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PUBLIC HEALTH
Bay of Plenty + Lakes Districts

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Freshwater Submissions
Ministry for the Environment
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Submission to Action for Healthy Waterways – A discussion document on national direction for essential freshwater

Introduction

The Bay of Plenty District Health Board (Bay of Plenty DHB) and the Lakes District Health Board (Lakes DHB) are required by the Public Health and Disability Act 2000 to improve, promote, and protect the health of people and communities, to promote the inclusion and participation in society and independence of people with disabilities and to reduce health disparities by improving health outcomes for Māori and other population groups.

Many of the factors that determine health are directly influenced by the decisions and activities of Government, which is why it is important the DHBs work together to make a difference to manage freshwater in the best possible way. For these reasons the Bay of Plenty DHB and Lakes DHB (the DHBs) welcome the opportunity to inform changes to legislation and regulation to improve freshwater management.

This submission has been prepared by Toi Te Ora Public Health (Toi Te Ora) which is the Public Health Unit for both Bay of Plenty DHB and Lakes DHB.

Submission

Public health is about promoting wellbeing and preventing ill health before it happens. It is about keeping people healthy and improving the health of populations rather than treating diseases, disorders and disabilities in individuals.

The proposals intend to improve the health of the natural environment, and waterways which people have contact with in the short term and in a generation. The protection of the environment from contamination and unsustainable natural resource use is considered by the DHBs to be central to safeguarding public health therefore the proposals will make difference in the protection of public health long term.

Government has a great deal of influence over the factors that determine health, which is why it is important that all government agencies, sectors and organisations work together to make a difference. The achievement of safe and healthy environment begins with strong public health legislation and national policy settings.

The DHBs support regulations that require better management of stormwater and wastewater, tighter controls to prevent sediment loss from earthworks and urban development, managing agricultural and horticultural land use using practices, and also taking a catchment activity approach to freshwater management best practice.

Section 2 –Implementing improvements through the Resource Management Act

The 17 United Nation Sustainable Development Goals (SDGs) are the blueprint to achieve a better and more sustainable future for all. They address poverty, inequality, climate, environmental degradation, prosperity, and peace and justice. The SDGs are interconnected and in New Zealand, achieving the SDGs will require cross-government effort and the alignment of government priorities.

The health sector has a central role in leading SDG 3 to ensure healthy lives and wellbeing for all at all ages. Almost all of the other 16 goals are also directly or indirectly related to health. Improving the health of waterways by addressing environmental degradation will contribute to improved health outcomes and achieving a better and more sustainable future for all.

SDG 6, to ensure availability and sustainable management of water and sanitation for all, is central to health and directly relevant here. Other SDGs relevant to improving freshwater management are:

- ensure access to affordable, reliable, sustainable and modern energy for all
- make cities and human settlements inclusive, safe, resilient and sustainable
- take urgent action to combat climate change and its impacts
- strengthening the means of implementation and revitalise the global partnership for sustainable development.

The DHBs suggest that the approach taken to protecting and restoring freshwater in New Zealand takes into account the 17 SDG goals and that government priorities for addressing freshwater degradation should align with the goals to achieve a better and more sustainable future for all.

Section 4 - Setting and clarifying policy direction

Section 4.1 Issues

Environments should protect not harm health. Sufficient freshwater is needed to sustain a healthy ecosystem, which in turn is essential for human health. The improvement and protection of freshwater to meet the life supporting and the social and cultural requirements of current and future populations is a necessity for public health.

Therefore, the DHBs support the overall direction that Government is suggesting. However, the DHBs only support in principle the direction proposed that the health and wellbeing of

freshwater will be the first priority for decision making, and essential human needs second. This is because in practical terms there will be occasions when the need for drinking water and water for sanitation takes priority.

To strengthen freshwater planning and decision-making for essential human health needs the DHBs recommend that the freshwater needs of current and future populations are identified and managed to align with public health priorities and approaches for the protection of population health and wellbeing.

Section 4.6 Exceptions for major hydro schemes to support renewable energy targets

The DHBs note the proposal to support renewable energy targets by exempting major hydro-electric schemes from some freshwater management requirements. The DHBs support in principle the approach to the current exception mechanism, allowing regional councils to maintain water quality below a national bottom line if it is necessary to secure the benefits of hydroelectricity infrastructure. The DHBs recognise that this is a pragmatic compromise however; the exemption should not be in perpetuity, and needs to be regularly reviewed while at the same time encouraging the electricity industry to diversify in renewable electricity sources.

Section 5 - Raising the bar on ecosystem health

Section 5.6 and 5.7 – Habitat – no further loss of wetland or of streams

The proposals seek to improve current management of freshwater and the approach proposed requires no further loss of wetlands and streams. While the DHBs support no further loss, national direction should seek to improve wetlands and streams already impacted as a result of human activity. Therefore the DHBs recommend that the new approach to freshwater management takes a continual improvement approach.

Section 5.10 – Water quantity – a higher standard for swimming

The DHBs agree that the 2003 water quality guidelines need to reflect new research and scientific knowledge and revise the 2003 risk assessment for contact recreation. The guideline thresholds to estimate risks of illness are relevant to the bacterial indicator E.coli used in the guidelines. Water quality below 260 E.coli per 100ml is recognised to be acceptable for contact recreation and the DHB's recommend this needs to be the new interim bottom-line.

The proposed higher standard of 540 E.coli per 100ml for swimming does not go far enough to protect public health and is not supported as a holding arrangement, particularly with current knowledge that the bacteria indicators most likely underrepresent the risk to health and misrepresent the risk from other pathogenic organisms in the environment.

Currently water quality above 550 E.coli per 100ml (action/red mode) poses an unacceptable risk to health for swimmers, however water quality between 260 and 550 E.coli per 100ml (alert/amber mode) also poses an elevated risk which may on further investigation be unacceptable to health because water in this range indicates a contamination problem. The

DHBs recommend the bottom-line for freshwater in *popular* places where people *frequently* swim needs to be of acceptable quality to prevent harm to people.

5.11 Water quantity – clarifying requirements for minimum flows
The DHBs agree that adequate water flowing through a waterway is an essential component of ecosystem health. Maintaining minimum flows can be difficult unless the resource is proactively managed for waterway health and for the public good. The DHBs recommend including requirements for registration of all water takes, particularly the smaller amounts of water taken such as takes for individual household's reasonable domestic need and stock drinking water. Not knowing the number and locations of all water takes hinders the ability to manage regional council permitted activity limits and the ability to safeguard individual household water. While minor takes may on the most part, be considered to not have a negative effect on the environment; the proliferation of small takes may collectively have a significant effect on the freshwater resource. Further, and of important public safety concern, is that if a water take is not registered there is a risk that discharges may unknowingly contaminate the water taken.

Section 6 – supporting the delivery of safe drinking water
The DHBs support the direction to ensure better drinking source water protection arrangements are in place and look forward to providing feedback to more detailed proposals mid- 2020.

6.1 Issues and 6.2 Proposals
The DHBs note the issue to ensure waterbodies can be used for community water supply and supports the proposals to protect source waters from activities that can pose risks of contamination.

Human health requires a *sufficient and safe* source of water which is largely beyond the control of individuals. Action therefore is required by public authorities at all levels to improve and protect source water from contamination and also insufficient supply. Therefore, the DHBs suggest that source water used for drinking and other essential human uses need to be considered and included to protect human health. Please refer to the comment made in section 5.11 of this submission relevant to water quantity protection.

The proposal to expand the scope of the National Environmental Standard for Sources of Human Drinking Water Quality (Drinking Water NES) to apply to all registered water supplies is supported. While this is a significant improvement not all water supplies need to be registered with the Ministry of Health at this point in time. This includes water supplies serving more than 25 people sourced from their own land and water supplies serving high risk users and activities to public health, for instance seasonal accommodation, residential facilities for older persons, workplace or food producer. To better manage these risks and protect public health, the DHBs recommend strengthening the Drinking Water NES to protect all water supply sources.

Section 7 - Better managing stormwater and wastewater

Section 7.2 Wastewater and 7.3 Stormwater

The DHBs support in principle the proposed approach to require network operators to develop risk management plans, report compliance, and implement nationally consistent measures for wastewater.

While there is support for minimum standards the DHBs are concerned they may be used as a target rather than continual improvement and striving for best practice. This is because professionally operated sanitary services, like the one's operated by councils, should always be looking for ways to continually improve. By aiming for the highest quality discharge that is feasible, the health of the community is better protected.

The most effective metrics for measuring and benchmarking the environmental performance of stormwater and wastewater networks

Monitoring of the quality of wastewater and stormwater discharges is important; however it only provides a snap shot of the quality at the time of sampling. It is protective and therefore more important to be able to demonstrate that the wastewater and stormwater treatment systems are working effectively at all times. This is particularly important for wastewater because even a short reduction in performance could potentially pose a public health risk, even if the impact on the environment is minimal. This is why reliance on discharge quality limits and intermittent environmental monitoring alone is not sufficient to provide confidence that the discharge limits are met between sampling The DHBs support a risk based approach to be taken across the whole process of wastewater and stormwater network operations.

Discharge limits for resource consents have traditionally included median limits, however in the Bay of Plenty and Lakes districts the inclusion of median and maximum consent limits for microbiological quality are common.

Wastewater

Effective sewage disposal will separate people from waste, keep pathogens out of the environment and prevent contamination of food and water sources.

The DHBs recommend an assessment of risk to public health from wastewater networked services and management of sewage by-products. An environmental and health need assessment for populations not receiving wastewater networked services should be required to capture multiple point source wastewater discharges. Wastewater schemes managed and operated by territorial authorities are the most protective of health for individuals and communities. These systems need to be made available wherever possible and extended whenever practicable.

Continuity of wastewater services, including contingency measures and risk mitigation, are suggested by the DHBs as measures for inclusion and also wastewater reuse environmental performance measures.

While the DHBs support minimum treatment limits it is Toi Te Ora's experience that the risks to public health are location and discharge method and quality specific. This is particularly so for assessing potential risks to health from odour, contact recreation, water used for food gathering or drinking.

Toi Te Ora has worked with Bay of Plenty Regional Council to process a number of territorial authority resource consent applications for wastewater and associated air discharges. Consent conditions have included trigger limits set below the discharge standard limit that initiates operator intervention to minimise the discharge limit exceedance and risk to public health. Other consent conditions include timely notification to the Medical Officer of Health when discharge limits are exceeded, and appropriate signage to warn unauthorised people to remain off site. Also included are conditions for the Medical Officer of Health to review and provide comment to the consenting authority and applicant about site and odour management plans. Due to long consent duration, requirements to review consent limits and parameters regularly over the lifetime of the consent are included to ensure advances in wastewater treatment and scientific research may be implemented which will better protect the environment and health of the public.

Treating and disposing of sewage and its by-products can trigger the offensive trade provisions in the Health Act requiring Medical Officer of Health consent to operate. The DHBs would like to see direction for better coordination between regional and territorial authorities and Medical Officers of Health for offensive trades, and also all activities involving animal and human sewage management.

Stormwater

The DHB is supportive of risk management plans taking an entire stormwater network approach. The DHB suggests that when necessary, a coordinated catchment level approach to risk management be taken, particularly when multiple stormwater networks are present in a catchment and the networks are managed by different local authorities.

General Comment

The freshwater resource has a major impact or influence on health outcomes for a population; therefore it is important that government organisations collaborate to achieve similar outcomes. It is far preferable that a preventative approach is taken together, to build robust fences at the top of the cliff, rather than picking up the pieces at the bottom.

The DHBs encourage national direction to strengthen links between regional councils and territorial authorities when processing resource and building consents. It is essential that regional spatial planning, district land use planning and activity consents are coordinated between local authorities to minimise unwanted impacts on other water users and the environment. Direction needs to reflect the importance of identifying a reliable and safe supply at the beginning of the planning process for any new building, subdivision or change in land or resource use. To do so will strengthen effective water management and ensure potable water that is sustainable for the lifetime of the building is supplied.

The DHBs recommend planning processes be introduced that require interagency collaboration between regional and territorial authorities at all planning and implementation stages. To do so will support consistent and effective management of freshwater and better protect public health.

The action for healthy waterways mentions that most wastewater discharges require resource consents. It is the experience of Toi Te Ora that permitted discharge activities can pose a significant risk. Problems from multiple discharge points and cumulative discharge effects often go unnoticed until brought to public health or local authority attention. The DHBs recommend the regulatory system provide assurance that local authorities know and are assessing wastewater discharge activities, particularly discharges containing human and animal sewage, are also actively monitoring those discharges for compliance.

Bay of Plenty and Lakes DHBs wish to thank the Ministry for the Environment for the opportunity to submit.

Kind regards,

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