

Dear Sir or Madam,

My brief comments on the proposed amendments to the National Policy Statement for Freshwater Management are below. I am an environmental scientist, but am making this submission on my own behalf.

- 1. I applaud the move towards a co-ordinated, nationally consistent approach on freshwater management.

- 2. There is an obvious danger that the ‘bottom line’ guideline proposed for various water quality parameters may come to be seen as acceptable. Although I understand that the requirement to “to maintain or improve overall water quality within a region” will remain, this is open to interpretation, and particularly bad rivers and lakes could arguably be partly discounted from this assessment. I recommend developing a second tier of ‘target’ values representative of contaminant concentrations in relatively ‘clean’ rivers and lakes. I hope that this would ensure that a perception does not develop that water bodies meeting the ‘bottom line’ guideline values is an acceptable outcome. Note: for comparison, this is comparable to the approach adopted by the Dutch government in managing contaminated land and groundwater, in which target values for ‘clean’ sites are set, along with ‘intervention’ values, which indicate that remediation is likely to be necessary – see Soil Remediation Circular 2009.

- 3. The focus on secondary contact for human health effects may be appropriate in some water bodies, however the ability to swim in fresh water is an important value for many New Zealanders, myself included. I recommend that standards protective of the health of swimmers be developed, and that Councils be required to nominate and publicly consult regarding which water bodies the swimming standards will apply to, and which may be subject to lower standards.

- 4, I am concerned that the freshwater quality standards for nutrients appear to be based on direct toxicity, without regard for eutrophication. If this is correct, I strongly recommend that the ‘bottom line’ guidelines be amended so that reasonable protection against eutrophication is provided.

- 5. I generally agree with the approach of establishing a nationally consistent scientific framework by which freshwater management issues should be assessed, to prevent duplication of scientific effort. However, I am concerned that this could result in unreasonable or anomalous results in unusual freshwater systems, and may in fact act to discourage ecosystem-specific scientific assessment. I recommend that an appropriately rigorous process be included whereby, in clearly defined circumstances, guidelines may be disregarded by decision makers where scientific evidence clearly indicates that they are inappropriate. That is, where evidence shows that applying the guideline to a particular ecosystem would either result in unacceptable effects (in which case a higher guideline should be enforced), or is unnecessarily conservative (in which case a lower guideline may be applied if it can be confidently predicted that this will not cause significant adverse effects).

Although I see some aspects of the NPS as positive, overall, I am **opposed** to what appears to me to be a non-conservative approach in setting the 'bottom line' guidelines.

Thank you for considering my submission.

Regards,

Tim Muller