provide water efficiency reporting, residual flow and fish screens I consider the application is consistent with the “other matters” of Section 7 of the Act.

Section 8 requires all persons acting under the Act to take into account the principles of the Treaty of Waitangi. The principles 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.

Overall, the application is considered to be consistent with Part 2 of the Act, given the nature of the activity and the consent conditions recommended to be imposed.

#### **8.12 Section 108 and 108AA of the Act**

Recommended conditions for Water Permits RM20.039.01-.07 are appended to this report. These are recommended in accordance with Sections 108 and 108AA of the Act and include the following:

- Residual flows;
- Minimum flow;
- Fish screens where appropriate;
- Water use efficiency reporting; and
- Review conditions under Sections 128 and 129 of the Act are proposed for the following reasons:
  - adjusting the consented rate or volume should monitoring or future changes in water use indicate that the consented rate or volume is not able to be fully utilised;
  - determining whether the conditions of consent are adequate to deal with any adverse effect on the environment that may arise from the exercise of the consent.

### **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 because:

- a. The adverse effects on natural character and instream values are no more than minor as the various recommended conditions such as residual flows will avoid, remedy or mitigate adverse effects. However, the adverse effects on cultural values are minor.

- b. The proposed activity is consistent with the majority of the objectives and policies of the Regional Plan: Water specifically as the Applicants have historically used less litres per second than what was previously consented as primary allocation, and this rate has been recommended. However, the Applicant is also inconsistent with some of the objectives and policies of the RPW.
- c. Some of the Applicants use efficient irrigation systems and some do not. Those that do not are recommended to have an efficiency upgrade condition imposed. The volumes applied for have been shown to be efficient through Aqualinc calculations.
- d. The application is consistent with the NPS-FM as the proposed take is not causing any further allocation and is reducing any allocation as the recommended and applied instantaneous rate and volumes are less than that currently consented. This is to the extent that I am able to determine given the various steps in the NPS-FM that the Council is still to work through.

## 10. Term of Consent (Section 123)

The Applicant has sought a duration of 35 years for all activities.

I consider that a duration of 14 years (expiring 31 December 2035) is appropriate for RM20.039.01-.07 In reaching this recommendation I have considered the following factors, distilled from case law, which are relevant to the Council's determination of the duration of a resource consent:

- 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 addresses consent duration for consents to take and use water. While it does not recommend actual durations, it sets out the following matters 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 the 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 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.*

*Short duration consents should not be used as an alternative to declining consent, or as a response to poor assessments of environmental effects prepared by consent Applicants.*

The principal reasons for adopting the policy are:

- This policy provides greater certainty on the assessment criteria used when deciding on the duration of the consent to take and use water.
- In the case of the proposed abstractions activities, the purposes are enduring, being irrigation and stock drinking water (criteria (a)).
- There are no minimum flows or aquifer restriction levels that apply to the relevant waterways (criteria (b)).
- Climatic variability is certain to occur but no detailed evidence of its relevance has been supplied. It is likely to create uncertainty in water demand therefore water security is critical to ongoing business operation (criteria (c)).
- Potential adverse effects, such as minimum flows, 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 relatively short term of 15 years which relies on a review condition to manage effects is considered appropriate. (criteria (d)).

- The Applicant has not proposed adaptive management (criteria (e)),
- The Applicants have considerable investment that benefits from the water abstraction activities (criteria f)).
- The irrigation methods employed are consistent with industry best practice and the efficiency of use is acceptable (criteria (g)).

The Kai Tahu ki Otago Natural Resource Management Plan 2005 oppose consents granted for up to 35 years. Therefore, the recommended term of 14 years is consistent with the relevant iwi management plans.

The objective and policies of PPC7 are relevant to consent applications that have been lodged but not determined (i.e. all resource consent applications currently being processed), and all new applications that are lodged in accordance with section 104(1)(b) of the RMA. The objective and policies of PPC7 are directive and have been outlined in Section 6.8.8. As outlined, while I do not consider that full weight should be given to PPC7 due to its current status and the timing of the Application, I consider that the duration sought of 15 years for water permits RM20.039.01-.07 is generally consistent with the provisions of PPC7. This is on the basis that the activity with the recommended consent conditions meets Policy 10A.2.3 which directs that a duration expiring 31 December 2035 may be granted provided 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.

Based on the above, a duration of consent expiring on 31 December 2035 is recommended for RM20.039.01-.07 for the following reasons:

- Ensures consistency with the direction provided through PPC7;
- The rate and volume of water will reflect what has been historically taken and will result in a reduction of 122 L/s to primary allocation;
- The rate and volume of water recommended will only be what is reasonably required and based on efficient use;
- Most of the Applicants water use system is efficient and follows industry good standard, those that are not will have a condition to impose this;
- Adverse effects on the natural character, amenity, recreation, hydrology and instream values within Pig Burn will be no more than minor;
- The Applicants have made significant economic investment into the operation into the takes which has included some replacement of the water conveyance infrastructure and the using industry best irrigation methods.
- Provides the Applicant with long term security of access to surface water resources and assists in minimising costs associated with implementing the consent.

Overall, I consider that the recommended durations strike an appropriate balance between the Applicant's level of investment, the security they require, managing long term adverse effects, the timing of the application and in ensuring consistency with the Council's direction under the notified version of PPC7.

### **10.1 Lapse Period (Section 125)**

Under s125, if a resource consent is not given effect to within five years of the date of the commencement (or any other time as specified) it lapses automatically, unless the council has granted an extension.

An advice note is recommended to inform the Applicant of the provisions under s125.

### **10.2 Cancellation of Consent (Section 126)**

Pursuant to section 126(1) of the RMA, the Consent Authority may cancel this consent by written notice served on the Consent Holder if the consent has been exercised in the past but has not been exercised during the preceding five years, unless expressly provided otherwise by the resource consent.

Policy 6.4.18 in the RPW provides for the council to cancel a resource consent if not exercised in the preceding 2 years. In this case, I consider that alignment with Policy 6.4.18 is not required because the Applicant has been using the resource and s126(1) should apply, with an advice note recommended to inform the Applicant that Council may cancel this consent if it has been exercised in the past but subsequently is not exercised for 5 years.

An advice note is recommended to inform the Applicant of the provisions under s126(2)(b), including their appeal rights.

### **10.3 Review Condition (Section 128)**

The RMA provides for the council to review conditions at any time or times specified for that purpose in the consent where there are any adverse effects that may arise from the exercise of the consent, or in relation to a coastal, water or discharge permit where a regional plan or NES has changed. In addition, the council can review other conditions without having to set out in a condition the timeframes within which it will review them.

A review condition has been recommended on the consent. The reasons for this are:

- In the case of a water take, to vary the quantities, monitoring, operating and reporting requirements, and performance standards in order to take account of information, including the results of previous monitoring and changed environmental knowledge, on:
  - water availability, including alternative water sources;
  - actual and potential water use;
  - stream water flow and level regimes;
  - stream water quality;
  - efficiency of water use; and
  - Instream biota, including fish passage and the functioning of aquatic ecosystems.
- To deal with any adverse effect on the environment which may arise or potentially arise from the exercise of this consent and which it is appropriate to deal with at a later stage.



Alexandra King  
Team Leader Consents – Coastal Otago

**Appendix 1: Recommended Conditions of Consent**

**Appendix 2: Technical review by Dr Richard Allibone, Water Ways Consulting Limited**

**Appendix 3: Technical review by Wynn Williams**