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## Recommending Report

### *Section 42A of the Resource Management Act 1991*

**Date:** 29 March 2021

**To:** Bruce Halligan  
**Acting Consents Manager**

**From:** Rebecca Robertson  
**Consultant Consents Officer**

**IRIS ID:** APP-20181676

**Subject:** *Section 42A Recommending Report – Resource Consent Application considered under Delegated Authority*

## 1. The application and procedural matters

### 1.1 The proposed activities

Applicant: Castlerock Farming Company Limited

Application: 20181676  
Abstraction and use of up to 122,178m<sup>3</sup>/year of groundwater from the Lumsden Aquifer.

Site address or location:	72 Castlerock Road, Lumsden
Legal description:	Lot 2 DP3186, Lot 1 DP 1804, Lot 1 DP 12829, Lot 3 DP 636, Lot 4 DP 636 and Lot 5 DP 636.
Map Reference:	1242000E 4926000N

### Background

The application has undergone a number of changes since it was received by the Council. Therefore, the history of the application has been summarised in the paragraphs following.

The purpose of the proposed groundwater abstraction is to supplement Castlerock Farming Company's existing surface water take (AUTH-301933) from the Oreti River. The proposal would enable the continued take of groundwater for irrigation when the existing surface water take is subject to minimum flow cut-offs. The existing surface water take is for a total of 1,260,000m<sup>3</sup>/year with 14,000m<sup>3</sup>/day being primary allocation. The application details that the Applicant is frequently unable to irrigate during the driest part of the season when irrigation is most needed as a result of the minimum flow cut-off. There is no freshwater storage on site, although it was noted this was proposed as part of the application (AUTH-301933) to take surface water.

The original application sought to abstract up to 122,178m<sup>3</sup>/year, being a maximum of 4,320m<sup>3</sup>/day of groundwater from the Lumsden Aquifer for the purpose of irrigation. The application also sought to enable the construction of up to 12 bores; six of these bores for the purpose of abstraction, and the remaining six bores for piezometers. The proposal seeks to secure the water required from one bore. However, more bores were proposed to enable flexibility in the event the location is unsuccessful or multiple smaller takes are required to mitigate adverse effects. The applicant has also applied for resource consent to undertake aquifer testing.

Through the assessment of the initial application, it was identified (through an assessment of bore logs) that one of the Applicant's existing water takes (AUTH-20171428-02) which was allocated to the Castlerock Groundwater Management Zone is actually drawing from the Lumsden Aquifer. Therefore, there is less remaining discretionary allocation under the pSWLP than originally applied for. That take (AUTH-20171428-02) is for 43,800m<sup>3</sup>/year for dairy shed washdown and stock drinking water. On the 12 of March 2019 the Applicant amended the application to include the existing water take under AUTH-20171428-02 to be part of this APP-20181676. The purpose of the application was also amended to include irrigation, stock water and dairy shed washdown. The Applicant proposes to surrender AUTH-20171428-02 if this resource consent is granted.

On 18 March 2019 it was identified that the remaining discretionary allocation available for the Lumsden Aquifer had been miscalculated and there was only 69,954m<sup>3</sup>/year available. The application was consequently amended to seek a total of 113,754m<sup>3</sup>/year<sup>1</sup> (which includes the 43,800m<sup>3</sup>/year under AUTH-20171428-02 for stock water and dairy shed washdown).

The application was publicly notified 4 April 2019 for the following reasons:

- There is uncertainty regarding the potential adverse effects of the proposal and therefore it cannot be said with certainty adverse effects will not be more than minor.
- The Lumsden Aquifer is overallocated when assessed against the Regional Water Plan for Southland. The Proposed Southland Water and Land Plan (pSWLP) contains an updated allocation regime which

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<sup>1</sup> The original application sought 122,178m<sup>3</sup>/year,

reflects current knowledge of the aquifer. There remains a small volume of available allocation under the PSWLP.

Five submissions were received (and are described in more detail in section 1.4 below). The Applicant worked with submitters to develop draft conditions to satisfy their concerns regarding adverse effects. However, following a review of this information, it was considered by staff working on the application that there remained too much uncertainty regarding the adverse effects of the application, in particular interference effects with nearby bores. Therefore, in December 2019 the Applicant decided to apply for consent to drill the proposed bores and ~~undertaken~~ undertake aquifer testing of those wells to increase certainty over the adverse effects of the application.

The applicant was granted resource consent to drill bores, piezometers and undertake aquifer testing (AUTH-20191827 & AUTH-20191754). Throughout 2020 the Applicant drilled and completed aquifer testing on a number of proposed bores on the property. As a result of these tests, the final scope of the application was confirmed. This is detailed below.

**Water permit**

As described above, the proposal seeks to abstract groundwater from two bores for the purpose of supplementary irrigation, dairy shed wash down and stock drinking water. The proposal seeks up to 113,754m<sup>3</sup>/year of groundwater from the Lumsden Aquifer. The water will be abstracted as follows:

- 113,754m<sup>3</sup>/year;
- Maximum 2,644m<sup>3</sup>/day;
  - At a rate of 18.4L/s from bore CE10/0001;
  - At a rate of 12.2L/s from CE10/0002; and
- Maximum of 120m<sup>3</sup>/day at a rate of 2L/s from E44/0370.

It is proposed the consent will be exercised in conjunction with AUTH-301933. AUTH-301933 authorises the abstraction of up to 1,303,800 cubic metres per year. It is proposed the two consents will be exercised together with a shared maximum water allocation limit of 1,303,800 cubic metres per year. AUTH-301933 is due to expired in 4 April 2025. The applicant seeks this permit (AUTH-20181676) to continue following the renewal of AUTH-301933. This is proposed by including reference to AUTH-301933 or its replacement consent in the conditions of the proposed permit (AUTH-20181676).

<b>Water permit</b>	
Relevant rule(s)	Rule 23 (e) RWP Rule 54 (d) pSWLP
Source of water (bore or watercourse)	Bore - CE10/0001 Bore - CE10/0002 Bore - E44/0370
Groundwater zone/name of watercourse	Lumsden Aquifer
Aquifer type (for groundwater takes)	Confined
Rate of take (L/s)	Maximum combined rate of 30.6L/s

	18.4L/s from CE10/0001; and  12.2L/s from CE10/0002.  2L/s from E44/0370.
Freshwater storage onsite? How much?	No
Daily volume (m <sup>3</sup> /day)	2,644m <sup>3</sup>
Consistent with 120 L/cow/day? (estimate of efficient use for shed and stock water use)	NA – This proposal relates to increases for Irrigation
Yearly volume (m <sup>3</sup> /year)	113,754m <sup>3</sup> /year
Discretionary allocation (m <sup>3</sup> /year)	5,760,000 m <sup>3</sup> /year (pSWLP)  4,003,594m <sup>3</sup> /year (RWP)
Amount currently allocated (m <sup>3</sup> /year and % of discretionary allocation)	5,663,622 m <sup>3</sup> /year  98% (pSWLP)  5,663,622 m <sup>3</sup> /year 141% (RWP)

Plan	Allocation Limit (m <sup>3</sup> /year)	Currently allocated (m <sup>3</sup> /year)	Currently allocated (% of discretionary limit)	Additional water sought	Allocation volumes if granted (m <sup>3</sup> /year)	Allocation volumes if granted (% of discretionary limit)
RWP	4,003,594	5,663,622	141%	69,954	5,733,576	143%
pSWLP	5,760,000	5,663,622	98%	69,954	5,733,576	99.5%

### Intensification

Effects of resource consent applications are assessed against the existing environment and reasonably foreseeable future environment. Consideration should be given to the environment as it is at the time of application as well as the likelihood of change to that environment in the future, based upon the activities that can occur as permitted activities as well as under any resource consents that have been granted (where it is likely they will be given effect to).

It is my opinion resource consent is not required for intensification under Rule 20 or Rule 24 of the pSWLP as a result of the proposal for the following reasons:

- The Applicant already holds resource consent to abstract surface water and irrigate land (AUTH-301933);
- The existing environment is considered to include 234ha of irrigated land, this area is not increasing;
- The Applicant’s existing consent AUTH-301933 provides for the storage of surface water to enable irrigation when low flow cut-offs are in enforce. I consider this to be reasonably foreseeable that the Applicant could store water for the purpose of irrigation under AUTH-301933.

**1.2 Regional Planning framework**

Resource consents for the above activities are required under the Regional Water Plan for Southland and the proposed Southland Water and Land Plan.

An application for resource consent was lodged with Environment Southland in accordance with these requirements.

Activity	Proposed Southland Water and Land Plan 2018	Regional Water Plan for Southland 2010
Take and use of groundwater for dairy washdown, stock water and irrigation	Rule 54(d) – Discretionary Activity	Rule 23 (e) - Non-Complying Activity

Overall, the application is considered to be a **non-complying** activity.

When considering a **non-complying activity**, the Council may only, in accordance with Section 104D, grant a resource consent for the activity if it is satisfied that the adverse effects of the activity are minor or the application is for an activity that will not be contrary to the objectives and policies of the relevant plan or proposed plan. If the application passes the “gateway” tests in Section 104D, under Section 104B the Council may grant or refuse consent for a non-complying activity, and if it grants the application, may impose conditions under Section 108 of the RMA.

**1.3 Further information request**

Further information was requested from the applicant on the 31 January 2019. The requested information included:

- Map references for the proposed bore locations identified on the well location plan;
- Further details regarding the proposed bore locations including proximity to surface water bodies, septic tank outfalls and drilling details;
- Justification for the lower stream conductance rate used in the modelled stream depletion information contained in the application or the provision of an updated assessment using a more conservative stream bed conductance.
- Additional interference assessments for the following bores: E44/0370, E44/0341, E44/0012, E44/0480 and E44/0527 located within the Lumsden Aquifer; and E44/0132, E44/0127, E44/0490 and E44/0126 located within the Castlerock Groundwater Management Zone.
- Assessment of the effects of the proposal on well E44/0300 which accounts for current water permits being fully exercised.

- A review of the Bore Logs for E44/0370 on the applicant’s property resulted in the allocation of this take being transferred to the Lumsden Aquifer. This take is for 43,800m<sup>3</sup> per year. Therefore, the remaining allocation for the Lumsden Aquifer is 73,878m<sup>3</sup> per year. Please advise if you wish to amend the annual volume sought in the application to align with the updated remaining allocation volume.

The above information was provided by the applicant (attached). It was reviewed Michael Killick (Technical Specialist-Soils and Groundwater Quantity)<sup>2</sup>.

**1.4 Notification and Submissions**

The application was publically notified on 4 April 2019. This was for the following reasons:

- There is uncertainty regarding the potential adverse effects of the proposal and therefore it cannot be said with certainty adverse effects will not be more than minor.
- The Lumsden Aquifer is overallocated when assessed against the Regional Water Plan for Southland. The Proposed Southland Water and Land Plan (pSWLP) contains an updated allocation regime which reflects current knowledge of the aquifer. There remains a small volume of available allocation under the PSWLP.

The above decision to publicly notify the application was made under Section 95A(8) of the RMA. This section means that the consent authority considered that the activity will have or is likely to have adverse effects on the environment that are more than minor.

Five submissions were received. The submission from Te Ao Marama Inc. was received two days late (9 May 2019). The applicant advised they were comfortable with the acceptance of the late submission. The submissions are included in the attachments, and are summarised as follows:

Submitter	Position	To be heard at hearing	Trade Competitor
Southland District Council	Neutral	No	No
	<ul style="list-style-type: none"> <li>• The Southland District Council (SDC) have two community supply bores (E44/0408 and E44/0409) which draw from the Lintley aquifer.</li> <li>• Consider it is difficult to fully assess the impact of the proposal on SDC’s bores as the proposed bores have not been drilled. It is expected drawdown effects will be minor however is concerned some adverse effects cannot be ruled out.</li> <li>• Request monitoring of SDC’s bores (E44/0408 and E44/0409) be included as condition of consent, alongside drawdown tests. As SDC’s bore continuously run it may be difficult to interpret any effects therefore monitoring of neighbouring bores should be considered.</li> </ul>		
W. Menlove	Oppose	Yes (withdrew right to speak)	No
	<ul style="list-style-type: none"> <li>• The submitter’s existing bore E44/0256 is experiencing drawdown effects from at least one other user and was severely compromised when SDC tested two production wells at the end of Keown Road. The proposed bores are located closer to E44/0256 than the existing bore affecting E44/0256.</li> <li>• Concerned with: <ul style="list-style-type: none"> <li>○ the modelled interference and drawdown data and consider real time observations are more reliable;</li> <li>○ day to day cumulative drawdown effect of all consented bores pumping at maximum allowable rates;</li> </ul> </li> <li>• Considers the viability, sustainability and level of interference of the proposed development need to be addressed before the groundwater take permit is considered.</li> </ul>		

<sup>2</sup> Mr Killick has since left employment from Environment Southland. The Technical Review of the Application was completed by Abigail Lovett from Earth and Environmental Science LTD.

	<ul style="list-style-type: none"> <li>• Questions why sites, 2, 3 and 5 are being explored, if goal is for more reliable water source.</li> <li>• Questions if alternative methods can be used to increase security of water supply for example water harvesting and storage.</li> </ul>		
Department of Conservation	<b>Oppose</b>	<b>Yes (withdrew right to speak)</b>	<b>No</b>
	<ul style="list-style-type: none"> <li>• Murray Creek and Oreti River have significant indigenous biodiversity values and are a habitat of Taonga species.</li> <li>• Adverse effects of the proposed take are uncertain as drilling and testing has not occurred. Therefore, cumulative adverse effects on long term aquifer storage and the Lumsden aquifers connections to the unconfined and surface water bodies of in particular Murray Creek and Oreti River are uncertain.</li> <li>• The Lumsden Aquifer is nearing full discretionary allocation or is overallocated.</li> <li>• Concerned there is a lack of hydrological information on cumulative groundwater and surface water takes on the Oreti River during prolonged periods of low flows.</li> </ul>		
Southland Fish and Game	<b>Oppose</b>	<b>Yes (withdrew right to speak)</b>	<b>No</b>
	<ul style="list-style-type: none"> <li>• The Oreti River and Murray Creek have significant Fish &amp; Game values.</li> <li>• The Oreti River and its tributaries support a nationally significant brown trout fishery and angling amenity that are recognised under the Water Conservation (Oreti River) Order 2008.</li> <li>• Murray Creek is a recognised brown trout spawning tributary of the main stem of the mid-Oreti River and a medium sized spring feed brown trout fishery, particularly downstream of the Double Road Bridge.</li> <li>• Not opposed to the drilling/construction of groundwater bores and taking of groundwater from the Lumsden aquifer.</li> <li>• Concerned regarding potential for stream depletion. In particular as the effects of moderate or high hydraulic connectivity and associated stream depletion have not been assessed and therefore there is uncertainty regarding: <ul style="list-style-type: none"> <li>○ Adverse effects, including cumulative on surface water flows in Murray Creek and Oreti River; and</li> <li>○ Whether minimum flow cut-offs are required to maintain surface water flows in Murray creek and/or the Oreti River under low flow conditions.</li> </ul> </li> </ul>		
Te Ao Marama Inc (received late)	<b>Oppose</b>	<b>Yes (withdrew right to speak)</b>	<b>No</b>
	<ul style="list-style-type: none"> <li>• Te Tangi a Tauria identifies significant resource management issues regarding water abstractions from the Oreti River and the relationship between surface water and groundwater.</li> <li>• Opposed because of the risk to the environment and Ngāi Tahu values that it poses, and that it lacks enough information to evaluate whether these risks will be more than minor.</li> <li>• Wishes to understand what effect this activity may have on mahinga kai and other Ngāi Tahu values particularly the relationship between groundwater and surface water when there are periods of low flows.</li> <li>• There is a need to avoid the risk of further deterioration to the environment and Ngāi Tahu values and cultural wellbeing.</li> </ul>		

No written approvals were provided for the application.

**1.5 Section 99 pre-hearing meeting**

No prehearing meeting has been held between the Applicant, Council and submitters. However, there have been two notable meetings between myself as the Consultant Consents Officer, Council staff and the Applicant’s consultant. These are as follows:



- Monday 2<sup>nd</sup> December 2019 – Meeting held between myself, Council staff and the Applicants consultant regarding the way forward with the application. Key issues discussed were the uncertainty of potential adverse effects and the ability for draft conditions to manage this, the allocation status of the aquifer and the efficiency of water use. Three pathways to progress were proposed:
  - a) Proceed to a hearing without completed aquifer testing;
  - b) Proceed to a hearing but complete bore construction and aquifer testing first;
  - c) Withdraw the application and relodge following the completion of aquifer testing.
 Following this meeting the applicant decided to split the application and construct bores and complete aquifer testing and proceed to a hearing, option b above.
  
- Tuesday 18<sup>th</sup> August 2020 – Meeting held between myself, Council staff and the Applicant’s consultants regarding the issues identified with the aquifer testing report through the technical review process.
 

Following this meeting and follow-up discussions the Applicant decided to redo the aquifer testing.

**1.5 Changes since notification**

As discussed in the background section above the applicant has amended the application post notification to provide more certainty of the likely adverse effects of the proposal. The proposal as it stands for assessment is:

The abstraction of 113,754m<sup>3</sup>/year of groundwater from the Lumsden Aquifer for the purpose of stock water, dairy wash down and irrigation when the Oreti River is subject to minimum flows. The water will be abstracted as follows:

- 113,754m<sup>3</sup>/year;
- Maximum 2,644m<sup>3</sup>/day;
  - At a rate of 18.4L/s from bore CE10/0001;
  - At a rate of 12.2L/s from CE10/0002; and
- Maximum of 120m<sup>3</sup>/day at a rate of 2L/s from E44/0370.

It is proposed the consent will be exercised in conjunction with AUTH-301933. AUTH-301933 authorises the abstraction of up to 1,303,800 cubic metres per year. It is proposed the two consents will be exercised together with a shared maximum water allocation limit of 1,303,800 cubic metres per year. The applicant seeks this permit (AUTH-20181676) to continue following the review of AUTH-301933. This is proposed by including reference to AUTH-301933 or its replacement consent in the conditions of the proposed permit (AUTH-20181676).

The above changes are considered within the scope of the application. The applicant has decreased the volume of water sought as a result of the Lumsden Aquifer allocation status. Further, the rate has been decreased from 50L/s to 30.6L/s as a result of the yield of the bores. They changes have not increased the scale or significance of the proposal.

Note: All submitters were provided with copies of aquifer testing and the above proposed changes to the application. All submitters have confirmed in writing they did not wish to be heard at a hearing. No submitters have formally withdrawn their written submissions and therefore their submissions are considered in the following sections.

**3. Assessment**

**3.1 Statutory Considerations**

Section 104 of the Act sets out the matters to be considered when assessing an application for a resource consent. Section 104(1) of the Resource Management Act, 1991, states:

- (1) *When considering an application for a resource consent and any submission received, the consent authority must, subject to Part 2, have regard to:*
- (a) *any actual and potential effects on the environment of allowing the activity; and*
  - (b) *any relevant provisions of:*
    - (i) *a national environmental standard;*
    - (ii) *other regulations;*
    - (iii) *a national policy statement;*
    - (v) *a regional or proposed regional policy statement;*
    - (vi) *a plan or proposed plan; and*
  - (c) *any other matter the consent authority considers relevant and reasonably necessary to determine the application.*

Those matters which are relevant for this application are discussed in the following sections as follows:

- description of the receiving environment;
- assessment of the actual and potential effect of the activity on the environment;
- relevant provisions of the Regional Water Plan and the proposed Southland Water and Land Plan;
- relevant provisions of the Southland Regional Policy Statement;
- relevant provisions of the National Policy Statements and National Environmental Standards;
- Part 2 of the RMA.

Sections 108 and 220 provide for consent to be granted subject to conditions and sets out the kind of conditions that may be imposed.

### **3.2 Description of the affected environment**

The description of the environment is based on that provided in the original application, and the further information provided as part of the section 92 request. The following is intended as a summary only.

#### **3.2.1 Physical environment**

The site is located at 72 Castlerock Road, Lumsden (Figure 1). Approximately 234 ha on the property is currently irrigated. The property is used as a dairy farm. The proposal is seeking to take water from the

Lumsden Aquifer and use it for irrigation when the Applicant's surface water take is unable to be used as a result of low flows on the Oreti River.

Environment Southland does not have a record of any contaminated land on site.



**Figure 1: The site (source: Application)**

The Property is located within the Oreti Freshwater Management Unit. The majority of the property falls within the Oxidising Physiographic Zone, there are also some areas of the property which fall within the Gleyed Physiographic Zone.

Environment Southland's Topoclimate data shows the three main soil types on the property are:

- Oreti which has slight structural compaction, very severe nutrient leaching and nil water logging;
- Jacobstown which has severe structural compaction, slight nutrient leaching and severe water logging;
- Makarewa which has moderate structural compaction, slight nutrient leaching and severe waterlogging.

A number of small drains and creeks flow from the west to east towards the Oreti River. These small creeks include Murray Creek and are understood to be groundwater-fed, receiving baseflow from the shallow

groundwater through flow from the Castlerock Terrace. The property is bordered on the east by the Oreti River. The Oreti River and its tributaries are covered by the Water Conservation (Oreti River) Order 2008.

There is a historic area located on the property it includes a stable building and former cookhouse (NZ7366 Heritage List Number). The historic area is not relevant to the groundwater abstraction application. There are no other recorded sites of historical significance on site.

The Oreti River is a Statutory Acknowledgement under the Ngai Tahu Claims Settlement Act.

The property is primarily located within the Castlerock Ground Water Management Zone. The eastern part of the property is located within the Oreti Ground Water Management Zone. The Lumsden Aquifer lies under the Castlerock aquifer.

The proposal seeks to take water from the Lumsden Aquifer. The Lumsden Aquifer is described in the plan as a confined aquifer. Michael Killick (Previous - Technical Specialist-Soils and Groundwater Quantity) commented that the Lumsden Aquifer does not fit the theoretical description of a fully confined aquifer which neither recharges nor discharges naturally, but is a static, finite body of water. 'Confinement' with respect to the Lumsden Aquifer refers more to 'local confinement' for the purposes of resource allocation and assessment of effects.

There are a number of existing users which take water from the Lumsden Aquifer, and as such, the aquifer is reaching full discretionary allocation under the pSWLP. There are 11 groundwater take consents taking water from the Lumsden Aquifer, from 15 wells. One of these takes is the applicant's, the total annual volume is 43,800m<sup>3</sup> (for dairy shed wash down and stock water AUTH-20171428-02). The volume authorised under AUTH-20171428-02 is proposed to be included within this proposal, with the existing consent being surrendered if granted. The Lumsden Aquifer in the pSWLP has a discretionary allocation of 5,760,000m<sup>3</sup> per year, currently 5,663,622m<sup>3</sup> per year has been allocated including 43,800m<sup>3</sup> of the 113,754m<sup>3</sup>/year subject to this application (the volume currently allocated to the Applicant under AUTH-20171428-02). Under the RWP, the Lumsden Aquifer is considered to be overallocated.

Climate information is presented in the application and therefore is not repeated in this report. However, it is important to note the site is located in Northern Southland and experiences less rainfall than many other areas of Southland, being 911mm per year, compared with 1149mm for Invercargill. There is also significant seasonal variation in monthly evapotranspiration, which ranges from approximately 15mm in June to 150mm in December. Figure 2 shows average rainfall and evapotranspiration in an average year in Lumsden.

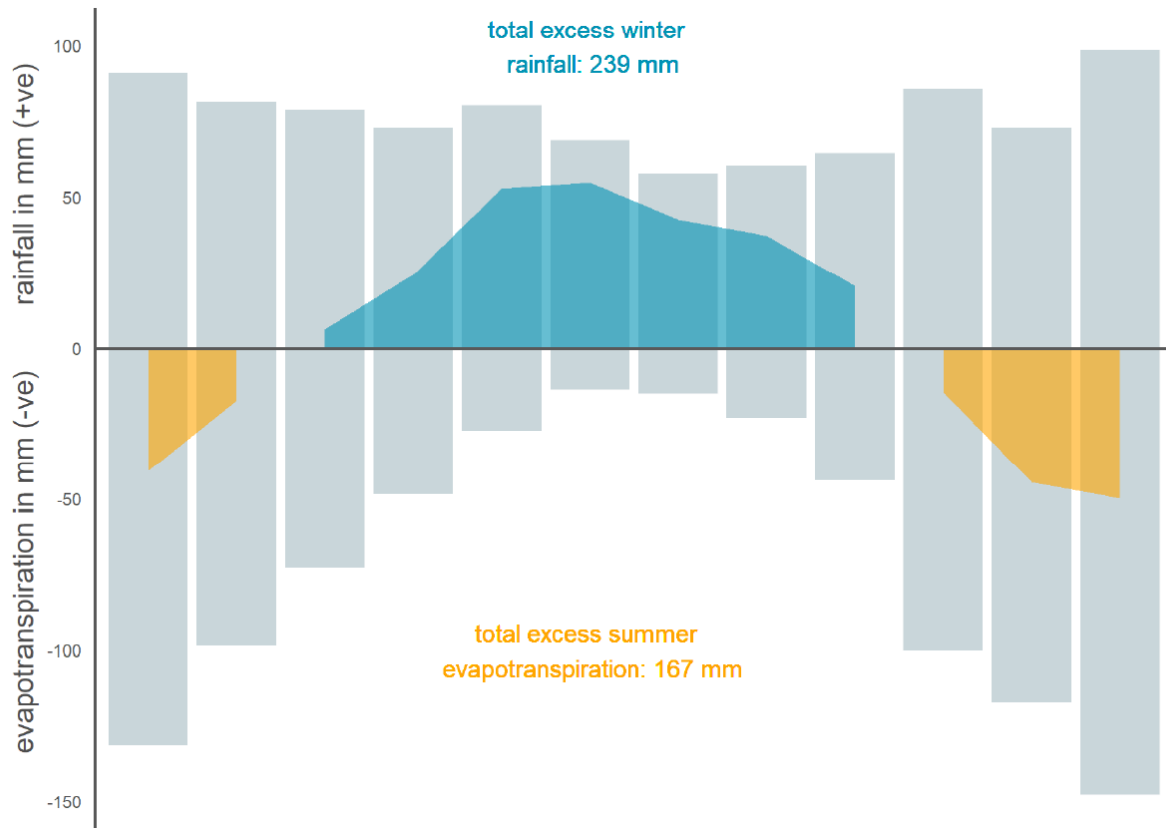


Figure 2 Rainfall in Lumsden versus evapotranspiration in an average year (sourced from the application).

### 3.2.1 Existing consented activities

There are two existing resource consents to take and use water on site. These are:

- AUTH- 20171428-02 – To take and use ground water for the purpose of dairymshed washdown and stock drinking water.
  - The rate of take is up to 2 litres per second, 120 cubic metres per day and 43,8000 cubic metres per year.
- AUTH - 301933 – To take surface water for pasture irrigation.
  - The rate of abstraction as primary allocation is up to 162 litres per second and 14,000 cubic metres per day;
  - The rate of abstraction as supplementary allocation is up to 300 litres per second or 26,000 cubic metres per day.

The Applicant proposes to surrender AUTH – 20171428-02 if the current application is successful.

The Applicant also has a resource consent to discharge farm dairy effluent to land AUTH-20171428-01.

## 3.3 Actual and potential effects

### **Effects to be considered (Section 104(1)(a))**

The Regional Water Plan for Southland and the proposed Southland Water and Land Plan provide direction as to the adverse effects resulting from water abstraction and use in the Southland region. The following adverse effects have been considered:

- Effects on the sustainability of the Lumsden Aquifer;
- Cultural effects;
- Interference effects;
- Stream depletion effects;
- Effects on water quality; and
- Efficient use of water.

**Aquifer sustainability**

The Lumsden Aquifer is a confined aquifer which has primary allocation limits detailed in both the pSWLP and the RWP. The Lumsden Aquifer is nearing fully allocation under the pSWLP and overallocated when viewed under the RWP allocation levels are detailed in Table 1 below. There are 11 groundwater take consents to take water from the Lumsden Aquifer, as well as Environment Southland Monitoring Wells and other domestic takes. The application is for a small increase of total water abstracted from the Lumsden Aquifer being 69,954m<sup>3</sup> a year.

*Table 1 Discretionary limits allocation volumes currently allocated and if the application is granted*

Plan	Allocation Limit (m3/year)	Currently allocated (m3/year)	Currently allocated (% of discretionary limit)	Additional water sought	Allocation volumes if granted (m3/year)	Allocation volumes if granted (% of discretionary limit)
RWP	4,003,594	5,663,622	141%	69,954	5,733,576	143%
pSWLP	5,760,000	5,663,622	98%	69,954	5,733,576	99.5%

Mr Killick (Previous - Technical Specialist-Soils and Groundwater Quantity) reviewed the application and states:

*“Despite assertions in the application that Lumsden aquifer is well understood, there is uncertainty about the source(s) of throughflow in the aquifer and its points of natural discharge, if any. In this respect, Lumsden aquifer does not fit the theoretical description of a fully confined aquifer which neither recharges nor discharges naturally, but is a static, finite body of water. ‘Confinement’ with respect to Lumsden aquifer refers more to ‘local confinement’ for the purposes of resource allocation and assessment of effects. In addition, interaction between Lumsden aquifer and the overlying, unconfined aquifer may occur in places as described in the application and considered appropriately through use of a semi-confined model.*

*In reality if an aquifer ‘recharges’ i.e. potentiometric head is naturally restored which is observed to happen rapidly in Lumsden aquifer following cessation of abstraction, and the capacity of the aquifer is not diminished as the current allocation regime assumes, then consumption of throughflow or recharge water must diminish some alternative sink or path for that water, be it soil or substrate, streams, springs, or other aquifers. The nature and location of such processes is not described in the application, nor has it generally been described in other applications to date.*

*Notwithstanding the above, the limit of allocation for abstraction from Lumsden aquifer as a discretionary activity under the pSWLP is considered to reflect current understanding of the sustainable capacity of the aquifer for resource allocation...*



.... Whatever the remaining allocation of Lumsden aquifer is determined to be, there is no reason in principle why it should not be considered for allocation.”

Mr Killicks comments highlight that whilst the Lumsden Aquifer is not as well understood as the application concludes the allocation volume within the pSWLP is based on current understanding of the sustainability of the capacity of the aquifer. It is noted Mr Killick’s comments also discuss how the aquifer recharges, since Mr Killicks initial assessment the applicant has completed aquifer testing and stream depletion effects are considered to be less than minor from the proposal.

Bore E44/0300 is an Environment Southland monitoring bore within the Lumsden Aquifer. It monitors the long-term aquifer levels. The pSWLP provides an initial trigger level of 202.5m asl for when abstraction should be reduced to 50% and 201.5m asl for when water abstraction is to cease. These limits have been set to ensure the long-term sustainability of the aquifer and to provide for a reliable supply of water for priority water users. These cut-off levels are proposed as resource consent conditions for the irrigation component of the proposed take. The last ten years of monitoring data from Bore E44/0300 shows the aquifer has not come within 2 metres of the cut-off levels described in the pSWLP.

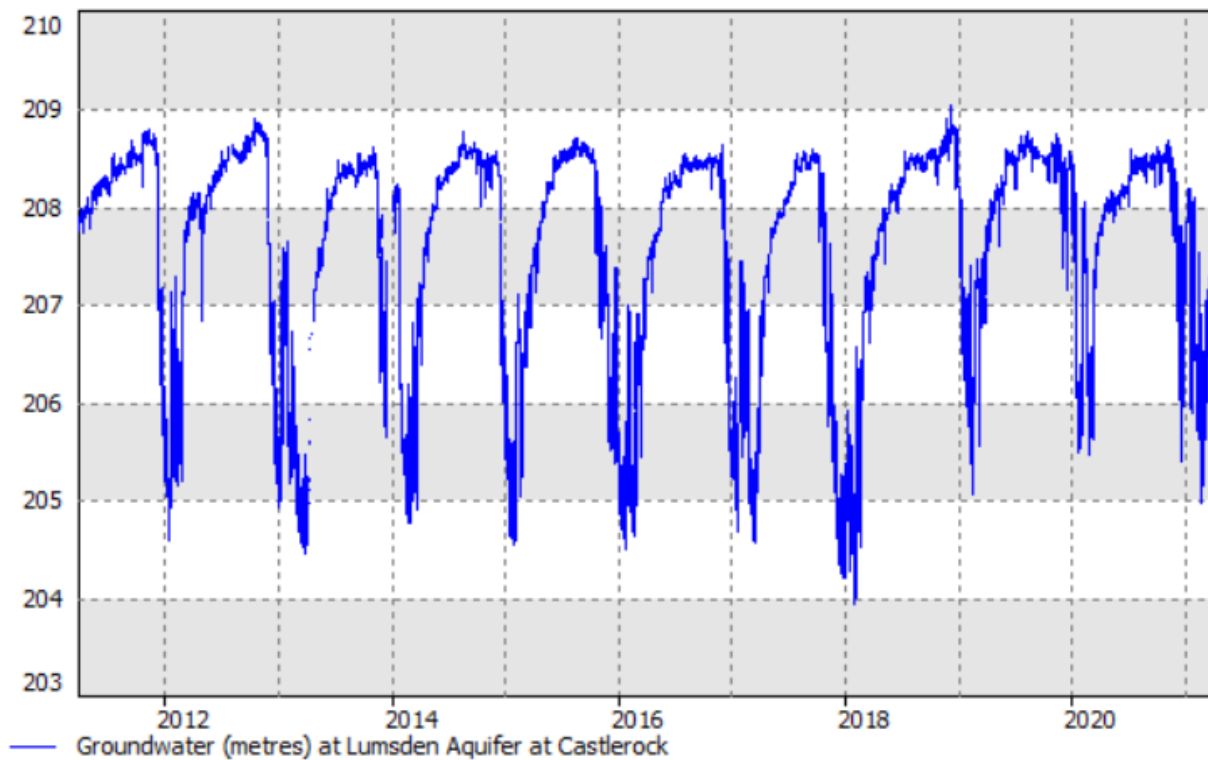


Figure 3 Water levels in the Lumsden Aquifer over the last ten years

There are some challenges with the implementation of this consent in conjunction with AUTH-301933 given the two consents will have a maximum combined annual total volume that can be abstracted. These challenges are primarily related to compliance and reporting processes. Firstly, there is a need to ensure ensuring the cumulative annual volume of water is not exceeded across both consents. This is to ensure irrigation rates remaining consistent with what is currently authorised and therefore there is no increase in intensity of the farming system. Secondly, as the purpose of the consent is two-fold (dairy purposes as well as irrigation) the consent holder will need to carefully manage abstraction from the Lumsden Aquifer to ensure annual volumes are not exceeded. Additional monitoring requirements over standard conditions

have been proposed to ensure the consent holder stays within their allocated annual limits. It is proposed that the applicant must notify the Consent Authority when abstraction commences for irrigation purposes. This will ensure the consent authority can cross reference water use with when minimum flow cut-offs are in place. Further, the draft conditions require the consent holder to provide a written statement by July each year detailing the cumulative abstraction volumes across both consents. Note the draft conditions also require the applicant to install telemetry monitoring on each irrigation take so this data will also be available for the Council to monitor water use. This information will also assist in the long-term monitoring of the consent and any adverse effects being experienced including on aquifer sustainability.

Overall, it is considered the proposal will likely not result in more than minor adverse effects on the sustainability of the aquifer.

### ***Cultural effects***

Groundwater abstractions have the potential to adversely affect cultural values for example through the over allocation of water or as a result of stream depletion effects which can both affect the health and well-being of waterbodies. The Oreti River is a Statutory Acknowledgement area under the Ngāi Tahu Claims Settlement Act.

Te Ao Marama and Te Rūnanga o Ngāi Tahu were both notified of the application. Te Ao Marama submitted on the application in opposition. They were concerned regarding the relationship between the Lumsden Aquifer and the Oreti River and the potential for adverse effects on mahinga kai and other Ngāi Tahu values. Since the submissions were lodged the applicant has completed aquifer testing. This aquifer testing has modelled stream depletion effects and interference effects. Based upon the aquifer testing, overall, stream depletion effects are considered to be less than minor. Proposed resource consent conditions will include a minimum water level cut-off to ensure water abstraction from the Lumsden Aquifer does not adversely affect the sustainability of the aquifer. Te Ao Marama have withdrawn their right to be heard, however they have not withdrawn their written submission.

Overall, it is considered the adverse effect on cultural values should be no more than minor subject to suitable conditions being imposed which were the basis for Te Ao Marama withdrawing their right to be heard.

### ***Interference effects***

As mentioned above there are 11 groundwater take consents to take water from the Lumsden Aquifer. There are also Environment Southland Monitoring Wells and other domestic takes. Interference effects are already being experienced by users of the Lumsden Aquifer, as a result of the cumulative drawdown of all takes within the Aquifer.

The Applicant has undertaken aquifer testing on two occasions. The first aquifer testing resulted in unreliable data. In December 2020, a second aquifer test produced more reliable data. This data was used to model interference effects of the proposal. The cumulative effects of existing water abstractions from the Lumsden Aquifer have been taken into account in the Applicants modelling. The results of this modelling are shown in Table 2.



Table 2 Provides an overview of interference effects on neighbouring irrigation and monitoring bores as a result of the proposal. Remaining available drawdown is based on 'acceptable drawdown levels described in the pSWLP Appendix L .3. Taken from information presented in the Application and subsequent aquifer testing results.

Well	Purpose	Potentiometric head (m)	Acceptable drawdown	Existing drawdown	Basis for ex. drawdown estimate	Current remaining available drawdown (m)	Drawdown from proposal	Remaining available drawdown (m) following proposal
E44/0300	Monitoring	28.5	5.7	4.5	ES level data	1.2	0.12	1.08
E44/0256	Irrigation	22.9	11.5	4.1	Calculated	7.4	0.52	6.88
E44/0263	Irrigation	44.7	22.4	4.4	Calculated	18.0		
E44/0264	Irrigation		22.4	3.9	Calculated	18.5		
E44/0339	Irrigation	12.5	6.3	4.7	Calculated	1.6	0.26	1.34
E44/0623	Irrigation	10.8	5.4	3.5	Calculated	1.9	0.72	1.18

Note: The interference effects detailed in this table are expected to be slightly conservative as they were based on the original application volume of annual volume of 122,178m<sup>3</sup>/year rather than the 113,745m<sup>3</sup>/year which is now subject to application. This decrease is as a result of a calculation error in the remaining available discretionary allocation volume of the Lumsden Aquifer.

The modelling shows that for those bores assessed drawdown effects from the proposal are expected to be within the level of acceptability defined in Appendix L.3 of the pSWLP. Ms Lovett<sup>3</sup>, who took over the technical review of the application from Mr Killick, has technically reviewed the aquifer testing reports and modelling provided by the Applicant. Ms Lovett has reached the conclusion based on the information presented in the entirety of the consent application, well interference effects on E44/0256, E44/0623, E44/0012 are expected to be within the range of acceptable interference effects. Therefore, based upon this technical information, the interference effects on those bores detailed in Table 2 above are expected to be no more than minor.

Bore E44/0256 is Mr Menlove’s bore who has lodged a submission in opposition to the application. In further correspondence with Mr Menlove, he has raised concerns regarding the aquifer testing, specifically that aquifer testing methodology did not include pumping of both proposed bores at once. The applicant has provided a response to these concerns dated 3<sup>rd</sup> of March 2021 (in Appendix B). In summary, the Applicant notes it is not good practice to pump test to bores simultaneously as they can interfere with each other, it is unreasonable to expect pump testing to be carried out across the full season of the proposed take, it is unpractical and expensive for bores to be pumped simultaneously, superposition means that drawdown measured and/or calculated of two pumping wells can be summed together to give an accurate estimate of interference effects, drawdown was monitored at Mr Menlove’s bore during the aquifer testing albeit with some challenges the results reflected that of the calculations above. I understand Mr Menlove’s concerns regarding the application particularly given his bore was affected by a previous proposal to take water from the Lumsden Aquifer. However, Appendix L.1 Aquifer test requirements of the pSWLP details the requirements for aquifer tests for resource consent applications to take groundwater. The Applicant has satisfied those requirements. Further, Appendix L.3 of the pSWLP details those interference effects that are deemed to be ‘acceptable’. The result of the aquifer testing and subsequent modelling shows the

<sup>3</sup> Ms Lovett has a BSc (Hons) and MSc from Otago University. Ms Lovett

interference effects on all bores detailed in Table 2 to be acceptable as detailed above. This information has been reviewed by Ms Lovett. Her technical review report is attached.

Bore E44/0300 is an Environment Southland monitoring bore. This bore is used to monitor the long-term aquifer levels. The bore is also used to monitor water levels to determine when water abstraction from the Lumsden Aquifer is to be reduced or stopped, if water levels are too low. The pSWLP provides an initial trigger level of 202.5m asl for when abstraction should be reduced to 50% and 201.5m asl for when water abstraction is to cease. As detailed above this proposal is expected to have 0.12m of drawdown on bore E44/0300. Mr Kees Environment Southland's Senior Scientist – Water Resources has reviewed the information relating to Environment Southland's monitoring bores. He has advised that both E44/0244 (Ellis Road monitoring bore) and E44/0300 (Castlerock monitoring bore) will be affected by the proposal. However, Mr Kees concludes it is not considered likely that the effects of this pumping will be any more than minor. Further, it has been considered whether this consent application should have a more stringent cut-off trigger level than the standard cut-off (discussed above). Mr Kees has advised E44/0300 has not come within 2 metres of the trigger levels in the last 2 years so adding an additional 0.12m to the cut-off will not add value to the management of the consent.

There are also some smaller takes within proximity of the proposed take which need to be considered. The Applicant provided further information on bores E44/0341, E44/0012, E44/0480 and E44/0527. These bores are all located within the Lumsden Aquifer and have the potential to be adversely affected by the proposal. The section 92 response from the Applicant modelled drawdown on these bores, in a conservative manner. Meaning they were modelled as all water being drawn from the nearest bore and at a rate of 50L/s which is bigger than the proposal now being 30.6L/s. The remaining available drawdown for wells E44/0341, E44/0012, E44/0480 and E44/0527 was not calculated specifically. However, the potential adverse effect on these wells was discussed in the section 92 further information response from the applicant see figure 4. The applicant noted they are likely to have similar geology and existing drawdown to the wells (primarily irrigation wells) already considered, and therefore similar remaining available drawdown as those bores already considered. Mr Killick Environment Southland's Technical Specialist – Groundwater Quantity and Soils who reviewed the Applicant's section 92 further information response in March 2019 considered it was likely a take of the size proposed from the Lumsden aquifer at the approximate locations will not cause unacceptable interference effects with existing bores. This information has not been updated since the further information response, however I note the results of aquifer testing are relatively similar to that which the initial modelling and therefore it is not expected these conclusions would differ.

Well	Purpose	Aquifer	Depth, m	Distance (nearest proposed well), m	Modelled drawdown from proposed take, m	Comments
E44/0341	Domestic + stock supply	Lumsden	30	1,600 (Bore 2)	0.19	Near E44/0339
E44/0012	Domestic + stock supply	Lumsden	30	1,050 (Bore 2)	0.38	Between E44/0256 and E44/0339
E44/0480	Irrigation	Lumsden	35.5	1,150 (E44/0370)	0.34	Near E44/0623
E44/0527	Dairy use	Lumsden	24.7	1,050 (Bore 6)	0.38	South of mapped extent of Lumsden Aquifer; no other nearby Lumsden aquifer extraction consents.
E44/0132	Domestic supply	Castlerock	Unknown	1,350 (Bore 7)	0.17	Initial water level unknown, but probably ~ 2 mbgl based on nearest wells (E44/0131 and E44/0477)
E44/0127	Domestic supply	Castlerock	6	1,000 (Bore 2)	0.24	Initial water level 0.96 mbgl.
E44/0490	Domestic supply	Castlerock	7	700 (Bore 3)	0.32	Initial water level unknown, may be approx. 2 mbgl based on nearest relevant wells (E44/0494 and E44/0646, although these are ~1,2 km away)
E44/0126	Domestic supply, dairy use	Castlerock	20	1,100 (Bore 6)	0.23	Initial water level 11.3 mbgl

*Note: distance measured from closest proposed bore, and rounded to nearest 50 m.*

Figure 4 Modelled interference effects on non-irrigation bores near the proposed takes

Southland District Council in their submission have raised concerns regarding the proposed take and the potential for two of their existing bores in the Lintley Aquifer (E44/0408 and E44/0409). Mr Killick Environment Southland's Technical Specialist – Groundwater Quantity and Soils who responded to concerns raised in submissions advised that the Lumsden and Lintley aquifers are considered hydrologically separated meaning pumping in one aquifer cannot affect takes from the other. However, Mr Killick notes that the separation of the aquifers is not conclusive and highlights that the closest Southland District

Council bore E44/0408 is modelled to have less than 1cm of drawdown. Therefore, interference effects with Southland District bores would likely be insignificant, if a connection between the aquifers exists. It is considered adverse effects on Southland District Council’s bores will likely be less than minor.

I note that the adverse effects of this proposal have all been modelled, therefore there is a risk that the actual effects of the proposal may vary to that of the model. I appreciate this is a concern of Mr Menlove’s and the Southland District Council. Section 128 of the Resource Management Act provides an avenue for a resource consent to be reviewed once granted for a number of matters including adverse effects of the proposal. Therefore, if the interference effects differ significantly to that detailed in the Application and subsequent aquifer testing reports there is an avenue to investigate and change conditions to ensure adverse effects are appropriately managed. Further, as discussed above in the aquifer sustainability section additional monitoring conditions have been proposed for this consent including notification to the consent authority when pumping commences for irrigation. These additional monitoring requirements will assist in the investigation should any unexpected adverse effects arise.

Overall, whilst it is noted there will be interference effects with surrounding bores these are expected to be within the level of acceptability defined in Appendix L.3 of the pSWLP. Therefore, it is my opinion based on the technical assessments completed that interreference effects associated within the proposal will be no more than minor.

**Stream depletion effects**

It is noted the submissions of the Director-General of Conservation and Southland Fish and Game were concerned regarding stream depletion.

As a result of finalisation of bore locations and aquifer testing there is agreement between technical experts Ms Lovett and Mr Muller the applicant’s consultant that stream depletion effects will be less than minor. Therefore, they are not discussed further.

**Efficient use of water**

The Applicant is proposing to use the groundwater as a ‘back-up’ to when they cannot take surface water from the Oreti River due to low flows. Table 3 below shows the days over the last 8 years when low flow cut-offs have been enforced on the Oreti River meaning the Applicant has been unable to draw water or part of their allocation of water from the Oreti River to continue to irrigate their property.

*Table 3 Number of days minimum flows have been enforce on the Oreti River over a period of eight years. Sourced from information contained within the application.*

Year	Number of days minimum flows
2017-18	62
2016-17	60
2015-16	22
2014-15	21
2013-14	32
2012-13	61
2011-12	23
2010-11	15

The application seeks 113,745m<sup>3</sup> per year for irrigation, stockwater and dairy washdown. Therefore, not all of this water will be used for irrigation with 43,800m<sup>3</sup> per year for stock water and dairy washdown meaning only 69,945m<sup>3</sup> per year is available for irrigation which if all the maximum daily volume is used for irrigation it will provide approximately 16 days of water for irrigation. Sixteen days is less than the number of days minimum flows have been enforced on the Oreti River for all but one of the last eight years. Further, climate data shows there is regularly more evapotranspiration than there is rainfall at the site particularly from October through to February each year.

The Applicant has provided further discussion regarding the efficiency of water use of the proposal. They note that annual allocations assigned to water permits are generally based on reasonable upper limits of the estimated annual irrigation demand for the land irrigated and that most permit holders do not fully use their allocation except in unusually dry years. The applicant highlights that this application is to be used when minimum flows are in force on the Oreti River and this is generally when irrigation will be needed most. The applicant expects approximately 80% of the annual allocation would be expected to be used in an ‘average’ year. I agree with the applicant’s comments and therefore consider the proposal will result in an efficient use of water. Monitoring and reporting conditions will monitor water use and if for any reason water is not being utilised efficiently a review of the volume can occur as a result of a section 128 review condition.

### **Water quality**

Irrigation of farm land can result in intensification of farming operations and consequently result in deterioration of both groundwater and surface water quality.

The nearest river quality site for the property is located on the Oreti River at the Lumsden Bridge. Whilst this site is not downstream of the property it provides a good indication for the water quality on the site. The LAWA website shows:

- Ecoli – state best 50% of all sites, B NOF Band and the trend is showing a likely improvement;
- Clarity – state best 25% of all sites, trend is indeterminate;
- Turbidity – state best 25% of all sites and the trend is likely showing improvement;
- Total Nitrogen – state worst 50% of all sites and trend is not assessed;
- Total oxidised nitrogen - state worst 50% of all sites and trend is not assessed;
- Ammoniacal nitrogen – state best 25% of all sites, state A NOF band and trend not assessed;
- Dissolved reactive phosphorus – state best 25% of all sites, state A NOF band and trend not assessed;
- and
- Total Phosphorus – state best 25% and trend not assessed.

The estimated total oxidised nitrogen concentration for the area is 5.6mg/L. In Southland TON and nitrate-nitrogen (NO<sub>3</sub>- N) are generally equivalent and comparable because NO<sub>3</sub>-N makes up the majority of TON in most groundwaters. The New Zealand Drinking Water Standards (NZDWS, 2008) specify a limit of 11.3 mg L<sup>-1</sup> NO<sub>3</sub>-N for drinking water to protect human health.

As discussed above it is my opinion the existing environment includes the irrigation of 234ha of land as this is currently in place and authorised under Water Permit 301933. Water permit 301933 requires the monitoring of groundwater and surface water quality, these conditions would also apply to this resource consent. It is not considered this proposal will result in further degradation of ground or surface water quality.

### **Effects Conclusion**

Overall, it is considered the effects of the proposal will be no more than minor. The latest scientific knowledge of the Lumsden Aquifer has resulted in an increase in the discretionary allocation available under the pSWLP. Further, the pSWLP contains minimum water level cut-offs outlined for water takes from the Lumsden Aquifer to ensure its sustainability these will be included within resource consent conditions. Therefore, it is considered the proposal will not have an adverse effect of the sustainability of the aquifer. Whilst, aquifer testing has shown there will be interference effects from the proposal, those effects are within the level of

acceptability detailed in Appendix L.3 of the pSWLP. Therefore, based on the information provided within the application interference effects should be no more than minor. Irrigation of the property is an existing consented activity as such it is not considered the proposal will result in a degradation of water quality.

### **3.4 Relevant provisions of the relevant regional plan objectives, policies and rules (Section 104(1)(b)(v))**

The objectives and policies of the Regional Water Plan and the proposed Southland Water and Land Plan are both relevant to this application.

The objectives and policies of the proposed Southland Water and Land Plan have been given more weight in the following assessment for the following reasons:

- The pSWLP is partly operative, the Environment Court has recently released its decision on the objectives of the pSWLP;
- The pSWLP has been developed using the most up-to-date scientific knowledge on Lumsden Aquifer; and
- The applicant has provided a summary (page 13 Table 2 of the application) of those appeals on policies of relevance to this application. It is not considered those appeals will fundamentally change the direction of policies of relevance to this application.

#### **Regional Water Plan**

- Objective 5 – Sufficient water availability
- Objective 7 – Efficient water use
- Objective 8 - Drinking water Standard
- Objective 9 – Sustainable abstraction - To ensure that the total volume and rate of groundwater abstraction is sustainable.
- Policy B7 of the NPSFM 2014
- Policy 14A - Determining the term of a water permit
- Policy 21 – Reasonable use of water
- Policy 22 – Water measuring devices
- Policy 23 – Review of water permits
- Policy 24 – Priority takes
- Policy 28 – To manage groundwater abstraction
- Policy 29 – Stream depletion effects
- Policy 30 – Groundwater abstraction
- Policy 31 – Interference effects

#### **Comment**

The above policies contain similar themes which are focused on achieving the objectives of the RWP. These themes are: the avoidance of significant effects on long term aquifer storage volumes, avoidance of significant adverse effects on existing users, avoidance of adverse effects on water flows and aquatic ecosystems and habitats and ensuring water use is reasonable.

#### *Adverse effects on long-term aquifer storage volumes (Policy B7, Policy 22, Policy 23, Policy 28, Policy 30)*

These policies seek to maintain the life supporting capacity of the Lumsden Aquifer, including avoidance of adverse effects on the long-term aquifer storage volumes. Under Policy 30 the primary allocation of the Lumsden Aquifer is considered to be overallocated (it is currently allocated at 141% of the discretionary allocation detailed within the plan). Therefore, in my opinion any further allocation of water from the

Lumsden Aquifer would be contrary to Policy 28 and 30 of the RWP. Policy B7 seeks to maintain life supporting capacity of the aquifer, whilst it is acknowledged under the RWP the aquifer is considered to be overallocated, the latest scientific knowledge has resulted in an increase in the discretionary limit in the pSWLP (which is partially operative) therefore it is considered the proposal will not adversely affect the life supporting capacity of the aquifer.

Policy 22 seeks the use of water metering devices because the abstraction rate is a combined rate of 30.6L/s meaning a water meter device is required. Monitoring of water use is particularly important for this consent given the combined annual volume with AUTH-301933 and the allocation status of the aquifer. Policy 23 requires a review clause to be included in new resource consent applications to deal with any adverse effects on the environment arising from the exercising of that resource consent. This is a standard condition, and it is particularly important in this instance given the allocation status of the aquifer and existing interference effects being experienced in the aquifer.

*Adverse effects on existing users (Policy 31, Policy 28, Policy 24)*

These policies seek to manage adverse effects on existing water users. Policy 24 provides priority to a range of users; the application is for both stock drinking and animal welfare as well as irrigation. A minimum water level cut-off for water abstraction for irrigation will ensure those priority users have sufficient water to meet their needs. Aquifer testing has shown interference effects associated with the proposal are within the acceptable level detailed in Policy 31, therefore it is considered the proposal is consistent with this policy. A review clause consistent with section 128 of the RMA will enable the Consent Authority to review the resource consent to determine if the conditions of this consent are adequate to deal with any adverse effect on the environment. It has been modelled that the proposal will have interference effects with Environment Southland’s long term monitoring bores E44/0244 (Ellis Road monitoring bore) and E44/0300 (Castlerock monitoring bore). However, technical advice has advised this interference is unlikely to be significant. Overall, it is considered the proposal is not contrary to these policies.

*Adverse effects on water flows and aquatic ecosystems and habitats (Policy 29, Policy 28)*

The proposal is unlikely to result in stream depletion effects. The proposal is considered to be consistent with Policy 29 and 28 as they relate to surface waterbodies and the ecosystems they support.

*Policy 21 – Reasonable use of water*

The proposal is to be used for stock drinking water, dairy shed wash down and for ‘back-up’ irrigation. In terms of the use of water as a back-up the applicant has demonstrated over the last 8 years the number of times, they have been unable to irrigate as their surface water consent (AUTH-301933) has been subject to minimum flow cut-offs on the Oreti River. The resource consent will contain monitoring requirements and also a review clause which will enable review of the consent if the water is not being fully utilised into the future. However, based on information presented in the application it is considered the proposal, subject to conditions, is consistent with Policy 21.

**Proposed Southland Water and Land Plan**

The pSWLP is partly operative with Environment Court decisions being released on the objectives of the plan. The pSWLP contains an interpretation statement which states:



*All persons exercising functions and powers under this Plan and all persons who use, develop or protect resources to which this Plan applies shall recognise that:*

- (i) Objectives 1 and 2 are fundamental to this plan, providing an overarching statement on the management of water and land, and all objectives are to be read together and considered in that context; and*
- (ii) The plan embodies ki uta ki tai and upholds Te Mana o Te Wai and they are at the forefront of all discussions and decisions about water and land.*

Therefore, the assessment of the following objectives and policies has been undertaken through this lens.

*Objective 1 - Land and water and associated ecosystems are sustainably managed as integrated natural resources, recognising the connectivity between surface water and groundwater, and between freshwater, land and the coast.*

*Objective 2 - The mauri of water provides for te hauora o te taiao (health and mauri of the environment), te hauora o te wai (health and mauri of the waterbody) and te hauora o te tangata (health and mauri of the people).*

This proposal has recognised the integrated nature of water resources within the Southland region. The aquifer testing results have been used to determine the potential for stream depletion effects arising from the abstraction of ground water at the two bore locations. Both Ms Lovett and Mr Muller have agreed stream depletion effects will likely be insignificant. Further, the Lumsden Aquifer has a discretionary allocation limit within the pSWLP, and this application will not result in this discretionary allocation being exceeded. Further, interference effects have been calculated and it is unlikely the proposal will result in an exceedance of the acceptable level of interference with existing bores, meaning existing users will continue to be able to draw water from their existing bores. Therefore, it is considered the proposal provides for te hauora o te taiao, te hauora o te wai and te haora o te tangata.

*Objective 3 Water and land are recognised as enablers of the economic, social and cultural wellbeing of the region.*

*Objective 4 Tangata whenua values and interests are identified and reflected in the management of freshwater and associated ecosystems.*

*Objective 5 Ngāi Tahu have access to and sustainable customary use of, both commercial and non-commercial, mahinga kai resources, nohoanga, mātaītai and taiāpure.*

*Objective 9/9A10*

*The quantity of water in surface water bodies is managed so that:*

- (a) the life-supporting capacity and aquatic ecosystem health, the values of outstanding natural features and landscapes, the natural character and the historic heritage values of waterbodies and their margins are safeguarded.*
- (b) there is integration with the freshwater quality objectives (including the safeguarding of human health for recreation); and*
- (c) provided that (a) and (b) are met, surface water is sustainably managed in accordance with Appendix K to support the reasonable needs of people and communities to provide for their economic, social and cultural wellbeing.*

*Objective 11 The amount of water abstracted is shown to be reasonable for its intended use and water is allocated and used efficiently.*



*Objective 12 Groundwater quantity is sustainably managed, including safeguarding the life-supporting capacity, ecosystem processes and indigenous species of surface water bodies where their flow is, at least in part, derived from groundwater.*

*Objective 18 All persons implement environmental practices that optimise efficient resource use, safeguard the life supporting capacity of the region’s land and soils, and maintain or improve the quality and quantity of the region’s water resources.*

*Policy 1 – Enable papatipu rūnanga to participate*

*Policy 2 – Take into account iwi management plans*

*Policy 3 – To manage activities that adversely affect Taonga species identified in Appendix M.*

*Policy B7 of the National Policy Statement for Freshwater Management 2014 (as amended in 2017)*

*Policy 20 – Management of water resources*

*Policy 21 – Allocation of water*

*Policy 22 – Management of the effects of groundwater and surface water use*

*Policy 23 – Stream depletion effects*

*Policy 25 – Priority takes*

Overall, I consider the proposal is consistent with the relevant objectives and policies of the pSWLP (partially operative version). This is for the following reasons:

Both Ngai Tahu and Te Ao Marama have been forwarded a copy of the application. Te Ao Marama submitted on the application however their request to be heard was later withdrawn. The submission of Te Ao Marama has been considered. Adverse effects on cultural values and consistency with the iwi management plan are discussed elsewhere in this report. It is considered the proposal is not inconsistent with policy 1 and 2 of the pSWLP.

Policy B7 requires consideration of the extent to which the proposal would adverse effect safeguarding the life supporting capacity of freshwater and any associated ecosystems, further it requires consideration to the feasibility and dependability of adverse effects being avoided. As discussed in the effects section of this document, aquifer testing as shown stream depletion effects will be insignificant as a result of the proposal. Further, there is discretionary allocation available in the Lumsden Aquifer under the pSWLP, therefore it is considered the proposed annual abstraction volume will not affect the life supporting capacity of the aquifer including long-term aquifer storage volumes.

Policy 20 requires the avoidance, remediation or mitigation of adverse effects on long-term aquifer storage volumes, the reliability of supply for existing users, surface water flows and water quality. As discussed in the effects section of this report the pSWLP sets a new discretionary allocation limit for the Lumsden Aquifer which is based on the latest scientific knowledge of the Lumsden Aquifer. This proposal is within the new discretionary allocation limit and therefore will not result in an over allocation of the Lumsden Aquifer when viewed through the pSWLP. Aquifer testing has been completed which models interference effects on existing users to be within the ‘acceptable’ limits detailed in Appendix L.3 of the pSWLP so whilst there will be an effect on existing users it is not expected to impact on the reliable supply of their water. It should be noted the stock water and dairy washdown component of this application is an existing use. Resource consent conditions will monitor and record water use so this can be monitored in the long-term. There is agreement between technical experts that stream depletion effects are insignificant and therefore the proposal is unlikely to adversely affect surface waterbodies their ecosystems and their natural character. Irrigation on the property is an existing use it is not considered this proposal will result in an intensification of land-use (as discussed above in section 1.2). Therefore, water quality is not anticipated to deteriorate as a result of the proposal. The proposal is considered to be an efficient use of water, as it is likely it will be utilised each year. Long-term water use monitoring and reporting will be a condition of consent to ensure the proposal is using water efficiently.

Policy 21 sets the framework for the primary and secondary allocation limits in ground and surface waterbodies in the Southland Region. The primary allocation limit for the Lumsden Aquifer and allocation status is detailed in Table 4. The proposal would take the discretionary allocation level to 99.5%. The proposal is consistent with Policy 21.

Table 4 PSWLP allocation limit and allocation status for the Lumsden Aquifer

Plan	Allocation Limit (m3/year)	Currently allocated (m3/year)	Currently allocated (% of discretionary limit)	Additional water sought	Allocation volumes if granted (m3/year)	Allocation volumes if granted (% of discretionary limit)
pSWLP	5,760,000	5,663,622	98%	69,954	5,733,576	99.5%

Policy 22 provides management direction on the management of the effects associated with ground water abstractions. It requires interference effects to be acceptable in accordance with L.3 of the pSWLP as discussed in the effects section of this report. Aquifer testing has shown adverse effects are within acceptable levels. Further, stream depletion effects associated with the proposal are expected to be insignificant therefore the mauri of surface water bodies, mahinga kai, taonga species or the habitat of trout and salmon are not expected to be adversely affected. Overall, it is considered the proposal is not contrary to this policy.

Policy 23 the proposal is not expected to result in more than minor effects on stream depletion therefore the proposal is not contrary to this policy.

Policy 25 gives priority to certain water users over others for example domestic needs and stock water are considered a priority. The proposal includes the provision of stock water and dairy shed wash down (this is an existing take), they are considered priority uses of water. The irrigation component of the application is not considered a priority use and therefore a minimum water level cut-off will be applied to this use of water. This will ensure water is available for priority water uses in the first instance. Subject to conditions the proposal is considered consistent with this policy.

Overall, I generally agree with the Applicant’s assessment and consider that the proposal is not contrary to the objectives and policies of the pSWLP (partially operative version).

**3.5 Relevant provisions of the Southland Regional Policy Statement (Section 104(1)(b)(v))**

***Regional Policy Statement (Operative)***

The following objectives and policies in the Regional Policy Statement are of particular relevance to this application:

- *Objective WQUAN.1 – Sustainably managing the region’s water resources*
- *Objective WQUAN.2 – The efficient allocation and use of water*
- *Policy WQUAN.1 – Instream values*
- *Policy WQUAN.2 – Overallocation*
- *Policy WQUAN.3 – Regional plans*
- *Policy WQUAN.4 – Demand management*
- *Policy WQUAN.6 – Efficient use of water*
- *Policy WQUAN.7 – Social, economic and cultural benefits*
- *Policy WQUAN.8 – Integrated management*

Policy WQUAN.1 seeks to maintain instream values of surface water that derive from flows and levels of water. As discussed in the effects section, stream depletion effects resulting from the proposal are considered to be insignificant and therefore it is considered the proposal is not contrary to Policy WQUAN.1.

Policy WQUAN.2 seeks the avoidance of over-allocation of surface water and groundwater. The Lumsden Aquifer is overallocated when viewed through the policy lens of the RWP. However, the pSWLP has increased the allocation limit of the Lumsden Aquifer. The pSWLP is based on the latest scientific knowledge of the sustainability of the aquifer. Therefore, it is considered the proposal is not contrary to Policy WQUAN.2.

Policy WQUAN.3 provides a framework for managing water quantity through the pSWLP. The pSWLP has been considered above. The proposal is not contrary to this policy.

Policy WQUAN.4 details the approach to the management of demand for water to protect instream values of surface water and ensure freshwater objectives are met. Stream depletion effects associated with the proposal are expected to be less than minor. The discretionary allocation limit for the Lumsden Aquifer has been increased in the pSWLP, and interference effects are anticipated to be within the acceptable limit detailed in Appendix L.3 of the pSWLP. It is not considered the proposal is contrary to this policy. It is noted that this policy encourages the development of water storage and that the applicant has an existing surface water permit AUTH – 301933 which provides for the storage of water. It is understood the cost of the development of water storage is prohibitive at this time.

Policy WQUAN.6 requires water abstract to be efficiently. The proposal is for a ‘back-up’ supply of water for irrigation when the applicant’s existing surface water permit cannot be exercised due to low flows on the Oreti River. The effects section above discusses the frequency of minimum flows on the Oreti River. It is expected the proposal will result in an efficient use of water. Resource consent conditions will monitor the use of water under this resource consent and any unexpected inefficiency for example lack of water use can be considered through a review condition under section 128 of the RMA.

Policy WQUAN.7 recognises the social, economic and cultural benefits of water abstraction and water protection. The proposal will enable the applicant to continue to irrigate their property to provide for the social, economic and cultural benefit. The effects discussion above has shown adverse effects associated with the proposal are expected to be no more than minor. The proposal is not contrary to this policy.

Policy WQUAN.8 this policy recognises the integrated nature of land-use, water quality, water quantity and use and development. The above assessment as considered the integrated nature of land-use, water quantity and water quality. The irrigation is an existing activity under AUTH-301933, when AUTH-301933 expires it will need to be renewed and this proposed permit AUTH-20181676 will need to be reviewed and possibly varied to ensure the two permits are consistent and cross referencing is accurate. As AUTH-20181676 and AUTH-301933 (or its replacement) are to be read and exercised together if AUTH-301933 is not reviewed this permit will need to be varied or surrendered. The proposal is not expected to result in stream depletion effects, further, interference effects are expected to be within acceptable levels detailed in Appendix L.3 of the pSWLP.

Overall, it is considered the proposal is not contrary to the objectives and policies of the SRPS.

### **3.7 Relevant provisions of national policy statements (Section 104(1)(b)(iii))**

#### ***National Policy Statement for Freshwater Management (NPSFM) 2020***

The NPSFM supports improved freshwater management in New Zealand. The NPSFM is underpinned by an overarching concept, which is set out below.

- (1) *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.*
- (2) *Te Mana o te Wai is relevant to all freshwater management and not just to the specific aspects of freshwater management referred to in this National Policy Statement.*

There are 6 principles relating to the roles of tangata whenua and other New Zealanders in the management of freshwater. These principles are:

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

...

This concept and framework is the lens which the policy assessment must be viewed through. There is one objective of the NPS-FM which directly relates to the concept of Te Mana o te Wai.

- 1) *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.*
- *Policy 1: Freshwater is managed in a way that gives effect to Te Mana o te Wai.*
  - *Policy 2: Tangata whenua are actively involved in freshwater management (including decision making processes), and Māori freshwater values are identified and provided for.*
  - *Policy 3: Freshwater is managed in an integrated way that considers the effects of the use and development of land on a whole-of-catchment basis, including the effects on receiving environments.*
  - *Policy 5: Freshwater is managed through a National Objectives Framework to ensure that the health and well-being of degraded water bodies and freshwater ecosystems is improved, and the health and well-being of all other water bodies and freshwater ecosystems is maintained and (if communities choose) improved.*
  - *Policy 9: The habitats of indigenous freshwater species are protected.*
  - *Policy 10: The habitat of trout and salmon is protected, insofar as this is consistent with Policy 9.*
  - *Policy 11: Freshwater is allocated and used efficiently, all existing over-allocation is phased out, and future over-allocation is avoided.*

- *Policy 13: The condition of water bodies and freshwater ecosystems is systematically monitored over time, and action is taken where freshwater is degraded, and to reverse deteriorating trends.*
- *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 has considered the adverse effects on health and well-being of the Lumsden Aquifer as well as surrounding surface waterbodies. Te Mana o Te Wai seeks to first protect the health and well-being of water bodies and freshwater ecosystems. As discussed, in the effects section above the application is not considered to have more than minor effects on the sustainability of the aquifer, further stream depletion effects are anticipated to be less than minor. Overall, it is considered the proposal is consistent with the first principle of Te Mana o Te Wai. Te Mana o Te Wai secondly prioritises the health and needs of people. The above assessment of effects has considered interference effects associated with the proposal, it has concluded whilst interference effects are anticipated they are expected to be within the level of acceptability detailed within the pSWLP and the RWP and therefore it is expected adverse effects will be no more than minor. Thirdly, Te Mana o Te Wai seeks to priorities the ability of people and communities to provide for their social, economic and cultural well-being, now and in the future. Interference effects are expected to be within the acceptable range detailed in both plans therefore, it is considered the proposal will not adversely affect peoples and the community's ability to provide for their social, economic and cultural well-being. Further the application will enable the applicant to continue to provide for their social, economic and cultural well-being by enabling them to continue to irrigate when minimum flow cut-offs are enacted under their existing resource consent condition. Overall, it is considered subject to resource consent conditions the proposal is not contrary to the principles of Te Mana o Te Wai.

The allocation limit within the Lumsden Aquifer has been increased under the pSWLP, which has been based on the latest scientific knowledge of the aquifer, therefore it is considered the volume sought will not adversely affect the sustainability of the aquifer. The proposal is not contrary to policies 1, 5 and 11 as they relate to the wellbeing of the Lumsden Aquifer and sustainability of the Lumsden Aquifer.

The integrated nature of groundwater resources with surface waterbodies and land use has been considered. Firstly, with respect to connections to surface water stream depletion effects are expected to be insignificant as a result of the proposal. Therefore, there is not expected to be an adverse effect on habitats of indigenous freshwater species or the habitat of trout or salmon. The proposal is not contrary to policies 3, 9 and 10 as they relate to surface waterbody values.

The applicant holds an existing resource consent to irrigate land (AUTH-301933). The applicant is not proposing to increase their irrigation area rather substitute their water source (surface water from the Oreti River) when they cannot irrigate as a result of minimum flow cut-offs being enforce on the Oreti River. The proposal will not result in an increase adverse water quality effect. The proposal is not contrary to policies 3 and 5 as they relate to water quality. It is noted freshwater quality objectives have not yet been set in the Southland Region.

Interference effects as a result of the proposal have been modelled. It is noted the proposal will result in interference effects with existing bores. However, the modelling shows these interference effects are within the acceptable level detailed in Appendix L.3 of the pSWLP. Therefore, the proposal should not result in adverse effects on existing users. Resource consent conditions requiring the monitoring of water abstracted will enable the ability of effects to be monitored in the long-term.

Policy 11 requires water resources to be allocated and used efficiently. The proposal is for a 'back-up' supply of water for irrigation when the applicant's existing surface water permit cannot be exercised due to low flows on the Oreti River. The effects section above discusses the frequency of minimum flows on the Oreti River. It is expected the proposal will result in an efficient use of water. Resource consent conditions will

monitor the use of water under this resource consent and any unexpected inefficiency for example lack of water use can be considered through a review condition under section 128 of the RMA.

Overall, it is considered the proposal is not contrary to the objective and policies of the NPS-FM.

**3.8 Relevant provisions of National Environmental Standards and other regulations (Section 104(1)(b)(i) and (ii))**

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

Accurate, complete and current water information is a critical building block in establishing a water management system in which water is effectively allocated and efficiently used. The regulations apply to holders of water permits (resource consents) which allow fresh water to be taken at a rate of 5 L/s or more. The proposed take is for a combined rate of 30.6L/s.

*If take > 5 l/s use:*

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

1. A permit holder must provide records that cover each water year of the permit to the regional council that granted the permit.
2. The records for a water year must be provided no later than one month after the end of the water year.
3. The records must comply with regulation 6.
4. The regional council may request evidence from the permit holder that the device or system that kept the records has been verified as accurate in accordance with regulation 7.
5. The permit holder must provide the regional council with the evidence as soon as practicable after receiving the request.
6. The records or evidence must be provided—
  - (a) in writing; or
  - (b) electronically, if requested by the regional council.

Consent conditions will be placed on the applicant’s water permit to bring their consent in line with the Regulations. This includes the utilisation of a datalogger and telemetry. Further, additional monitoring conditions are proposed for this consent including notification to the consent authority prior to water abstraction occurring for irrigation and annual reporting of the cumulative take under this proposed resource consent and AUTH-301933.

**National Environmental Standards for Freshwater 2020**

The Resource Management (National Environmental Standards for Freshwater) Regulations 2020 (Freshwater NES) regulates activities that pose risks to the health of freshwater and freshwater ecosystems. The Freshwater NES contains a number of regulations which relate to farming activities. Of relevance to this application is the intensification regulations relating to irrigation and dairy farming.

The proposal is for a water abstraction from the Lumsden Aquifer for stock water, dairy shed wash-down and for irrigation. The Applicant has confirmed there is no proposal to increase either the irrigation area or the intensity of the farming system. The applicant currently irrigates 234ha of land using surface water from the Oreti River under AUTH-301933 this area is not increasing. Therefore, the proposal is a permitted activity under regulation 20 of the Freshwater NES.

**3.9 Any other matters considered relevant and reasonably necessary to determine the application (Section 104(1)(c))**

***Te Tangi a Tauria***



Te Tangi a Tauria is the Iwi Management Plan for Southland. The policies relevant to this application are:

**Water Quantity - Abstractions (Section 3.5.14)**

*Policy 1 - Precautionary principle*

*Policy 4 - In the Southland Plains region, prefer water takes from bores.*

*Policy 11 - Avoid excessive drawdown of aquifer levels as a result of groundwater abstractions, and to ensure that abstractions do not compromise the recovery of groundwater levels between irrigation seasons.*

*Policy 16 - Encourage the installation of appropriate measuring devices on all water abstractions.*

*Policy 17 - Advocate for durations not exceeding 25 years on resource consents related to water abstractions.*

*Policy 18 - Review conditions.*

The application proposes to source water from two bores on the property. Stream depletion effects are expected to be insignificant. The take is at a rate of 30.6L/s and will be monitored by a water metre. The proposal will have a minimum water level cut-off consistent with the pSWLP to ensure the Lumsden Aquifer is not unsustainably drawdown. A review condition is proposed consistent with section 128 of the RMA to enable the review of the resource consent should anticipated adverse effects arise.

Overall, the cultural effects of the proposal are expected to be no more than minor. Subject to resource consent conditions, including additional monitoring, additional reporting and water level cut-offs, the proposal is not considered to be contrary to the policies of Te Tangi a Tauria. Te Ao Marama Inc, submitted on this application. However, following discussions with the applicant and the supply of aquifer testing results they have withdrawn their right to be heard. Note they have not withdrawn their written submission.

**3.10 Section 105 matters relevant to discharge or coastal permits**

NA

**3.11 Section 107 restriction on grant of certain discharge permits**

NA

**3.12 Part 2 of the Resource Management Act 1991**

All considerations are subject to Part 2 of the RMA, which sets out the purpose and principles that guide this legislation. This means that the matters in Part 2 prevail over other provisions of the RMA or provisions in planning instruments in the event of a conflict. Section 5 states the purpose of the RMA and sections 6,7 and 8 are principles intended to provide additional guidance as to the way in which the purpose is to be achieved.

The application of Section 5 involves an overall broad judgement of whether a proposal will promote the sustainable management of natural and physical resources. The enabling and managing functions found in s5(2) should be considered of equal importance and taken as a whole. Section s6, 7 and 8 provide further

context and guidance to the constraints found in s5(2) (a) (b) and (c). The commencing words to these sections differ, thereby establishing the relative weight to be given to each section.

In relation to the matters outlined in Section 5 it is considered that this application is consistent with the purpose and the principles of the Act, as set out in Section 5. This is the promotion of the sustainable management of natural and physical resources. The proposed activities will have no more than minor adverse effects on the ability of the receiving environment to meet the reasonably foreseeable needs of future generations, or on the life-supporting capacity of the land or any ecosystem associated with it. Proposed consent conditions will ensure that any potential adverse effects of the activities will be avoided, remedied or mitigated.

All of the Part 6 matters have been covered within the various Council planning instruments, of which the application is generally consistent with (noting the Lumsden Aquifer is overallocated when viewed through the objectives and policies of the RWP). There is only one matter of national importance, as outlined in Section 6 of the Act that needs to be recognised and provided for in the context of this application. This is the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu and other taonga. Whilst, within close proximity to the Oreti River which is a Statutory Acknowledgment Area under the Ngāi Tahu Claims Settlement Act 1996 the proposal is unlikely to result in stream depletion effects. Consideration has also been given, as per Section 104(1) to the relevant Iwi Management Plan for Southland. Te Ao Marama and Te Rūnanga o Ngāi Tahu were both notified of the application. Te Ao Marama submitted on the application in opposition. They were concerned regarding the relationship between the Lumsden Aquifer and the Oreti River and the potential for adverse effects on mahinga kai and other Ngāi Tahu values. Since the submissions were lodged the applicant has completed aquifer testing. This aquifer testing has modelled stream depletion effects and interference effects. Overall, stream depletion effects are considered to be less than minor. Proposed resource consent conditions will include a minimum water level cut-off to ensure water abstraction from the Lumsden Aquifer does not adversely affect the sustainability of the aquifer. Te Ao Marama have withdrawn their right to be heard however, their written submission has not been withdrawn.

The following parts of Section 6 have been recognised and provided for, but do not have a direct relationship to the application because:

- the natural character of the coastal environment, wetland, rivers and lakes and their margins will not be developed, used or subdivided as part of this application;
- there are no identified ONFs and/or ONLs within the site;
- there are no known areas of significant indigenous vegetation and significant habitats of indigenous fauna;
- the application does not relate to public access to and along the coastal marine area, lake and/or rivers;
- there is one site of historic heritage within the farm area, however, it will not be adversely affected by the proposed groundwater abstraction;
- the site is within close proximity to the Oreti River which is a Statutory Acknowledgment Area however the proposal is unlikely to adverse effect the Oreti River and is not part of any customary rights.

In relation to the considerations under Section 7, it is considered that the activity would result in the maintenance and enhancement of the quality of the environment and the efficient use and development of resources. It is considered that, as with the various Council planning documents the application is generally consistent with the aforementioned Section 7 matters.



With regard to Section 8 of the Act, the the principles of the Treaty of Waitangi have been taken into account. This is through the consideration of Te Tangi (Iwi Management Plan) and the relevant policies in other planning documents.

Overall, the application is considered to meet the relevant provisions of Part 2 of the RMA as the proposal achieves the purpose of the RMA which is the sustainable management of natural and physical resources.

### 3.2 Draft conditions

Additional conditions are proposed to the standard conditions for a ground water abstraction for this application, given: the allocation status of the aquifer, anticipated interference effects and connection with AUTH-301933. These additional conditions are:

Proposed condition: *This permit is to be read and exercised in conjunction with Water Permit 301933 (or its replacement).*

As the two permits have a common combined total, the draft permit has included reference to AUTH-301933. Further, as AUTH301933 expires before the proposed consent term reference has been included to its replacement permit. This means that this consent can continue without variation if the conditions and scope of AUTH-301933 are renewed unchanged. However, an advice note has been included which signals if changes are made to AUTH-301933 draft AUTH-2018176 may need to be varied to ensure consistency between the two permits, this is particularly relevant for total combined water volumes and cross-referencing.

Proposed condition: *The consent holder shall notify the consent authority (email: [escompliance@govt.nz](mailto:escompliance@govt.nz)) each time abstraction under Condition 3(e) commences. The notification shall specify the consent number and state that the date that the higher abstraction rate commenced under Condition 3(e);*

This condition is proposed to ensure the Consent Authority knows when abstraction at the higher rate commences. This will allow the Consent Authority to cross reference use to when low flows are enacted on the Oreti River. Further, it will provide a record of water use should any unforeseen affects arise.

Proposed condition: *By 31 July each year the consent holder shall provide a written statement detailing the cumulative abstraction under this resource consent (AUTH-20181676) and Water Permit 301933 (or its replacement) for the previous 1 July to 30 June period to demonstrate compliance with Condition 3(f).*

This condition is proposed to ensure the cumulative abstraction total across both consents (this proposed consent and Auth-301933) is not exceeded.

### 3.3 Term of consent

The applicant has requested a consent term of 25 years. The applicant has provided the following reasons for a 25-year consent term (see page 29 of the application):

- It recognises the significant investment the applicant has made in drilling bores and completing aquifer testing and the ongoing investment that will be made in irrigation infrastructure maintenance and monitoring;
- The Lumsden Aquifer resource is well understood and the modelled effects of the proposed take are small in proportion to the scale of the proposed activity;
- The Lumsden aquifer is not overallocated under the pSWLP;
- Common expiry with AUTH-301933 is not appropriate as this expires in 2025 a short consent term of this nature is not considered appropriate.

Policy 14A provides direction for the consideration of a term for a water permit:

- *The degree of certainty regarding the nature, scale, duration, and frequency of adverse effects from the activity;*
- *The level of knowledge of the resource;*
- *Relevant tāngata whenua values;*
- *The allocation sought, particularly the proportion of the resource sought;*
- *The duration sought by the applicant, plus material to support the duration sought;*
- *The permanence and economic life of the activity;*
- *Capital investment in the activity;*
- *Monitoring and review requirement in permit conditions;*
- *The desirability of applying a common expiry date for water permits that allocate water from the same resource; and*
- *The applicant's compliance with the conditions of the previous permit.*

Policy 40 of the pSWLP sets out factors to assist with determining the term of a resource consents, with consideration given to:

- *Granting a shorter duration than that sought by the applicant when there is uncertainty regarding the nature, scale, duration, and frequency of adverse effects from the activity or the capacity of the resource;*
- *Relevant tāngata whenua values and Ngai Tahu indicators of health;*
- *The duration sought by the applicant and reasons for the duration sought;*
- *The permanence and economic life of any capital investment;*
- *The desirability of applying a common expiry date for water permits that allocate water from the same resource or land use and discharges that may affect the quality of the same resource;*
- *The applicant's compliance with the conditions of any previous resource consent, and the applicant's adoption, particularly voluntarily, of good management practices; and*
- *The timing of development of FMU sections of this plan, and whether granting a shorter or longer duration will better enable implementation of any revised frameworks established in those sections.*

I note the applicant has requested a consent term of 25 years. Whilst, the applicant has made a significant investment in their existing irrigation infrastructure I do not consider a consent term of 25 years is appropriate in this instance given the allocation status of the aquifer. I recognise the benefits of having a common expiry with AUTH-301933 given the two permits have a combined annual volume of water allocated to them. However, I agree with the Applicant that a common expiry date with AUTH-301933 is a too shorter term for this consent given the value of investment the applicant has made.

I consider a consent term of ten years is appropriate. My preference for a shorter consent term than that requested by the applicant is for the following reasons:

- Whilst I have placed more weight on the provisions of the pSWLP in the assessment of this proposal, the Lumsden Aquifer is significantly overallocated when viewed through the policies of the RWP. The increased limit in the pSWLP whilst based on the latest science has not been tested in the field therefore, I consider a precautionary approach is appropriate. Particularly, given the strong direction in the NPS-FM to avoid overallocation.
- Whilst the modelled interference effects are considered to be acceptable when assessed against both the pSWLP and the RWP interference effects are already being experienced in the Aquifer for example as detailed in Mr Menlove's submission. Therefore, I consider a precautionary approach is appropriate.
- A 25-year consent term is a significant period of time, this consent is being used as a 'back-up' water supply when the applicant cannot abstract water for irrigation from the Oreti River. A ten-year consent will enable abstraction and use to be monitored and Council to consider based on actual use data if the water is being used efficiently.

- A ten-year consent term recognises the value of investment by the applicant.

#### 4. Recommendations

##### 4.1 Whether to grant

The activity is a **non-complying activity** under the RWP. Under Section 104D the Council may grant consent if it is satisfied that either the adverse effects will be minor or the application will not be contrary to the objectives and policies of the relevant proposed and operative plans. If it grants the application, it may impose conditions under Section 108 of the RMA. Because the effects of the activities have been assessed as having a no more than minor effect on the environment the application meets one of the gateway tests for non-complying activities as set out in Section 104D (1)(a) of the RMA 1991.

This report has considered the potential adverse effects of the application on the receiving environment. The receiving environment is characterised as the Lumsden Aquifer which is nearing full discretionary allocation under the pSWLP and overallocated under the RWP (see the below table). There are a number of existing users who draw water from the Lumsden Aquifer for irrigation, stock water, dairy shed wash down and for domestic use. The site is an existing dairy farm, and 234ha of the property currently receives irrigation. This is considered to be the existing environment.

Plan	Allocation Limit (m3/year)	Currently allocated (m3/year)	Currently allocated (% of discretionary limit)	Additional water sought	Allocation volumes if granted (m3/year)	Allocation volumes if granted (% of discretionary limit)
RWP	4,003,594	5,663,622	141%	69,954	5,733,576	143%
pSWLP	5,760,000	5,663,622	98%	69,954	5,733,576	99.5%

Overall, the effects assessment above has concluded the adverse effects of this proposal will be no more than minor.

The application is not contrary to the objectives and policies of the pSWLP and the NPS-FM.

The volume of water sought is for a ‘back-up’ supply to irrigate land when the applicants surface water consent cannot be exercised due to minimum flow levels the applicant has provided details of the number of days minimum flows have been enforced on the Oreti River over the last eight years. Taking this into consideration I consider the proposal is an efficient use of water. A condition of consent requiring the monitoring of water use will enable Council to monitor the efficiency of water use over the term of the consent.

The application is generally consistent with the objectives and policies of the RWP in particular for management of effects on surface waterbodies, efficiency of water use and interference effects. However, the RWP sets a discretionary primary allocation volume for the Lumsden Aquifer that has already been exceeded. Under the RWP for Southland the discretionary primary allocation limit for the Lumsden Aquifer is allocated at 141%. As such when viewed under against policy 30 of the RWP I consider the proposal is inconsistent with this policy. I note however, that this plan is based on older science than the pSWLP. My preference is to place more weight on the allocation limit within the pSWLP. Specifically, Policy 21 of the pSWLP which provides the framework for setting allocation limits for the Lumsden Aquifer is not under appeal.

In regard to S.104D (non-complying activity), it is my view that the effects of the proposed activity on the receiving environment and existing users of the Lumsden Aquifer will be **no more than minor** provided the proposed resource consent conditions are complied with. As such the proposal passes the first gateway test of section 104D (1)(a).

Overall, I recommend that the application for the activities outlined above be granted pursuant to Sections 104, 104B and 108 of the Resource Management Act 1991, subject to the conditions (Attachment 2).

Rebecca Robertson  
**Consultant Consents Officer**

RECOMMENDATIONS IN COUNCIL REPORTS ARE NOT TO BE CONSTRUED  
AS COUNCIL POLICY UNLESS ADOPTED BY COUNCIL

Attachments:

Attachment A – Draft conditions

Attachment B – Existing irrigation area

Attachment C – Submissions

Attachment D – Technical Reviews

Attached E – Further information request