From: Dermott O"Sullivan
To: Mailroom Mailbox

Subject: PC7 submission - Dermott O"Sullivan - changes accepted (003).docx

Date: Friday, 13 September 2019 7:41:52 AM

Hi

Please find attached submission on Proposed Plan Change 7 to the Canterbury Land and Water Plan.

Regards

Dermott O'Sullivan

SUBMISSION ON PROPOSED PLAN CHANGE 7 TO THE CANTERBURY LAND AND WATER REGIONAL PLAN

Clause 5 First Schedule, Resource Management Act 1991

TO: Proposed Plan Change 7 to the Canterbury Land and Water Regional Plan

Environment Canterbury

PO Box 345 Christchurch 8140

By email: mailroom@ecan.govt.nz

Name of submitter:

1 Name: William Dermott O'Sullivan

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Fairlie 7987

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Trade competition statement:

I, William Dermott O'Sullivan, could not gain an advantage in trade competition through this submission.

Proposal this submission relates to is:

This submission is on proposed Plan Change 7 (PC7) to the Canterbury Land and Water Regional Plan (PC7).

Wish to be Heard:

- 4 I wish to be heard in support of this submission.
- I would be prepared to consider presenting a joint case with others making similar submissions at the hearing.

WD O'Sullivan

William Dermott O'Sullivan

Date: 13 September 2019

Submission

Background

I am a shareholder and a director of Glenire Farm Ltd, a dairy operation milking 1200 cows off an irrigated 350ha milking platform bounding the north bank of the Te Ana Wai river at Cricklewood, between Albury and Fairlie. I have held water rights/consents to take water from the Te Ana Wai River for over 35years, and have been a shareholder in Opuha Water Ltd since it started operation in 1998, and therefore have an AA consent, with a maximum take rate of 103litres/second. Our take flows by gravity into a large storage pond and is pumped to irrigators from there. We also hold a BN consent to take high flow water into storage which is important to us. Irrigation is mainly through pivots, each with soil moisture monitoring readers under them. In short, our water usage is considered very efficient.

Summer low flow restrictions on the Te Ana Wai are common, hence our reason for building storage. The five AA consent holders have managed restrictions working together very effectively as an official Water User Group for over ten years. The new flow regime as proposed in PC7 to take effect in 2025 (Table 14(r) while more restrictive, we believe we can live with, but not without some financial hurt. Stage two which PC 7 has coming into effect in 2030 (Table 14(s) will have a major effect on our reliability and in turn viability. I strongly submit that we must be given more time to work through this, and support 2035 as the year stage two takes effect, as recommended by the Flow and Allocation Working Party. (FAWP)

I have had a long association with water issues in South Canterbury, with 23yrs involvement with Opuha Water Ltd between 1994 and 2017, initially as a Trustee and the last ten years as a Director. During those ten years I represented OWL on the Opuha Environmental Flow Release Advisory Group (OEFRAG) for six years. My term included 2014/15, 2015/16 when we learnt so much about managing the lake in a water short year, those learnings being the basis of the Adaptive Management Working Groups (AMWG) recommendations. These learnings and subsequent recommendations, I submit, have been largely ignored by Environment Canterbury (ECAN) in writing PC7.

When applications were called for interested personal to form the OTOP Zone Committee in 2009, I put my name forward. I was subsequently selected and after a period of induction, I was elected the inaugural Chairman, a position I held for 5 years until the end of 2015, when health issues forced me to stand down.

In my time on the Zone Committee, it was drummed into us from the outset by ECAN staff and Facilitators that ZCs were all about "Local people finding local solutions". That was the theme that we, on the committee, believed in, and it was the theme I sold at many a public meeting. While chairman, I was instrumental in setting up eight Catchment Groups throughout the Zone, the sales pitch again being "Local people finding local solutions"

In the early stages, the ZC soon recognised that OTOP Zone was the most water short of the ten Zones in Canterbury with no access to alpine water to give reliability. The talk by Senior Hydrological staff from ECAN was of new water being brought into South Canterbury by so called 'replumbing' of the Canterbury Plains, and this plan gained momentum. This would allow freed up water to be brought across the Rangitata, to be used for new irrigation and augmenting environmental flows. Access to water from the west (Tekapo) was also often on the agenda. All these exciting possibilities for South Canterbury and the OTOP Zone eventually evaporated, for economic and environmental reasons, and we are left with trying to squeeze more out of the limited resource we have.

Again on the theme of "local people finding local solutions', in 2017 I joined as a member of the FAWP group, 'Flow and Allocation Working Party'. This group has done a huge amount

of work, employing expert consultants, and has had excellent facilitation, and I believe, has come up with robust recommendations.

My biggest disappointment with this long ten year process has to be that the 'local peoples solutions' have often been ignored by ECAN in writing this draft Plan Change 7.

Dermott O'Sullivan

Director

Glenire Farm Ltd.

PLAN CHANGE 7 - REASONS FOR SUBMISSION AND DECISIONS SOUGHT BY WILLIAM DERMOTT O'SULLIVAN

Submission points for Tributary minimum flow regimes

The specific provisions of PC7 that my submission relates to are:		My submis	sion is that:	I/we seek the following decisions from Environment Canterbury (ECan)	
Section & Page Number	Sub-section/ Point	Oppose/ support (in part or full)	Reasons		
14.1A Orari- Temuka-Opihi- Pareora Definitions (pages 125 to 128)	"Pro Rata Partial Restrictions"	Oppose in part	In relation to the proposed partial restriction regimes for the North Opuha, Upper Opihi and Te Ana Wai rivers set out in Section 14.6.2 <i>Environmental Flow and Allocation Regimes</i> , the proposed definition of "pro-rata partial restriction" would require AA and BA permits, that are operated as part of a water user group, to start pro-rata partial restrictions when surface water flows correspond to the particular tributary's minimum flow plus the sum of all AA, AN and BA allocations for the tributary. This approach fails to take into account the fact that AN permit holders are required to cease abstraction according to the Opihi River mainstem minimum flows at State Highway 1 (set out in Table 14(u)) before partial restrictions commence in the tributaries. It is therefore unnecessary for AN allocation to be accounted for in the partial restriction "management block" for AA and BA Permits in the North Opuha, Upper Opihi and Te Ana Wai rivers. Including AN allocation in the partial restriction "management block" for AA and BA Permits, would reduce the amount of water available for abstraction under AA and BA permits at critical times for irrigation, with adverse implications for pasture production and consequently farm business viability and/or profitability. Such "costs" of the implementation of the proposed definition are unjustified when the alternative above would achieve the same ecological objective (i.e. protection of the tributary minimum flows) as PC7.	Amend definition of "Pro-rata partial restriction" so that AA and BA permits that are operated as part of a water user group are subject to pro-rata partial restrictions that commence when the flows in the North Opuha, Upper Opihi and Te Ana Wai River correspond with the minimum flow for the tributary, plus the sum of the allocation authorised for abstraction under AA and BA permits that are being operated as part of a water user group.	
14.4 Policies					
Abstraction of water (page 132)	14.4.6B (Takes for storage)	Support	I/we consider that enabling water abstracted under AA, BA, AN and BN permits (in particular) to be used for storage is an appropriate mechanism to offset at least some of the reduction in reliability of water supply that is anticipated from the implementation of the environmental flow and allocation regimes introduced by PC7.	Retain Policy 14.4.6B as notified.	
14.6.2 Environmental Flow and Allocation Regimes	Table 14(m): North Opuha Environmental Flow and Allocation	Support in part	Subject to the submission point relating to the definition of "Pro-rata restriction" above, I/we support the environmental flow, allocation and partial restriction regime proposed in Table 14(m), which is consistent with the Flow and Allocation Working Party's (FAWP) recommendations to the OTOP Zone Committee. I/we believe this proposed regime will: • implement Recommendation 5.3.2(I) Table 12 of the OTOP ZIPA;	Subject to the relief sought in relation to the definition of "Pro-rata restriction", retain Table 14(m) as notified.	

(pages 166- 171)	Regime – AA, AN, BA Permit From 1 January 2025 Table 14(n): South Opuha Environmental Flow and Allocation Regime – BA Permit From 1 January 2025	Support in part	 incentivises the formation and operation of water user groups and therefore, water use efficiency; assist in achieving the water quality and quality outcomes of the various higher order planning instruments. I/we support the environmental flow, allocation and partial restriction regime in Table 14(n), which is consistent with the FAWPs recommendations to the OTOP Zone Committee. I/we believe this proposed regime will: implement Recommendation 5.3.2(I) Table 9 of the OTOP ZIPA; incentivises the formation and operation of water user groups and therefore, water use efficiency; assist in achieving the water quality and quality outcomes of the various higher 	Retain Table 14(n) as notified.
	Table 14(o): South Opuha Environmental Flow and Allocation Regime – BA Permit From 1 January 2030	Oppose in full	order planning instruments. The increases in environmental flows in 2030 for South Opuha proposed in Table 14(o) will result in measurable reductions in the amount of water presently available for abstraction, and consequently, current levels of pasture production. The anticipated reductions in pasture production will have a significant adverse effect on the viability and/or profitability of farm businesses in the South Opuha catchment. These significant costs are not justified for the incremental environmental benefit anticipated. I/we consider that the need (or otherwise) for increases beyond the 2025 environmental flows proposed in Table 14(o) would be best addressed at the time of ECan's next review of the OTOP sub-regional provisions (which should commence prior to 2030). This could then be informed by the water quality and quantity data gathered during the intervening period. I/we therefore considers that Table 14(o) should be deleted.	 (a) Delete Table 14(o) in its entirety; and (b) As part of its expected 10-year review of the OTOP sub-regional plan provisions (in 2030 or prior), determine whether any increases beyond the environmental flows set out in Table 14(n) environmental flow regime is necessary in light of water quality and quantity data gathered during the intervening period and the directives of the higher order planning instruments applying at the time of such review.
	Table 14(p): Upper Opihi Environmental Flow and Allocation Regime – AN and BA Permits From 1 January 2025	Oppose in part	Subject to the submission point relating to the definition of "Pro-rata restriction" above, the Catchment Group supports the environmental flow, allocation and partial restriction regime in Table 14(p), is consistent with the FAWPs recommendations to the OTOP Zone Committee. I/we believe this proposed regime will: • implement Recommendation 5.3.2(I) Table 14 of the OTOP ZIPA; • incentivises the formation and operation of water user groups and therefore, water use efficiency; • assist in achieving the water quality and quality outcomes of the various higher order planning instruments. The Upper Opihi water users (with Opuha Water Ltd (OWL)) have reviewed the current consented allocations and shared allocations for the Upper Opihi and have identified a discrepancy in the allocation limit of 474 L/s included in Table 14(p), which does not account for all shareholding in that catchment. Based on this assessment, in order for the allocation limit to reflect current allocations (being based on the lesser of the shared or consented allocations), the allocation limit should be 493.45 L/s, which comprises 428.05 L/s of BA allocation and 65.4 L/s of AN allocation.	Subject to the relief sought in relation to the definition of "Pro-rata restriction", amend the allocation limit in Table 14(p) to reflect OWL shareholding, to 493 L/s.
	Table 14(q): Upper Opihi Environmental	Oppose in full	The increases in environmental flows in 2030 for the Upper Opihi proposed in Table 14(q) will result in measurable reductions in the amount of water presently available for abstraction, and consequently, current levels of pasture production. The anticipated	(a) Delete Table 14(q) in its entirety; and

F F F 1	Flow and Allocation Regime – AN and BA Permits From 1 January 2030		reductions in pasture production will have a significant adverse effect on the viability and/or profitability of farm businesses in the Upper Opihi catchment. These significant costs are not justified for the incremental environmental benefit anticipated. I/we consider that the need (or otherwise) for increases beyond the 2025 environmental flows proposed in Table 14(p) would be best addressed at the time of ECan's next review of the OTOP sub-regional provisions (which should commence prior to 2030). This could then be informed by the water quality and quantity data gathered during the intervening period. I/we, therefore, consider that Table 14(q) should be deleted.	(b) As part of the expected 10-year review of the OTOP sub- regional plan provisions (in 2030 or prior), determine whether any increases beyond the environmental flows set out in Table 14(p) environmental flow regime are necessary in light of water quality and quantity data gathered during the intervening period and the directives of the higher order planning instruments applying at the time of such review.
F 6 1	Table 14(r): Te Ana Wai Environmental Flow and Allocation Regime – AA, AN and BA Permits From 1 January 2025	Support in part	Subject to the submission point relating to the definition of "Pro-rata restriction" above, the Catchment Group supports the environmental flow, allocation and partial restriction regime in Table 14(r), is consistent with the FAWPs recommendations to the OTOP Zone Committee. I/we believe that this proposed regime will: • implement Recommendation 5.3.2(I) Table 17 of the OTOP ZIPA; • incentivises the formation and operation of water user groups and therefore, water use efficiency; • assist in achieving the water quality and quality outcomes of the various higher order planning instruments.	Subject to the relief sought in relation to the definition of "Pro-rata restriction", retain Table 14(r) as notified.
F A	Table 14(s): Te Ana Wai Environmental Flow and Allocation Regime – AA, AN and BA Permits From 1 January 2030	Oppose in part	For environmental purposes I/we understand that it may be appropriate for there to be a move towards pro-rata restrictions applying to AA, AN and BA Permits that authorise abstraction from the Te Ana Wai river, as proposed by Table 14(s). I/we understand that the FAWP recommended this change to the OTOP Zone Committee in 2018, but on the basis that the change take effect from 2035 (not 2030 as proposed by PC7). I/we understand that the introduction of pro-rata partial restrictions will adversely impact the viability and/or profitability of farm businesses within the Te Ana Wai catchment, and necessitate changes to existing farm systems/capital infrastructure or the consideration of alternative water supplies to offset expected reductions in reliability. A further five years (beyond that proposed in Table 14(s)) is required to provide affected permit holders with time to adjust to the proposed change. I/we do not believe this timeframe is unreasonable, particularly as it aligns with the timeframe contemplated for the implementation of the environmental and flow regime proposed by PC7 for the Temuka Freshwater Management Unit in Table 14(l).	Amend to provide for pro-rata restrictions to take effect from 2035 (not 2030 as proposed in the notified version of Table 14(s))
F F N	Table 14(u): Minimum Flow Restrictions in the Opihi Freshwater Management Unit for AN Permits	Oppose in part	I/we are unclear how the 5600l/s allocation for AN and AA surface users has been calculated. This appears to be a 'carry over' from the Opihi River Regional Plan and may not fully account for all AN and AA surface water and stream depleting groundwater takes within the Opihi FMU, especially with the introduction of the new stream depletion methodology. It is essential that this allocation limit is corrected.	(a) Amend the AN allocation limit in Table 14(u) so that it reflects all allocation attributable to AN and AA surface water permits and groundwater permits with a direct or high stream depleting effect.
	Table 14(y): Opihi	Oppose in part	I/we support the proposed BN environmental flow and allocation regimes for the South Opuha, North Opuha, Upper Opihi and Te Ana Wai rivers contained in Table 14(y),	(a) Amend the BN allocation limit for the Opihi Mainstem in Table 14(y) so that it reflects all allocation attributable to BA and BN

Freshwater Management Unit BN Permit Environmental Flow and Allocation Regimes	together with the associated partial restriction regimes and Lake Opuha level restrictions. OWL also supports the proposed environmental flow and associated partial restriction regime for the Opihi Mainstem In Table 14(y). In OWL's view, these regimes are necessary to off-set the reduced reliability of AA, AN and BA permits resulting from increases in applicable minimum flows proposed under PC7, and therefore implement Policy 14.4.6B. OWL is, however, concerned that the allocation limit for the Opihi Mainstem in Table 14(y) does not fully account for all BA and BN surface water and stream depleting groundwater takes, especially with the introduction of the new stream depletion methodology. It is essential that this allocation limit is corrected.	surface water permits and groundwater permits with a direct or high stream depleting effect.
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Submission Points for Nutrient Management

The specific provisions of PC7 that my submission relates to are:				I/we seek the following decisions from Environment Canterbury (ECan)
Section & Page Number	Sub-section/ Point	Oppose/ support (in part or full)	Reasons	
Definitions				
14.4 Policies				
Nutrient Management (pages 135 – 137)	14.4.20B	Support	I/we support the approach taken by Policy 14.4.20B in terms of providing a methodology where the Farm Portal is unable to generate a Baseline GMP Loss Rate or Good Management Practice Loss Rate or the number generated is demonstrated to be erroneous.	Retain Policy 14.4.20B as notified.
	14.4.20C	Oppose in part	While I/we accept that ECan should have the power to review land use consents for farming activities in the circumstances contemplated by Policy 14.4.20C, I/we consider that the scope of the consent review should be limited to a review of nutrient discharge allowance conditions.	Amend Policy 14.4.20C so that only the conditions relating to the nutrient discharge allowance can be reviewed.

Submission Points for Opihi mainstem flow regime (and dam operation)

The specific provisions of PC7 that my submission relates to are:				I/we seek the following decisions from Environment Canterbury (ECan)
Section & Page Number	Sub-section/ Point	Oppose/ support (in part or full)	Reasons	
14.4 Policies				
Opihi Freshwater Management Unit: Surface Water Flows (pages 140- 141)	14.4.35	Oppose in part	As an OWL shareholder, I/we support the intent of Policy 14.4.35, to maintain connectivity and flow variability in the augmented Opuha and Opihi rivers. This aligns with the way OWL has been operating the Opuha dam, and the ethos of the OEFRAG approach to managing the Opihi River over the years, including in particular, during the severe water short years of 2014, 2015 and 2016. I/we support clause (b) which specifies that the flows at Saleyards bridge should be measured on a 24-hour average with instantaneous variance of not greater than 500l/s below the minimum flow. From an operational point of view this is a practical and efficient approach. In terms of clause (e) relating to fresh management, I/we understand that the Adaptive Management Working Group (AMWG) have been working to develop an artificial fresh regime to most efficiently manage periphyton and achieve improved environmental outcomes. I/we support the AMWG's proposals and submission in this regard.	Adopt the decisions sought in the AMWG's submission on PC7 relating to artificial freshes.
	14.4.37 and 14.4.38	Oppose in part	I/we support the approach adopted by PC7 of enabling the implementation of an alternative management regime for the Opihi River mainstem, which takes into account the available water within the Lake Opuha catchment, through a discharge consent held by the Opuha Dam operator. I/we are, however, very concerned about the implications of clause (b) of Policy 14.4.37 and Policy 14.4.38 for the efficient and effective management of the Opihi River. The requirements of clause (b) that an adaptive management regime (i.e. Level 1 or Level 2 flow regime) could only be entered at the start of a calendar month and must remain in place for the whole month fails to recognise that climatic conditions and water demand can change significantly over a month. These requirements would lead to delayed intervention, which in turn is more likely to lead to a fully drained Lake and associated loss of minimum flow control. For example, if the Level 1 regime thresholds are crossed a day after the first day of the month, Policy 14.4.37(b) would result in a month's delay in moving into a Level 2 regime - a month's delay is considerable. I/we also believe there is no valid reason to delay exiting a regime until the start of the next calendar month if conditions indicate that abstractions and minimum flows are likely to be able to be met for the upcoming months. This delay could be up to a month, would	 Adopt the decisions sought in the AMWG's submission on PC7 relating to Policies 14.4.37 and 14.4.38 to provide for the following: The ability to enter into an adaptive management regime on any day if the requisite thresholds are met; If an adaptive management regime is entered, the adaptive management regime must apply for a minimum of 14 days; and The ability to enter into a Level 2 Regime only if a Level 1 Regime has been in place for at least 14 days; The adaptive management regime "exit" thresholds are the equivalent of the Level 1 and Level 2 Lake level entry thresholds.

			provide no appreciable benefit but would cause unnecessary stress to the Opuha and Opihi river systems and abstractors. I/we understand that the AMWG have been working to develop an adaptive management regime that is based on being able to enter the regime on any day if the requisite thresholds are met. I/we also understand the group have been considering an 'exit' strategy – i.e. when an alternative management regime can be lifted. I/we consider these essential amendments in order to ensure the storage in the Lake Opuha is able to be managed in order to achieve connectivity and variability, and completely support the AMWG in their proposal.	
14.5 Rules	Į.			
Augmentatio n of the main stem of the Opuha and Opihi Rivers (page 155)	14.5.29	Oppose in part	I/we wish to highlight the crucial role OEFRAG has historically had in the management of flow releases from the Opuha Dam. The OEFRAG model has been hugely successful in ensuring the effective management of stored water in Lake Opuha during water short periods for the benefit of the Opuha and Opihi river systems and abstractors. This is largely due to the breadth of local knowledge, experience and technical expertise held by its members. I/we strongly believe that OEFRAG should continue to have an advisory role under PC7 on the implementation of an adaptive management regime. I/we understand that the AMWG are proposing that this advisory role be detailed within	Adopt the decisions sought in the AMWG's submission on PC7 relating to Policy 14.5.29, to require that an operational management be required as part of a resource consent application that includes details of the matters for consideration and a consultation process with OEFRAG to assist in the decision of if and when the Level 1 and Level 2 regimes should be entered into or exited.
44.6. Allocation	Water Over	Aldred Lineside	an operational management plan that would be submitted by OWL in its application for a discharge consent. This seems a logical and practical way of providing certainty to OEFRAG membership, and the wider community, that consultation will occur before any Level 1 or Level 2 regime is implemented.	
	and Water Quan		Advertise many and manifest	Delete the mental mental mental time in Table 4460 and a deat the destatement
14.6.2 Environment al Flow and Allocation Regimes	Table 14(v): Minimum Flow Restrictions in the Opihi Freshwater Management Unit for AA and BA Permits (2025)	Oppose in part	Adaptive management regime I/we strongly support the inclusion of an adaptive management regime for Opuha and Opihi rivers in PC7 which proposes a tiered approach to environmental flows that would apply according on Lake Opuha levels, snow pack and inflows to Lake Opuha, based on the concepts developed by the AMWG prior to the notification of PC7. I/we are, however, concerned that the proposed adaptive management regime has simply been copied and pasted from an application for a plan change back in 2008, that was drafted by OEFRAG. While I/we appreciate that this '2008 application' would have reflected best knowledge at the time, 11 years on our knowledge and experience has greatly improved, especially in light of the dry period of 2014-16. I we understand that the '2008 application' was trialled by OEFRAG in 2014/15, but it was ineffective because:	Delete the partial restriction in Table 14(v) and adopt the decisions sought in the AMWG's submission on PC7 relating to the partial restrictions for AA and BA permits at Saleyards Bridge, which provide for variable monthly restrictions, as detailed in Table 14(v(iii)) of the AMWG's submission.
			 The lake level threshold for moving into a Level 1 Regime or Level 2 Regime equates to 50% full, which is too low to make any meaningful impact on Lake storage (i.e. it is too little to late). The reductions in minimum flows through the Level 1 and Level 2 Regimes would not be enough to make meaningful water savings, for subsequent use for the benefit of the downstream environment and abstractors. 	

 The ability to make water savings under a Level 1 Regime between April and August is severely constrained. In this regard it is noted that in 2015, WSD were in place for much of the winter in order to reduce the minimum flows prescribed by the ORRP and improve the likelihood of a full Lake at the start of the 2015/16 season, to meet the needs of the downstream environment and abstractors.

I/we very much doubt that PC7's adaptive management regime would enable the flexibility required for proactive management of available storage in the Lake Opuha catchment. I/we anticipate that we will just have to resort back to relying on Water Shortage Directions into the future.

I/we understand that the AMWG have identified a set of revisions to PC7 that it believes will achieve the outcomes sought by PC7, which include:

- (a) Amendments to the "full availability" flows proposed in Table 14(v), which
 - Provide more water for the river environment during the summer months (by moving water from the shoulder periods to Jan/Feb);
 - Ensure sufficient flows for salmon migration (Mar/Apr) and whitebait
 migration (particularly Oct) (i.e. flows will be maintained at SYB
 during these critical periods at greater than 6 cumecs, which prior
 research has indicated is the flow required to maintain the mouth of
 the Opihi river open).
- (b) Amendments to the "Level 1 Restriction" flows proposed in Table 14(v), which also provide more water for the river environment during the summer than PC7 and otherwise respond to changing climatic conditions in the catchment; and
- (c) Amendments to the "Level 2 Restriction" flows proposed in Table 14(v), to align with PC7's proposed 2022 Opihi mainstem environmental flow requirements for AN permits of 2.6 cumecs at Stage Highway 1 (Table 14(u) and historical IFIM habitat modelling).

I/we support these proposed revisions.

Partial Restrictions

The approach taken to restrictions under PC7 represents a significant change from the present planning and consenting framework under the ORRP. I/we accept that the ORRP regime's 50% restriction when Lake Opuha reached RL375m was too late to make any measurable benefit (i.e. in terms of water savings). However, the approach under PC7 of linking a "Level 1 Restriction" to a flat 50% restriction and a "Level 2 Restriction" to a flat 75% restriction, will have significant consequences for the irrigators. This is too harsh and fails to recognise the benefits of the Opuha Dam which irrigators own and have funded

Alternatively, I/we believe that the restriction regime should recognise the criticalities between river demand and irrigation for different times of the year (i.e., trainable monthly restrictions). It should also provide for exemption for AA and BA permit holders in the North Opuna, South Opuna, Upper Opini and Te Ana Wal Riverse which have lower reliability as a result of tributary-specific environmental flow regimes. I/we are also very concerned about the implications of the proposed partial restrictions being a daily 24 hour volumetric restrictions. This falls to recognise the operational constraints of the irrigation infrastructure of consent holders. It would be lead to gross inefficiencies in terms of water released from the Dam If, for example, a 50% restriction was in place and shareholders could only irrigate 12 ut of the 24 hours. From our experience in the dry period (2014-16, a restriction regime based on a fortnightly volumetric restriction let to a "smoother" operation of the dam and greater water efficiency. I/we are sure that OWL and irrigators could provide the necessary real time information to Eccla no provide them confort from a compliance point of view. Table 14(v) for the reasons addressed above in relation to Table 14(v). Which would take effect from 2030. I/we understand that these increases in the "full availability" environmental flows beyond those proposed in Table 14(v), which would argue, however, that this is not hydrologically correct, it has no underlying scientific rationals and does not appear to have been informed by any detailed value by the would argue, however, that this is not hydrologically correct, it has no underlying scientific rationals and does not appear to have been informed by any detailed passis, as live understand it, the proposed full availability environmental flows to solve the result of high environmental flows for 100 puts of the first passis includes solve the way alloting environmental flows for AN Permits. It falls to recognise that the relationship				
Table 14(w): Minimum Flow Restrictions in the Ophin Freshwater Management Unit for AA and BA Permits (2030) If the proposed fine proposed fine provision in Table 14(w) for increases in the "full availability" environmental flows beyond those proposed in Table 14(w), which would take effect from 2030. I/we understand that these referct from 2030. I/we understand that these refercations in the proposed full availability of environmental flows in Table 14(w) are intended to reflect the flow gains in the tributaries (Upper Ophin and Te Ana Wai) from increased nimimum flows and year of advanced argue, however, that this is not hydrologically correct, it has no underlying scientific rationale and does not appear to have been informed by any detailed analysis. As I/we understand it, the proposed "full availability" environmental flows in Table 14(w) are intended to reflect the flow gains in the tributaries (Upper Ophin and Te Ana Wai rivers) and saleyards bridge is much more complex than the 1:1 ratio assumed in Table 14(w). It would result in approximately 5.2 million cubic metres (on average per year) of additional water released from Opuha Dam to meet this increased minimum flow, as the AMWG's analysis indicates additional water from the Upper Opihin and Te Ana Wai would only be flowing to five the time. The release of this extra water would reduce the availability of stored water volume in Lake Opuha for environmental and irrigation eleases by approximately 8% per year on average, which may increase the frequency of water shortages into the future. • the approach raises issues of equity as PC7 does not include a similar increase in the environmental flows for AN Permits.			between river demand and irrigation for different times of the year (i.e. variable monthly restrictions). It should also provide for exemption for AA and BA permit holders in the North Opuha, South Opuha, Upper Opihi and Te Ana Wai Rivers which have lower reliability as a result of tributary-specific environmental flow regimes. I/we are also very concerned about the implications of the proposed partial restrictions being a daily 24 hour volumetric restrictions. This fails to recognise the operational constraints of the irrigation infrastructure of consent holders. It would also lead to gross inefficiencies in terms of water released from the Dam if, for example, a 50% restriction was in place and shareholders could only irrigate 12 out of the 24 hours. From our experience in the dry period of 2014-16, a restriction regime based on a fortnightly volumetric restriction led to a 'smoother' operation of the dam and greater water efficiency. I/we are sure that OWL and irrigators could provide the necessary real time	
Minimum Flow Restrictions in the Opihi Freshwater Management Unit for AA and BA Permits (2030) If a light or experimental flows beyond those proposed in Table 14(v), which would take effect from 2030. I/we understand that these increases in full availability' environmental flows beyond those proposed in Table 14(v), which would take effect from 2030. I/we understand that these increases in 'full availability' environmental flows in Table 14(w) are intended to reflect the flow gains in the tributaries (Upper Opihi and Te Ana Wai) from increased minimum flows in 2030. I/we would argue, however, that this is not hydrologically correct, it has no underlying scientific rationale and does not appear to have been findmed by any detailed analysis. As I/we understand it, the proposed 'full availability' environmental flows for 2030 have a number of significant issues: It fails to recognise that the relationship between flows in the tributaries (Upper Opihi and Te Ana Wai viers) and saleyards bridge is much more complex than the 1:1 ratio assumed in Table 14(w). It would result in approximately 5.2 million cubic metres (on average per year) of additional water released from Opuha Dam to meet this increased minimum flow, as the AMWG's analysis indicates additional water from the Upper Opihi and Te Ana Wai would only be flowing 1% of the time. The release of this extra water would reduce the availability of stored water volume in Lake Opuha for environmental and irromental and irromental and irromental and irromental and irromental and irromental flows for AN Permits.			information to ECan to provide them comfort from a compliance point of view.	
that for the physical habitat of most native fish species, juvenile brown trout and salmonid spawning, increasing the minimum flows is actually detrimental.	Minimum Flow Restrictions in the Opihi Freshwater Management Unit for AA and BA Permits	Oppose	Table 14(w) for the reasons addressed above in relation to Table 14(v). I/we also fundamentally oppose the provision in Table 14(w) for increases in the "full availability" environmental flows beyond those proposed in Table 14(v), which would take effect from 2030. I/we understand that these increases in "full availability" environmental flows in Table 14(w) are intended to reflect the flow gains in the tributaries (Upper Opihi and Te Ana Wai) from increased minimum flows in 2030. I/we would argue, however, that this is not hydrologically correct, it has no underlying scientific rationale and does not appear to have been informed by any detailed analysis. As I/we understand it, the proposed "full availability" environmental flows for 2030 have a number of significant issues: • It fails to recognise that the relationship between flows in the tributaries (Upper Opihi and Te Ana Wai rivers) and saleyards bridge is much more complex than the 1:1 ratio assumed in Table 14(w). • It would result in approximately 5.2 million cubic metres (on average per year) of additional water released from Opuha Dam to meet this increased minimum flow, as the AMWG's analysis indicates additional water from the Upper Opihi and Te Ana Wai would only be flowing 1% of the time. The release of this extra water would reduce the availability of stored water volume in Lake Opuha for environmental and irrigation releases by approximately 8% per year on average, which may increase the frequency of water shortages into the future. • the approach raises issues of equity as PC7 does not include a similar increase in the environmental flows for AN Permits. I/we also understand, from ecological work that the AMWG advisers have undertaken, that for the physical habitat of most native fish species, juvenile brown trout and	Delete Table 14(w) in its entirety

Table 14(x): Alternative Management Regime Triggers Oppose in part	implemented in the future. As an example, the Lake Level trigger for a level 1 regime is	Delete Table 14(x) and adopt the decisions sought in the AMWG's submission on PC7 relating to the alternative management regime triggers, which presents a revised set of thresholds for lake level, snow storage and lake inflows.
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Other submission points relevant to my farming operation

The specific provisions of PC7 that my submission relates to are:				I/we seek the following decisions from Environment Canterbury (ECan)
Section & Page Number	Sub-section/ Point	Oppose/ support (in part or full)	Reasons	
14.4 Policies				
Efficient Use of Water (page 133)	14.4.12 (Replacement consented allocation based on past use)	Support in part	I/we support the exemption in Policy 14.4.12 from the general requirement to restrict volume and/or rate of take when an existing permit is replaced to reflect actual use (as prescribed by Method 1 of Schedule 10, CLWRP) for AA, BA and KIL permits, as permits affiliated to OWL. This is consistent with ZIPA Recommendation 4.9.5(II).	Retain Policy 14.4.12 as notified
Transfer of Permits (page 134)	14.4.13	Oppose	I/we understand that the primary focus of proposed Policy 14.4.13 is to address the phasing out of over-allocation. However, there is no clear statement within Policy 14.4.13 or PC7 regarding which of the various surface water catchments and groundwater allocation zones within the sub-region that have been assessed by ECan as "over-allocated". It is therefore unclear which surface water catchments and groundwater allocation zones that the directives contained in proposed Policy 14.4.13 will apply to. It is essential that certainty about the sub-region's over-allocated resources be provided in Policy 14.4.13.	Amend Policy 14.4.13 to include specific reference to the surface water catchments and groundwater allocation zones within the sub-zone that were over-allocated as at the notification of PC7. Clarify the exemption from the requirement to surrender allocation on transfer for water permits affiliated to OWL.
			Importantly, it is my/our understanding that none of the surface water catchments from which water is abstracted under permits affiliated to OWL are over-allocated, and this should be made clear.	
			Furthermore, clause (b) of proposed Policy 14.4.13 does not provide an express exclusion from the requirement to surrender allocation on transfer for water permits affiliated to OWL (i.e. AA, BA and KIL) Permits, as contemplated by ZIPA Recommendation 4.9.3(IV). This needs to be addressed.	
Out of Catchment Water (page 134)	14.4.14	Oppose in part	The intended meaning and scope of the term "catchment" in Policy 14.4.14 is uncertain. Specifically, it is not clear whether the intention of Policy 14.4.14 is to address water introduced from outside the OTOP sub-zone (which I/we believe is the intent of the Policy) or, for example, movement of water between the tributary catchments of larger catchments in the OTOP sub-zone. OWL considers Policy 14.4.14 requires amendment to ensure there is greater certainty around the intended scope and application of the Policy.	Amend Policy 14.4.14 so that the term 'catchment' is replaced by 'Orari-Temuka-Opihi-Pareora sub-region'
Freshwater Mana	agement Unit Sp	ecific Policies		1
Opihi Freshwater Management Unit:	14.4.40	Oppose in part	I/we support the principle of global consenting under Policy 14.4.40. However, as notified, the Policy would only enable Scheme-wide global consenting. It may be more appropriate (from an operational and/or management perspective) for global consenting of permits	Amend Policy 14.4.40 to remove reference to the term 'single'.

Surface Water Flows (page 141)			affiliated to OWL on a sub-catchment scale (e.g. for permits to cover all affiliated takes in each of the individual tributaries of the Opihi). PC7 should not foreclose that option.	
RULES				
Take and use of surface water (pages 144/145)	14.5.12 (Transfer of water permits)	Oppose in part	As already addressed earlier in the submission, I/we believe that further certainty is required in PC7 around which of the OTOP sub-region's freshwater resources are overallocated. This is necessary to provide appropriate guidance around which transfers condition 5(b) of Rule 14.5.12 will apply to. Condition 3 of Rule 14.5.12 does not provide an express exclusion from the required for volume on permits transferred for irrigation be calculated on the basis of past use, as contemplated by ZIPA Recommendation 4.9.3(IV). In addition, condition 5(b) of Rule 14.5.12 does not provide an express exclusion from the requirement to surrender allocation on transfer for water permits affiliated to OWL (i.e. AA, BA and KIL Permits), as also contemplated by ZIPA Recommendation 4.9.3(IV). This express exclusion needs to be made clear in the rules. As an Opuha Water shareholder, I/we believe it is unnecessary to restrict the transfer of permits affiliated to OWL from tributary catchments to the Opuha/Opihi mainstem or Lake Opuha, as done in Rule 14.5.12. Such transfers should be enabled by PC7 as they would assist in taking pressure off the tributary catchments and do not result in any increase in Opihi mainstem allocation (as OWL already releases water to compensate for the effects of such takes on the Opihi mainstem).	Amend Rule 14.5.12 to: Clarify which of the OTOP sub-regions freshwater resources are over-allocated Clarify the exclusion of OWL shareholders specified in ZIPA recommendations 4.9.3(IV). Provide for transfers of permits affiliated to OWL from the tributaries to the Opuha/Opihi mainstem and Lake Opuha.
Transfer of AA and BA Water Permits to a Principal Water Supplier (pages 155- 156)	14.5.31 and 14.5.32	Oppose in part	As noted above in relation to Policy 14.4.40, I/we support PC7's framework for global consenting. However, OWL the requirement that a global consent obtained through Rule 14.5.31 must authorise all existing AA and BA permits is unnecessary and problematic. It is also unnecessary for the rule to limit the rate of take to the lesser of current consented instantaneous rates of take or shareholding entitlements with Opuha Water Limited, as proposed under condition 2 of Rule 14.5.31, as this does not recognise the role of carriage water for OWL's sub-scheme consents, which are an essential component of such consents but are not covered by "shared" entitlements or water supply agreements with OWL.	Amend Rules 14.5.31 to delete reference to 'determined as the lesser of current consented instantaneous rates of take or shareholding entitlements with Opuha Water Limited'.