

Gay Gibson

From: Reynold Ball <Reynold.Ball@cdhb.health.nz>
Sent: Friday, 24 October 2014 11:22 a.m.
Subject: FW: Submission Variation 2
Attachments: Variation 2 Submission Final Signed Copy 241014.pdf; Draft 3 Final.pdf

Dear ECAN

Please find attached a submission from CDHB on Variation 2 of the LWRP.

Warmest Regards
Reynold

Reynold Ball

Health Protection Officer
Drinking Water Assessor Trainee
Protection Team

Community and Public Health

A Division of the Canterbury District Health Board

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If there is magic on this planet, it is contained in water



Submission on Proposed Variation 2 to the Proposed 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 6 of Schedule 1 of the Resource Management Act 1991

Return your signed submission by 5.00pm Friday 24 October 2014 to:

Freeport 1201 Variation 2 to pLWRP
 Environment Canterbury
 P O Box 345
 Christchurch 8140

Full Name: ALISTAIR ROSS GORDON HUMPHREY Phone (Hm): _____
 Organisation*: COMMUNITY & PUBLIC HEALTH, CDHB Phone (Wk): 03 374 9480
* the organisation that this submission is made on behalf of
 Postal Address: PO Box 1475 Phone (Cell): 027 275 1377
CHRISTCHURCH 8140 Postcode: 8140
 Email: alistair.humphrey@cdhb.health.nz Fax: _____
 Contact name and postal address for service of person making submission (if different from above):
REYNALD BALL, CPH, PO Box 1475 CHCH 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: ALG. Humphrey Date: 24th OCTOBER 2014
 (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:		(3) I seek the following decisions from Environment Canterbury:
Section and Page Number	Sub-section / Point	Oppose/ Support (in part or full)	Reasons	
Page 3	13.4.6 Amended Policies	Support in full	Not allowing reallocation. This is a proactive approach to ensure the over allocated Hinds/Hekeao Plains area is addressed by not permitting any surrendered surface water and stream depleting groundwater takes to be reallocated whilst the catchment is over allocated.	
Pages 3 - 4	13.4.9 (b) Inserted Policies	Support in full	Support in particular (b) which seeks to improve management of microbes in both management areas. Ashburton district have much higher rates of enteric illness than Canterbury and New Zealand on average. The burden of this disease is predominantly in the under 5 age group, who have no control over their exposures. The source of these enteric illnesses will not all be water borne but the greatest risk are for those households on their own bores where the quality may be unknown. Within the Hinds catchment, up to 80% of the local population are on their own well. Microbiological contamination of drinking water is a significant source of human illness and is both a social and economic cost to the local community.	
Page 4	13.4.9 (c) Insert Policies	Support in part	Nitrogen has been seen to be elevated in some deep bores. <u>Oppose</u> the use of the word 'restrict' without guidance or quantitative value.	CHDB recommend a quantifiable reference should be put into this policy to give guidance as to what 'restrict' means in this case.

Page 4	13.4.10 Insert Polices	Support in full	Support areas to control the discharge of microbes in waterways.	
Page 11	13.5.31 (5) Exercise of discretion	Support in full	<p><i>"The protection of groundwater from contamination including the prevention of backflow of water or contaminants"</i>.</p> <p>Backflow can create a public health risk in the event that microbiological or chemical contaminants can be drawn back down the bore.</p>	
Page 12	13.5.36 Augmenting Ground or Surface water	Oppose in part	<p>This rule now contains the wording <i>"the discharge of water into water or onto land in circumstances where it may enter water and the water <u>may contain contaminants...</u>"</i></p> <p>It is recognised that internationally water from a variety of sources has been used to manage aquifer recharge.</p>	<p>Given the use of groundwater as drinking water over most of the catchment, it is appropriate that water of recognised <u>good microbiological and chemical quality</u> is used as the discharge water.</p> <p>This should be included as a subsection in 15.5.36 as discretion under this rule.</p>
Page 12	13.5.36 (4)	Support in part	<p>Managed aquifer recharge (MAR) is a new technology for this region, the results of which are at this time uncertain. It is hoped MAR will be effective at diluting groundwater concentrations of nitrate, achieving minimum flows in spring fed water bodies, increase reliability for existing consent holders and minimize the amount of on farm mitigation needed.</p> <p>Application of MAR for diluting nitrate concentrations has significance for drinking water sources as 80% of people in the Hinds catchment utilise their own water supply for domestic use and do not obtain their drinking water from the community supplies operated by the Ashburton District Council. It is therefore appropriate that MAR is strategically engineered to provide effective water quality protection to wells used for drinking water on individual properties from extensive diffuse groundwater pollution from agricultural land-use. This will involve giving technical consideration to the spatial location and scale of MAR with respect to water wells and their screened depth.</p>	<p>CDHB seeks the following decision:</p> <p>That MAR is strategically engineered to have a positive impact on the quality of water in the wells used for drinking and domestic purposes.</p> <p>Condition 4 to be reviewed to incorporate above point.</p>

Page 14	Table 13(a) Microbial indicator for contact recreation	Oppose in part	<p>For spring fed plains this is "no value set".</p> <p>Whilst it is acknowledged that the recreational water quality may be poor in these areas avoiding setting a value for spring fed plains means there is no incentive to improve the quality at these locations. If these areas are to meet the cultural indicator of <i>"freshwater habitat of suitable depth and quality to provide for sufficiently abundant mahinga kai species, as well as safe and pleasant opportunities for customary gathering"</i>, it is very difficult to see how this could occur if the water body has a very poor microbial quality, in fact it may be unsafe to gather from these areas.</p>	<p>CDHB recommends a value of "good" or "fair" to be set as an aspirational microbial value for spring fed plains, especially in the interests of protecting mahinga kai such as watercress or eel.</p> <p>We draw the commissioner's attention to the associated cultural indicator, in the same table, for the whole catchment which 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>.</p> <p>As 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 can not be read in isolation. Therefore the CDHB maintains that there should be a microbiological value associated with these waterways of "Good" or "fair". "To enable present and future generations to gain the greatest social, economic, recreational and cultural benefits from our water resources within an environmentally sustainable framework".</p>
Page 14	Table 13(a)	Oppose in full	<p>The values in the columns for Cyanobacteria and Fine sedimentation have been mistakenly transcribed. Communication with Environment Canterbury (Don Vattala) confirmed these columns have been mistakenly transposed.</p>	<p>Reassign the values in the Cyanobacteria and Fine sedimentation columns.</p>
Page 14	Table 13(a)	Oppose in full	<p>The limits of 50% cyanobacteria cover for Hill-fed Lower and Spring-fed plain is high. At this level there is a potential that cyanotoxins may effect drinking-water supplies and carry a health risk for contact water users gathering mahinga kai.</p>	<p>Table 13(a) Cyanobacteria (Max cover of bed %)</p> <p>Recommendation: All % limits should be at 20% as any level above 20% creates a Public Health warning situation.</p>

				<p>The alert level framework for benthic cyanobacteria has three levels.</p> <ul style="list-style-type: none"> •At up to 20% coverage, the surveillance level, the risk to public health is seen as low, •At 20-50% coverage, there is increased risk to public health and the alert level mode is in place, •At 50% coverage or with up to 50% coverage and detaching mats, action level is reached and the risk to public health requires the immediate notification to the public, warning of the situation. <p>Therefore any level above 20% potentially exposes the public to unacceptable risk; not just for recreational contact but also the collection of mahinga kai and the potential for cyanotoxins if the water is used as drinking-water.</p> <p>The guidelines come from the New Zealand Guidelines for Cyanobacteria in Recreational Fresh Waters, Interim Guidelines, MFE & MoH 2009.</p> <p>Of particular note here is the recommendation in the guidelines that if cyanobacteria are detaching in mats at any % of cover then action mode is immediately in-place requiring public notification. This implies that even between 20% and 50% coverage there could be a health risk.</p> <p>Therefore the lower limit of 20% should be the desired freshwater outcome for the Hinds/Hekeao Plains area Rivers.</p>
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<p>Page 21</p>	<p>Table 13(k) Limits for Groundwater</p>	<p>Support in part</p>	<p>It is appropriate to include <i>E. coli</i> as a limit for groundwater as this is used as a source of drinking water in the catchment. The Drinking Water Standards NZ2005/08 have a limit of <1 cfu/100ml for <i>E. coli</i>.</p> <p>Including other contaminants which have Maximum Acceptable Values (MAVs) are also appropriate for water which can be used for drinking.</p> <p>Object to Nitrate-N target in 2035 set at 6.9mg/L.</p>	<p>Table 13(k) is amended to include: A long term target of 5.6mg/L nitrate-nitrogen instead of 6.9mg/L.</p> <p>The Canterbury Water Management Strategy Targets by 2040 <i>“Average annual nitrate levels in all groundwater wells in Canterbury are below 50% of the maximum allowable value for drinking water”</i>.</p> <p>The Drinking Water Standards for New Zealand have the MAV set at 50mg/L which is equal to 11.3 mg/L for nitrate-nitrogen.</p>
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