

a division of  
**Canterbury District Health Board**

## Introduction

Community and Public Health (CPH) welcome the opportunity to comment on the *Proposed Variation 3 to the Proposed Canterbury Land and Water Regional Plan – Section 15 – Waitaki and South Coastal Canterbury* (the plan). The health and wellbeing of current and future generations of Cantabrians is paramount and should always take priority in water management decisions, particularly where there are competing interests for water uses. CPH acknowledges that Variation 3 to the proposed Canterbury Land and Water Regional Plan (CWMS) is the result of a two year collaborative planning process with the Lower Waitaki Zone Committee under the Canterbury Water Management Strategy.

Specific Provisions of the Proposed Plan that this submission relates to:		Our submission is that:		We seek the following decisions from ECAN:
Section 15A: Page Number	Sub-section/Point	Oppose/Support	Reasons	
15-3	15A	<b>Support:</b> 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.	CPH support the main key actions identified by the Lower Waitaki zone committee as listed on page 15-3	That ECAN requires the use of FEPs and GMPs as stated in Section 15A of the draft plan.
15-3	15A	<b>Support:</b> 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 ECANs Report 'A review of nitrate toxicity to freshwater species' <sup>1</sup> . <b>Recommendation:</b> That a staged approach with sufficient monitoring is implemented to ensure stream nutrient levels remain within those set by the plan and this level of	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 partly going to be used as an augmentation for Wainono Lagoon it is recognised generally that this extra irrigation will also result in increased nutrient discharges which need to be managed effectively.	That ECAN includes its aim as stated in 15A to maintain a minimal protection level of 90% for nitrate toxicity in streams, and implements a staged approach with sufficient monitoring to ensure stream nutrient levels remain within those set by the plan.

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

		protection ie 90% is the minimum achieved.		
15-5	15.4	<b>Support:</b> New policies for the Southern Coastal Streams sub-regional chapter which aim to improve water quality in this area		That ECAN sets new policies for the Southern Coastal Streams sub-regional chapter which aim to improve water quality in this area.
15-5	15.4.1	<b>Support:</b> Policy 15.4.1 that 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'.		That ECAN retains policy 15.4.1 that 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'.
15-5	15.4.4	<b>Support:</b> Policy 15.4.4 requiring FEPs and GMP or better		That ECAN retains policy 15.4.4 requiring FEPs and GMP or better.
15-7	15.4.16	<b>Support:</b> Policy 15.4.16 which 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), both being targets of the original CWMS		That ECAN retains policy 15.4.16 which 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), both being targets of the original CWMS
15-7	15.4.16	<b>Recommendation:</b> That stronger wording than 'avoiding' (for example, "preventing") is	The wording of this policy needs some	That ECAN uses stronger wording

		used in Policy 15.4.16 to signify commitment to the future of groundwater levels, mahinaga kai and community water supplies	strengthening. The use of the word 'avoid' allows for some potential future negotiation over issues which should be non-negotiable	than 'avoiding' (for example, "preventing") in Policy 15.4.16 to signify commitment to the future of groundwater levels, mahinaga kai and community water supplies
15-7	15.4.17	<b>Support:</b> Policy 15.4.18 which protects of waterways and lakes by the planting of riparian margins, wetlands and the removal of fine sediments		That ECAN retains policy 15.4.18 which protects of waterways and lakes by the planting of riparian margins, wetlands and the removal of fine sediments
15-9	15.4.30	<b>Support:</b> Policy 15.4.27 that restricts the transfer of water permits only to those to be used for a community water supply		That ECAN retains policy 15.4.27 that restricts the transfer of water permits only to those to be used for a community water supply
15-11	15.5.3	<b>Support:</b> Rule 15.5.3 which 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		That ECAN retains rule 15.5.3 which 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
15-15	15.5.22	<b>Support:</b> 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		That ECAN retains 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
15-16	15.5.24 (2)	<b>Support:</b> Rule 15.5.24 (2) that protects Community Water Supplies during the		That ECAN retains rule 15.5.24 (2)

		augmentation of Wainono Lagoon, whilst acknowledging the benefits to the community and the environment of the proposed restoration project		that 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
15-22	Table15(a)	<b>Recommendation:</b> That 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. ( <i>New Zealand Guidelines for Cyanobacteria in Recreational Fresh Waters.</i> <sup>2</sup> ) Section 15.4 states that the policies of the sub regional plan apply <i>in addition</i> to the policies set out in section 4 of the Land and Water Regional Plan. In policy	That ECAN revises table 15(a) to include values for cyanobacteria mat cover at 20% for rivers that are utilised for sources of human drinking water or are important recreational sites.

<sup>2</sup> 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.



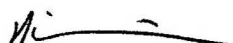
			<p>4.3 of the aforementioned plan it states <i>"Surface water bodies are managed so that toxin producing cyanobacteria do not render rivers or lakes unsuitable for recreation or human and animal drinking water."</i> We therefore recommend that effective limits are set at a level protective of public health and which will lead to better outcomes even if not realised immediately.</p>	
15-23	Table15(b)	<p><b>Recommendation:</b> E. coli levels should not exceed the Microbial Assessment Category D value of &lt;550 E.coli per 100ml within the current Suitability for swimming indicator update (2013) of the <u>Microbiological Water Quality Guidelines for Marine and Freshwater Recreational Areas</u> (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. 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 cannot be read in isolation as it is very difficult to see how</p>	<p>That ECAN revises the E. coli levels in table 15(b) so that they do not exceed the Microbial Assessment Category D value of &lt;550 E.coli per 100ml within the current Suitability for swimming indicator update (2013) of the <u>Microbiological Water Quality Guidelines for Marine and Freshwater Recreational Areas</u> (2003), where food is gathered for consumption</p>

			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.	
15-25	Table15(e)	<b>Support:</b> 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 contaminants' is set at <50% MAV within the Standards.		That ECAN retains the target level of E.coli in Table 15(e) at <1 CFU/100ml, as per the New Zealand Drinking Water Standards, further that 'any other contaminants' is set at <50% MAV within the Standards.
15-25	Table 15(e)	<b>Recommendation:</b> That table 15(e) is amended 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	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. CPH accepts that this may not be achievable in the short term and thus does not object to this interim target. Footnote (f) states however that with an increase in the 'nitrogen flexibility Cap' to 17kg/ha/yr this target will not be met but actually increase to 8.5mg/L. CPH does	That ECAN 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

			recommend the table is 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.	

I wish to be heard in support of my submission and can be contacted if any discussion or additional information is required.

Date: 19/05/15



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