

From: [Sandra Stewart](#)
To: [Mailroom Mailbox](#)
Subject: Proposed Plan Change 7 to Canterbury Land and Water Regional Plan
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Attachments: [2019 - sept 11 - SLStewart submission Plan Change 7 CLWRPlan.docx](#)

Hi Environment Canterbury

Attached please find my completed submission form plus the details of my submission as a separate attachment and also included in the body of this email.

Many thanks

Sandra Stewart
239 Gardiners Road
Springbank
RD 1 RANGIORA

Phone 027 66 88 583

September 11, 2019

To: Environment Canterbury
Subject: **Plan Change 7 to the Canterbury Land and Water Regional Plan**
From: Sandra Stewart, 239 Gardiners Road, Springbank, RD 1 Rangiora 7471

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Summary

I support much of the thrust of the proposed Plan Change 7 to the Canterbury Land and Water Regional Plan and proposed Plan Change 2 to the Waimakariri River Regional Plan having been involved since early 2017 in the community consultation on the Waimakariri zone implementation programme addendum as the Waimakariri District Council appointee to the Waimakariri water-zone committee.

However I did not support the ZIPA at the vote for adoption in December 2018 by the Waimakariri District Council because in my view the ZIPA recommendations did not go far enough fast enough. I was supported by my Kaiapoi-based councillor colleagues in this stance and it is as an individual that I raise the same concerns in this submission.

Consent Review - minimum flows/allocations for the Northern

Waimakariri River Tributaries proposed for implementation by 2029

Remedy Sought: I request this Consent Review is advanced with urgency to the date PC7 becomes operative and is in force within two years after that operative date.

Rationale

An immediate and urgent consent review on all 187 stream-depleting and surface water abstractions from the northern Waimakariri tributaries is the immediate and only mechanism where Environment Canterbury can restore some semblance of health to the much-degraded Kaiapoi/ Silverstream catchment and its tributaries for which it has legislative and regulatory responsibility.

The lower Kaiapoi River is one of - if not the most polluted waterway in Canterbury, certainly in North Canterbury, with nitrates exceeding the present 6.9mg/l 'bottom line' in the National Policy Statement – Fresh Water and regularly over the 550 e.col/100ml trigger limit for contact recreation.(LAWA data)

Of the 99 stream-depleting or surface water abstraction takes in the Kaiapoi-Silverstream only three expire before 2027, with 21 up for review from 2028 to 2032 and the bulk – the remaining 62 - expiring and up for renewal from 2033 to 2037.

While PC 7 proposes any new consents applied for in the Waimakariri tributaries - or up for renewal before the proposed 2029 review date - would have to comply with the increased minimum flows proposed in PC7, these comprise a tiny fraction of the 99 which would still be able to be exercised to their full consented abstraction in the decade up to 2029.

This would mean that the significantly degraded Kaiapoi/Silverstream where the minimum flow was acknowledged back in 2001 (Malcolm Main report to ECan) as too low for adult fish passage, would continue with its present too-low flow, for another decade before review.

This simply is unacceptable - not only from an environmental point of view but also from a Kaiapoi town centre post-earthquake recovery and development perspective.

The strategy ECan apparently proposes to 'heal' this degraded aquatic environment, already evidenced by algal blooms, scums, sedimentation, nutrient overload, nitrate and faecal contamination, the daily summer and consistent public face of this much-abused river system, is by managed aquifer recharge and targeted stream augmentation.

While both of these techniques are essentially dilution remedies, both are experimental, unfunded and as yet unproven in their effectiveness in this river system. In fact an experimental forerunner to MAR several kilometres upstream of the Silverstream ceased when the water being 'emptied' into the aquifer was needed for irrigation.

My personal scepticism in the effectiveness of both these strategies as

solutions is supported by the PC7 Section 32 – Page 333/34, which states... “the benefits from on-the-ground actions – such as MAR and targeted stream augmentation are not accounted for “on the basis that their technical feasibility has not yet been proven sufficiently, there is no funding and/or governance mechanism in place and resource consent would be required to undertake those activities.” However the paragraph continues to essentially state further modelling from Kreleger and Etheridge (2019a) show that implementation of on-the-ground actions and proof of attenuation “could reduce the scale of the below the baseline GMP nitrate loss reductions required to meet the proposed (PC7) nitrate limits significantly.....Further science investigations over the next 10 years, along with a better understanding of the benefits of any on-the-ground actions that have been implemented, will be able to inform the next plan review cycle.” Essentially this confirms that any of these experimental mitigations are unlikely to deliver any proven effect in the next decade but may be a tool to use in the plan review of 2030-32.

This only strengthens the need to urgently increase the minimum flows not just to those levels advocated in the 2029 review but to the desired levels proposed by Ngai Tuahuriri in its COMAR report from Tipa and Associates.

I contend if this is not done immediately the plan change becomes operative the Kaiapoi/Silverstream river system will well and truly die over the ensuing decade through till 2029 – and this cannot be allowed to occur.

A far more effective and immediate remedy would be an urgent consent review of all surface and stream-depleting groundwater takes plus implementation of all recommended groundwater capped and reduced allocations in all of the Waimakariri tributaries immediately the plan change becomes operative.

This immediate review would also acknowledge in a real and practical way the fundamental principles of the newly announced Action for Healthy Waterways and the changes proposed there to the National Policy Statement for Freshwater Management and the new National Environmental Standards and a commitment to delivering real environmental improvement.

I wholeheartedly endorse the new NPS’s priority ranking for the health and wellbeing of the water in the northern Waimakariri tributaries to be put first in decision-making and after that human needs like drinking water and other uses like abstraction for irrigation third.

This principle and priority recognises the long-ignored mauri of this river system and its contribution over some 150-160 years to the health and wealth of the Kaiapoi pakeha community and for many hundreds of years further back to the life, health and wealth of Ngai Tahu and Ngai Tuahuriri. According to the Cultural Health Assessments and Water Management report (COMAR) (Te Ngai Tuahuriri and Tipa and Associates – October 2016) none of five sites assessed the Waimakariri tributaries zone sustain cultural values.

The ‘life force’ of this river and other waterways in this district have, in my

view, been abused and debased over the generations by the town it flows through and yet the river has been the life blood of Kaiapoi and the wider Waimakariri's growth accommodating its wastewater, stormwater and industrial discharges and giving pleasure on a recreational front since colonial settlement.

It is time the town and the wider Waimakariri community gave more than lip service to the contribution this river system makes and has made to this district.

I ask that immediately on PC 7 becoming operative all northern Waimakariri abstraction consents are called in for review and not only the PC7 recommended minimum flows and reduced groundwater allocations be implemented but those advocated and endorsed by Ngai Tuahuriri as being essential to the safe gathering of mahinga kai be adopted.

This would go a significant way to restoring health and mauri to this river system.

Particularly - in 2001 Malcom Main (ECan report U01/100, November 2001) indicated *"that a minimum flow of 900 litres per second in the Kaiapoi River was necessary for protection of salmon passage, while the generalised relationship between flow and habitat derived from this study indicates that a minimum flow of 1,000 litres per second would adequately protect habitat for adult brown trout, large eels and other native fish."* The existing minimum flow of 600 litres per second is considered too low for the protection of the key species identified in the Kaiapoi River. (ECan report 07813138, Golder Associates, Minimum Flows and Aquatic Ecological Values of Lower Waimakariri River tributaries, June 2009).

According to ECan principal freshwater scientist Adrian Meredith (informal conversation September 2019) "... tributary flows are very important in flushing out the nutrient-rich and poor quality fresh water that overlies either saline or Waimakariri water which sits on the (Kaiapoi) river surface.

"The problem being that this nutrient-rich tributary water will slosh backwards and forwards through Kaiapoi for several tidal cycles before finally exiting to the Waimakariri and the sea.

"During this time it has ample opportunity especially during the summer months to grow smelly or unsightly algal blooms and scums."

ECan identified the low minimum flows in the Kaiapoi River and its tributaries as an issue affecting the viability of its fish and aquatic life back in 2001 – some 18 years ago.

It is unacceptable to me personally, and also to the residents of Kaiapoi I represent, that ECan proposes to wait another decade until 2029 to address this issue.

The Kaiapoi/Silverstream river is the most polluted in North Canterbury with nitrate levels over the National Policy Statement - Fresh Water of 6.9mg/litre bottom line, e.coli levels which regularly breach the 550/100ml level for contact recreation and the regular occurrence of nutrient-enriched

algal blooms and scums.

Its tributaries the Cust Main Drain, Ohoka Stream and Cam River at its confluence with the Kaiapoi are also affected now on a regular basis through spring and summer with algal growths, scums and blooms.

This ecological degradation demands an urgent increase to the minimum flows to help rehabilitation of the long-compromised aquatic ecosystem in the Kaiapoi River and its tributaries.

In addition the health and safety of the public using the lower Kaiapoi River for recreation in the middle of Kaiapoi cannot wait another decade to be addressed.

The river hosts extensive rowing (Cure Boating Club for over 150 years), kayaking and canoeing activities plus the Williams Street bridge is a regularly used bathing/ diving-off spot for brave swimmers during the height of summer.

Yet the water invariability breaches the trigger levels for contact recreation and rarely, if ever, meets bathing water standards.

The raised minimum flows by their sheer volume will also help mitigate the increased salt intrusion from the Waimakariri River, itself suffering from too- low-a-minimum flow, although it is acknowledged, as far as salt intrusion goes, that the combined tributaries' flow effect is minor compared to an increased minimum flow in the Waimakariri. (Assessment of the state of a tidal waterway – the Lower Kaiapoi River, Adrian Meredith, March 2018, ECan report No R18/7)

However the immediate effect of raised minimum flows on the degraded local aquatic health is not minor and ensuring more fresh water remains in the Silverstream, Ohoka, Cust, Cam and its tributary brooks will be significant.

Their lower Kaiapoi receiving environment will, I am certain, see an immediate and significant improvement in its health and appearance with these higher minimum flows as will these tributaries themselves.

The Tipa report advocates doubling the Silverstream/ Kaiapoi minimum flow from the present 600litres/second to 1.2cumecs at the Neeves Road gauging point and increasing the flow in the Cam, the Kaiapoi's most significant tributary from 1cumec to 1.2 to 1.4 cumecs.

The Ohoka Stream also is raised from its present 300lites/second to 420l/sec and joining the lower Kaiapoi below the town the Courtenay is advocated to be raised from its present 260litres minimum to 400 litres/second. As is clear, implementing these flows immediately would see at least an extra 1.3 cumecs in the lower river system.

If these flows are not raised for the Kaiapoi/Silverstream, Cust Main Drain, Ohoka, Cam and brooks rivers, the lower Kaiapoi will be subjected to stinking sea lettuce growth, toxic algal blooms, scums and the progressive death of all the salt-sensitive riverbank vegetation. (Meredith, Lower Kaiapoi report).

I have been told the reason why ECan cannot advance the proposed 2029

Waimakariri tributaries consent review is lack of resources to do the task. This is unacceptable particularly as ECan's operations are funded from public rates. I note that a consent review was undertaken by ECan when the Waimakariri River Regional Plan (2004) was made operative to align all consents to the new regime. This was funded by the public purse so a precedent has already been set.

The Waimakariri District Council and private business have invested more than \$100 million to date in Kaiapoi Town Centre redevelopment since the 2010-11 earthquakes. Encouraging new business, increasing the vibrancy of the town and encouraging more visitors is a key objective of the Kaiapoi Town Centre Plan.

The prime focus of this plan is the engagement and enjoyment of the Kaiapoi River with a new \$10million marine precinct, wharf and floating pontoons plus a riverbank walkway and terraces inviting locals and visitors to linger and relax at the water's edge.

By increasing the river flows we go some way to restore some ecological health to this much-degraded river. This will in turn enhance the town for both locals who live in Kaiapoi and visitors who enjoy it and bring benefit to the entire Waimakariri District.

It will also ensure the viability of business growth and that the town lives up to the name on the cover of its 2019 town centre plan as **Kaiapoi – New Zealand's Best Rivertown**.

I also support the Kaiapoi-Tuahiwi Community Board's submission to appropriately gauge flows and measure water quality parameters in the middle of the Kaiapoi to clarify the extent and effectiveness of solutions.

At present there is a water flow gauge sited in Neeves Road (Kaiapoi/Silverstream River) which has no bearing on the flows in the lower Kaiapoi River.

It is important that ECan install a gauge and monitoring equipment in the Kaiapoi main stem itself and monitor and regularly report water quality improvements to the board and Kaiapoi residents.

Simply this is essential - for you "can't manage what you don't measure!"

Safe drinking water – private wells, community water supplies – rising nitrates – interpretation of ECan Act to keep water supplies now safe to continue to be safe to drink “without treatment”.

It is apparent that even with the staged nitrate reductions proposed in PC7 (Waimakariri Land and Water Solutions Programme: Options and Solutions Assessment: Nitrate Management-Kreleger and Etheridge ECan Report No. R19/68) Table 5.1 that between 170-250 Waimakariri private shallow water supply well users will have their drinking water exceed the 11.3mg/l maximum allowable value for nitrate under the present Drinking Water

Standards even with all the proposed PC7 mitigations in place.

This, in my view, breaches the ECan 2016 Act which requires the regional council to maintain potable water supplies at that potable standard “without treatment.”

And this is apparently not the case for these well owners who once had complying good quality drinking water and now do not. And irrespective of the progressive nitrate cutbacks proposed under PC7 over ensuing decades these drinking water supplies will not comply without treatment.

Clearly these homes must either be joined into a complying community reticulated supply or have their individual well treated for excessive nitrate levels.

So who is responsible for ensuring these high nitrate private supplies are safe to drink? Some private well owners in Eyreton have discovered their previously comfortably complying well water supply now contains excessive nitrates and for their own health’s sake and peace-of-mind have installed reverse osmosis systems, at considerable private cost, to lower the nitrates in their drinking water supply.

Why are they paying for this treatment when the ECan Act states this responsibility lies with ECan – the responsibility to keep previously complying supplies of good quality water at that good quality “without treatment.”

A further concern is that six of the Waimakariri council’s community water supply schemes will exceed the 5.65mg/l nitrate level (half-MAV) thereby triggering extra compliance requirements – at some cost – before levels start to drop as the proposed nitrate reduction measures take effect, according to the Kreleger/Etheridge report, Page 95.

The report estimates a 30-125 year time frame for these community public supplies to drop below the more intensive monitoring level.

So again whose responsibility is it to pay for this forced extra monitoring and given the suggested connection between rising nitrate levels in drinking water and bowel cancer incidence, are members of the public prepared to drink higher nitrate water – even though well under the present MAV – without treatment? And who pays for any treatment this community may demand?

Stock Exclusion – Policy 8.4.31(b)

I support stock exclusion from ALL waterways, artificial or natural, as the results of contamination downstream/river in the receiving environment are the same whether stock have ventured into a man-made ‘drain’ or a spring-fed ‘natural’ watercourse.

In this matter I support the Plan Change 7 position.

While cattle deer and pigs are the stock targeted by the stock exclusion policy under the proposed plan change I would ask commissioners to also give consideration to extending that exclusion to include horses.

Horses, which need to drink from a natural or artificial watercourse because they are not supplied water through a reticulated trough system, can pug the ground and create sediment run-off just like cattle can.

That horses are not included in the proposed stock exclusion list is solely because they are not usually present in the herd numbers cattle are.

But if the focus is on mitigating watercourse damage, then horses should be included in the list of stock excluded from all waterways.

Many thanks for the opportunity to submit.

I do wish to be heard in person at the plan change hearing.

Sandra Stewart
239 Gardiners Road
Springbank
RD1 RANGIORA
Phone 027 66 88 583