



4 February 2014

Water Submissions
Ministry for the Environment
PO Box 10362
Wellington 6143
watersubmissions@mfe.govt.nz

Dear Sir/Madam

**Re: Submission on Proposed amendments to the National Policy Statement
for Freshwater Management 2011: A discussion document**

Thank you for the opportunity to provide a written submission on this consultation document.

Regional Public Health serves the greater Wellington region, through its three district health boards (DHBs): Capital and Coast, Hutt Valley and Wairarapa and is based at the Hutt Valley District Health Board.

We work with our community to make it a healthier safer place to live. We promote good health, prevent disease, and improve the quality of life for our population, with a particular focus on children, Māori and working with primary care organisations. Our staff includes a range of occupations such as: medical officers of health, public health advisors, health protection officers, public health nurses, and public health analysts.

We are happy to provide further advice or clarification on any of the points raised in our written submission. The contact point for this submission is:

[withheld]

Kind Regards

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[withheld]

Medical Officer of Health

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[withheld]

Service Manager



General Statements

Regional Public Health supports the intention of the proposed amendments to provide guidance to councils and their communities on managing freshwater quality. It is important for guidance on potential values that may be considered by communities to be outlined in any National Policy Statement, such as is provided by proposed appendix 1.

Regional Public Health supports the concept of freshwater objectives linked to values, and believes such an approach would assist in the planning of local freshwater objectives by communities. We support the concept of bottom line compulsory values for particular values.

We agree with having the process requirements to link values and freshwater objectives directed as in policy CA1 in the proposed amendments, and accept that the setting of timeframes and objectives should be a regional collaborative process.

Regional Public Health agrees that ecosystem health should be a compulsory value. RPH consider that environmental concerns in relation to fresh water management cannot be seen in isolation from public health. For example, effects on ecosystem health such as the growth of periphyton, cyanobacteria or the presence in the water body of pathogens, affect the ability of the public to safely use water bodies for recreation and is of public health concern.

Compulsory Secondary Contact Recreation Value

Regional Public Health has concerns regarding secondary contact recreation being an appropriate compulsory national value for human health.

It is not clear how the attribute states for *E. coli* (*Escherichia coli*) were derived. Levels of *E. coli* and the associated level of risk from gastrointestinal infection due to *Campylobacter* have been derived for contact recreation (all forms) in the Microbiological Water Quality Guidelines for Marine and Freshwater Recreational Areas. These were derived using modelling that incorporated 1000 individuals exposure to a specified volume and length of exposure.¹ We are unsure of how a level of 540-1000 *E. coli*/100 mL being associated with a 1- 5% illness risk was derived.

We also have concerns regarding the definition of secondary contact due to large variations in potential risk, for example, due to potentially large variations in exposure time and volume of ingestion or inhalation of pathogens in water bodies. For instance, secondary contact covers a range of recreational activities from fishing where an attribute state of C (540-1000 *E. coli*/100 mL) may be appropriate, but may not be appropriate for a high impact activity such as dragon boat racing, where there

¹ MoH/MfE. Microbiological Water Quality Guidelines for Marine and Freshwater Recreational Areas, 2003; Table H2, Page H26.



is likely to be an unacceptable increased human health risk from aerosolisation and ingestion of water containing 1000 *E. Coli* /100mL (the National Bottom Line).

Regional Public Health **recommend** that a compulsory national value for primary contact recreation (contact recreation) be assigned to identified sites, for example, the bathing sites currently identified by councils for recreational water quality monitoring, or sites identified by the community. The appropriate attribute could then be derived from the Microbiological Water Quality Guidelines for Marine and Freshwater Recreational Areas. Although a value of primary contact recreation can be selected at a local level, a compulsory value for selected sites can help manage competing interests at a local level on what is an acceptable water quality and associated level of health risk.

Drinking Water Value

Regional Public Health would like to see more emphasis on freshwater as a human drinking water source. RPH **recommend** that for water identified as a drinking water source, drinking water be considered a compulsory value with development of appropriate attributes. Reliance on the Health Act 1956 and associated Drinking Water Standards is insufficient to fully protect the quality and safety of drinking water sources. The strength of having a national compulsory value and associated attribute is that this addresses a critical determinant of public health during local processes to manage freshwater quality.

The discussion document states that the science around ecosystem health for groundwater is not well developed and thus does not define attributes for groundwater but indicates that the primary control for groundwater will be how it impacts on ecosystem health for rivers and lakes. This approach fails to identify that ground water is extensively used as a drinking water resource and without compulsory attributes linked to a drinking water value then the public health implications of any use of groundwater as drinking water will not be considered. Regional Public Health believes that where ground water is being used as a drinking water supply then that value must be considered.

An example where having compulsory national attributes would be important is for nitrate levels in groundwater. This is an attribute which is difficult to manage in drinking water treatment processes and a compulsory attribute could support plans to reduce existing high nitrate levels as well as prevent nitrate contamination of drinking water sources. High nitrate levels in drinking water have been associated with health effects.



Summary of Recommendations

1. The value Primary Contact Recreation (Contact Recreation) for specified recreational sites and its accompanying table of Attribute Unit and state, be adopted as a compulsory value rather than the value of secondary contact recreation.
2. Attributes for drinking water be developed and adopted as compulsory national values which must be considered if the water source constitutes a drinking water supply.

We are happy to provide further advice or clarification on any of the points raised in our written submission.