

From: [Graham Fenwick](#)
To: [Mailroom Mailbox](#)
Subject: Plan Change 7 to the LWRP Submission
Date: Friday, 13 September 2019 11:59:31 AM
Attachments: [Fenwick Submission on LWRP Change7.pdf](#)

Hi.

Please find attached my submission on Plan Change 7. I wish to be heard in support of my submissions.

Thank you.

Cheers

Graham.

--

Graham Fenwick



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

FOR OFFICE USE ONLY

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: <u>Graham David Fenwick</u>	Phone (Hm): <u>027 444 0234</u>
Organisation*: _____ <small>* the organisation that this submission is made on behalf of</small>	Phone (Wk): _____
Postal Address: <u>20 Derenzy Place</u> <u>Christchurch 8042</u>	Phone (Cell): <u>027 444 0234</u>
Email: <u>graham@akomoana.co.nz</u>	Postcode: <u>8042</u>
Fax: _____	
Contact name and postal address for service of person making submission (if different from above): _____ _____	
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:	
<input checked="" type="checkbox"/> I could not gain an advantage in trade competition through this submission; or	
<input type="checkbox"/> I <u>could</u> gain an advantage in trade competition through this submission.	
If you have ticked this box please select one of the following:	
<input type="checkbox"/> I <u>am</u> directly affected by an effect of the subject matter of the submission	
<input type="checkbox"/> I <u>am not</u> directly affected by an effect of the subject matter of the submission	
Signature: <u>[Signature]</u>	Date: <u>13 Sept 2019</u>
<small>(Signature of person making submission or person authorised to sign on behalf of person making the submission)</small>	
<small>Please note: (1) all information contained in a submission under the Resource Management Act 1991, including names and addresses for service, becomes public information.</small>	

- | | |
|-------------------------------------|---|
| <input type="checkbox"/> | I <u>do not</u> wish to be heard in support of my submission; or |
| <input checked="" type="checkbox"/> | I <u>do</u> wish to be heard in support of my submission; and if so, |
| <input checked="" type="checkbox"/> | I would be prepared to consider presenting my submission in a joint case with others making a similar submission at any hearing |

(1) The specific provisions of the Proposed Plan that my submission relates to are:		(2) My submission is that: <i>(include whether you support or oppose the specific provisions or wish to have them amended and the reasons for your views.)</i>		(3) I seek the following decisions from Environment Canterbury: <i>(Please give precise details for each provision. The more specific you can be the easier it will be for the Council to understand your concerns.)</i>
Section & Page Number	Sub-section/ Point	Oppose/support (in part or full)	Reasons	
2: 11	9 Definitions	Partial Support	Given that all water bodies in the region contain indigenous biodiversity, specific clarification here would be very helpful.	Add definition of Water Body, as defined in the RMA & the Canterbury Land and Water Regional Plan (2017): <i>“water body means fresh water or geothermal water in a river, lake, stream, pond, wetland, or aquifer, or any part thereof, that is not located within the coastal marine area”.</i>
2: 11	9 Indigenous Freshwater Species Habitat	Partial support	List comprises very few of the region’s indigenous freshwater species, notably several described & undescribed invertebrate species that are endemics to small areas within the region. Some of these have very restricted ranges and may be as much at risk as some of the fish species within the proposed list. The term Indigenous Freshwater Species Habitat is neither used nor defined in the Canterbury Land and Water Regional Plan (2017) and in the RMA. The Canterbury Regional Policy Statement use Significant Habitat of Indigenous Biodiversity.	Replace this term with “Significant Habitat of Indigenous Biodiversity”. If not, broaden the definition of Indigenous Freshwater Species Habitat: <i>“Includes taonga species, species (described & undescribed) of plants, vertebrates and invertebrates that are endemic to the region, and species with regional populations that are nationally significant.”</i>
4: 15-16	Table 1	Partial support	There is no table or discussion of freshwater outcomes for Canterbury’s groundwater. Groundwater is the region’s largest freshwater habitat, underlying >35% of the region’s land. International science literature and a major report prepared specifically for NZ’s regional councils (https://www.envirolink.govt.nz/assets/Envirolink/Reports/1838-HZLC143-Groundwater-Ecosystems-Functions-values-impacts-and-management.pdf) reveals that significant biodiversity and functional ecosystems inhabit groundwaters throughout New	Include a table or discussion of Freshwater Outcomes for Canterbury Groundwater & review this entire document (& related Plans & proposed Changes) from the perspective that groundwaters are the region’s largest freshwater environment with substantial

			<p>Zealand and world-wide. It also describes the ecosystem services performed by this biodiversity and how these are fundamental to human values associated with groundwater. Further, a National Science Challenge project has identified very substantial biodiversity inhabiting Canterbury's groundwaters, with many species endemic to one or a few adjacent catchments. Section 30 of the RMA requires "the maintenance of ecosystems in waterbodies" and "the maintenance of indigenous biological diversity" (see Section 1.3.3 (p. 9) of this Plan Change). This new information and perspective indicates that planning to implement Section 30 of the RMA now requires that groundwaters (specifically included in RMA's definition of Water body) and their biodiversity are accorded policy, planning and management equivalent to that given to the region's rivers and lakes.</p>	<p>biodiversity and important ecosystems.</p>
4: 18	61	Partial support	<p>Inclusion of groundwaters and all endemic organisms here by defining "Water Body" and "Indigenous Freshwater Species" (as discussed above under 2.11) to not exclude indigenous (and endemic) groundwater invertebrate biodiversity seems very important to ensure that species restricted to parts or to one catchment are adequately protected.</p>	<p>Broaden definitions, as outlined above.</p>
4: 19	99	Partial support	<p>Because most indigenous species inhabiting an aquifer are endemic to that aquifer, mixing of waters from one aquifer with another, either directly or indirectly, must be avoided in order to ensure "the maintenance of indigenous biological diversity" (see Section 1.3.3 (p. 9)) and to maintain each aquifer's unique ecosystem. Managed Aquifer Recharge (MAR) has the potential to provide a means for species endemic to one aquifer to migrate or be translocated to another hydrologically disconnected aquifer, where, potentially, it may displace a local endemic via competition and/or interbreeding.</p>	<p>Add a new point: "<i>h. Adverse effects on the biodiversity and ecosystem functioning within the recharged aquifer from potentially invasive (exotic or indigenous) species are eliminated</i>".</p>

5: 52-53	191	Partial support	Protection of groundwater biodiversity and ecosystems are required for receiving groundwaters to effect the RMA Section 30, further to the above discussion.	Add a further condition to the list of matters for the exercise of discretion: <i>"16. Any adverse effects on groundwater biodiversity, endemic groundwater biodiversity and/or on the groundwater ecosystem functioning."</i>
Section 6 to Section 14		Partial support	All other sections of the proposed plan change require review to ensure that they are consistent with the approach and recommendations outlined in this submission.	
Schedule 8: 201	Groundwater	Partial support	Given the indigenous biodiversity that is endemic to most Canterbury aquifers and the important ecosystem services that these deliver, water quality limits for groundwater should be adjusted to ensure these groundwaters continue to sustain this important biodiversity and ecological functioning. Limit setting for groundwaters is complex, however, because the natural concentration range of key substances (dissolved oxygen, conductivity, nitrate, nitrite, ammonia, etc.) differs widely between aquifers. However, the objective should be to sustain the natural life-supporting capacity of an aquifer by maintaining its quality as near as practical to its natural state. I am no expert in water quality, but note that narrative water quality limits (referring to natural state) may be appropriate here.	Revise these proposed water quality limits to ensure that an aquifer's water maintains its natural life-sustaining capacity. Considered input from appropriate experts, particularly from qualified experts in invertebrate toxicology, is imperative.
Schedule 32: 218	2. b. iv.	Partial support	See discussion regarding 4.99 above. Adjacent aquifers also should be mapped to confirm that recharge is occurring within an aquifer only, and not between aquifers in order to protect indigenous biodiversity that may be endemic to the recipient aquifer.	Emend point iv: "Rivers, streams, lakes, ponds, wetlands, springs and permanent or intermittent drains, <i>and any boundaries of any separate aquifers;</i> "
Schedule 32: 218	5.	Partial support	Implicit within this requirement is "the maintenance of ecosystems in waterbodies" and "the maintenance of indigenous biological diversity" (see Section 1.3.3 (p. 9) of this Plan Change). However, that intent should be explicit because few people are	Emend point 5 to read: " <i>An assessment of the actual and potential adverse environmental effects (including associated with the construction and operation on</i>

			aware of this endemic indigenous biodiversity and the ecosystem services that it delivers.	<i>endemic groundwater biodiversity and ecosystem functioning, of the managed aquifer recharge system, and a description of the proposed monitoring to avoid, detect, mitigate or minimise these risks; and” .</i>
--	--	--	--	--