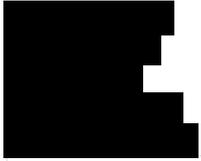


# Your submission to Clean Water

Philip Richard Stevens



## Clause

What are your thoughts on the proposed swimming targets, for example, on the timeframes and categories?

## Notes

The proposed swimmability targets are a transparent and obvious attempt to lower the absolute water quality standards. The redefinition of what constitutes a swimmable waterway would be reduced so that a 1 in 20 chance of contracting waterborne illness is the norm, and the use of a single indicator (coliform bacteria concentration) as a proxy for overall quality leaves out the highly problematic set of toxins and hazards to human health which arise from algal blooms and eutrophication in the presence of elevated nutrient burdens. Simply put, the proposed standards are a retrograde step from best practices and do not reflect the current state of thinking among either the scientific community dealing with freshwater ecosystems or among public health experts. Standards need to include a range of indicators, from bacteria counts to turbidity, nutrient loads, and algal coverage. A term such as "swimmability" becomes meaningless when it is categorically redefined by legislative pronouncement and then used to replace actual measures of water quality.

## Clause

What do you think about the proposed amendments to the Freshwater NPS?

## Notes

The NPS (2014) is already weak and fails to address major sources of both point-source and diffuse contamination. The proposed insertion of policies into Policy CA2 is effectively an enforcement protocol which says that if the status quo of a waterway is already degraded, applications to raise its quality can be deemed inappropriate because they fall outside of a "target band." This constrains management decisions by regional councils by effectively writing off the worst cases, putting them into a "too hard" basket and only allowing for incremental improvement. The introduction of guidelines which use pathogenic bacteria as a proxy for assessing suitability for contact recreation are flawed for reasons discussed above. The proposal for making macroinvertebrate monitoring the minimal indicator does not go far enough. A suite of indicators is required. Macroinvertebrate communities may be the last to respond to adverse changes and substantive movements in this indicator may lag other timely signals that water quality is being jeopardised.

## Clause

What are your thoughts on the proposed stock exclusion regulation, for example, the timeframes and stock types to be excluded?

## Notes

The proposed stock exclusions are too little, too late. Although at least a recognition is made that other forms of livestock than just dairy cattle do foul waterways, there are still large gaps in coverage (hill country) and the target of 2030 means that meaningful impact will be even further delayed. Too little attention is placed on small tributaries and ephemeral watercourses as well. The trend should be to exclude all livestock classes from both flowing water, drainage features, and wetlands, and the timeline should be five years. Too much harm has already been caused and the remediation efforts are overdue.

## Clause

Do you have any other comments on the contents of the Clean Water discussion document?

## Notes

It is obvious to the general public that the advice of the scientific community has been ignored and subverted in the generation of this document. I would recommend that the entire process be halted and that a new one be commissioned which is led by freshwater biologists and ecosystem specialists, rather than accommodating a set of industry viewpoints which effectively create a situation in which the aquatic commons of New Zealand is enclosed and degraded by a select few private interests.