

**From:** [A.G. Talbot](#)  
**To:** [Mailroom Mailbox](#)  
**Subject:** Submission on PC7  
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**Attachments:** [Submission on Plan Change 7.docx](#)

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Please find my submission on PC7 Waimakariri sub-region attached .

Thanks

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## **Submission on Plan Change 7; Waimakariri Zone**

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### **General Comments**

I support the direction of PC7 and PC2 in reducing nitrogen losses from farmland, increasing minimum flows where community outcomes are not being met, imposing new limits on water allocation and excluding stock from more water bodies.

However, I also have other concerns with regard to the ecological and environmental controls and effects as proposed within the Waimakariri sub-region (zone).

Fundamentally I am concerned as a resident of Christchurch that some of the new proposals for PC2 may not be enough to prevent further significant ecological and water quality degradation in the next few years. Therefore I support further consideration of the points below.

I do not wish to be heard.

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1. I strongly support caps on water takes and clear limits on nitrogen losses in the Waimakariri. Determination of how these caps and limits are actually implemented on the ground must be clear in the final plan change. It is not enough to have policy without action plans for implementation.
  2. If it is found that the proposed measurement of nutrient outputs is not going to adequately manage nitrogen losses and water quality/quantity, consideration must then be given to limiting stock numbers and fertiliser inputs to manage the capacity of the ecosystem to meet the required limits under the CLWRP. If measuring outputs doesn't work as proposed under this plan change, limitation and capping of inputs becomes an obvious additional management tool within the duration of this current plan. These are methods used successfully in other jurisdictions in the EU to control environmental degradation.
  3. My concern is that the caps and limits as proposed in PC7/PC2 will not be adequate to manage continuing environmental degradation of rivers, streams and aquifers in the Waimakariri Zone, which may then affect the drinking water of New Zealand's second largest city.
  4. Modelled limits of N loss in the Nitrate Priority Area as set at 3.8mgN/l may pose a long term health risk to Christchurch residents, and are proven to be toxic to the ecosystem health of freshwater systems. It is generally accepted by expert freshwater scientists that 0.4-0.5 mgN/l is a precautionary level for ecosystem health. I therefore strongly support consideration of lower N loss limits than are currently proposed.

5. I am also concerned in relation to the above that that the lag effect of nitrogen loss has been modelled on 50+ years in PC7. Many freshwater scientists believe a more effective and relevant 'long time lag' is more like a decade.
6. In this regard PC7 does not prioritise the ecosystem health of waterways and groundwater. Secondly the Plan Change is inconsistent with the Canterbury Land and Water Regional Plan which states as an objective that 'overall water quality in aquifers does not decline' (4.4) and that water is managed as a first priority 'to safeguard the life supporting capacity of ecosystems, support customary uses, provide for drinking water supplies and stock water' (4.5).
7. Therefore the impacts on Christchurch's drinking water and ecosystem health, including the health of deep aquifers, must be considered in relation to farming operational costs. Impacts on ecosystem health are required by both the Conservation Act 1987, the NZ Biodiversity Strategy and the NPS-FM Appendix 1; the latter regarding national values for ecosystem health.
8. I therefore consider that the integrity of the deep aquifer which supplies Christchurch's drinking water, and which can be affected by nutrient load north of the Waimakariri river requires greater protection than proposed in the Plan Change. I am sceptical that the modelled impact of nitrates at 50+ years is precautionary enough to protect Christchurch aquifers in the short to medium term.
9. I do not support modelling based on a 50+ year time span. I am concerned that using this metric may mean that damage to ecosystems and drinking water will occur before it can be adequately controlled by regulation.