

Additional submission

**To: Clean Water Consultation 2017
Ministry for the Environment
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By: Northland Regional Council
On
Clean Water Consultation 2017

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Introduction

1. Northland Regional Council (the council) appreciates the opportunity to make an additional submission on the Clean Water proposals.
2. Our submission is made in the interests of a practical, affordable and effective freshwater management system. It is also made in the light of the council's functions under the Resource Management Act 1991 (RMA) and Local Government Act 2002 (LGA).
3. This submission provides additional comments on swimming aspects of the Clean Water proposals and should be read in conjunction with council's previous submission lodged on 28 April 2017.

Further submission points

Grading

4. The council remains somewhat uncertain about the correct way to grade a water body (site) in accordance with the proposed modified attribute table containing four statistical measures for *E.coli*. That is, is a site to be graded by the measure that it performs the poorest against, for example, a site might pass three of the measures in a B (Good) attribute state but score a D (Intermittent) for one measure and therefore the D state is applicable? Or is there another interpretation, such as an 'average' across the four measures?

5. Similarly, would it be appropriate to set a numeric *E.coli* objective using a combination of tests from the A (Excellent), B (Good) and C (Fair) attribute states? We consider that this should be clarified in the National Policy Statement for Freshwater Management (NPS-FM).
6. The council also requests the Government to reconsider the number of samples that are required to grade a site. Graham McBride and Jeff Soller recently pointed out that:¹

The Clean Water grading proposal to use up to 10 years of data (compared to the Guidelines 5 years) could be problematical in situations where there is widespread increase in management actions (such as fencing of streams for livestock exclusion) when exceedances of 260, 540 and 95%ile values are the determinants of a site's final grading. A few high results from the early part of a monitoring period could effectively fix a site's grade long after it has improved. As noted by WHO (2003), 60 samples for percentile estimation over such a period should suffice – and see section 2.2.2 ('How many samples?') in McBride (2016). A hundred samples seems excessive; on the order of 50 should suffice.

Surveillance monitoring

7. The council also remains concerned about the proposed *E.coli* surveillance monitoring methodologies (Appendix 5) for Policy CB1, which are documented in our original submission (April 2017). Three concerns were reinforced by Graham McBride and Jeff Soller.
8. First, proposed Appendix 5 seemingly conflates grading and surveillance. The purpose of Policy CB1, as currently worded and proposed, is to monitor progress towards the achievement of objectives over time. In other words, assess the general suitability of a site for swimming on a long term basis (“a minimum of 100 samples, collected on a regular basis regardless of weather conditions, over a maximum of 10 years”). However as McBride and Soller state:

There are two distinct components to assessing the suitability of a site for swimming recognised in the Guidelines: Grading and Surveillance. Grading assesses the general suitability of a site for swimming on a long term basis (and uses long term monitoring to determine that) whilst surveillance assesses the suitability of a site for swimming in the short-term (is it OK to swim today).

9. Second, the requirement for daily surveillance sampling once a result greater than 260 *E.coli* per 100 mL is obtained is likely to be onerous. There is also a time lag between the collection of samples and the provision of results.
10. Third, we consider that sampling timing should be limited to when people use a site for primary contact recreation. For example, if the site is only used for swimming during summer months or when flows are less than three times the median flow then the sampling should be limited to that time. Or if a site is used for swimming and kayaking or white water rafting then monitoring should be all year round and independent of flow. As McBride and Soller highlight “...the *Clean Water* proposal would require sampling ‘regardless of weather conditions’ and this requirement is likely to introduce a stringency to a site obtaining a swimming grade given that high *E.coli* levels in rivers are often measured during higher flow events”.

¹ Graham McBride and Jeff Soller. May 2017. Technical Background for 2017 MfE ‘Clean Water’ Swimmability Proposals for Rivers. NIWA Client Report: FWWQ1722

Swimming targets and maps

11. Finally, we reiterate our strong reservations about the proposed national swimmability targets particularly given that their costs (and feasibility) has not been determined at a regional scale. The council considers that the national targets should reflect aggregated regional targets based on what is actually achievable and desired by local communities.

We note that the Minister has requested that regional councils provide information:

- On waterbodies where interventions are planned or in place to improve water quality for swimming;
- The level of improvement these interventions would achieve and the timeframes by which the improvements would occur; and
- The likely costs of the interventions and the parties on whom these costs would fall.

12. The Minister has requested this information in draft by October 2017 and final form by March 2018. We assume the timing allows for consultation with regional communities in the 2018 Long Term Plans. In council's view this information (as revised by LTP consultation) should inform national swimming targets.

13. We reiterate the concern expressed in our original submission about using a national suite of maps to measure progress against national swimming targets when:

- The maps do not accurately identify water bodies used for contact recreation; and
- The maps (in Northland at any rate) do not identify waterbodies where interventions are needed to improve water quality for contact recreation (and therefore are unlikely to measure actual improvement over time);

In our view, it would be more appropriate to set national targets based on the aggregated regional targets for improving microbiological water quality in water bodies valued by local communities for primary contact recreation, and measure progress at a national scale using an established platform such as LAWA.

Conclusion

14. The council thanks the government for the opportunity to provide further comment on the Clean Water proposals. Council would be happy to meet with ministry officials to discuss the above.

Approved on behalf of council by:

Chairman Bill Shepherd

Deputy Chairman David Sinclair

Councillor Joce Yeoman

Chief Executive Officer Malcolm Nicolson

Dated 25 May 2017