Regional Public Health
HAUORA Ā IWI KI TE ŪPOKO O TE IKA A MĀUI
Better health for the greater Wellington region

31 October 2019
Ministry for the Environment
Environment House
23 Kate Sheppard Place
Wellington

Re: Action for healthy waterways - A discussion document on national direction for our essential freshwater

Tēnā koe

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

Regional Public Health (RPH) serves the greater Wellington region, through its three district health boards (DHBs): Capital & 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 and 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.

The reason for this submission is to ensure that the public health opportunities and risks associated with this national direction including the draft National Policy Statement for Freshwater Management and National Environmental Standards, are considered. The Ministry of Health requires us to reduce potential health risks and promote good health by various means, which includes making submissions on resource management matters. The proposal covers matters with potential health effects on people and communities.

We are happy to provide further advice or clarification on any of the points raised in our written submission. Thank you for the opportunity to make this submission.

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Naku noa, na

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1. General responses to the proposals

1.1. Proposals as a whole

1. Do you think the proposals set out in this document will stop further degradation of New Zealand's freshwater resources, with water quality materially improving within five years?

2. Do you think the proposals will bring New Zealand's freshwater resources, waterways and ecosystems to a healthy state within a generation?

Regional Public Health supports the government's three objectives of stopping further freshwater degradation, improving water quality, and fair water allocation. We note that the proposals are aimed at achieving the first two of these objectives. However, fair water allocation cannot be separated from the first two and so the future work on this objective is equally important.

Improvement of freshwater quality will take some time, and Regional Public Health believes that the timeframe is more likely to be "within a generation". The partnership model and co-governance for oversight of implementing the proposals, will be critical for achievement of these objectives. Overall we think that the proposed changes represent increased regulatory clarity to support implementation by regional councils.

1.2. Impacts and implementation

6. Can you think of any unintended consequences from these policies that would get in the way of protection and/or restoration of ecosystem health?

Regional Public Health is aware that there are many competing priorities that impact on the quality of our waterways, and therefore any change in policy needs to consider unintended consequences to ensure the best outcome can be achieved equitably. From a public health perspective, the well-being of some communities are more significantly impacted by current water quality than others, and often these are in the areas with the least resource to effect change. Careful consideration would need to be given to ensure adequate resourcing for these communities to achieve improved water quality. This would ensure that implementation of the policy does not further increase the already unequal impacts on well-being from degraded water. Public Health uses methods such as Health Impact Assessment[1] to identify unintended consequences of new policy, which allows the opportunity to identify what mitigation will be required to prevent this happening.

1.3. Water commission and other comments

7. Do you think it would be a good idea to have an independent national body to provide oversight of freshwater management implementation, as recommended by KWM and FLG?

[1] A Guide to Health Impact Assessment: A Policy Tool for New Zealand. Public Health Advisory Committee, June 2005. http://www.moh.govt.nz/NoteBook/nbbooks.nsf/0/D540E1D80F7DB72CCC2578670072F996/$file/guidetohia.pdf accessed 30 Oct 2019

Regional Public Health supports consideration of an independent national body, but this will need to link with other water quality regulation e.g. the Proposed Drinking Water regulator, which is likely to expand to include wastewater and stormwater. The strength of a new body is the establishment of a true partnership between the Crown and Māori, which is likely to be a greater challenge when working with existing structures. It would also provide the opportunity to have a public health voice as part of this national body. Establishment of a new national body would have to be balanced against feasibility (financial and limited pool of appropriate membership, many of whom are likely to have multiple other roles) and relationship to other existing bodies to prevent fragmentation and confusion around roles and responsibilities.

2. Questions on the proposed amendments to the National Policy Statement for Freshwater Management and ecosystem-health aspects of the proposed National Environmental Standards for Freshwater

2.1. Te Mana o te Wai

9. Do you support the Te Mana o te Wai hierarchy of obligations, that the first priority is the health of the water, the second priority is providing for essential human health needs, such as drinking water, and third is other consumption and use?

Regional Public Health supports the Te Mana o te Wai hierarchy of obligations, as this recognises that human health is dependent on preserving healthy ecosystems. The challenge is determining prioritisation within the third hierarchy – the ability of people and communities to provide for their social, economic, and cultural wellbeing, now and in the future. To achieve this requires a strong focus on sustainability to maintain a future focussed approach while supporting changes to occur within our current practices.

10. Do you think the proposals will have the desired effect of putting the health of the water first?

Regional Public Health recommends that Policy Clause 3.3 'Tangata whenua roles and interests' should be strengthened to support the intent of the proposals. This policy emphasises the need for councils to engage with Tangata whenua, involvement in decision making and identification of values and interests. This is not the same as true partnership with Tangata whenua that is more likely to achieve the aim of 'putting the health of the water first'.

11. Is it clear what regional councils have to do to manage freshwater in a way consistent with Te Mana o te Wai?

Regional Public Health notes that the key to regional councils achieving Te Mana o te Wai is to ensure that 'Part 3, Subpart 1 Approaches to implementing objective and policies' is carried through to the regional determination of 'Subpart 2 National objectives framework'. This is emphasised in Clause 3.5(2) but as noted above, the success is dependent on Clause 3.3 'Tangata whenua roles and interests', and whether this is a partnership model versus an engagement model.

12. Will creating a long-term vision change how councils and communities manage freshwater and contribute to upholding Te Mana o te Wai?

Creating the long term vision in partnership with Tangata whenua and the 'community' will be critical in achieving Te Mana o te Wai. The challenge is always in defining who is 'the community' so it truly reflects the varying needs of different groups within the area.

2.2. New planning process for freshwater and redrafted National Policy

17. Do you support the proposal for a faster freshwater planning process? Note that there will be opportunity to comment on this proposal in detail through the select committee process on the Resource Management Amendment Bill later this year.

Regional Public Health supports the proposed 2025 deadline. Our only concern would be how this faster planning process impacts on areas that have already incorporated the NPS – FW into their planning processes. For example, in our region, the proposed natural resources plan that incorporates the NPS – FW is now at the stage of Environment Court appeals on the notified decision report. Requiring further changes at this stage may redirect resources away from ensuring implementation. Regional Public Health recommends that allowance is made for existing processes that are underway to meet the previous NPS-FW.

40. Are the purpose, requirements, and process of the National Objectives Framework clearer now? Are some components still unclear?

Regional Public Health agrees that there is now improved clarity around the National Objectives Framework. However, there is still a need to ensure that attribute monitoring is being used appropriately to manage public health risk. We have provided an example in our answer to Question 36, of where the use of the Primary Contact Site attribute *E. coli* in Clause 3.18, may not be appropriate to manage public health risk.

42. What are your thoughts on the timeframes incorporated in the proposed regulations? Please refer to the specific policy in your response.

It will be important to acknowledge that the ability to meet these timeframes will vary by region and available resources. Consideration needs to be given around equitable resourcing, including access to technical support, for all regions.

2.3. New Māori value and new threatened species values

13. Do you think either or both of these proposals will be effective in improving the incorporation of Māori values in regional freshwater planning?

Regional Public Health supports Option 1, elevation of mahinga kai to a compulsory value. We also support Option 2 where tangata whenua identity their own 'tangata whenua freshwater values' category for their rohe, so these values are incorporated into freshwater planning

processes. To be truly effective, Regional Public Health recommends that both options are implemented.

14. Do you foresee any implementation issues associated with either approach?

Regional Public Health notes the comments from Te Kāhui Wai Māori (KWM) and support the need to adequately resource development of the value and the associated monitoring, as it cannot rely solely on iwi/hapū resources.

15. What are the benefits and impacts of either of these approaches?

Elevation of mahinga kai to a compulsory value will emphasise responsibility for management of these resources to support the cultural well-being of tangata whenua and the ability to safely gather and use mahinga kai. From our experience as a Public Health Unit, the responsibility for ensuring mahinga kai is safe to consume often falls between a number of different agencies. Mahinga kai as a compulsory value is likely to strengthen roles and responsibilities for managing quality and therefore managing any potential public health risks from consumption. Option 2 allows tangata whenua to self-identify other values which are of local importance to them, thereby supporting the role of kaitiakitanga.

16. What implementation support will need to be provided?

As previously mentioned, it will be crucial to fund development and monitoring of appropriate attributes, and the response to the monitoring results.

2.4. Exceptions for major hydropower schemes

19. Does the proposal to allow exceptions for the six largest hydro-electricity schemes effectively balance New Zealand's freshwater health needs and climate change obligations, as well as ensuring a secure supply of affordable electricity?

Regional Public Health recommends that rather than an exemption from the requirements, it might be more appropriate to still require a full assessment of effects accompanied by recommended mitigations or offsets, as proposed by the Regional Sector Water Subgroup (RSWS).

2.5. Nitrogen, phosphorus, and sediment attributes

20. Do you think the proposed attributes and management approach will contribute to improving ecosystem health? Why/why not?

Regional Public Health supports the proposed attributes and management approach. However, it is important that appropriate timeframes to achieve these attributes are considered and that the management can be adaptive to respond to localised differences. The use of action plans allows for an adaptive management process to progress towards achieving the desired attributes. The advisory groups have provided an example where the nitrogen

attribute may continue to deteriorate despite mitigation being put in place, due to time lags, i.e. nitrate contamination of groundwater and the connections with surface water.

30. Do you support introducing new bottom lines for nitrogen and phosphorus? Why/why not?

Regional Public Health supports the need to reduce nutrients (nitrogen and phosphate) in waterways. However, we note the comments of RSWS regarding a robust evidence base supporting any new bottom lines for nutrient pollution. For example, we understand that an important determinant of benthic cyanobacterial blooms is the balance between nitrogen and phosphate, where low phosphate levels can provide *phormidium* cyanobacteria a competitive growth advantage. This can lead to significant benthic blooms and associated human health risk. Understanding the complexity of nutrient balance relationships is therefore important prior to setting any targets or limits, to avoid unintended consequences.

In our discussions with horticultural producers they have raised concerns regarding pressures between the NPS-FW and the production of fresh produce, particularly on clay based soils.[2] The growers concern is about meeting the Dissolved Inorganic Nitrogen (DIN) attribute. The growers believe that meeting the proposed bottom line DIN attribute will present significant challenges, potentially impacting on the affordability and accessibility of fresh produce for our resident populations. As noted, some of the advisory groups have recommended further consideration of the evidence base to support the proposed limits prior to committing to them. Regional Public Health recommends that a framework such as a Health Impact Assessment would be beneficial in understanding what the impacts of reducing nitrogen levels would have, for example, a review of the potential impacts on growers being restricted in providing fresh fruit and vegetables for the local market, whilst improving nutrient levels in freshwater.

2.6. Ecosystem health policies

25. Do you support the proposal to protect remaining wetlands? Why/why not?

Regional Public Health supports the proposal to protect remaining wetlands due to their important role in mitigating the impacts of climate change. We also support the recommendations of the advisory groups that there is a need to support the re-creation and restoration of wetlands.

2.7. Swimming

36. Do you agree with the recommended approach to improving water quality at swimming sites using action plans that can be targeted at specific sources of faecal contamination? Why/why not?

[2] Regional Public Health submission on Proposed National Policy Statement for Highly Productive Land http://www.rph.org.nz/resources/submissions/2019-10rphsubmission-nps-highly-productive-land.pdf

Regional Public Health supports the approach of developing action plans aimed at improving poor water quality in primary contact sites. This is the approach that we are developing in our region, as after many years of monitoring our primary contact sites, we know the sites that have unpredictable water quality (i.e. not related to general run-off following heavy rainfall). These sites require more targeted investigation and intervention to improve the water quality and protect public health, rather than just continuing regular monitoring.

We note in Clause 3.18 'Primary contact sites' that there is a requirement for regional council to monitor *E. coli* weekly, between 1 November and 31 March each year. The value of this monitoring is in getting an overall picture of water quality. In our region we have extensive data collected over many years that demonstrates how good the water quality is at our primary contact sites.

The current 'Microbiological water quality guidelines for marine and freshwater recreational areas' recommend using this monitoring data to manage public health risk. However, due to the time lag in receiving monitoring results, the result received on any given day is unlikely to represent the risk at that time. For this reason we use a predictive model (based on the microbiological history of the site; the recent and predicted rainfall; and any additional knowledge of current issues e.g. an overflow of wastewater nearby), to communicate to the public about the likely current water quality. For many of our sites, the water quality is predictable related to rainfall, and weekly monitoring may not be required. For unpredictable sites, these will be investigated in more depth to identify the key source of contamination and address this. Requiring weekly monitoring has the potential to impact on the availability of funding that could be better directed towards targeted investigations.

We also note that Clause 3.18 does not allow for consideration of high *E. coli* results as a result of heavy rainfall. Based on years of monitoring data, most freshwater exceedances in our region are the result of rainfall, and within 48 hours the results return to normal. For this reason increasing to daily sampling after a high result may not be the best use of funding. The current 'Microbiological water quality guidelines for marine and freshwater recreational areas', allow this pragmatic approach to be taken. However, having the same actions as a requirement under the proposed NPS-FW, is quite a different approach and is not responsive to the dynamic nature of freshwater quality. Furthermore, the proposed monitoring and warning requirement may not represent the best management of public health risk (e.g. the time delay before a public health warning not to enter the water can be issued, when predictably the water quality will already have returned to acceptable limits). The risk is diversion of some funding away from more targeted investigation to determine what needs to be done to improve the water quality.

Finally we support the Science and Technical Advisory Group (STAG) and RSWS comments that priority should be given to improving understanding of the association between the indicator organism *E. coli* and the actual risk for human health illness, depending on the predominant source of the contamination. Once this work is completed requirements to take action around *E. coli* levels will be commensurate to risk and mitigation can be targeted so it is more cost-effective.

2.8. Flows and metering

37. Is any further direction, information, or support needed for regional council management of ecological flows and levels?

Regional Public Health agrees with the advisory groups' comment indicating that the relationship between water flows and ecosystem health is complex and requires further consideration to establish requirements for minimum flows. In the example of benthic cyanobacterial blooms, the most significant driver of the risk posed by a bloom, is a lack of flushing flows rather than a minimum flow.

38. Do you have any comment on proposed telemetry requirements?

Regional Public Health agrees with the comments from some of the advisory groups that total take as well as flow rate should be considered for monitoring. Consideration may also need to be given to water take supplies for vulnerable communities, to ensure the additional cost of monitoring is affordable.

3. Drinking water, stormwater, and wastewater

3.1. Drinking Water National Environmental Standards

43. Do you agree with the proposed amendments to the Drinking Water NES? Why/why not?

Regional Public Health supports the expansion of the existing Drinking Water NES to all registered supplies serving more than 25 people (for at least 60 days per calendar year). This is a significant improvement on the current requirement. We also support provision of direction on how to determine water risk management areas, as currently each regional council is trying to determine how best to define the risk area in order to implement the NES. There may need to be consideration of funding and expertise support to smaller councils (e.g. small unitary councils) as the determination presents some challenges.

We support further work being done around management of nitrate-nitrogen contamination given the challenges in managing this in drinking water supplies.

It will be important to require councils to place appropriate controls on development and land use, and review activity plan rules and controls, within source water risk management areas. This could be further supported by evidence based guidance around appropriate controls. Doing this will support more efficient plan reviews, and promote consistency around the country. The recent regional plan review in our rohe utilised a significant amount of time and resource for both submitters and the Regional Council to collate and incorporate all of the feedback and evidence presented at the hearings. National evidence-based resources around determining source risk management areas would promote consistency and be more efficient, and ensure robust processes are implemented in all areas.

44. Are there other issues with the current Drinking Water NES that need to be addressed?

An issue that recurs is having accurate GIS records of groundwater utilised for potable water purposes. This involves collating the information a regional council holds and the information contained on the Drinking Water Register. There is still potential for supplies to be missed and resourcing a project to accurately record this information would be valuable.

3.2. Stormwater and wastewater

46. Does the proposed Wastewater NES address all the matters that are important when consenting discharges from wastewater networks? Will it lead to better environmental performance, improve and standardise practices, and provide greater certainty when consenting and investing?

In terms of minimum requirements, it will be important to weigh this up against public health risk that includes an assessment of likely public exposure. It will be important not to require gold standard wastewater treatment that may not be sustainable for a smaller community. The impact of any nationally consistent requirements will require funding to be appropriately distributed, so smaller and more vulnerable communities are not disadvantaged by not being able to afford meeting national standards. This is particularly a challenge for communities that are holiday destinations, where local residents have lower socioeconomic resources than non-resident property owners – costs for improvements need to be affordable for all.

47. Do you agree with the scope of the proposed risk management plans for wastewater and stormwater operators? Are there other aspects that should be included in these plans?

Regional Public Health is especially supportive of the proposed obligation to prepare wastewater risk management plans. Often the focus is on managing the discharge from the wastewater treatment plant when network overflows may represent a greater public health risk. Furthermore, any changes to flows within a network will impact on the treatment plant. Therefore a risk management plan that considers the whole system and the future system needs will lead to better decision making and planning.

Stormwater discharges have a large impact on water quality and therefore public health. Regional Public Health supports the use of risk management plans for stormwater operators. The challenge for stormwater discharges is the burden of improving the impact of existing discharges. The proposal includes best practice for new stormwater design but this will not address existing infrastructure.

4. Improving farm practices

4.1. Restricting further intensification

51. Do you support interim controls on intensification, until councils have implemented the new NPS-FM? Why/why not?

Regional Public Health supports the principle of the proposed interim controls on intensification of rural land use. How we use our land sustainably and the direction for the future economy requires careful consideration and public debate.

52. For land-use change to commercial vegetable growing, do you prefer Option 1: no increase in contaminant discharges OR Option 2: farms must operate above good management practices. What are your reasons for this?

Regional Public Health notes there is the potential for unintended consequences from placing restrictions on commercial vegetable growing. We recommend that a framework such as a Health Impact Assessment is utilised to identify any unintended consequences from each option and any mitigation required to ensure well-being is not negatively impacted.

4.2. Farm plans

54. Do you prefer mandatory or voluntary farm plans (acknowledging that farm plans may be required by councils or under other parts of the proposed Freshwater NES?) What are your reasons for this?

As noted, there will be a need for some mandatory farm plans, for example within a drinking water source area. To be mandatory, further work around how this approach would be resourced (financial and technical support) needs to be done, alongside developing the plan requirements.

4.3. Immediate action to reduce nitrogen loss

58. Which of the options (or combination of them) would best reduce excessive nitrogen leaching in high nitrate-nitrogen catchments? Why?

Regional Public Health is unable to comment specifically on which option is best, but note the advisory groups' comments that the success may be more limited if only targeting those areas that are currently high. Given the pervasive nature of raised nitrate levels, it is important to look for opportunities in all areas to reduce nitrogen leaching and discharges. In addition, the movement of water between surface and ground may mean that only targeting areas with high surface water nitrate levels could miss other catchments where ground water levels are elevated.

63. What alternative or additional policies could contribute to reducing nitrogen loss?

Regional Public Health agrees with the advisory group comments (KWM and FLG), that improvements in some areas may require land-use change to ensure reduction in nitrate levels.

64. Do you have any comment on what would be required to ensure this proposal could be effectively implemented?

Regional Public Health recommends that financial and technical support is provided to the affected areas to ensure that food production is not adversely impacted, that would lead to indirect impacts on public health via reduced access to food sources.

4.4. Excluding stock from waterways

65. Do you support excluding stock from waterways? Why/why not?

Regional Public Health has supported stock exclusion from waterways in our 2016 submission on freshwater management. We previously recommended that sheep also be included in the requirements as we are aware of situations where water quality has improved when sheep are no longer grazed upstream. However, we except that cattle are more likely to adversely impact on water quality.

5. Interactions between National Policy Statement for Freshwater Management, National Environmental Standards for Freshwater and other policies

5.1. Policy interactions

79. Do you think there are potential areas of tension or confusion between the proposals in this document and other national direction? If so, how could these be addressed?

Regional Public Health notes that the national policy statements on urban development, freshwater and highly productive land should work together to achieve the best possible outcomes for the health and wellbeing of the resident New Zealand population, including for future generations. We believe that Health Impact Assessment is a useful tool to assess all three national policy statements, so the policy implementation is synergised to achieve the best possible outcomes for human health.

Furthermore, the interplay of all of these national direction documents would be supported by the use of spatial planning as a tool to achieve the best outcomes. The ability to undertake spatial planning is often limited by gaps in spatial layer information about existing infrastructure and services, that can be utilised in GIS applications. Some council areas will require greater investment to enable access to sufficient resources and expertise, so spatial planning can be used to improve freshwater quality.