

From: [Charlotte & Chad Steetskamp](#)
To: [Mailroom Mailbox](#)
Subject: Plan Change 7 to the LWRP Submission
Date: Friday, 13 September 2019 2:26:01 PM
Attachments: [PC7 submission for Cascade Irrigation Limited - Cover Page.pdf](#)
[PC7 submission for Cascade Irrigation Limited.pdf](#)

Hello,

Please see attached cover page and submission on behalf of Cascade Irrigation Limited.
Please reply with confirmation of receipt.

Charlotte Steetskamp



Submission on Proposed Plan Change 7 to the Canterbury Land and Water Regional Plan

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Submitter ID:

File No:

Form 5: Submissions on a Publicly Notified Proposed Policy Statement or Regional Plan under Clause 5 of Schedule 1 of the Resource Management Act 1991

Return your signed submission by 5.00pm Friday 13 September 2019 to:

Proposed Plan Change 7 to the Land and Water Regional Plan

Environment Canterbury

P O Box 345

Christchurch 8140

Full Name: Ron Smith Phone (Hm): _____
Organisation*: Cascade Irrigation Race Ltd Phone (Wk): _____
* the organisation that this submission is made on behalf of
Postal Address: 95 Strathallan Rd. Phone (Cell): 0272329199
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Contact name and postal address for service of person making submission (if different from above):
40 Charlotte Street/Lamp (accounts/admin)
85 Strathallan Road, Fairlie 7987

Trade Competition

Pursuant to Schedule 1 of the Resource Management Act 1991, a person who could gain an advantage in trade competition through the submission may make a submission only if directly affected by an effect of the proposed policy statement or plan that:

- a) adversely affects the environment; and
- b) does not relate to trade competition or the effects of trade competition.

Please tick the sentence that applies to you:

- ☒ I could not gain an advantage in trade competition through this submission; or
☐ I could gain an advantage in trade competition through this submission.

If you have ticked this box please select one of the following:

- ☐ I am directly affected by an effect of the subject matter of the submission
☐ I am not directly affected by an effect of the subject matter of the submission

Signature: R D Smith Date: 12/9/2019

(Signature of person making submission or person authorised to sign on behalf of person making the submission)

Please note:

(1) all information contained in a submission under the Resource Management Act 1991, including names and addresses for service, becomes public information.

- ☐ I do not wish to be heard in support of my submission; or
☒ I do wish to be heard in support of my submission; and if so,
☒ I would be prepared to consider presenting my submission in a joint case with others making a similar submission at any hearing

**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 Cascade Irrigation Limited
Address: 85 Strathallan Road
RD 17
Fairlie 7987
- Contact: Charlotte Steetskamp
- Email: ashwickdairyfarms@gmail.com

Trade competition statement:

- 2 Cascade Irrigation Limited could not gain an advantage in trade competition through this submission.

Proposal this submission relates to is:

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

Wish to be Heard:

- Cascade Irrigation Limited wishes to be heard in support of this submission.
- We would be prepared to consider presenting my submission in a joint case with others making a similar submission at any hearing

The users of Cascade Irrigation Limited
Ron Smith, Director

Date: 13 September 2019

Submission

The Cascade Irrigation Scheme (“the Scheme”) as owned by Cascade Irrigation Limited is a collaborative group of local owner-operator farmers in the Fairlie Basin. These farmers are all individuals and families with a love for the land, the wider Mackenzie District and its communities – both the environmental aspects and the people.

As with many other farmers in the area, the users of the Scheme (“Users”) run their operations not only with their businesses in mind, but for the good of the community and the environment in which they are privileged to live. Likewise, these operations have the backing of the wider community due to the enormous support they provide to local businesses and non-profit organisations alike.

The Users not only seek to irrigate their farms, but to do so in such a way that protects and preserves the environment where their children and grandchildren will grow up. Our fundamental goal is to instil those values and foster a respect for the environment within the next generations.

An important point to consider when discussing these matters is that the Users are all affiliated to Opuha Water Ltd (OWL), and hold sufficient shares to take the water allocated by the Scheme’s current consent. Being affiliated, the take is ‘offset’ by the discharge from the Opuha Dam downstream to meet minimum flow requirements at Saleyards Bridge.

This submission has been prepared by the Cascade Irrigation Scheme users. We would like to point out that the current minimum flow regime and levels of water allocation for abstractive use are viable and effective to support fish life and the natural habitat of the South Opuha River. Also noting the environmental respect the Users hold for the South Opuha River and the benefit of the Scheme to the wider community.

We received a copy of the memo authored by Meredith and Hayward, ‘Opihi River catchment – Ecological flow review’ (dated 13 July 2017) which provides an ecological study on the South Opuha River. The Meredith and Hayward memo (attached) states that the health of the South Opuha River is generally good to excellent, with a highly diverse range of fish species.

The only noted exception to this was in 2015, which saw a widespread drought in Canterbury, to an extent greater than the region has seen for more than 20 years. During this period, there was no water taken from the River for irrigation due to the low levels resulting from the drought conditions.

The current minimum flow of the River is 500 litres per second. Generally, this is the natural state of flow during dry periods of the year. During periods of minimum flow, no irrigation takes place. It is rare for the river flow to be less than 500 litres per second, with the exception, once again, being during the drought conditions in 2015.

In a resource consent hearing related to the South Opuha River in 1999, Fish and Game argued that the critical period for trout is April to October, during which time there is migration up the tributaries for spawning, incubation, and then juvenile migration back to Lake Opuha. Fish and Game requested a flow of 800 L/s during that period. They stated it was not as critical to maintain these flow during the other months and requested flow of 450 L/s November through to March. **This is lower than the current minimum flow of 500L/s**, and demonstrates that this level is more than adequate for the preservation and sustainability of fish life. Furthermore, this area of river is well used by recreational fisherman, with no complaints noted in relation to river and fish health.

The Scheme holds, on behalf of its Users, resource consent CRC060099.2 which authorises a water take of 634.4l/s through until October 2030. On its expiry, the Users will seek to replace this consent to ensure the continued availability of water for the Scheme into the future.

The Users have, in reliance on this consent, spent a considerable amount of time and effort on farm management planning and have made significant financial commitments to install the capital infrastructure required. Any increase in current minimum flows or reductions to current allocation limits would have serious ramifications for the Users. Without the water for irrigation authorised by the current consent, the efficiency and production of the Users' farming enterprises would be severely compromised.

Fairlie is a small community, which has been buoyed by the success of the farming operations under irrigation. Any change to minimum flows and cuts to allocation would have drastic ramifications for the wider community.

From the twelve farms within the Scheme, there are 40 children attending schools and kindergarten locally. If changes were made to the minimum flows and water allocation limits there would be a significant drop in staff required, due to lower producing farms. The flow-on effect of families relocating or leaving the area would impact local school and kindergarten rolls significantly.

There will be flow on effects from any change to the existing minimum flow and allocation regime for the South Opuha River for local businesses. Fairlie has local electricians, plumbers, engineering firms, builders, many agricultural contractors, transport companies, a large Farmlands store, PGG Wrightson store, two Veterinarian clinics, and a hardware store. These businesses rely heavily on revenue generated by the Scheme Users and would struggle to continue to operate efficiently with the loss of business resulting from the decreased farm productivity. Businesses further afield would also be affected; businesses from Timaru and Christchurch often travel to Fairlie to work on the Scheme Users properties. For every dollar earned on these farms, a large proportion goes back to the wider (regional) community/economy. Justin Geary, Farm Management Advisor has estimated that the cost to the wider community/economy would be in the order of \$19 million.

Furthermore, as already discussed, such changes would have an effect on the capital values of properties within the Scheme (estimated by Mr Geary as a potential loss of approximately \$23 million), resulting in a reduction in rates paid to both local governments and levy bodies including ECan. This is another example of the economic implications of any change to the current flow and allocation regime in the South Opuha River, specifically reduced funds flowing to the community.

Recent media reports have alluded to increasing incidences of mental health issues (such as depression and suicide) within farming communities nation-wide. The Users are concerned that the financial pressures resulting from reduced production, reduced capital land values, and the management of debt servicing, could have significant implications for the mental health and wellbeing of themselves and their families.

The Users and all who are fortunate enough to reside in our wonderful Fairlie district, place significant importance on our majestic surroundings. Every day we look to our Mountains and Rivers, being thankful for the resources they provide.

The Scheme has proven to be an effective and sustainable irrigation system. By piping the irrigation water, it has created enough head/pressure to service twelve farms, without any pumping costs – therefore reducing pressure on local power infrastructure, and, by being self-sufficient, putting less pressure on the environment. In addition, the Scheme has a consent to generate electricity, which could provide 600kw of power to the Fairlie area.

Only **6km** of river, between the Scheme intake and Lake Opuha, is affected. Any decrease in allocation or increase in minimum flow will only provide more water to the lake; it will not have further benefit to the health of the South Opuha river. As noted by Fish & Game and Environment Canterbury, the river is already in a “Good to Excellent” condition. This is highlighted by Fish & Game supporting a minimum flow of 450l/sec in their 1999 evidence referred to earlier in this report and in the Hayward et al Ecan Memo.

The Users are committed to the mutual benefit of the South Opuha River and the current consented irrigation system. They believe that any changes to minimum flows and allocation needs to be driven by an informed decision making process, with proven benefits to the 6km of affected river. This cannot be over-emphasised and is fundamental to this process. Any changes should only be made if there are quantifiable significant enhancements to river health, based on concrete factual and identifiable data.

Unlike other areas, there are no alternatives to the current extraction point from the South Opuha River: there are no available deep groundwater resources that could be accessed, and no other sources of water for irrigation. This is a further matter that the Users consider must be recognised, and supports our position that no change should be made (or required) to the current minimum flow and allocation regime in the South Opuha.

It is crucial to realise that this is a unique situation, and needs to be considered as such by ECan when assessing and making recommendations. Any potential change should not be made on an abstract basis, but instead the focus should be on the quantifiable results of any proposed change.

CIL / South Opuha users have had two representatives on the Flow and Allocation Party (FAWP). We are confident that the FAWP has achieved a ‘win-win’ between in-stream and irrigation demands in the review of minimum flows, through an ‘environmental flow regime’ rather than simply focusing on the minimum flow. This regime includes monthly variable minimum flows, protecting high flows, a cap of allocation at current levels, as well as the use of water user groups to manage periods of water shortage / low flows. CIL support the FAWP proposals as they reflect consensus decision making of a diverse collaborative group of stakeholders and irrigators.

As shareholders of OWL, our reliability depends not only on the flows in the South Opuha, but also on the level of Lake Opuha and the ability of OWL to meet minimum flow requirements at Saleyards Bridge. We have significant concerns about the PC7 provisions related to the flow regime of the Opihi Mainstem and the ‘alternative management regime’ specified. CIL support the work of the Adaptive Management Working Group and we support their submission.

Finally, it is important for us to point out that Cascade Irrigators cover the area under the Fairlie Basin High Nitrogen Concentration Area (HNCA). We are unclear which groundwater well data have been used as ‘representative’ to arrive at this HNCA status. CIL believe it will be necessary for ECan’s groundwater team to conduct a review of all available groundwater monitoring data to determine which wells should be monitored, to ensure they are representative of the groundwater zone in which they lie.

We are also concerned about the ‘double or triple whammy’ effect that the HNCA provisions, on top of reduction in reliability due to changes in the flow regimes of the tributaries and the mainstem, will have on farmers within our scheme. This cumulative impact has not been assessed by ECan and there has also been no consideration as to the flow on implications for the Fairlie township and the wider Mackenzie District which as outlined in the background to this submission, will be significant.

REASONS FOR SUBMISSION AND DECISIONS SOUGHT BY CASCADE IRRIGATION LIMITED

The specific provisions of Proposed Plan Change 7 (PC7) that our submission relates to are:		Our submission is that:		We seek the following decisions from Environment Canterbury
Section & Page Number	Sub-section/ Point	Oppose/ support (in part or full)	Reasons	
14.4 Policies (page 132)	Policy 14.4.6B	Support in full	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 (at least in part) offset 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 (pages 166-171)	Table 14(n): South Opuha Environmental Flow and Allocation Regime – BA Permit From 1 January 2025	Support in part	<p>We support the environmental flow, allocation and partial restriction regime in Table 14(n).</p> <p>The environmental flow and allocation regime proposed in Table 14(n) accords with the FAWP's earlier recommendations to the OTOP Zone Committee in 2018. The ecological advice received, which is based on an analysis of the habitat modelling of the South Opuha river undertaken by NIWA on behalf of ECan, indicates that the proposed regime would result in measurable improvements in ecological habitat compared with the current environmental flow regime.</p> <p>We consider that proposed regime will:</p> <ul style="list-style-type: none"> • implement Recommendation 5.3.2(l) Table 9 of the OTOP ZIPA; • incentivise the formation and operation of water user groups, and consequently more efficient water use; • together with other measures proposed by PC7, assist in achieving the water quality and quantity outcomes of higher order planning instruments (such as the NPSFM and CRPS); and • otherwise achieve the objectives of the Proposal and the purpose of the RMA. 	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	<p>The increases in environmental flows 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" anticipated from the implementation of the environmental flow regime proposed in Table 14(o) and associated constraints for, at best, incremental environmental benefit, on land use and farm businesses in the South Opuha catchment are not justified.</p> <p>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, in accordance with section 79(1) RMA, would</p>	<p>(a) Delete Table 14(o) in its entirety; and</p> <p>(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.</p>

			<p>be expected to have commenced before 2030), in light of water quality and quantity data gathered during the intervening period and the directives of the higher order planning instruments applying at that time.</p> <p>For these reasons, we consider that Table 14(o) should be deleted. In addition, we consider that:</p> <ul style="list-style-type: none"> the purpose of the RMA and the objectives of the Proposal can be met by the less restrictive environmental flow and allocation regime set out in Table 14(n); and the water quality and quantity outcomes of the various higher order planning instruments would not be compromised if Table 14(o) was deleted and the environmental flow and allocation regime in Table 14(n) for the South Opuha was reviewed by ECan in ten years' time. <p>From a practical perspective, we also consider that the deletion of Table 14(o) has the advantage of simplifying PC7 and the scope of consent conditions that will be required as a result of ECan's intended consent review after PC7 becomes operative (as contemplated by proposed Policy 14.4.12).</p>	
(page 171)	Table 14(y) – Opihi Freshwater Management Unit BN Permit Environmental Flow and Allocation Regimes	Support	<p>We support the environmental flow, allocation and partial restriction regimes for BN Permits in Table 14(y), which accord with FAWP's earlier recommendations to the OTOP Zone Committee in 2018. The FAWP considers the proposed regimes will:</p> <ul style="list-style-type: none"> implement Recommendation 5.3.2(l) Tables 11, 13, 16 and 19 of the OTOP ZIPA; are necessary to close the gap in the present planning framework under the Opihi River Regional Plan for BN takes and off-set reductions in reliability of AA, AN and BA Permits as a result of increases in environmental flows proposed by PC7; together with other measures proposed by PC7, assist in achieving the water quality and quantity outcomes of higher order planning instruments (such as the NPSFM and CRPS); and <p>otherwise achieve the objectives of the Proposal and the purpose of the RMA.</p>	Retain Table 14(y) as notified.

The specific provisions of Proposed Plan Change 7 (PC7) that our submission relates to are:		Our submission is that:		We seek the following decisions from Environment Canterbury
Section & Page Number	Sub-section/ Point	Oppose/ support (in part or full)	Reasons	
Planning Maps				
Planning Maps	Fairlie Basin High Nitrogen	Oppose	We oppose the spatial extent of the Fairlie Basin High Nitrogen Concentration Area, as outlined in the Planning Maps, on the basis that it is not supported by the water quality	Within the Fairlie Basin High Nitrogen Concentration Area, distinguish Sherwood from Ashwick Flat and test/monitor these

	Concentration Area		<p>data referred to in the technical documents supporting PC7.</p> <p>The boundaries are too simplistic, and changes are required to reflect ground types, stocking densities and the different groundwater flow paths, and hydrological barriers.</p> <p>Because of contrasting features, we recommend that it would be useful to distinguish Fairlie from Sherwood from Ashwick Flat and test/monitor these areas individually, to ensure appropriate recommendations for the three areas.</p>	<p>areas individually, to ensure appropriate recommendations for the two areas.</p>
14.5 Rules				
14.6.4 High Nitrogen Concentration Area Staged Reductions Page (page 173)	Table 14(zc) Staged reductions in nitrogen loss for farming activities in high nitrogen concentration areas	Oppose	<p>We are concerned that the reductions going beyond Baseline GMP will have severe financial impacts on the wider community.</p> <p>We understand that the percentage reductions for high nitrate concentration areas have been determined through a modelling exercise. We anticipate that improvements in groundwater quality will be seen as a result of farmers getting to GMP on farm. Therefore, we suggest that we should be seeing what GMP does first to nitrate concentrations in groundwater, and then deciding if further reductions are warranted.</p> <p>We would like the starting point to be GMP with an investment in more monitoring wells to accurately track improvements.</p>	<p>Delete the requirement for % reductions in N loss in High Nitrogen Concentration Areas in Table 14.6.4, until the full effects of farming at GMP baseline are understood.</p> <p>Ensure that an extensive groundwater monitoring programme is in place by ECan to track improvements (or otherwise).</p>

The specific provisions of Proposed Plan Change 7 (PC7) that our submission relates to are:		Our submission is that:		We seek the following decisions from Environment Canterbury
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	<p>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 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.</p> <p>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.</p> <p>In terms of clause (e) relating to fresh management, 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. We support the AMWG's proposals and submission in this regard.</p>	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	<p>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.</p> <p>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.</p> <p>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.</p> <p>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 provide no appreciable benefit but would cause unnecessary stress to the Opuha and Opihi river systems and abstractors.</p>	<p>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:</p> <ul style="list-style-type: none"> • 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.

			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. We also understand the group have been considering an 'exit' strategy – i.e. when an alternative management regime can be lifted. 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 We completely support the AMWG in their proposal.	
14.5 Rules				
Augmentation of the main stem of the Opuha and Opihi Rivers (page 155)	14.5.29	Oppose in part	<p>We wish to highlight the crucial role OEFRAG has historically had in the management of flow releases from the Opuha Dam, and express our view that 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. We strongly believe that OEFRAG should continue to have an advisory role under PC7 on the implementation of an adaptive management regime.</p> <p>We understand that the AMWG are proposing that this advisory role be detailed within 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.</p>	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.
14.6 Allocation and Water Quantity Limits				
14.6.2 Environmental 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	<p><u>Adaptive management regime</u></p> <p>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.</p> <p>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 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:</p> <ul style="list-style-type: none"> • 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 	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.

			<p>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.</p> <p>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. We anticipate that we will just have to resort back to relying on Water Shortage Directions into the future.</p> <p>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:</p> <ul style="list-style-type: none"> (a) Amendments to the "full availability" flows proposed in Table 14(v), which <ul style="list-style-type: none"> • Provide more water for the river environment during the summer months (by moving water from the shoulder periods to Jan/Feb); and • 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). <p>We support these proposed revisions.</p> <p><u>Partial Restrictions</u></p> <p>The approach taken to restrictions under PC7 represents a significant change from the present planning and consenting framework under the ORRP. 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.</p> <p>Alternatively, We believe that the restriction regime should recognise the criticalities 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</p>	
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			<p>North Opuha, South Opuha, Upper Opihi and Te Ana Wai Rivers which have lower reliability as a result of tributary-specific environmental flow regimes.</p> <p>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. We are sure that OWL and irrigators could provide the necessary real time information to ECan to provide them comfort from a compliance point of view.</p>	
	Table 14(w): Minimum Flow Restrictions in the Opihi Freshwater Management Unit for AA and BA Permits (2030)		<p>We oppose the minimum flows under "Level 1 Restriction" and "Level 2 Restriction" in Table 14(w) for the reasons addressed above in relation to Table 14(v).</p> <p>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. 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. 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 We understand it, the proposed "full availability" environmental flows for 2030 have a number of significant issues:</p> <ul style="list-style-type: none"> • 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. <p>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 salmonid spawning, increasing the minimum flows is actually detrimental.</p>	Delete Table 14(w) in its entirety
	Table 14(x): Alternative Management	Oppose in part	<p>We have concerns about the thresholds proposed in Table (x) and how they may be implemented in the future. As an example, the Lake Level trigger for a level 1 regime is at 50% full. Our experience of 2014/15 is that this is fundamentally flawed and does not</p>	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

	Regime Triggers		<p>provide for early enough intervention. Overall, We believe that the thresholds in PC7 are too conservative to enable the proactive management of flows in the Opihi River.</p> <p>We understand the AMWG have agreed on an alternative set of thresholds for Lake level, snow storage and lake inflows and We support these.</p>	storage and lake inflows.
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