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To: [Mailroom Mailbox](#)
Subject: PC7 Submission Upper Opihi-Opuha Catchment Group
Date: Friday, 13 September 2019 8:16:49 AM

To whom it may concern,

Please find attached our submission on Plan Change 7.

The attached document has been generated by the Upper Opihi-Opuha Catchment Group to represent the interests of the Upper Opihi-Opuha Catchment Community.

Kind regards

Jason Grant
Chair-Upper Opihi-Opuha Catchment Group
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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
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Trade competition statement:

- 2 The Upper Opihi / Opuha Catchment Group 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:

- The Upper Opihi / Opuha Catchment Group 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 Upper Opihi / Opuha Catchment Group

Jason Grant, Chairperson

Date: 13 September 2019

Submission

1. The Upper Opihi-Opuha Catchment Group

The Upper Opihi-Opuha Catchment Group was initiated as part of the 'WOW – Working for Opihi Water' Sustainable Farming Fund project between NZ Landcare Trust, the Orari-Temuka-Opihi-Pareora (OTOP) Zone Committee and Industry support organisations. The Catchment Group is a combination of two groups – the Upper Opihi Catchment group and the Opuha Catchment Group.

The Opuha Catchment Group have been meeting since August 2014. Informed by a field trip around the catchments waterways, the group identified a range of topics that they wanted to learn more about and consider further.

The Upper Opihi Catchment Group formed around the same time, and soon focussed attention on the key area of concern – the high nitrate concentration in the Opihi being contributed by the Glenfield stream. The group undertook some water quality monitoring, undertook field trips and worked with ECan to understand what the monitoring was showing. .

At a joint meeting of the Upper Opihi and Opuha Catchment Group in February 2017, the groups decided there were efficiencies to be gained from merging into one group, and have continued to work together since under the umbrella of the Upper Opihi-Opuha Catchment Group (the “Catchment Group”). The Catchment Group have since spent some time considering a number of these topics and these discussions have informed this submission being presented in response to the notification of Plan Change 7 (PC7).

The purpose of the Upper Opihi-Opuha Catchment Group is as follows:

Greater community awareness and understanding of our interaction with the local catchment to ensure that:

The quality of the Upper Opihi and Opuha Rivers and Lake Opuha are maintained and improved to a swimmable state and the river flows protect instream values, while maintaining profitability, farming and recreation.

PLAN CHANGE 7 - REASONS FOR SUBMISSION AND DECISIONS SOUGHT BY THE UPPER OPIHI / OPUHA CATCHMENT GROUP

The specific provisions of Proposed Plan Change 7 (PC7) that the Upper Opihi / Opuha Catchment Group submission relates to are:		The Upper Opihi / Opuha Catchment Groups submission is that:		The Upper Opihi / Opuha Catchment Group seeks the following decisions from Environment Canterbury
Section & Page Number	Sub-section/ Point	Oppose/ support (in part or full)	Reasons	
SUBMISSION POINTS ON TRIBUTARY MINIMUM FLOWS – COMMENTARY				
<p>The Catchment Group have had a number of group discussions regarding the minimum flow regimes of the upper catchment waterways. The Catchment Group is confident that there is the opportunity to achieve 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. Such a 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.</p> <p>The Catchment Group agree that in developing an environmental flow regime the following needs to be provided for:</p> <ul style="list-style-type: none"> • The self-management of river users (water users group concept) • The protection of the native fishery, trout spawning and trout migration • The protection of current irrigation abstractors, and to maintain or improve their reliability • The use of the rivers by other users, including recreational anglers and other recreational users, Fairlie community water supply, and others who abstract for domestic or stock water. • Fairness between above and below dam users – reflected in the minimum flows and reliability <p>The Catchment Group understands there is a great deal of work being undertaken by the Opihi Flow and Allocation Working Party (FAWP) to devise a flow and allocation regime for the Opihi tributaries. The Catchment Group support the FAWP proposals as they reflect consensus decision making of a diverse collaborative group of stakeholders and irrigators.</p>				
14.1A Orari-Temuka-Opihi-Pareora Definitions (pages 125 to 128)	"Pro Rata Partial Restrictions"	Oppose in part	<p>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.</p> <p>This approach fails to take into account the fact that AN permit holders are required to cease abstraction in order to comply with 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.</p> <p>Including AN allocation in the partial restriction "management block" for AA and BA Permits, as the proposed definition requires, 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</p>	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.

			when the alternative above would achieve the same ecological objective (i.e. protection of the tributary minimum flows) as PC7.	
14.4 Policies				
Abstraction of water (page 132)	14.4.6B (Takes for storage)	Support	The Catchment Group 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 (pages 166-171)	Table 14(m): North Opuha Environmental Flow and Allocation Regime – AA, AN, BA Permit From 1 January 2025	Support in part	Subject to the submission point relating to the definition of “Pro-rata restriction” above, the Catchment Group 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. The Catchment Group believe this proposed regime will: <ul style="list-style-type: none"> • implement Recommendation 5.3.2(l) Table 12 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(m) as notified.
	Table 14(n): South Opuha Environmental Flow and Allocation Regime – BA Permit From 1 January 2025	Support in part	The Catchment Group 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. The Catchment Group believe this proposed regime will: <ul style="list-style-type: none"> • implement Recommendation 5.3.2(l) 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 order planning instruments. 	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	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. The Catchment Group 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. The Catchment Group 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	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. The Catchment Group believe this proposed regime will:	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.

	Allocation Regime – AN and BA Permits From 1 January 2025		<ul style="list-style-type: none"> • implement Recommendation 5.3.2(l) Table 14 of the OTO 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. <p>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.</p>	
	Table 14(q): Upper Opihi Environmental Flow and Allocation Regime – AN and BA Permits From 1 January 2030	Oppose in full	<p>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 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.</p> <p>The Catchment Group 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 OTO 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.</p> <p>The Catchment Group, therefore, consider that Table 14(q) should be deleted.</p>	<p>(a) Delete Table 14(q) in its entirety; and</p> <p>(b) As part of the expected 10-year review of the OTO 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.</p>
	Table 14(u): Minimum Flow Restrictions in the Opihi Freshwater Management Unit for AN Permits		<p>The Catchment Group 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 <u>all</u> 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.</p>	<p>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.</p>
	Table 14(y): Opihi Freshwater Management Unit BN Permit Environmental Flow and Allocation Regimes	Oppose in part	<p>The Catchment Group support the proposed BN environmental flow and allocation regimes for the South Opuha, North Opuha and Upper Opihi contained in Table 14(y), together with the associated partial restriction regimes and Lake Opuha level restrictions. 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.</p> <p>The Catchment Group are concerned, however, 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.</p>	<p>Amend the BN allocation limit for the Opihi Mainstem in Table 14(y) so that it reflects all allocation attributable to BA and BN surface water permits and groundwater permits with a direct or high stream depleting effect.</p>

The specific provisions of Proposed Plan Change 7 (PC7) that the Upper Opihi / Opuha Catchment Group submission relates to are:		The Upper Opihi / Opuha Catchment Groups submission is that:		The Upper Opihi / Opuha Catchment Group seeks the following decisions from Environment Canterbury
Section & Page Number	Sub-section/ Point	Oppose/ support (in part or full)	Reasons	
HIGH NITROGEN CONCENTRATION AREAS – COMMENTARY				
<p>The Catchment Group covers the area under the Fairlie Basin High Nitrogen Concentration Area (HNCA). The quality of the Upper Opihi and Opuha water resources of paramount importance to the Catchment Group.</p> <p>The Catchment group are unclear which groundwater well data have been used as 'representative' to arrive at this HNCA status. In the Catchment Groups view it will be necessary for the regional council's groundwater team to conduct a review of all available groundwater monitoring data to determine which wells should be monitored against the outcomes of the ZIPA, to ensure they are representative of the groundwater zone in which they lie. As an example, the Catchment Group is aware of a well in the upper Ashwick Flat/Sherwood area (J37/0073) that has, until very recently, been geographically located above any intensive farming operations. Yet this well has consistently exceeded the ½ MAV limit/outcome recorded in the recommendation. The Catchment Group questions whether this well can be deemed as 'representative', and suggest it should not be monitored against the PC7 limits.</p> <p>The Catchment Group 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 the Catchment. 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 the Catchment Group anticipate will be significant.</p>				
Planning Maps				
Planning Maps	Fairlie Basin High Nitrogen Concentration Area	Oppose	<p>The Catchment Group 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 data referred to in the technical documents supporting PC7.</p> <p>The boundary 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>	Within the Fairlie Basin High Nitrogen Concentration Area, distinguish Sherwood from Ashwick Flat and test/monitor these areas individually, to ensure appropriate recommendations for the two areas.
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>The Catchment Group are concerned that the reductions going beyond Baseline GMP will have severe financial impacts on the wider community.</p> <p>The Catchment Group 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>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 Catchment Group request that the starting point to be GMP with an investment in more monitoring wells to accurately track improvements.	
The specific provisions of Proposed Plan Change 7 (PC7) that the Upper Opihi / Opuha Catchment Group submission relates to are:		The Upper Opihi / Opuha Catchment Groups submission is that:		The Upper Opihi / Opuha Catchment Group seeks the following decisions from Environment Canterbury
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OPIHI MAINSTEM FLOW REGIM (AND OPERATION OF THE OPUHA DAM) - COMMENTARY				
<p>The Catchment Group have spent some time understanding and discussing the operating regime of the Opuha Dam and the flow regime of the Opuha and Opihi mainstem. In October 2015, the Catchment Group listed the following 'recommendations/wishes' for how the Opuha Dam should be managed:</p> <ul style="list-style-type: none"> • That more variability is built into the flow regime, particularly the introduction of more regular flushes. • That the flow regime minimises the opportunity for phormidium and didymo growth • That flushes be coincided with natural high rainfall / flow events • That any flushes – 'piggyback' or regular – are to come out of the environmental flow 'bucket'. • That flexibility is built into the sub-regional, to allow it to be adaptable to different seasons, weather conditions etc, in order to maximise both the irrigation and environmental benefits of water. • That a stakeholder group is retained within the plan to oversee/guide this adaptability <ul style="list-style-type: none"> ○ The role of this stakeholder group is formalised ○ The stakeholder group has bottom lines / principles that it must work to. • That the operation/implementation of the variable flow regime does not impact on irrigation, recreation or the river environment <p>During these discussions the Catchment Group received a presentation from the Adaptive Management Working Group (AMWG) outlining their proposals for the Opihi River mainstem flow regime.</p> <p>The Catchment Group is supportive of this proposed regime and believes the outcomes sought by the Catchment Group have been integrated.</p>				
14.4 Policies				
Opihi Freshwater Management Unit: Surface Water Flows (pages 140-141)	14.4.35	Oppose in part	<p>The Catchment Group 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>The Catchment Group 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, the Catchment Group 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. The Catchment Group 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>The Catchment Group 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>The Catchment Group 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>The Catchment Group 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>The Catchment Group 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. The Catchment Group also understand the group have been considering an 'exit' strategy – i.e. when an alternative management regime can be lifted. The Catchment Group 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 the Catchment Group completely support the AMWG in their proposal.</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.
14.5 Rules				
Augmentation of the main stem of the Opuha and Opihi Rivers (page 155)	14.5.29	Oppose in part	<p>The Catchment Group 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. The Catchment Group strongly believe that OEFrag should continue to have an advisory role under PC7 on the implementation of an adaptive management regime.</p> <p>The Catchment Group 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</p>	<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.</p>

			providing certainty to OEFRAG membership, and the wider community, that consultation will occur before any Level 1 or Level 2 regime is implemented.	
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>The Catchment Group 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>The Catchment Group 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 the Catchment Group 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 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>The Catchment Group 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. The Catchment Group anticipate that we will just have to resort back to relying on Water Shortage Directions into the future.</p> <p>The Catchment Group 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> <p>(a) Amendments to the "full availability" flows proposed in Table 14(v), which</p> <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 	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>research has indicated is the flow required to maintain the mouth of the Opihi river open).</p> <p>(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</p> <p>(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> <p>The Catchment Group support these proposed revisions.</p> <p><u>Partial Restrictions</u> The approach taken to restrictions under PC7 represents a significant change from the present planning and consenting framework under the ORRP. The Catchment Group 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, the Catchment Group 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 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>The Catchment Group 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. The Catchment Group 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	<p>The Catchment Group 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>The Catchment Group 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. The Catchment Group understand that these</p>	Delete Table 14(w) in its entirety

	Unit for AA and BA Permits (2030)		<p>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. The Catchment Group 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 the Catchment Group 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>The Catchment Group 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>	
	Table 14(x): Alternative Management Regime Triggers	Oppose in part	<p>The Catchment Group 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 provide for early enough intervention. Overall, the Catchment Group believe that the thresholds in PC7 are too conservative to enable the proactive management of flows in the Opihi River.</p> <p>The Catchment Group understand the AMWG have agreed on an alternative set of thresholds for Lake level, snow storage and lake inflows and the Catchment Group support these.</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 storage and lake inflows.

The specific provisions of PC7 that my submission relates to are:		My submission is that:		The Catchment Group seek the following decisions from Environment Canterbury (ECan)
Section & Page Number	Sub-section/ Point	Oppose/ support (in part or full)	Reasons	
OTHER POINTS OF RELEVANCE TO THE CATCHMENT GROUP				
14.4 Policies				
Out of Catchment Water (page 134)	14.4.14	Oppose in part	<p>The Catchment Group fully endorses the enabling of out of catchment water being brought into the Zone as this is the only 'alternative' solution to enable minimum flows and allocation to be addressed without significantly impacting the economic viability of existing water users.</p> <p>The Catchment Group emphasise the need for a more comprehensive look into bringing new water into the zone and that all options to be 'on-the-table' and be given a fair hearing and discussion, as new water can help provide many of the Zone wide outcomes proposed by the Zone Committee and the wider community. The Catchment Group would welcome any opportunity to be involved in conversations relating to new water into the Upper Opihi/Opuha catchment</p> <p>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 the Catchment Group 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. The Catchment Group considers Policy 14.4.14 requires amendment to ensure there is greater certainty around the intended scope and application of the Policy.</p>	Amend Policy 14.4.14 so that the term 'catchment' is replaced by 'Orari-Temuka-Opihi-Pareora sub-region'
Livestock Exclusion from Waterbodies (pages 134 – 135)	14.4.15 (Application of region-wide stock exclusion provisions)	Support	The policy reflects responsible stock management. We support confinement of the policy to open drains and artificial water courses with water in them, meaning that stock can access open drains and artificial water courses that do not have water in them. This is very useful for a variety of reasons, including vegetation/weed management.	Retain Policy 14.4.15 as notified
Nutrient Management (page 135)	14.4.17	Oppose in part	<p>The Catchment Group oppose the requirement of a resource consent just because the property is located within the proposed High Runoff Risk Phosphorus Zone. We believe there is sufficient provision in the 10% of property winter grazing rule. This is better suited as it accounts for properties with scale.</p> <p>It is the Catchment Groups understanding that the Upper Opihi / Opuha water resources are generally low in P. There is a considerable cost with obtaining a resource consent and the auditing of a Farm Environment plan. To impose these costs on all those with more than 20ha of winter grazing takes money and time away that could be better spent improving biodiversity, environmental and cultural values. The \$5000 (approx.) that it costs to obtain a resource consent would be much better spent on planting to actually mitigate any phosphorus runoff issues.</p>	Amend Policy 14.4.17 by deleting part d.

			The Catchment Group provides the ideal forum to identify any problem areas and work together as a group to facilitate any change required.	
Freshwater Management Unit Specific Policies:				
RULES				
Individual farming activities (page 150)	14.5.17	Oppose in part	As addressed under the submission point related to Policy 14.4.17, the Catchment Group oppose the requirement of a resource consent just because the property is located within the proposed High Runoff Risk Phosphorus Zone. The Catchment Group believe the costs involved in obtaining a resource consent is money that could otherwise be spent on improving biodiversity, environmental and cultural values. We believe there is sufficient provision in the 10% of property winter grazing rule. This is better suited as it accounts for properties with scale.	Delete condition 7.
Stock Exclusion from Waterbodies (page 154)	14.5.25	Support	The policy reflects responsible stock management. We support confinement of the policy to open drains and artificial water courses with water in them, meaning that stock can access open drains and artificial water courses that do not have water in them. This is very useful for a variety of reasons, including vegetation/weed management.	Retain 14.5.25 as notified