

From: [Alistair Humphrey](#)
To: [Mailroom Mailbox](#)
Cc: [Denise Tully](#)
Subject: Variation 5 Submission to Land and Water Plan
Date: Friday, 11 March 2016 4:15:20 p.m.
Attachments: [004_PC5_Submission_Form1CDHB.pdf](#)

Dear Ecan,

Attached is the Canterbury District Health Board submission to variation 5 of the Canterbury Land and Water Regional Plan.

Regards,

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Submission on Proposed Plan Change 5 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 6 of Schedule 1 of the Resource Management Act 1991

Return your signed submission by 5.00pm Friday 11 March 2016 to:

Freepost 1201 Plan Change 5 to LWRP
Environment Canterbury
P O Box 345
Christchurch 8140

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 Contact name and postal address for service of person making submission (if different from above):
Keith Turner and Alizon Paterson, CPH, PO Box 1475, Christchurch 8140

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: Date: 11th March 2016
(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 your 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	
Pt 1 Nutrient management Section 4.36 Page 4-3	bb	Oppose in part	Plan states, “farming activities with the potential for more significant nutrient losses, managing their nitrogen loss in accordance with the Good Management Practice Loss Rates and being subject to a resource consent process”. The term ‘significant’ is subjective and is open to a range of interpretations.	Add: expand ‘significant’ in this context.
Pt 2 Nutrient management Section 4.36	c	Oppose in part	Plan states, “encouraging industry and irrigation scheme based initiative” The term ‘encourage’ is inadequate and lacks strength.	Delete: ‘encouraging’ and replace with ‘requiring’.
Pt 3 Nutrient management Section 4.37 Page 4-3	a	Oppose in part	Plan states, “avoiding the granting of any resource consent that will allow the nitrogen losses from a farming activity to exceed.....” The term ‘avoiding’ is inadequate and lacks strength.	Delete: ‘avoiding’ and replace with ‘not granting’.
Pt 4 Nutrient management Section 4.38 Page 4-4	AB	Support	Plan states “When considering any application for resource consent for the use of land for a farming activity, the consent authority must not disregard any adverse effect of the proposed activity on water quality on the basis that this Plan permits an activity with that effect”. The reference to water quality is an appropriate consideration.	Retain: Section 4.38AB.
Pt 5 Nutrient management Section 4.39 Page 4-5		Oppose in part	Plan states, “... to allow the following discharges, provided the design and management of the discharge treatment system minimizes the discharge of nutrients”. It is unclear the extent of mitigation required by the word ‘minimize’ which could in fact, put water bodies at risk of nutrient enrichment.	Delete: ‘minimize’ and replaced with ‘effectively mitigate impacts on the receiving water body’.

<p>Pt 6 Nutrient management</p> <p>Section 4.41A</p> <p>Page 4-6</p>	<p>b</p>	<p>Oppose in part</p>	<p>Plan states, “..applying to any nutrient budget that forms part of an application for resource consent a level of scrutiny that is proportional to the qualifications, experience and performance of the person who prepared the budget”. It is unclear as to whether there is a higher or lower level of scrutiny if the person is not well qualified.</p>	<p>Add: qualification of this statement to reflect that a person of higher qualification will get less scrutiny.</p>
<p>Pt 7 Within the (Red) Nutrient Allocation Zone – controlled activity</p> <p>Section 5.44B (Also 5.54B6, 5.57C6,</p> <p>Page 5-4</p>	<p>6</p>	<p>Support in part</p>	<p>Plan states, “The CRC reserves control over the following matters....Methods to avoid or mitigate adverse effects of the activity on surface and groundwater quality and sources of drinking water”. Trigger levels for mitigation should be set at a point that limits adverse effects on drinking water before they impact on public health.</p>	<p>Add: Section specifying at what level mitigation measures should be implemented.</p>
<p>Pt 8 Within the (Red) Nutrient Allocation Zone – restricted discretionary activity</p> <p>Section 5.45A (Also 5.50A3, 5.55A3, 5.58A3)</p> <p>Page 5-6</p>	<p>3</p>	<p>Support in part</p>	<p>Plan states, “The exercise of discretion is restricted to the following matters ... the actual or potential adverse effects of the activity on surface and ground water quality and sources of drinking water”. The consideration of how these will be avoided or mitigated should be included in the matters for exercising discretion.</p>	<p>Add: “... and how these will be avoided and mitigated” .</p> <p>Add: Section specifying at what level mitigation measures should be implemented.</p>
<p>Pt 9</p> <p>Definitions Part B</p> <p>Page 6-4</p>	<p>2</p>	<p>Oppose in part</p>	<p>There is no requirement to include information regarding the location of unprotected aquifers, direction of groundwater flow and drinking water sources located within proximity to the farm operation. As drinking water can be adversely affected by farming activities these are essential factors which should be considered as part of the assessment.</p>	<p>Add: New section requiring identification of unprotected aquifers, direction of groundwater flow, and drinking water sources to be indicated on maps or aerial photograph accompanying the farm plan.</p>

Pt 10 Definitions Management Area: Waterbody Management Objective Page 6-6	3	Support	Plan states, “ To manage wetlands, riparian areas and surface waterbodies to avoid damage to the bed and margins of a water body, and to avoid the direct input of nutrients, sediment and microbial pathogens”. The inclusion of microbial pathogens in this list is supported as they significantly contribute to the risk to public health.	Retain: reference to microbial pathogens
Pt 11 Definitions Management Areas: Waterbody and Point Source Page 6-6		Support in part	Both sections refer to ‘risk’ in the context of health. As per point 11 above, adverse effects on public health should be mitigated before a trigger level is reached. Guidance is also required regarding at what level mitigation measures should be implemented.	Add: Section specifying at what trigger level mitigation measures should be implemented. For examples, half the maximum acceptable values for nitrate.
Pt 12 Section 15 A South Coastal Canterbury sub region Page 3-3	3	Support	The required use of Farm Environment Plans (FEPs) to help reduce nutrient and sediment loss, along with the use of Good Management Practice (GMP) requirements for all discharges.	Retain: the requirement that FEPs and GMPs are used as stated in Section 15A of the draft plan. Retain: main key actions identified by the Lower Waitaki Zone Committee as listed on page 3-3.
Pt 13 Section 15 A South Coastal Canterbury sub region Page 3-3	3	Support Supports in part	The protection level of 90% for nitrate toxicity in streams is welcomed, this being in line with the ‘Chronic – highly disturbed system’ value in Table 5.1 of ECan’s Report ‘A review of nitrate toxicity to freshwater species’ ¹ . One of the main goals identified in the plan is to increase the total irrigation area by a further 27,000 hectares. Whilst this water is to be partly used as an augmentation for Wainono Lagoon it is recognised that this extra irrigation will also result in increased nutrient discharges which need to be managed effectively and a staged approach is recommended.	Retain: the aim as stated in 15A to maintain a minimal protection level of 90% for nitrate toxicity in streams. Add: a staged approach with sufficient monitoring to ensure stream nutrient levels remain within those set by the plan.
Pt 14 Section 15 A South Coastal Canterbury sub region	15.4	Support	Policies for the Southern Coastal Streams sub-regional chapter which aim to improve water quality in this area.	Retain: new policies for the Southern Coastal Streams sub-regional chapter which aim to improve water quality in this area.

¹ C.W. Hickey and M.L. Martin (2009) A review of nitrate toxicity to freshwater aquatic species, A Report for Environment Canterbury, Hamilton, NIWA.

Pt15 Section 15 A South Coastal Canterbury sub region Page 3-5	15.4.1	Support	Policy 15.4.1 states 'Improve water quality in the South Coastal Canterbury Area by reducing losses of microbes, phosphorus and sediment through excluding intensively farmed stock from drains (in addition to the region-wide stock exclusion provisions) and enabling the Wainono Restoration Project'.	Retain: Policy 15.4.1
Pt 16 Section 15 A South Coastal Canterbury sub region Page 3-5	15.4.4	Support	Policy 15.4.4 requiring FEPs and GMP or better.	Retain: Policy 15.4.4
Pt 17 Section 15 A South Coastal Canterbury sub region Page 3-7	15.4.15, 16 and 17.	Support	Policy 15.4.15, 16 and 17 illustrates a commitment to water quality, giving priority to the protection of mahinga kai and cultural areas (a), along with a recognition of the security of community drinking water supplies (b), Wainono lagoon and springheads all being targets of the original CWMS.	Retain: Policy 15.4.15, 16 and 17
Pt 18 Section 15 A South Coastal Canterbury sub region Page 3-7	15.4.18	Support	Resource consent application to modify the course of a waterway shall consider the cumulative effects of the activity on flows, water quality, riparian and aquatic habitats. This shows the consideration of the implication on water quality and environment.	Retain: Policy 15.4.18
Pt 19 Section 15 A South Coastal Canterbury sub region Page 3-9	15.4.30	Support	Policy 15.4.30 restricts the transfer of water permits only to those to be used for a community water supply.	Retain: Policy 15.4.30
Pt 20 Section 15 A South Coastal Canterbury sub region Page 3-9	15.4.31	Support	Protection of the availability of water for community drinking water supplies in the Upper Hook, Upper Waihao and Otaio catchments by refusing any application for a permit that would result in a reduction in the allocation listed in Table 15(f). Continuity of a drinking water supply is important and should be protected.	Retain: Policy 15.31.

<p>Pt 21</p> <p>Section 15 A South Coastal Canterbury sub region</p> <p>Page 3-11</p>	<p>15.5.3</p>	<p>Support</p>	<p>Rule 15.5.3 refers to farming activities and that discretion be limited in part by the potential effects of land use on surface water and groundwater quality and sources of drinking water. This is a key target of the CWMS.</p>	<p>Retain: Rule 15.5.3</p>
<p>Pt 22</p> <p>Section 15 A South Coastal Canterbury sub region</p> <p>Page 3 14-15</p>	<p>15.5.20 and 21</p>	<p>Support</p>	<p>The setting of conditions around the use of land in the riparian margin and the disturbance of the bed and banks of a river for the purposes of planting or removal of vegetation and any associated discharge of sediment, the take and use of water for the purposes of removing fine sediment less than 2mm in diameter and any consequential discharge of that water, carried out for the purposes of the Wainono Restoration Project.</p> <p>The consideration of these key issues is paramount:</p> <ol style="list-style-type: none"> 1. Adverse effects on cultural values and sites of importance to Ngāi Tahu; and 2. Adverse effects on the availability and quality of community drinking water supplies; and 3. Adverse effects on fish passage; and 4. Adverse effects on areas of significant biodiversity and habitats of indigenous biodiversity; and 5. The potential benefits of the activity to the community and the environment; and 6. Adverse effects on structures; and 7. Adverse effects on water quality and ecosystems. 	<p>Retain: Rules 15.5.20 and 21</p>
<p>Pt 23</p> <p>Section 15 A South Coastal Canterbury sub region</p> <p>Page 3 15-16</p>	<p>15.5.22</p>	<p>Support</p>	<p>Rule 15.5.22 which refers to the use of Community Water Supply Protection Zones to prevent any risk to that supply during habitat restoration works and subsequent discharges (other than Wainono).</p>	<p>Retain: Rule 15.5.22</p>
<p>Pt 24</p> <p>Section 15 A South Coastal Canterbury sub region</p> <p>Page 3 16-17</p>	<p>15.5.24 (2)</p>	<p>Support</p>	<p>Rule 15.5.24 (2) protects Community Water Supplies during the augmentation of Wainono Lagoon, whilst acknowledging the benefits to the community and the environment of the proposed restoration project</p>	<p>Retain: Rule 15.5.24 (2)</p>

<p>Pt 25</p> <p>Section 15 A South Coastal Canterbury sub region</p> <p>Page 3 18-19</p>	<p>15.5.30, 31 and 32</p>	<p>Support</p>	<p>Rule 15.5.30, 31 and 32 that amongst other things specifically protects groundwater from saltwater intrusion and protection via appropriate backflow prevention measures.</p> <p>Contamination of existing groundwater via saltwater intrusion or other contaminants is impossible or extremely difficult / expensive to remedy. Groundwater (especially deep groundwater) is a strategic resource and should be protected.</p>	<p>Retain: Rules 15.5.30, 31 and 32</p>
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<p>Pt 26</p> <p>Section 15 A South Coastal Canterbury sub region</p> <p>Page 3 - 23</p>	<p>Table 15(a)</p>	<p>Oppose in part</p>	<p>Table 15(a) includes values for cyanobacteria mat cover (%) at values lower than 50% which are protective of public health. The value of 20% should be set for rivers that are utilised for sources of human drinking water or are important recreational sites. Table 15(a) “Freshwater Outcomes for South Coastal Canterbury Area Rivers” states that the Cyanobacteria mat cover (%) is 50% for both hill fed lower and spring fed plains. The minimum cyanobacteria mat coverage is very important for public health in terms of suitability of a river for contact recreation. At greater than 50% coverage or from 20% coverage with mats detaching, a public warning is required to be issued to notify the public of the potential risk to health. These risks include an increased likelihood of respiratory, irritation and allergy symptoms from exposure to high abundances of cyanobacterial material. (New Zealand Guidelines for Cyanobacteria in Recreational Fresh Waters.2)</p> <p>Section 15.4 states that the policies of the sub regional plan apply in addition to the policies set out in section 4 of the Land and Water Regional Plan. In policy 4.3 of the aforementioned plan it states “Surface water <i>bodies are managed so that toxin producing cyanobacteria do not render rivers or lakes unsuitable for recreation or human and animal drinking water.</i>” Effective limits should be set a level protective of public health and which will lead to better outcomes even if not realised immediately. The aforementioned plan states “<i>Surface water bodies are managed so that toxin producing cyanobacteria do not render rivers or lakes unsuitable for recreation or human and animal drinking water.</i>”</p>	<p>Add: Revise table 15(a) to include values for cyanobacteria mat cover at 20% for rivers that are utilised for sources of human drinking water, important recreational sites and mahinga kai gathering sites.</p>
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² Ministry for the Environment and Ministry of Health. 2009. New Zealand Guidelines for Cyanobacteria in Recreational Fresh Waters – Interim Guidelines. Prepared for the Ministry for the Environment and the Ministry of Health by SA Wood, DP Hamilton, WJ Paul, KA Safi and WM Williamson. Wellington: Ministry for the Environment.

<p>Pt 27</p> <p>Section 15 A South Coastal Canterbury sub region</p> <p>Page 3 - 24</p>	<p>Table15(b)</p>	<p>Oppose in part</p>	<p>E. coli levels should not exceed the Microbial Assessment Category D value of <550 E.coli per 100ml within the current Suitability for swimming indicator update (2013) of the Microbiological Water Quality Guidelines for Marine and Freshwater Recreational Areas (2003), where food is gathered for consumption</p> <p>Table 15(b) - Wainono Lagoon - gives a level of E.coli as a human health recreation indicator of 1000 per 100ml by 2030 as set by the National Policy Statement for Freshwater Management 2014 (NPS-FM 2014), for wading and boating. The associated cultural indicator, in the same table, states: <i>'Freshwater mahinga kai species are sufficiently abundant for customary gathering, water quality is suitable for their safe harvesting, and they are safe to eat'</i>. There is concern about the safety of food collected from water bodies with this level of E. coli present.</p> <p>People may be entering the water to gather mahinga kai the implication for their safety is that the water quality should be such that they can safely do this. The two columns cannot be read in isolation as it is very difficult to see how this could occur if the water body has a very poor microbial quality, when in fact it may be unsafe to gather from these areas.</p>	<p>Add: Revise E. coli levels in table 15(b) so that they do not exceed the Microbial Assessment Category D value of <550 E.coli per 100ml within the current Suitability for swimming indicator update (2013) of the Microbiological Water Quality Guidelines for Marine and Freshwater Recreational Areas (2003), where food is gathered for consumption.</p>
<p>Pt 28</p> <p>Section 15 A South Coastal Canterbury sub region</p> <p>Page 3 - 27</p>	<p>Table15(e)</p>	<p>Support</p>	<p>The target level of E.coli which is set at <1 CFU/100ml, as per the New Zealand Drinking Water Standards, further that 'any other contaminant' is set at <50% MAV within the Standards.</p>	<p>Retain: The target level of E.coli in Table 15(e) and any other contaminants.</p>

<p>Pt 29</p> <p>Section 15 A South Coastal Canterbury sub region</p> <p>Page 3 - 27</p>	<p>Table 15(e)</p>	<p>Oppose in part</p>	<p>Table 15(e) lists the limits for groundwater in the South Coastal Canterbury Groundwater area for the contaminant Nitrate-nitrogen. The annual 5 year median concentration has a target of 8.2mg/L nitrate nitrogen. The drinking water target in the Canterbury Water Management Strategy is to have average annual nitrate levels in all ground water wells in Canterbury below 50% of the Maximum Acceptable Value for drinking water by 2040. This may not be achievable in the short term and but is appropriate for an interim target. Footnote (e) states however that with an increase in the 'nitrogen flexibility Cap' to 15kg/ha/yr (from Footnote (f)) this target will not be achieved all of the time everywhere in the South Coastal Canterbury Area. This should be amended to include a longer term target of 5.6mg/L nitrate nitrogen in all groundwater wells used for drinking by 2040, in line with the Canterbury Water Management Strategy targets or a negotiated time following this date.</p>	<p>Add: Amends table 15(e) to include a longer term target of 5.6mg/L nitrate nitrogen annual average concentration in line with the drinking water target for 2040 or a negotiated time soon after, in relation to ground water wells used for drinking, in Canterbury.</p>
<p>Pt 30</p> <p>Section 15B.4.3</p> <p>Page 4-7</p>		<p>Support</p>	<p>Policy to have regard to mahinga kai values.....when considering applications for resource consent to use land for a farming activity.</p>	<p>Retain: Section 15B.4.3</p>
<p>Pt 31</p> <p>Section 15B.4.11</p> <p>Page 4-8</p>	<p>Overall, a, b.</p>	<p>Support</p>	<p>Requirement for Farm Management Plans to be included in any resource consent to use land as a farming activity.</p> <p>Requirement to describe specific activities that will be undertaken to implement Good Management Practices.</p>	<p>Retain: Section 15B.4.11</p>
<p>Pt 32</p> <p>Section 15B.4.16</p> <p>Page 4-9</p>		<p>Support</p>	<p>Policy to restrict farming activity consents (and nutrient discharges) to a maximum of 15 years, and the condition enabling a review in response to any exceedance of limits set in the Variation.</p>	<p>Retain: Section S.15B.16</p>

Pt 33 Section 15B.6 Freshwater Outcomes	Table 15B(a)	Oppose	Table 15B (a) states that the Cyanobacteria mat cover is 20% for alpine and hill-fed and spring-fed upland rivers, but 50% for all other river types. At up to 50% coverage there is a potential risk to public health. Also cyanobacteria in the waterbody restricts the gathering of mahinga kai.	Add: includes values for cyanobacteria mat cover at values below 50% in Table 15B (a).
Pt 34 Section 15B.6 Page 4-37	Table 15B(a)	Support	Table 15B (a) states that the <i>E.coli</i> levels for human recreational use should be set at <540/100ml. These values are required to be below 550E.coli/100ml to meet the Microbiological Water Quality Guidelines for Marine and Freshwater Recreational Areas (2003)	Retain: Table 15B(a) retains the recommended values for <i>E.coli</i>
Pt 35 General			The protection level of 90% for nitrate toxicity as advocated in Variation 3 has not been identified. This would be in line with the “Chronic-highly disturbed system” value in ECAN’s Report “A Review of Nitrate Toxicity To Freshwater Species.” (Table 5.1)	Add: a staged approach with sufficient monitoring to ensure stream nutrient levels remain within those set by the plan and that 90% is the minimum achieved.
Pt 36 General			There is no policy that can be seen which aims to maintain groundwater quality (whether deep or shallow) and/or quantity.	Add: A policy to maintain ground water quality and quantity.
Pt 37 General			There is no general recognition of the protection of community drinking water supplies, this being a primary target of the original CWMS.	Add: A specific statement around the protection of community water supplies.
Pt 38 Schedule 7 , S8 Page 5-1	Mahinga kai	Support	Objectives to protect mahinga kai values	Retain: Schedule 7 Section 8

Pt 39 General			The word 'avoiding' is used frequently (eg S15B.4.8, S15B.4.19a) in this plan, and does not have the strength of a word such as "prevent". A stronger word would show commitment to the future protection of groundwater, mahinga kai, and all community water supplies.	Add: Replace 'avoiding' with stronger terminology eg 'preventing' across all policies.
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