



**SUBMISSION FORM** (Print clearly on both sides)  
**Proposed Plan Change 5A (Lindis: Integrated water management)**  
**to the Regional Plan: Water for Otago**  
 (Form 5, Clause 6 of the First Schedule, Resource Management Act 1991)

Name of submitter

Lynne McCall

Organisation  
(if applicable)

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# PAGES: 2

Note that all submissions are made available for public inspection

**SUBMISSIONS MUST BE RECEIVED BY 5.00 PM**  
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71



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I ~~wish~~ / do not wish (circle preference) to be heard in support of my submission.

If others make a similar submission, I ~~wish~~/will not consider presenting jointly with them at a hearing (circle preference).

Date: 4/9/15

Signature:

[Signature]

(of submitter, or person authorised to sign on their behalf).

Trade competitor's declaration (if applicable)

I could gain through trade competition from a submission but my submission is limited to addressing environmental effects directly affecting my business

Signature:



Free

Send to:  
 Freepost ORC 487  
 Otago Regional Council  
 Private Bag 1954  
 Dunedin 9054

1	2	3
State what your submission relates to and if you support, oppose or want it amended	State what decision you want the Otago Regional Council to make	Give reasons for the decision you want made
<p>Oppose minimum flow of 750 to be applied in 2021.</p> <p>Oppose primary allocation of 1000L/SEC</p>	<p>Min flow of 450L/SEC</p> <p>Primary allocation of 1500L/SEC</p>	<p>As part of the Toivis community we all rely on farming for employment, without sufficient water for irrigating farming will not prosper, therefore nor will employment in the area.</p> <p>The ORC lack of meaningful consideration of economic and social effects on the district means that their current proposal is flawed.</p>

Please add pages as required

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**Proposed Plan Change 5A (Lindis: Integrated water management) to the Regional Plan: Water for Otago**  
*(Form 5, Clause 6 of the First Schedule, Resource Management Act 1991)*

OTAGO REGIONAL COUNCIL  
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- 4 SEP 2015  
FILE No. *LA 10310*  
DIR TO *FlowP*

Name of submitter

*Matthew McCaughan*

Organisation

*geordie Hill Sta Ltd*

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(include postcode)

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*03 4452852*

Email:

*info@flyinn.co.nz*

# PAGES: *5.*

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I wish ~~to~~ wish (circle preference) to be heard in support of my submission.

If others make a similar submission, I will ~~not~~ consider presenting jointly with them at a hearing (circle preference).

*Matthew R McLaughan*

Signature:

*4/Sept/15*

Date:

(of submitter, or person authorised to sign on their behalf).

Trade competitor's declaration (if applicable)

*I could gain through trade competition from a submission but my submission is limited to addressing environmental effects directly affecting my business*

*NA*

Signature:

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Otago Regional Council  
Private Bag 1954  
Dunedin 9054

State what your submission relates to and if you support, oppose or want it amended	State what decision you want the Otago Regional Council to make	Give reasons for the decision you want made
<p><b>Oppose Minimum flow Of 750 l/s (1 Oct to 31 May)</b></p>	<p>Minimum flow 450 l/s (1 Oct to 31 May)</p>	<p>The 750 l/sec minimum flow takes away far too larger proportion of the available reliable irrigation water during normal summer seasons. The farmers and the community would have to bear significant economic and social consequences which would be totally out of proportion when compared to the benefits of the additional minimum flow (750 vs 450 l/s)</p> <p>The 750 l/s minimum flow fails to achieve the purpose of the RMA and regional policy statements and plans</p> <p>The ORC has failed to properly and accurately carry out evaluation of the proposal in accordance with sec 32 of the RMA</p> <p>1000 l/sec is too little water in relation to the land which is currently irrigated and has a long history of irrigation. The farms in Tarras and the community has grown up based on the use of irrigation water from the Lindis and this needs to be retained.</p> <p>It is both the primary allocation and the minimum flow which determine the availability of reliable irrigation water. Lindis water is an economic and traditional source of irrigation water and it is important to recognise that this can sustain traditional sheep and beef farming.</p>
<p><b>Oppose the primary allocation of 1000 l/sec</b></p>	<p>Primary allocation should be 1500 l/s</p>	

**M McCaughan Geordie Hill Station Ltd**

Submission on Otago Regional Council Proposed Plan Change 5A (Lindis: Integrated Water Management)

State what your submission relates to and if you support, oppose or want it amended	State what decision you want the Otago Regional Council to make	Give reasons for the decision you want made
<p>Provisions NOT included in PPC5A</p> <p><b>Oppose and want PPC5A amended</b></p>	<p>Formulate provisions for transition from deemed permits, and water permits and put clear processes in place to facilitate this.</p> <p>To delay imposition of minimum flow</p>	<p>The changes that will be required on farms to implement the minimum flow and new efficient water management are very substantial. They involve re configuration of irrigation infrastructure which is a long term project and farmers need a clear logical pathway and framework of rules and policies that they can work within to enable this to happen.</p> <p>Delay is needed so that changes required on farm can take place before new requirements are imposed.</p> <p>Farms are small family businesses which form the heart of the Otago rural economy and should not be treated in such a harsh manner as the plan change 5A would impose in its present form</p> <p>As the council has not included any transitional arrangements and has set an unrealistic time frame for implementation, it appears that the council does not fully understand the magnitude of the changes it is asking farmers and the community to make. Community is an important point, as while changing intakes and sources is difficult and a major undertaking for a substantial commercial farm, it is even more so for smaller irrigators of which there are a number in Tarras. Until council has enabled provisions to deal with these transition issues, and given reasonable time for transition the implementation should be delayed.</p>

State what your submission relates to and if you support, oppose or want it amended	State what decision you want the Otago Regional Council to make	Give reasons for the decision you want made
		<p>Our property Geordie Hill has been farmed by our family since 1910 – over 100 years. It is very much a traditional family sheep and beef property. It is in the upper part of the Lindis catchment and does not have any access to water from an alternative source. It is an economic unit of a modest scale by today's standards. Retention of our current supply of irrigation water is vital to it remaining an economic family unit. We have held deemed permits since 1911. Therefore we have a very long and sustained history of use of and association with the Lindis water. This gives significant moral weight to us being able to continue this use. There is also significant family heritage value's for us associated with the Lindis river and its use.</p>
		<p>When balancing objectives and competing uses for a resource we think that the ORC have not taken full and proper account of the current wonderful Lindis River environment and public use. Most of the year, most of the river, retains significant flow. It is only a small part of the river which dries. On Goodger flat our family, as a gesture of public goodwill has made available an area for public camping, access and use for many decades. This area has deep pools, faster flowing areas, small gravel banks, with both sun and shade. It is very pleasant and much appreciated by all. We have documented campers use of this area and several groups have been coming on a regular basis for over 20 years.</p> <p>Modern farm economics dictate that it is vital to be able to finish or own stock on quality irrigated pastures. We also need to use water efficiently and therefore have already made significant investment in modern spray irrigation. This is ongoing. We were among the first farms in the catchment to do this. We need sufficient and reliable economic water to continue our traditional sheep and beef farming. Reduction in Lindis water availability or forcing a farm like ours into expensive alternative water sources (eg on farm storage) can devastate our current production economics. This can and will force farmers into other intensive land use options to try and maintain an economic</p>

State what your submission relates to and if you support, oppose or want it amended	State what decision you want the Otago Regional Council to make	Give reasons for the decision you want made
		<p>farm enterprise. These alternative farm enterprise options are not often as environmentally light in footprint or socially desirable as traditional sheep and beef operations. Our family values are that we do appreciate being able to make a living from traditional sheep and beef land use and we think water policy is also aligned to these values. We do not believe that this been properly considered by ORC.</p> <p>We employ 1 full time and several casual staff on the property, as well as family. It is likely our family will continue here for the next generation and we wish for them to have similar availability of vital water that has sustained the farm enterprise for the previous 4 generations of family here. The property is an important part of the economy and social fabric of Tarras and the wider Otago area.</p>
		<p>Both our family and our staff are very concerned at the lack of consideration and respect for our opinions, our heritage, social and economic values shown to us by the ORC during the consultation over this plan change process. We are of the opinion conversely that too much weight has been given to the wishes of others, many of who live outside the area. Also these others do not have the same history in the area nor bear the same harsh direct impact of change 5A proposals that we do. For a significant period of time the ORC led us to believe that 450l/s would be the minimum flow set and it was quite late when we found out (by chance) that the ORC likely had other thoughts.</p>





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 (Form 5, Clause 6 of the First Schedule, Resource Management Act 1991)



**Name of submitter**

R.S. & J. EMMERSON

**Organisation**

(if applicable)  
 FOREST RANGE LTD, R.S. EMMERSON TRUST

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(include postcode) P O BOX 9  
 TAREAS, 9347

**Telephone:**

03 4452833

**Email:**

rsemmeron@stra.co.nz

I wish / ~~do not wish~~ (circle preference) to be heard  
 in support of my submission.

If others make a similar submission, I will / ~~will not~~ -  
 consider presenting jointly with them at a hearing  
 (circle preference).

*[Handwritten signature]*

**Signature:**

(of submitter, or person authorised to  
 sign on their behalf).

**Date:**

4-9-15

**Trade competitor's declaration (if applicable)**

I could gain through trade competition from a submission  
 but my submission is limited to addressing environmental  
 effects directly affecting my business

**Signature:**

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Send to:  
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 Otago Regional Council  
 Private Bag 1954  
 Dunedin 9054



<p><b>1 State what your submission relates to and if you support, oppose or want it amended</b></p> <p>We oppose the 750 litres/sec minimum flow</p>	<p><b>2 State what decision you want the Otago Regional Council to make</b></p> <p>Adopt the original proposal for 450 l/s flow</p>	<p><b>3 Give reasons for the decision you want made</b></p>
<p>We oppose the proposed primary allocation of 1000 l/s.</p>	<p>Increase this to 1500 l/s.</p>	<p>a) At present the minimum flow is 200 l/s. 450 litres allows another 250 l/s no longer used for irrigation.</p> <p>b) The Lindis River is in good heart and there is no evidence that the river ran to the Clutha River in dry years before irrigation began. Many of the side creeks e.g. Bargour creek run underground for a considerable part of the year with sufficient water in their upper catchments supplying the Lindis.</p> <p>c) We have invested \$100,000s in conservation measures in the upper catchment, partly through Otago Catchment Board Run Plans for Breast Hill, Forest Range and Bargour Stations since 1970.</p> <p>d) This investment, largely of benefit to the local and wider community should surely give us some right to use the Lindis water for irrigation if desired.</p> <p>e) Fish life abounds and spawning trout are seen frequently in the upper catchment. Shags and herons prey on fingerlings which affects fish numbers in general.</p> <p>The needs to be 1500/s to more accurately align with current primary block.</p>

<p>We oppose the proposed time frame in which the minimum flow will be implemented</p>	<p>Increase the time frame until 2016</p>	<p>Introducing an amended minimum flow will impact on the economic viability of farms reliant on Lindis water. These restrictions, which are designed to benefit the wider community, should give the affected farmers maximum opportunity to redesign their farming operations. As this will be at farmers cost there should be some assistance from ORC during this transition period.</p>
<p>We oppose the proposed boundary change to the Lindis Catchment</p>	<p>Leave unchanged.</p>	<p>There is no logic to the proposed map. The area is all one from an economic perspective. The major industry is agriculture.</p>

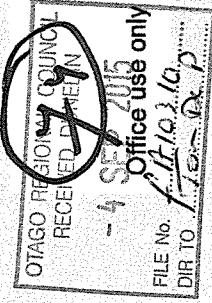
Thank you for the opportunity to present this submission to Council, which has been prepared by Russell and Jeanette Emmerson, representing themselves personally, plus Forest Range Ltd a farming enterprise, and the R S Emmerson Trust, a family organisation.

Our family has farmed Forest Range Station since 1916, Breast Hill since 1979 and Bargour since 1987. Collectively this area represents over 18,000 ha of the upper Lindis catchment. For over 30 years we owned a Tarras farm which we developed for irrigation with the Lindis Irrigation Company for a fattening and stud stock block. Russell has managed the property / properties since 1961 and has extensive knowledge of the land and water over this period. There is no need to point out to Council that water is the life blood of the district and farming is the major economic enterprise. Water is an essential component of farming enterprises and Council is required to consider economic benefits of the applications before them. A drier climate and predictions of an imminent El Nino pattern make it vital that all the properties have the opportunity to drought proof themselves utilising the abundant water sources the district has available. This is the Clutha River for the lower district and the Lindis water for the remainder who cannot access the Clutha. Now that a considerable area is utilising Clutha water for irrigation the Lindis River should be adequate to supply the remaining irrigators plus provide for the health of the river, recreation and non-farming residents. However, providing a habitat for introduced fish should not take precedence over the financial stability of the district.

Although we are not utilising our water rights on two creeks at present we expect to retain these rights and options for future irrigation development over our 400ha of flat land.



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**to the Regional Plan: Water for Otago**  
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Name of submitter

DAVID DEMMERSON

Organisation

(if applicable) FOREST RANGE LTD, LINDIS TRUST

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Note that all submissions are made available for public inspection

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I wish

~~I wish to be heard~~ (circle preference) to be heard  
 in support of my submission.

If others make a similar submission, I will ~~not~~  
 consider presenting jointly with them at a hearing  
 (circle preference).

P.P. DEMMERSON

Signature:

(of submitter, or person authorised to  
 sign on their behalf).

4/9/15  
 Date:

Trade competitor's declaration (if applicable)

I could gain through trade competition from a submission  
 but my submission is limited to addressing environmental  
 effects directly affecting my business

Signature: \_\_\_\_\_



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 Otago Regional Council  
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 Dunedin 9054

1 State what your submission relates to and if you support, oppose or want it amended	2 State what decision you want the Otago Regional Council to make	3 Give reasons for the decision you want made
I oppose the 750 litres/sec minimum flow	Adopt the original proposal for 450 l/s flow	<p>a) At present the minimum flow is 200 l/s. 450 litres allows another 250 l/s no longer used for irrigation.</p> <p>b) The Lindis River is in good heart and there is no evidence that the river ran to the Clutha River in dry years before irrigation began. Many of the side creeks e.g. Bargour creek run underground for a considerable part of the year with sufficient water in their upper catchments supplying the Lindis.</p> <p>c) My business has invested \$100,000s in conservation measures in the upper catchment, partly through Otago Catchment Board Run Plans for Breast Hill, Forest Range and Bargour Stations since 1970.</p> <p>d) This investment, largely of benefit to the local and wider community should surely give us some right to use the Lindis water for irrigation if desired.</p> <p>e) Fish life abounds and spawning trout are seen frequently in the upper catchment. Shags and herons prey on fingerlings which affects fish numbers in general.</p>
I oppose the proposed primary allocation of 1000 l/s.	Increase this to 1500 l/s.	The needs to be 1500/s to more accurately align with current primary block.

I oppose the proposed time frame in which the minimum flow will be implemented	Increase the time frame until 2016	Introducing an amended minimum flow will impact on the economic viability of farms reliant on Lindis water. These restrictions, which are designed to benefit the wider community, should give the affected farmers maximum opportunity to redesign their farming operations. As this will be at farmers expense there should be some assistance from ORC during this transition period.
I oppose the proposed boundary change to the Lindis Catchment	Leave unchanged.	There is no logic to the proposed map. The area is all one from an economic perspective. The major industry is agriculture.

Thank you for the opportunity to present this submission to Council, which has been prepared by David Emmerson, representing myself personally, plus Forest Range Ltd a farming enterprise which I work for, Lindis Trust which owns 50% of Forest Range Ltd, and the R S Emmerson Trust of which I am a beneficiary. I have been involved with the negotiations between Lindis Catchment Group and Council from the beginning.

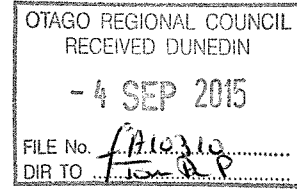
Our family has farmed Forest Range Station since 1916, Breast Hill since 1979 and Bargour since 1987. Collectively this area represents over 18,000 ha of the upper Lindis catchment. For over 30 years we owned a Tarras farm which we developed for irrigation with the Lindis Irrigation Company for a fattening and stud stock block. My father, Russell, has managed the property / properties since 1961 and has extensive knowledge of the land and water over this period. I have worked in a managerial role on the properties since 2002. Our variable weather patterns make it vital that all the district properties have the opportunity to drought proof themselves utilising the abundant water sources the district has available. This is the Clutha River for the lower district and the Lindis water for the remainder who cannot access the Clutha. Now that a considerable area is utilising Clutha water for irrigation the Lindis River should be adequate to supply the remaining irrigators plus provide for the health of the river, recreation and non-farming residents. However, providing a habitat for introduced fish should not take precedence over the financial stability of the district.

Although we are not utilising our water rights on two creeks at present we expect to retain these rights and options for future irrigation development over our 400ha of flat land.

Submission Form - Proposed Plan Change 5A

75

**Submission Date** 04-09-2015 16:24:38  
**Name of submitter:** Gregor McKenzie  
**Postal address:** Street Address: 54  
Street Address Line 2: Adamson Drive  
City: Arrowtown  
Postcode: 9302  
**Telephone:** (03) 442 1032  
**E-mail:** gregormckenzie@hotmail.com



**I wish / do not wish to be heard in support of my submission:** I do not wish to be heard

**If others make a similar submission, I will / will not consider presenting jointly with them at a hearing:** I will not consider presenting jointly

**Signature of submitter, or person authorised to sign on their behalf::**

**Trade competitor's declaration (if applicable)**

**1. State what your submission relates to and if you support, oppose or want it amended:**

Proposed minimum flow for the Lindis River

**2. State what decision you want the Otago Regional Council to make:**

Oppose the proposed 750 litres per second summer minimum flow (Option 3), and instead recommend a summer (1 October- 30 April) minimum flow of at least 1000 litres per second (amended Option 4), as measured at the Ardour Road flow recorder. A flow of 1000 litres per second will ensure that there is a meaningful flow in the lower river, good water quality, cooler temperatures, and restore the natural character, amenity, and juvenile trout fishery, eel, and native fish values of the lower river.



**3. Give reasons for the decision you want made:**

Fish and Game support a flow of 1000 litres per second.

Note that a flow of 1000 litres per second is 53% of MALF for the river and represents a considerable concession to irrigators given that the draft National Environmental Standard on Flow Setting (2008) recommends a minimum flow of 80% of MALF for rivers with a median flow of greater than 5 cumecs.

There are options available (groundwater and Clutha River water) for alternative water sources for farmers. Some farmers have already invested heavily in irrigation schemes that provide alternatives. The water plan is quite clear that where alternative water sources exist in over allocated catchments that these should be used instead.

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Contact<sup>TM</sup>

**Submission to Otago Regional Council on Proposed  
Plan Change 5A (Lindis: Integrated Water  
Management) to the Regional Plan: Water**

From

**Contact Energy Limited**

**4 September 2015**

**Submission by Contact Energy Limited on Proposed Plan Change 5A (Lindis: Integrated Water Management) to the Regional Plan: Water**

**To:** Chief Executive  
Otago Regional Council  
Private Bag 1954  
70 Stafford Street  
DUNEDIN 9054

policy@orc.govt.nz

**Name of Submitter:** Contact Energy Limited

**Contact Person:** Daniel Druce

**Address for Service:** Contact Energy Limited  
PO Box 25  
CLYDE

Telephone: 03 440 0319

Cell: 021 711 311

Email: daniel.druce@contactenergy.co.nz

Contact Energy Limited (**Contact**) wishes to be heard in support of this submission.

If others make a similar submission, Contact would not be prepared to consider preparing a joint case with them at any hearing.

## Introduction

Contact is pleased to be able to submit on Proposed Plan Change 5A (Lindis: Integrated Water Management) to the Regional Plan: Water

## About Contact

Contact is one of New Zealand's leading energy generators and retailers, providing electricity, natural gas and LPG to around 570,000 customers nationwide and generating around 23 per cent of New Zealand's electricity.

Contact is one of the country's most widely held stocks with around 69,000 shareholders. Contact employs approximately 1,100 people throughout New Zealand so Contact is an integral part of the national economy, our diverse society and local communities.

In the Otago Region, Contact operates a call-centre from central Dunedin and distributes LPG via its subsidiary Rockgas throughout the region.

Contact owns and operates two hydro-electric power stations at Clyde and Roxburgh as well as the Hawea Dam and Control Gates structure at Lake Hawea. Contact's Clutha operations meet approximately 10 per cent of New Zealand's electricity demand.

## Summary of Submission

Contact generally supports the proposed Plan Change 5A, in particular:

- managing and protecting water bodies, including aquifers, from over allocation; and
- promoting the efficient and sustainable use of water resources.

That said, Contact seeks particular changes to Plan Change 5A to recognise the seasonal impact of extractive takes from this catchment on Contact's hydro electric operations on the Clutha.

Contact's seeks changes as discussed and detailed below.

## Submission

### **Surface Water Restriction and Allocation: Policy 6.4.5, Rule 12.1.4.4 and Schedule 2A, 2B.**

While the upper Lindis catchment can receive substantial rain and snow fall in winter and spring, the Lindis catchment is also one of the driest areas in New Zealand with little rain during summer months. With the lack of precipitation, flows are significantly reduced in summer, a situation which can result in the Lindis River running dry.

The dryness of the catchment in summer months coincides with the time for greatest irrigation demand. At Lindis Peak (Oct-Apr) the MALF is 1.6 m<sup>2</sup>/s which then reduces to 0.177m<sup>2</sup>/s at Ardgour Road. The difference in the two sites is largely due to the amount of surface water abstraction that occurs between the two sites.<sup>1</sup>

The Lindis River is currently severely over-allocated with a consented instantaneous take rate of just over 4,000 l/s.<sup>2</sup>

Contact therefore supports the approach being taken by ORC to manage allocation in this dry and over allocated catchment.

Contact **supports** Policy 6.4.5 and Rule 12.1.4.4. Contact understands that the minimum flow and allocation regime will apply to any new consents granted but will only apply to existing permits after a collective review of the consents in the catchment. Such a review may occur at or prior to the expiry of deemed permits in 2021.

Contact **supports in part** the specific minimum flows for primary and supplementary allocation takes set out in Schedule 2A and 2B.

However, Contact considers that in Schedule 2A the summer flow/winter flow periods are not correct. Contact considers that these defined periods should reflect the recognised irrigation demand periods (as reflected in recent resource consent conditions and Schedule 4B.2). That is, a minimum flow of 750 litres per second instantaneous flow should apply between 1 September and 30 April. A minimum flow of 1,600 litres per second instantaneous flow should apply between 1 May and 31 August (in any calendar year).

In terms of Schedule 2B which sets out supplementary allocation blocks and minimum flows, Contact considers that the dates should be specific. That is, for the first supplementary allocation block, a minimum flow of 2,200 litres per second instantaneous flow should apply between 1 May and 30 November. Then a minimum flow of 1,600 litres per second instantaneous flow should apply between 1 December and 30 April.

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<sup>1</sup> ORC, 2008. Management flows for Aquatic Ecosystems in the Lindis River.

<sup>2</sup> ORC, 2015. Lindis Catchment and Bendigo-Tarras Basin Information Sheet

Similarly, for the second allocation block, a minimum flow of 2700 litres per second instantaneous flow should apply between 1 May and 30 November. Then a minimum flow of 2,100 litres per second instantaneous flow should apply between 1 December and 30 April.

With these changes, the values in Schedule 2A and 2B proposed generally appear to balance the social/cultural & economic values derived from the Lindis River as well as in-river and out-of-river values and recognise the national significance of hydro-electric generation on the Clutha.

In addition the Tarras Water Ltd scheme and consents have now been picked up by Ardgour Pipeline Ltd. This scheme effectively provides up to 4.5 m<sup>3</sup>/s of reliable water to irrigators in the Lindis Crossing / Ardgour area and offers relief to the abstraction from more restricted water resources such as the Lindis River or aquifers such as the Ardgour Valley Aquifer, the Lindis River Alluvial Aquifer or the Lower Tarras Aquifer. Those requiring water in the catchment area thus have an alternative to takes under the new flow regime.

Finally, the consenting of the original Tarras Water Ltd application for resource consent (now the Ardgour scheme) was partially based on the premise that water piped from the Clutha River would result in a reduction in pressure of irrigation on the Lindis River and/or associated aquifers. The restrictions imposed by the new regime (with the changes sought in this submission) are therefore appropriate.

#### **Groundwater Allocation and Restriction: Schedules 2C, 4A and 4B**

Contact **supports** Schedule 2C (Groundwater takes to be considered as primary allocation and subject to minimum flow of specified catchments) and its inclusion of the Lindis Alluvial Ribbon Aquifer.

Contact **supports** Schedule 4A (Maximum allocation limits for groundwater takes from aquifers). In particular, Contact supports the inclusion of the three relevant aquifers: the Ardgour Valley Aquifer, the Bendigo Aquifer and the Lower Tarras Aquifer. These values are 0.19, 29 and 18.8 Mm<sup>3</sup>/yr (respectively). This is 50% of the calculated maximum extraction.<sup>3</sup>

Contact **supports in part** Schedule 4B (Restrictions for groundwater takes). Schedule 4B.2 recognises that for aquifers having a hydraulic connection to the Clutha River it is appropriate to place restrictions on new consumptive takes during the winter months when water is of maximum value for hydro-electric generation. Recently granted resource consents have imposed such restrictions as conditions to provide a degree of protection to the resource consents that provide for the operation of Lake Dunstan and Contact's hydroelectric operations. These conditions provide for maximum efficiency in the use of

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<sup>3</sup> ORC 2010. Bendigo and Tarras Groundwater Allocation Study.



water: for irrigation during spring and summer when it is in demand; for electricity generation during autumn and winter when it is in demand.

It considers that the Lindis River Alluvial Aquifer and the Ardgour Valley Aquifer should be added to Schedule 4B.2 as both are hydraulically connected to Lake Dunstan and the main stem of the Clutha/Mata-au above Lake Dunstan. It does not make sense to exclude seasonal restrictions from these aquifers if efficient use of water is to be maximised and the objective of 4B.2, to help maintain lake levels, is to be met.

### Transparency

In the interests of the community of water users and ORC it would be useful if all parties were able to understand the level of allocation of available water in the Lindis River and associated aquifers. Such transparency could be achieved by publishing allocation levels on, for example, the Council's internet site or by public notice from time to time.

### Relief Sought

Contact seeks the following:

1. **Retain** Policy 6.4.5 as notified.
2. **Retain** Rule 12.1.4.4 as notified.
3. **Amend** Schedule 2A as follows (struckthrough text indicates text to be deleted; underlined text indicates text to be added):
  - Minimum flow (litres per second – instantaneous flow): 750 (~~1 October~~  
September to 31 May–April)
  - Minimum flow (litres per second – instantaneous flow): 1,600 (~~1 June~~  
May to 30 September–August)
4. **Amend** Schedule 2B as follows (struckthrough text indicates text to be deleted; underlined text indicates text to be added):

**2B Schedule of supplementary allocation blocks and specific minimum flows in accordance with Policy 6.4.9(c)**

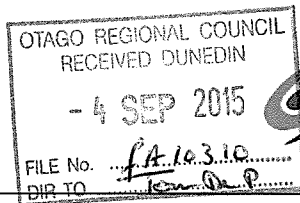
<b>Catchment (See the B-series maps) &amp; Supplementary Block Number</b>	<b>Minimum Flow (litres per second – instantaneous flow) at the monitoring site(s) (See the B-series maps)</b>	<b>Supplementary Allocation Block (litres per second – instantaneous flow)</b>
<b>Lindis catchment (first supplementary allocation block)</b>	<u>1</u> May to <u>30</u> November: 2200 Ardgour Road (MS 17)	500
	<u>1</u> December to <u>30</u> April: 1600 Ardgour Road (MS:17)	500
<b>Lindis catchment (second supplementary allocation block)</b>	<u>1</u> May to <u>30</u> November: 2700 Ardgour Road (MS 17)	500
	<u>1</u> December to <u>30</u> April: 2100 Ardgour Road (MS:17)	500

5. **Retain** Schedule 2C as notified.
6. **Retain** Schedule 4A as notified.
7. **Amend** Schedule 4B.2 by the addition of the Ardgour Valley Aquifer and the Lindis Alluvial Ribbon Aquifer (with appropriate map references).
8. Provide for transparency and understanding of the level of ongoing allocation in the Lindis River and associated aquifers by publicly notifying such information. Such information could be provided by way of the ORC website which is able to be updated regularly.
9. Any other consequential changes required to give effect to the relief sought above.



Daniel Druce  
Environmental Advisor  
Contact Energy Limited

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<b>SUBMISSION</b> <i>Form 5, Clause 6 of the First Schedule, Resource Management Act 1991.</i>	
<b>TO:</b>	Otago Regional Council
<b>DATE:</b>	4 September 2015
<b>PLAN CHANGE:</b>	Proposed Plan Change 5A (Lindis: Integrated water management) to the Regional Plan: Water for Otago. The plan change seeks to set: <ul style="list-style-type: none"><li>• Minimum flows and allocation limits for the Lindis River and connected Lindis Alluvial Ribbon Aquifer; and</li><li>• Maximum allocation limits and restrictions for other aquifers in the Bendigo-Tarras Basin.</li></ul>
<b>KĀI TAHU KI OTAGO PAPANUI RŪNAKA</b>	Te Rūnanga o Moeraki, Kāti Huirapa Rūnaka ki Puketeraki, and Te Rūnanga o Ōtākou (collectively Kāi Tahu).
Kāi Tahu <b>supports</b> the underlying principles of this plan change.  Kāi Tahu <b>does</b> wish to be heard in support of this submission at a hearing, and requests an opportunity to expand on this submission. If others make a similar submission, we will consider presenting a joint case with them.	

1. Introduction

- 1.1 Te Rūnanga o Moeraki, Kāti Huirapa Rūnaka ki Puketeraki, and Te Rūnanga o Ōtākou (collectively Kāi Tahu) are Manawhenua in the Lindis River Catchment.
- 1.2 Kāi Tahu has assessed Proposed Plan Change 5A (Lindis: Integrated Water Management) that proposes a minimum flow and allocation limits for the Lindis River and the connected Lindis Alluvial Ribbon Aquifer.
- 1.3 Kāi Tahu appreciates the precautionary approach taken by the Otago Regional Council to the management of freshwater resources in this catchment. The proposed plan change provides an opportunity to address historical over-allocation of freshwater in this catchment and to restore a meaningful continuity of flow to the Lindis River.

## 2. Kāi Tahu Association with Freshwater

Kāi Tahu places a high value on water bodies that possess an intact mauri (life-force). While there are also many intangible qualities associated with the spiritual presence of rivers, elements of physical health which Kāi Tahu uses to reflect the status of rivers include:

- Aesthetic qualities e.g. clarity, natural character and the presence of indigenous flora and fauna.
- Life-supporting capacity (mauri) and ecosystem robustness.
- Depth and velocity of flow.
- Continuity of flow from the mountain source of a river to the sea.
- Productive capacity; and
- Fitness for cultural use.

Waterbodies with an intact mauri will sustain healthy ecosystems and support mahinga kai for the current generation and the generations to come. Mauri is about life in and around a river, and is epitomised by a river being in motion. Where the mauri of a river is diminished, Kāi Tahu has a responsibility as kaitiaki to restore it.

## 3. Statutory Context

### **National Policy Statement for Freshwater Management (NPS)**

- 3.1 The national policy statement sets out objectives and policies that require the management of water in an integrated and sustainable way, while providing for economic growth within set water quantity and quality limits.
- 3.2 Kāi Tahu is of the opinion that a substantive and meaningful minimum flow and primary allocation limit is required to give effect to the objectives and policies of the NPS.

### **Te Rūnanga o Ngāi Tahu Freshwater Policy (NTFP)**

- 3.3 The focus of the NTFP is on the management of freshwater resources within the Kāi Tahu rohe. The NTFP outlines the environmental outcomes sought by Kāi Tahu and the guiding freshwater management principles, respectively:
- Water is central to all life. It is a taonga left by the ancestors to provide and sustain life. It is for the present generation as tangata tiaki to ensure that the taonga is available for future generations.
  - Water plays a unique role in the traditional economy and culture of Kāi Tahu.

- Water has an inherent value that should be recognised in the event of potentially competing uses.
  - Water is a holistic resource. The complexity and interdependency of different parts of the hydrological system should be considered when developing policy and managing the water resource.
- 3.4 Te Rūnanga o Ngāi Tahu is an active participant in the Iwi Leaders Group – Freshwater (ILG). The focus of the ILG is on ensuring that the Government recognises and gives full effect to iwi rights and interests in freshwater.
- 3.5 The ILG – Freshwater has made it clear that the provision for iwi rights and interests must be substantive and meaningful, which means:
- Being able to express our mana and meet our obligations as kaitiaki by making decisions around how wai is used.
  - Knowing we have set rules and limits to ensure the quality and quantity of the wai is sufficiently high to protect the mauri (life-force) of the wai.<sup>1</sup>

#### **Kāi Tahu ki Otago Natural Resource Management Plan 2005 (the Plan)**

- 3.6 The Kāi Tahu ki Otago Natural Resource Management Plan 2005 is the principal resource management planning document for Kāi Tahu ki Otago. The kaupapa of the plan is Ki Uta ki Tai (Mountains to the Sea), which reflects the holistic Kāi Tahu ki Otago philosophy of resource management.
- 3.7 The Plan expresses Kāi Tahu ki Otago values, knowledge and perspectives on natural resource and environmental management issues. The Plan is an expression of kaitiakitanga. While the Plan is first and foremost a planning document to assist Kāi Tahu ki Otago in carrying out their kaitiaki roles and responsibilities, it is also intended to assist others in understanding tangata whenua values and policy.
- 3.8 The Plan is divided into catchments, with specific provisions for the whole Otago area and each catchment. This plan contains objectives and policies that are relevant to the proposed plan change, respectively:

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<sup>1</sup> Tā Mark Solomon Kaiwhakahaere (Chair), Te Rūnanga o Ngāi Tahu, presentation to the Environmental Protection Authority

### Objectives

- The spiritual and cultural significance of water to Kāi Tahu ki Otago is recognised in all water management.
- The waters of the Otago Catchment are healthy and support Kāi Tahu ki Otago customs.
- Habitats and the wider needs of mahika kai, taoka species and other species of importance to Kāi Tahu ki Otago are protected.
- Flow regimes are consistent with the cultural values of Kāi Tahu ki Otago and are implemented throughout the Otago Region.

### Policies

- To promote the cultural importance of water to Kāi Tahu ki Otago in all water management within the Otago Region.
- To promote catchment-based management programmes and models, such as Ki Uta Ki Tai.
- To protect and restore the mauri of all water.
- To promote minimum flow regimes for rivers that recognise and provide for Kāi Tahu ki Otago cultural values and the healthy functioning of associated ecosystems.

3.9 The objectives and policies of the Kāi Tahu ki Otago Natural Resource Management Plan 2005 align with those of the Te Rūnanga o Ngāi Tahu Freshwater Policy. The flow regime for the Lindis Catchment should recognise and provide for Kāi Tahu cultural values and relationships, and safeguard the life supporting capacity of the Lindis River.

## 4. Decision Sought

4.1 Kāi Tahu has assessed Proposed Plan Change 5A (Lindis: Integrated Water Management) and identified the relief sought. Council is requested to implement the relief sought below, make any similar amendments with like effect to the relief sought, and make any consequential amendments necessary to give effect to the relief sought.

4.2 Kāi Tahu submits that a minimum flow and primary allocation limit are required that recognises and provides for their relationship with the Lindis River and for their culture and traditions.<sup>2</sup>

4.3 The following Kāi Tahu cultural values, beliefs and uses are identified for the Lindis River:

- **Continuity of flow:** The Kāi Tahu relationship with the Lindis River is inextricably linked to a continuity of flow over the entire length of the river. Water from the Lindis River is carried

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<sup>2</sup> Resource Management Act 1991, Section 6(e)



into the Mata-au (Clutha River) and then continues on its journey “ki uta ki tai” (from the mountains to the sea).

- **Integrated Management:** For Kāi Tahu the entire catchment is greater than the sum of its parts. Surface water and groundwater all need to be considered within an integrated management framework.<sup>3</sup> The connections between the Lindis River and the Mata-au are important, as are the connections between the river channel, aquifers, and the riparian margins. An integrated management framework is required for the Lindis River.
  - **Variability of Flow:** The Lindis River is expected to change seasonally. A healthy river is in a constant state of change and flows are meant to fluctuate. Throughout the year it is probable that there will be periods of low flow, high flows and flood events. Variability of flow contributes to the natural character of the river.
  - **Mahika kai:** The minimum flow should provide for aquatic ecosystems and the wider needs of mahika kai, taoka species and other species of importance to Kāi Tahu over the entire length of the river. The Lindis River provides habitat for native freshwater fisheries, including tuna (long-fin eel) a recognised Taoka species for Kāi Tahu. The minimum flow is required to provide both habitat and migratory passage for all taoka species.
  - **Kaitiakitaka:** Kaitiakitaka is fundamental to the relationship between Kāi Tahu and the environment. The responsibility of kaitiakitaka is twofold: first, there is the ultimate aim of protecting life supporting capacity and, secondly, there is the duty to pass the environment to future generations in a state that is as good as, or better than, the current state (Mo tatou, a, mo ka uri a muri ake nei). Kaitiakitaka requires active protection and responsibility for the natural and physical resources of the Lindis River.
  - **Recreational use:** Especially camping and swimming in the middle reaches.
  - **Wāhi tūpuna (ancestral landscape):** The Lindis Valley was part of a major inland route that led to and from the kāika (villages) and mahika kai resources in the area around Lakes Hawea and Wānaka over the Lindis Pass to the Waitaki. The Lindis River and its surrounds were an important source of mahika kai for travellers on the trail between the Waitaki River mouth settlements and the inland area.
- 4.4 Kāi Tahu submits that a minimum flow of 1,000 l/s from October to May, and a primary allocation limit of 1,000 l/s are required to provide for their relationship with the Lindis River, namely:

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<sup>3</sup> Tipa & Associates - Strath Taieri Irrigation Group Cultural Impact Assessment (2008)

<b>Lindis River Catchment</b>	
<b>Minimum Flow at Ardgour Road</b>	<b>Primary allocation limit</b>
1,000 l/s (1 October to 31 May )	1,000 l/s (Lindis Catchment from confluence with Clutha / Mata-au to headwaters)
1,600 l/s (1 June to 30 September)	

4.5 The minimum flow sought provides 54% of the natural 7-Day MALF of the Lindis River. Kāi Tahu is of the opinion that this flow achieves an appropriate balance between cultural values, instream values, and economic uses in the catchment.

4.6 This minimum flow:

- Enables Kāi Tahu to express our mana and meet our obligations as kaitiaki; and
- Ensures that the quality and quantity of the Lindis River is sufficiently high to protect its mauri (life-force) particularly in the lower and middle reaches.

4.7 Kāi Tahu supports the supplementary allocation regime and the associated minimum flows.

## 5. Reasons for the Decision Sought

5.1 The natural 7-day mean annual low flow (MALF) for the Lindis River has been calculated to be 1,864 l/s at the Ardgour Rd flow recorder. During most irrigation seasons the Lindis River flows intermittently upstream of the Ardgour Rd flow recorder, and is completely dry over a reach upstream of the State Highway Bridge to the Clutha Mata-Au confluence, due to losses to groundwater and heavy water abstraction

5.2 Approximately two-thirds of the total water abstraction from the Lindis is taken by four large races (refer to Appendix 1). The Tarras and Ardgour Valley Races are operated by the Lindis Irrigation Company while the other large races (Beggs and Rutherfords) are privately owned.

5.3 These four races also have a series of by-wash points that allow for the rationing of water between races (via short sections of river). This system ensures that the amount of irrigation water that is “lost” into groundwater is minimised and allows for water to be rostered effectively between races without having to account for travel time down the river. However, as the intakes for most of these large takes are high up in the catchment the environmental cost of this practice is the dewatering of up to 12 km of river in the middle reaches of the catchment.

- 5.4 A minimum flow of 1,000 l/s would ensure that there was continuous flow throughout the entire length of the Lindis River, with approximately 500 l/s remaining in the river at the Clutha/Mata Au confluence. This flow will provide 91% of the habitat available for longfin eel at MALF.
- 5.5 Kāi Tahu is not opposed to the development or intensification of land uses for farming or other purposes in this catchment. Kāi Tahu whānau are farmers themselves, and appreciate the need for healthy economies to support people and communities both in Otago and across our takiwā. However, for Kāi Tahu it is not a choice between a healthy economy and healthy waterways. Kāi Tahu believes that both outcomes must be provided for to achieve the purpose of the RMA.
- 5.6 Kāi Tahu submits that the a higher minimum flow from October to May is consistent with the National Policy for Freshwater Management 2014, the Te Rūnanga o Ngāi Tahu Freshwater Policy, and the Kāi Tahu ki Otago Natural Resource Management Plan.

Nahaku noa, Na



**Chris Rosenbrock**  
Manager

**Address for Service:**

Tim Vial  
Senior Planner  
KTKO Ltd,  
PO Box 446  
Dunedin 9054  
Phone Number: (DD) (03) 471 5480  
E-mail: tim@ktkoltd.co.nz

### The Lindis River minimum flow – An overview

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*Matthew Dale*

BSc (Ecology), PGDipSci (Ecology)

9 years' experience in water quantity limit setting and collaborative resource management, having worked as a Water Resource Scientist for the Otago Regional Council from 2006 to 2015. Heavily involved in the Lindis minimum flow process since 2006

15 years' experience in fisheries monitoring and freshwater ecology

#### Introduction

The Lindis River is situated in Central Otago and has a catchment area of 1,055 km<sup>2</sup>, flowing into the Clutha River/Mata Au approximately 6 km upstream of Lake Dunstan. The upper Lindis Catchment receives substantial rainfall during winter and spring, however the lower Lindis Catchment is one of the driest areas in New Zealand with very little rainfall throughout the summer months. Flows in the Lindis River are generally high during spring due to rainfall and snow-melt, but are greatly reduced during summer. Based on anecdotal evidence, long-term flow and rainfall monitoring, it is believed that the lower Lindis River would not naturally run dry, even in extreme low flow events.

The upper Lindis Catchment is dominated by snow tussock and low producing grassland, while in the lower catchment, high producing exotic grassland predominates. With its dry climate and low water availability the Lindis Catchment is dominated by sheep and beef farming, with a recent increase in viticulture in the lower catchment. As the use of alternative water sources (groundwater and Clutha/Mata Au) has increased, there has also been a significant increase in the extent of fodder crop production and dairy support in the lower Lindis and Tarras areas.

Average low flows in the upper catchment have been measured at 1,550 l/s at the Lindis Peak flow recorder, while the flows in the lower catchment at the Argour Rd recorder drop below 250 l/s most years. The natural 7-day mean annual low flow (MALF) for the Lindis River has been calculated to be 1,864 l/s at the Ardour Rd flow recorder.

Due to losses to groundwater and heavy water abstraction, the Lindis River flows intermittently upstream of the Ardour Rd flow recorder, and is completely dry upstream of the SH8 Bridge to the Clutha Mata-Au confluence during most irrigation seasons (Figure 1). Surface flows in the reach

surrounding the Ardour Rd flow recorder are sustained by groundwater inputs, even though the reaches upstream and downstream may be dry.

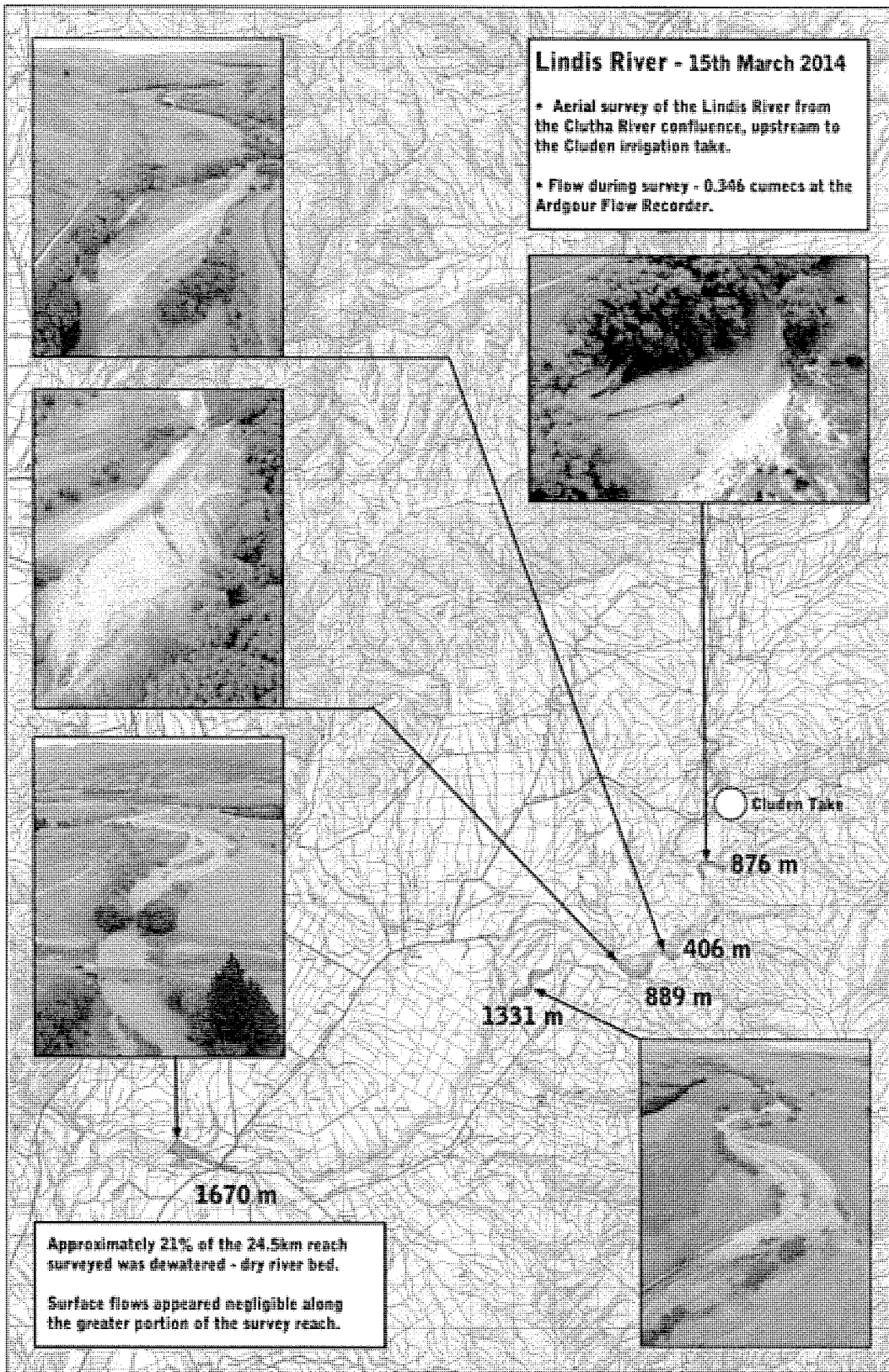


Figure 1 Drying reaches observed in the Lindis River in March 2014.

The dewatering of the lower Lindis has been shown to cause large fish kills under the current management regime, and although some fish may be able to move out of the drying reaches, it is likely that these fish kills occur most years.



**Figure 2** Fish stranded in the lower Lindis during the 2006/07 irrigation season.

Fish species present in the Lindis catchment include brown and rainbow trout, tuna (longfin eel), upland bully, and koaro, as well as Clutha flathead galaxias in some tributaries in the upper catchment.

Even though upstream migration of tuna is limited in the Clutha/ Mata Au due to hydroelectric dams at Roxburgh and Clyde, recent surveys undertaken in the vicinity of the proposed minimum flow site have shown good numbers of tuna in both 2013/14 and 2014/15, which may be present due to trap and transport operation from either the lower Clutha/Mata Au or from the West Coast. Contact Energy are required to provide fish passage for tuna by March 2017, and it can be expected that the tuna population of the Lindis River will increase as this consent condition is enforced by the Otago Regional Council.

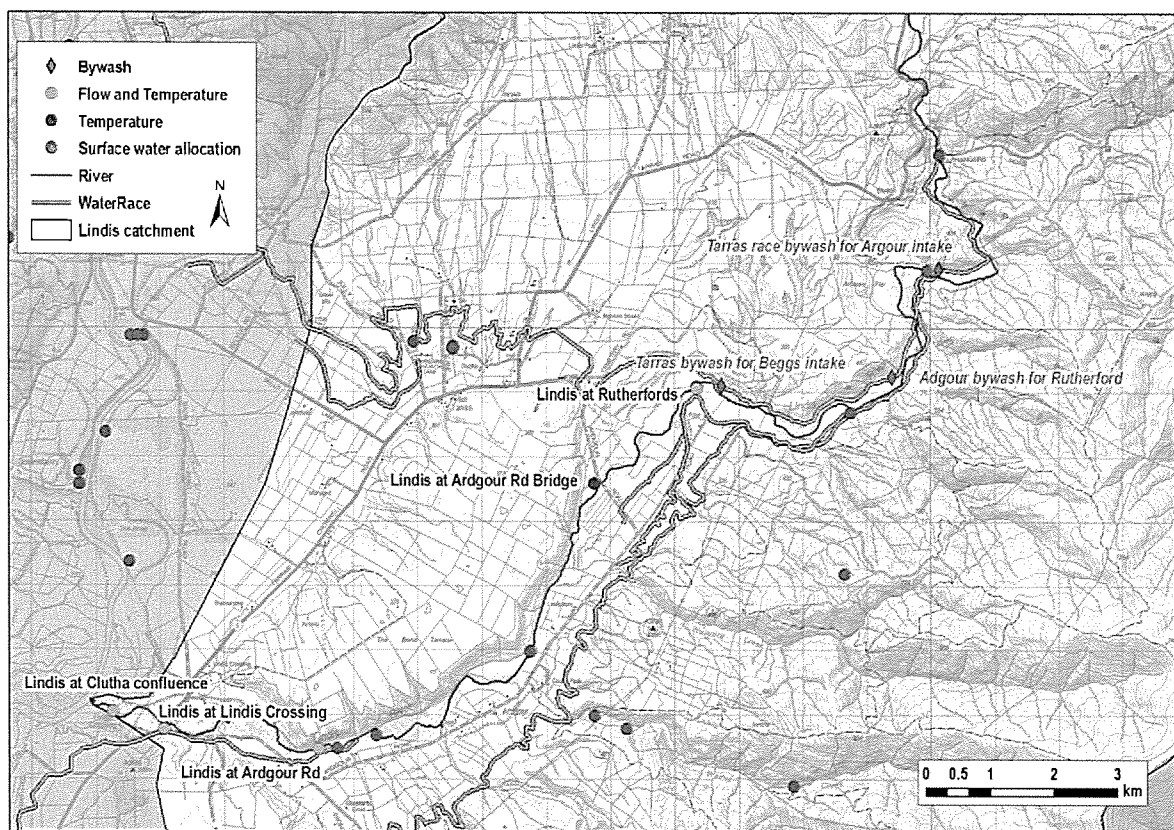
It is unlikely that any minimum flow in the Lindis River will have a significant impact on passage for migratory tuna and trout, as both these species undergo their migration movement either during or immediately after high flow events, rather than during stable base flows.



Temperature monitoring over the 2014/15 irrigation season (Oct-Apr) has shown that water temperatures in the lower Lindis reached over 25 °C when flows at the Ardgour Rd flow recorder were approximately 1,000 l/s.

### Current irrigation practice

There is a total allocation of close to 4,000 l/s from the Lindis River, though it is estimated that the actual take from the river is closer to 2,300 l/s. Approximately two-thirds of the total water abstraction from the Lindis is taken by four large races (Figure 3). The Tarras and Ardgour Valley Races are operated by the Lindis Irrigation Company while the other large races (Beggs and Rutherfords) are privately owned.

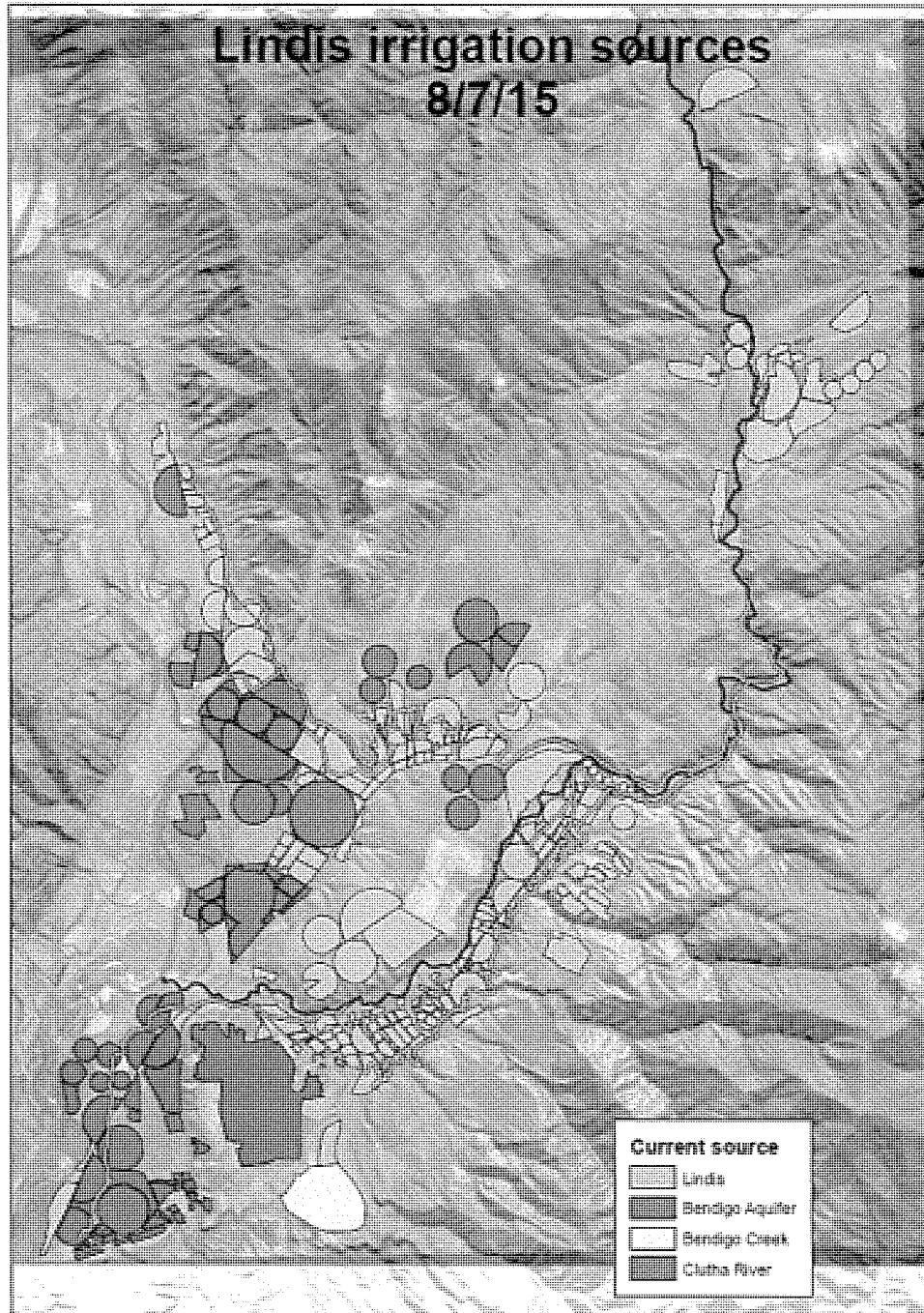


**Figure 3** Location of bywash points and water takes relative to monitoring sites in the middle reaches of the Lindis River.

As well as supplying water to their respective command areas, these four races also have a series of by-wash points that allow for the rationing of water between races (via short sections of river) as water availability drops over the irrigation season. This system ensures that the amount of irrigation water that is “lost” into groundwater is minimised and allows for water to be rostered effectively between races without having to account for travel time down the river. However, as the intakes for

most of these large takes are high up in the catchment the environmental cost of this practice is the dewatering of up to 12 km of river in the middle reaches of the catchment (Figure 1).

The command area of the Tarras Race (north of the Lindis River in Figure 4) is being increasingly superseded by water taken from the Clutha River/Mata Au. This race will become less viable, and may be decommissioned as this trend continues.

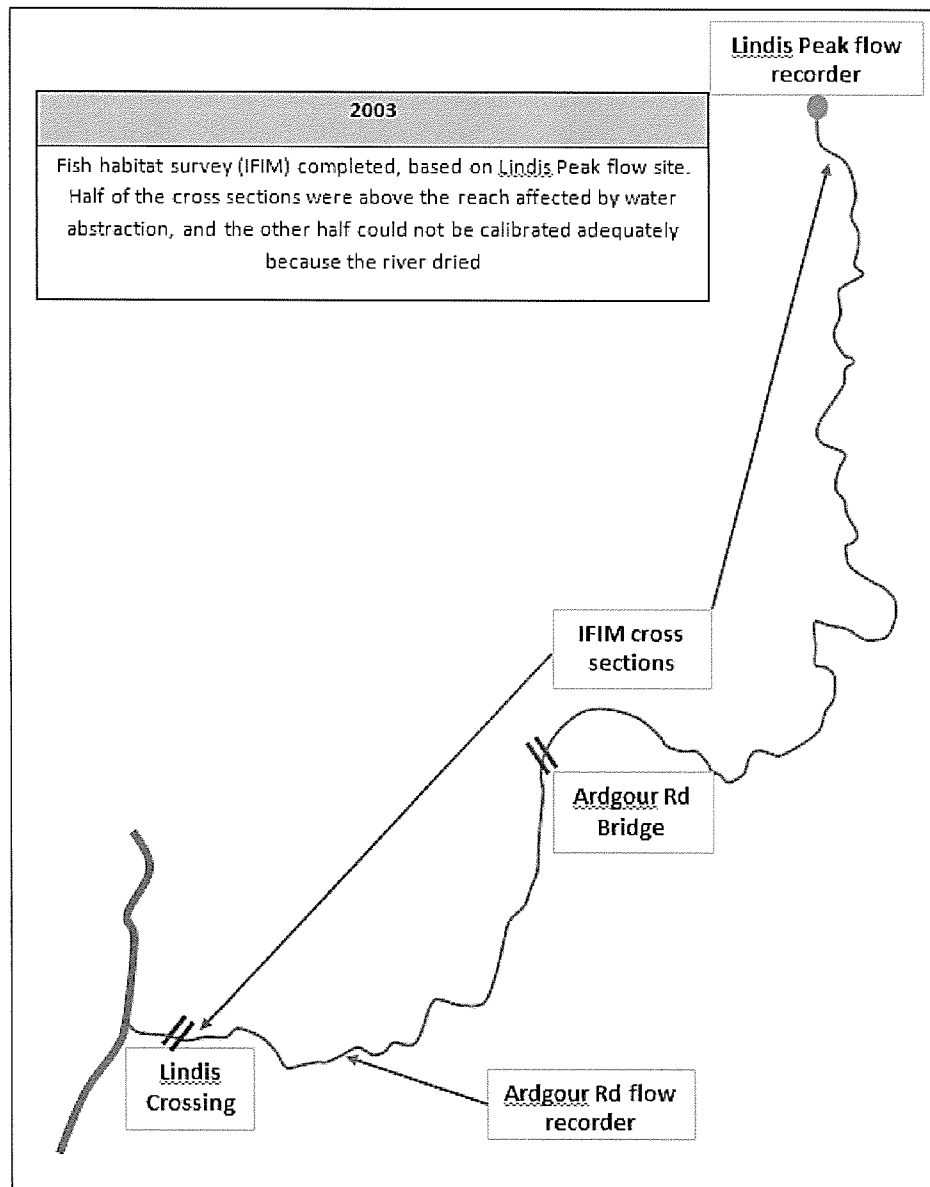


**Figure 4** Irrigated area and sources for the lindis and Tarras areas.

## Instream habitat modelling

Instream habitat assessment is often used to assess the effect of changes in flow on the amount of physical habitat available to fish, with the assumption that if there is no suitable habitat available for a species then it will no longer be able to exist in a given system. Habitat modelling does not take a number of other factors into consideration, including biological interactions (such as predation) and physiochemical influences (such as temperature) which can have a significant influence on the distribution of fish species.

Instream habitat assessment for the Lindis River was undertaken by the Otago Regional Council in 2003, with one survey reach at Lindis Peak and the other at Lindis Crossing (SH8 Bridge, Figure 5).



**Figure 5** Location of IFIM survey reaches compared to proposed minimum flow site (Ardgour Rd)

Due to the drying of the lower reach, it was not possible to calibrate the lower Lindis reach and the single sample was combined with the more extensive dataset (one initial survey and two calibration surveys) from the Lindis Peak survey reach. The 2003 survey was also based on flows at the Lindis Peak flow recorder, as the Ardgour Rd flow recorder had yet to be commissioned.

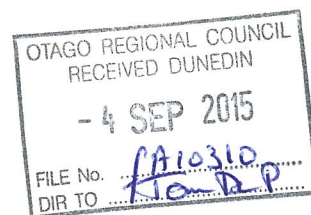
Due to the pooling of data, the lack of calibration surveys for the lower reach, and the fact that the instream habitat assessment cannot be linked to the proposed minimum flow site, ORC staff indicated in November 2014 that the current instream habitat modelling should be used with caution in the setting of minimum flow in the Lindis River.

### **The effect of a 1,000 l/s minimum flow**

A minimum flow of 1,000 l/s would ensure that there was continuous flow throughout the entire length of the Lindis River, with approximately 500 l/s remaining in the river at the Clutha/Mata Au confluence. Although high temperatures may still occur in the lower reaches of the Lindis, and conditions may not be suitable for trout, there will be sufficient water to allow them to move out of that reach to either the Clutha River/Mata Au or further upstream where temperatures are more suitable due to inputs from groundwater. Most native fish will be able to persist in the lower reach as they are able to handle higher water temperatures than trout.

A minimum flow of 1,000 l/s will provide 54 % of the natural 7-day MALF of the Lindis River. This flow will provide 91% of the habitat available for longfin eel at MALF, and 96 % MALF habitat retention for brown trout fry. The best-practice habitat retention thresholds for brown trout fry is 70% of the habitat available at MALF, which equates to a flow of 550 l/s. There are no published habitat retention thresholds for tuna.

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Otago Regional Council  
Proposed Plan Change 5A  
(Lindis: Integrated Water Management)  
to the Regional Plan: Water for Otago

Name of submitter: Wayne & Billee Marsh

Postal Address: PO Box 20, Tarras 9347

Telephone: 034452266

Email: [billee@paradise.net.nz](mailto:billee@paradise.net.nz)

We wish to be heard in support of our submission.

We support the ORC in their preferred Option 3, with amendments to several provisions.

We would like to amend the two provisions stated under 'Ecosystems'.

These being,

\*Some risk to instream values downstream from SH8 bridge

\*No suitable trout habitat downstream from SH8 bridge

We would like the ORC to increase the litre per second minimum flow to guarantee there will be 'no risk to the ecosystem downstream from the SH8 bridge'.

The ORC (Option 4) has suggested a minimum flow of 900 l/s (October to May) would achieve this outcome.

We believe the minimum flow should be increased to allow no risk to the ecosystem downstream of SH8 bridge because:-

\*\*The ORC found that under economic outcomes, Option 3 gives a 5% reduction in gross margin and employment. While Option 4 gives 5% or greater reduction in gross margin and employment.

*An increased minimum flow would result in a minor economic loss but allow a vital and substantial ecological gain.*

\*\*The NPS for Freshwater Management, Objective B1 is to, “safeguard the life supporting capacity, ecosystem process and indigenous species including their associated ecosystems of fresh water, in sustainably managing the taking, using, damming, or diverting of fresh water,”

*The stated provisions, “some risk to instream values,” and “No suitable trout habitat,” does not uphold the objectives of the NPS for Freshwater management.*

\* \*In the Tarras Community Plan 2007, the quality of our lakes, rivers and streams are identified as aspects which make Tarras a 'special place'. The Lindis River is important to the Tarras community for its amenity and ecosystem values.

*If the minimum flow allows the Lindis River to have 'some risk to instream values', it is not upholding the spirit and ideals of the Tarras Community Plan.*

In Tarras Community Plan 2007, the recommendation was to develop a long term strategy for an irrigation scheme to take water from the Clutha River.

*It was always intended that future irrigation schemes would take water from the Clutha River.*

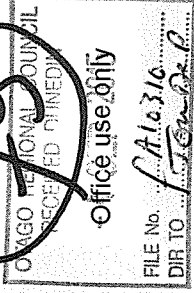
*This would enable continuous flow in the Lindis River.*



SUBMISSION FORM (Print clearly on both sides)

# Proposed Plan Change 5A (Lindis: Integrated water management to the Regional Plan: Water for Otago)

(Form 5, Clause 6 of the First Schedule, Resource Management Act 1991)



**Name of submitter**

TJ Cooke

**Organisation**

(if applicable) C/- Landpro (Werner Murray)

**Postal address**

(include postcode)

PO Box 302, Cromwell 9342

**Telephone:** 03 445 9905

**Email:** werner@landpro.co.nz

Note that all submissions are made available for public inspection

**SUBMISSIONS MUST BE RECEIVED BY 5.00 PM  
FRIDAY 4 SEPTEMBER 2015**

Please turn over

**I wish / do not wish** (circle preference) to be heard in support of my submission.

If others make a similar submission **I will / will not** consider presenting jointly with them at a hearing (circle preference).

Signature:

04/09/2015

Date:

(of submitter, or person authorised to sign on their behalf).

Trade competitor's declaration (if applicable)

*I could gain through trade competition from a submission but my submission is limited to addressing environmental effects directly affecting my business*

Signature:



Send to:  
Freepost ORC 497  
Otago Regional Council  
Private Bag 1954  
Dunedin 9054



<b>1</b> State what your submission relates to and if you support, oppose or want it amended  <i>e.g. Amend provision y</i>	<b>2</b> State what decision you want the Otago Regional Council to make  <i>e.g. provision y should say</i>	<b>3</b> Give reasons for the decision you want made  <i>e.g. I want provision y changed because</i>
<b>See attached letter</b>		

Please add pages as required

4 September 2015

Otago Regional Council  
Private Bag 1954  
Dunedin 9054

Email: [policy@orc.govt.nz](mailto:policy@orc.govt.nz)

**Attention: Peter Bodeker**

Proposed Plan Change 5A

Our Ref: S14323

Dear Peter,

***RE: Submission to the Proposed Plan Change 5A (Lindis: Integrated Water Management) - 69 THOMSON GORGE ROAD***

We refer to the Otago Regional Council's Proposed Plan Change 5A (Lindis: Integrated water management) that is currently available for public review and consultation. Landpro Limited, on behalf of the current land owner of the 69 Thomson Gorge Road, Bendigo. Mr. Terrance Cooke, has engaged us to assess/review the Otago Regional Council's Proposed Plan Change 5A (Lindis: Integrated water management) and make a formal submission regarding the issues mentioned below.

**State what your submission relates to and if you support, oppose or want it amended**

- 1) Oppose -The minimum flow of 750 to be applied in 2021;
- 2) Oppose -The primary allocation of 1000L/sec;
- 3) Oppose using the maps excluding the Tarras area; and
- 4) Oppose - The lack of any transition rules to assist the change

**Give reasons for the decision you want made**

Our property located along Thomson Gorge Road is primarily a beef wintering block for up to 500 beef cattle, from May to November.

The risk of a 750m<sup>3</sup> minimum flow imposed on us puts high financial risk on our farming operation. The reason for this is that there is a large upfront cost to establishing a crop [\$1,500.00 to \$2,600.00] per hectare for a 60 hectare block that would be in the order of \$156,000.00.



**Cromwell**  
Unit 7, Cromtrade, 2 McNulty Road  
PO Box 302, Cromwell 9342, New Zealand

**Gore**  
23 Medway Street  
Gore 9710, New Zealand

0800 023 318  
[info@landpro.co.nz](mailto:info@landpro.co.nz)  
[www.landpro.co.nz](http://www.landpro.co.nz)



Winners Central Otago  
Business Excellence  
Awards 2013

This wintering block is our main income and employs one person fulltime. To impose a 750m<sup>3</sup> minimum flow on our block would reduce our net income from around \$100k per annum to a semi dry sheep grazing block which may generate \$10 / \$15k per annum. Our client who we grow and winter feed for, also fattens the cattle on adjacent farms in the Tarras district which would have flow on negative implications in some respects.

When we purchased the above mentioned property the water permit stated the source of our ground water was from the Clutha Gravel Outwash which gave us certainty for the future. We went ahead and installed a lateral pivot irrigator at great expense in order to move away from flood, and k-line irrigation to a more efficient form of irrigation. This large capital cost and also the high upfront costs per season to get a crop planted puts an unreasonably high financial burden on the property with no guarantee of being able to use our ground water as it is in the Lindis Ribbon Aquifer.

As mentioned above our bore for the above mentioned property is located on the boundary of the Lindis Ribbon Aquifer in an area previously defined as Clutha Outwash Gravels. The boundary lines through these gravels, were never well defined at the time that the model for the Lindis Ribon Aquifer was made. It appears most of the Lindis River Aquifer follows the active floodplain however the section of Clutha Outwash Gravels on our property are outside of this area. We believe our groundwater supply is only moderately linked to the Lindis River and will be cut off for an unreasonably large proportion of the time, should the minimum flow of 750m<sup>3</sup> be adopted when the lag time and indeed the effect on the Lindis River waters by our bore may be less than minor. This will put a more than minor economic burden on the farm causing severe economic hardship.

**State what decision you want the Otago Regional Council to make**

- 1) A minimum flow of 450L/sec, as 750L/sec causes too much hardship, in stream life benefits greatly at 450 as it is 250 more than is already there at very low flow times;
- 2) To review the equitable alternatives for water in the Lindis catchment. As stated, our ground water bore that yields up to 25 L/sec provides an alternative source of water other than taking directly from the Lindis River, this limits the direct impact on the water levels of the Lindis River. However this is not seen as an alternative as our bore is classified as being located in the Lindis Ribbon Aquifer and as such managed as surface water. As any activity in the Lindis Ribbon Aquifer is prohibited this ensures that there is no opportunity for a case for better science to be put forward that could provide for alternative groundwater options to be explored within the Lindis Catchment.
- 3) Accept a primary allocation of 1500L/sec to more accurately align with current primary block;
- 4) Use Geographic maps to be used instead of the proposed maps with random exclusions; and
- 5) Provide for a longer time frame for change as so much has to be done that requires, cohesion, money, time, access, etc. We require time until at least 2026 until we will be able to prepare for a minimum flow to apply.

We request that the Otago Regional Council favorably consider this submission with regard to Plan Change 5A, should you require any further assistance in relation to this matter, please contact Werner Murray of Landpro Limited.

Yours sincerely,

**LANDPRO LIMITED**

A handwritten signature in black ink, appearing to read 'W. Murray', written over a horizontal line.

Werner Murray  
Planning Manager





Lindis Irrigation Ltd

Submission to Otago Regional Council on Proposed Plan Change 5A

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This is a submission on the following proposed plan change – Plan Change 5A (Lindis: Integrated Water Management) to the Regional Plan: Water for Otago.

We could not gain an advantage in trade competition through this submission.

We wish to be heard in support of our submission.

The Lindis Irrigation Ltd has over 30 shareholders who all use the company held Deem Permits, minor RMA consents and race infrastructure to source water from the Lindis River for irrigation. The land irrigated by the shareholders is quite geographically spread around the Lindis Catchment. Over half of the water is used in the Tarras Creek sub branch of the Lindis Catchment. Any reduction in the volume of water that can be abstracted from the Lindis River will have an adverse effect on the profitability of our shareholders and the company. The proposal put forward in the plan change would certainly mean the demise of the company. An put our shareholders in a predicament of where and how they would source there water. With all the unknowns of how much water and at what cost and where from and who they could work or join with as a group. Even if that was all sorted there will always be somebody left out for one reason or other.

#### Policy 6.4.5

Oppose and want Policy 6.4.5 amended

Amend policy 6.4.5 so that implementation of minimum flow on Lindis River will not occur before October 2026

No feasible transition period

Inserting the Lindis catchment into this existing policy will result in a lack of a feasible timeframe and clear process for irrigators to transition to new permits with conditions imposing a minimum flow regime and a new primary allocation limit. Included in this process is the establishment of new intake structures, conveyance systems and the potential requirement for irrigators to shift water rights to an alternative source.

Irrigators are required to make substantial changes to replace their deemed permits or water permits under the RMA and the existing provisions of the ORC's RPW, including increasing their efficiency of use. This will require significant changes to and investment in, irrigation systems both on and off farm. The existing irrigation scheme servicing most water users will be replaced with totally new distribution systems to convey water

#### Rule 12.1.4

Oppose in so far as it is linked to Schedule 2A and Maps B4

Amend Maps B4 and B7 to include all of the true geographic area of the Lindis Catchment

Our shareholders are spread across the whole catchment and some have irrigated land and properties bisected by the dividing line when excluding the Tarras sub region. It will make forming partnership in new infrastructure more complicated.

Schedule 2A (3) – specific minimum flows for primary allocation takes

Minimum flow of 750 L/s (1 October to 31 May)

Oppose and want amended.

Amend to a minimum flow of 450 L/s (1 October to 31 May) with an implementation date of 2026

Irrigators who will be subject to the proposed minimum flow would be significantly adversely affected socially and economically as a result of factors including:

- a) reduced water availability;
- b) reduced reliability of supply; and
- c) resultant challenges for all decisions about farming operations, including investment in more efficient irrigation systems.

As a result, the shareholders connected to the Lindis catchment area would also be significantly adversely affected socially and economically.

Provisions NOT included in PPC5A

Oppose and want PPC5A amended

Section 32 evaluation

The evaluation of the proposed plan change was not carried out in accordance with section 32 of the RMA, including, but not limited to, a failure to accurately assess the efficiency and effectiveness of the provisions in achieving the objectives of the RPW, including the objectives outlined above.

The section 32 report failed to identify and assess options for:

- a) an effective transition period and process,

b) a range of potential river management options  
even though these were presented to the ORC by stakeholders prior to notification of PPC5A.

Amendment sought

Request the development of a transition package including policies and rules to create a clear process, and appropriate timeframes, for an effective transition to new water permits with conditions imposing a minimum flow regime and new primary allocation limit.

LCG seek the inclusion of a range of river management options which, in combination with the provisions (including the minimum flow regime) proposed by LCG, would maintain and enhance the values associated with the Lindis River.