

Canterbury

District Health Board

Te Poari Hauora o Waitaha

21 October 2014

Sarah Drummond
Environment Canterbury
PO Box 345
Christchurch 8140

Dear Sarah,

Proposed Variation 1 LWRP - Selwyn Te Waihora hearings

Thank you for the opportunity to respond to questions raised by the commissioners at the Variation 1 – Selwyn Te Waihora hearing on Wednesday 15th October 2014.

Question 1

At the hearing, commissioner Rob van Voorthuysen asked Community and Public Health to verify how our proposed new rule 11.5.3 fit in with existing rules in the plan. Having reflected upon Rob van Voorthuysen comment, CPH stand by their recommendation that a rule explicitly stating a minimum level of nitrogen removal be achieved by on-site wastewater treatment systems be included in the plan. However, we have come to realise that this rule should be applied to both Regional rules 5.8 & 5.9 and for effectiveness, it would be better if it was appended as an extra (2nd) condition of pre-existing proposed rules 11.5.1 and 11.5.2 (rather than necessarily be added as a new rule 11.5.3). We therefore ask that the recommendation made in paragraph 3.9 (page 6) of Alistair Humphrey's Statement of Evidence be revised to read/implemented in the final plan as:

CDHB Hearing Submission Point 3.9

On the basis of items above, CDHB recommend the following condition be added to both Rules 11.5.1 and 11.5.2 in Variation 1:

The treatment and disposal system is designed to provide nitrogen removal from effluent and that the total nitrogen in the discharge is less than 30 mg N/L.

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Question 2

In the Proposed Variation 1, the term 'no set value' for microbiological water quality in rivers, table 11(a) occurs for Banks Peninsula rivers and Spring-fed plains rivers, where there is no recognised contact water recreational activity. The question posed by the commissioners was whether CDHB are aware of recreational water activity taking place at these locations.

Although we are not aware of any additional contact recreational areas we draw the commissioners attention to the associated cultural indicator, in the same table, for the whole catchment which states '*Freshwater mahinga kai species are sufficiently abundant for customary gathering, water quality is suitable for their safe harvesting, and they are safe to eat*'. 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 'fair'. This argument is applicable to both the lake and river catchment outcomes, Tables 11a and 11b.

It is also worth noting that for Bank Peninsula surface water is often used for drinking, as groundwater is usually not available, and so therefore it is important that good microbial quality is strived for.

CDHB Hearing Submission Point 5.2

CDHB recommend that a microbiological indicator outcome of at least 'fair' be assigned across the catchment (Tables 11a and 11b) regardless of identified contact recreational use as the associated cultural values require that the water quality is suitable for the safe harvesting of mahinga kai.

Question 3

That the values for percentage cyanobacteria mat cover in the Section 42 report are acceptable?

First the CDHB would like to acknowledge and commend the inclusion of the cyanobacteria mat cover percentage as recommended in the Section 42a report for river catchments in table 11a, but note this has not been added to the lake outcomes detailed in table 11b.

We agree that 20% mat coverage for cyanobacteria is an appropriate freshwater outcome. In the section 42a report however this value is not applied to the whole catchment .

The New Zealand Guidelines for Cyanobacteria in Recreational Fresh Waters, Interim Guidelines ,MFE & MoH 2009 outlines a three level framework for benthic cyanobacteria.

- 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.

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.

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.

Therefore the lower limit of 20% should be the desired freshwater outcome for the river catchment.

A cyanobacteria guideline should also be included in Table 11b for the same reasons as above. The level should be based on the alert level detailed in the interim guidelines as referenced above.

CDHB Hearing Submission Point 5.2

CDHB recommend that a 20% mat coverage of cyanobacteria be applied across the river catchment in Table 11(a).

CDHB Hearing Submission Point 5.3

CDHB recommend that a cyanobacteria guideline, based on the New Zealand Guidelines for Cyanobacteria in Recreational Fresh Waters, Interim Guidelines ,MFE & MoH 2009 be applied to catchment lake outcomes in Table 11(b).

Please contact me should you wish to discuss these points further.

Your faithfully

Alizon Paterson
Health Protection Officer
Community and Public Health