

23 October 2019

Freshwater submission

Ministry for the Environment  
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## Submission to: Action for healthy waterways proposals.

### 1. Introduction

Water New Zealand welcomes the opportunity to make a submission on the Government's *Action for healthy waterways* proposals. Water New Zealand is a not-for-profit organisation that promotes and represents water management professionals and organisations. It is the country's largest water industry body, providing leadership in the water sector through advocacy, collaboration and professional development. Members include nearly 200 organisations and more than 2000 individuals drawn from all areas of the water management industry including regional councils and territorial authorities, consultants, suppliers, government agencies and scientists.

### 2. Context to this submission

Water New Zealand is supportive of the actions outlined in the *Action for healthy waterways*, discussion document on a national direction for freshwater. We support an evidence-led approach to freshwater policy which is underpinned by sound science. The National River Water Quality 10-year Trend Summary (2009-2018)<sup>1</sup> prepared by Land Air and Water (LAWA) clearly indicates trends of degradation in New Zealand's fresh water. Additionally, the Ministry for the Environment Report *Environment Aotearoa 2019*<sup>2</sup> unequivocally identifies that farming activities contribute contaminants which have an adverse effect on fresh water and that urban waterways also have unacceptably high levels of contamination. Both reports present scientific research and data to inform the information they provide.

The *Action for healthy waterways* proposals set a direction which will need to be supported by detail in other documents. The intention of the proposals will only be realised if the supporting documents are workable and the organisations responsible for implementing them are effective.

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<sup>1</sup> <https://www.lawa.org.nz/explore-data/river-quality/>

<sup>2</sup> [https://www.mfe.govt.nz/publication-search?f%5B0%5D=field\\_section\\_topic%3A171](https://www.mfe.govt.nz/publication-search?f%5B0%5D=field_section_topic%3A171)

Water New Zealand has been concerned about the rhetoric and unsubstantiated claims made by some in the farming sector. We acknowledge that many New Zealand farmers are taking considerable measures to reduce their impact on the environment, including freshwater quality and our view is that most farmers will not be significantly affected by the proposals.

However, evidence has shown that high intensity agriculture, particularly dairy farming, is contributing to the serious decline of water quality and the health of waterways. Those operations having the highest impact need to be required to reduce their disproportionate impact, while others should (as part of a meaningful regional planning process) be required and supported to make improvements to farm management and practice to meet appropriate rules and objectives. In some areas, high intensity farming cannot be undertaken in a manner that has acceptable impacts on freshwater quality. In those areas there may be a need for land use changes. However, the areas concerned should never have been used for dairy farming or dairy intensification and we note that during the 1990s and 2000s when land use changes occurred, there was opposition and clear indications that the resulting impacts would be adverse for freshwater quality. Indeed, the then Parliamentary Commissioner for the Environment, Dr Morgan Williams raised concerns about freshwater quality in 2004.<sup>3</sup>

When there is a crisis in, or because of an industry, that industry needs to change the way it does things. We have seen this with changes to Health and Safety legislation as a result of the Pike River tragedy. Similarly, the drinking water contamination event at Havelock North has initiated a considerable amount of change in the water industry. When these events occur, the industry affected must adapt to accommodate the necessary changes. Certainly, Water New Zealand and its members are at the centre of adapting to change in the water industry.

Farming in New Zealand has been built on innovation and adaptation. Water New Zealand considers that farmers will need to, and will be able to, adapt and adjust their industry to the new requirements necessary to protect freshwater quality. They have a responsibility to do so.

But we need to accept that New Zealand pastoral farming is not and cannot be a sustainable activity. It relies on historic removal of bush cover and the subsequent extensive loss of natural habitat and biodiversity as occurred in New Zealand in the 18<sup>th</sup> and early 19<sup>th</sup> centuries. Not dissimilar to the activities currently resulting in the loss of Amazon rain forest in Brazil.

In many places pastoral farming requires the addition of nutrient fertilisers to maintain soil productivity and in some places irrigation to support plant growth. The effluent produced by large numbers of animals in confined areas which are subject at times to intense rainfall, will always put waterways at risk of contamination as water seeks a path to aquifers, streams, rivers and ultimately the sea.

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<sup>3</sup> <https://www.pce.parliament.nz/publications/archive/1997-2006/growing-for-good-intensive-farming-sustainability-and-new-zealands-environment>

At the heart of the freshwater quality debate is a conflict between activities which utilise environment resources to generate economic wealth and the need to protect the environment for its own sake and for present and future generations.

Within this context and a prevailing anthropocentric view of the natural world, the best that we can hope for is to make farming less unsustainable than it currently is. And that is what the *Action for healthy waterways* proposals need to achieve. They will only do that if the proposals remain largely unaltered and are not diluted in response to sensational and unsupported claims made by those who seek to continue their current activities without taking responsibility for the external environmental costs those activities impose. We commend the Government to stand strong to defend the proposals.

This submission makes some general observations and suggestions on the *Action for healthy waterways* proposals and then provides responses to the questions posed in the sections of the document.

### 3. General comments on the *Action for healthy waterways* proposals

Water New Zealand generally supports the *Action for healthy waterways* proposals and the proposed changes to the National Policy Statement for Fresh Water Management (NPS-FM), National Environmental Standards (NES) for Freshwater, Sources of Drinking Water, and the proposed Wastewater NES and Section 360 regulations. Comment on the detail is made later in this submission.

We have some concerns about the draft NPS-FM and consider that some changes are required to make it more workable and to reduce the risk of litigation. We consider that updating and modifying the current NPS-FM (2017) is required rather than rewriting it. We have outlined our concerns in an appendix to this submission.

Government objectives intended to improve outcomes for people or the environment, are dependent on the effective performance of departments or organisations charged with giving effect to the objectives and effectively performing the functions they are tasked with.

While Water New Zealand recognises that regional councils perform a range of important functions very well, including environmental regulation, we have considerable concerns about the implementation by regional councils of the requirements set out in these documents. Many regional councils have a poor record of enforcing the requirements of the Resource Management Act and conditions set in resource consents. There is no clear indication that any new regional council functions that result from the *Action for healthy waterways*, and which might be contained in the NPS-FM or any other NES would be better performed than any current functions under similar policies. In fact, there are clear examples where regional councils have failed to implement, in a nationally consistent manner, the requirements of NESs.

In 2007 the Ministry for the Environment released a NES for sources of Human Drinking Water. The Report of the Havelock North Drinking Water Inquiry: Stage 1 found that:

*....the regional council failed to embrace the principles and philosophies behind the NES Regulations by continuing.....with the view that it had no legal or other responsibility for drinking water and no perceived accountability in that area.<sup>4</sup>*

The failure by Hawkes Bay Regional Council to recognise that it had accountability for this NES and its failure to implement the NES, regulations made under the Resource Management Act was in our view widespread across regional councils in 2016 when the Havelock North event occurred.

Since 2008 and annually, Water New Zealand undertakes a National Performance Review (NPR), an annual performance comparison of drinking water, wastewater and stormwater service provision by local authorities in New Zealand.

The NPR shows variation in consenting practices and a low level of consent enforcement for wastewater and stormwater practices, which suggests the current regulatory environment is not achieving its desired purpose, which is protection of the environment and public health.

Of the 247 wastewater treatment plants included in the 2018/19 NPR, 26 wastewater treatment plants were operating on expired effluent discharge consents.<sup>5</sup> In 2017/18, only six consent abatement notices, two infringement notices and one successful prosecution were reported to the NPR. There were no consent enforcement orders. This continues a trend seen in previous years. In our 2016/17 report we noted;

*In a year of wet weather, with stories of beach closures and flooded homes dominating news reports, no stormwater consent non-compliances were reported to the National Performance Review. Wastewater treatment consent breaches were also low, with only seven infringement notices and one enforcement order issued across all 42 wastewater operators.*

A minority of participants (eight of 38 providing data in 2018/19) had all stormwater discharges covered by resource consents. A further 24 had consents for some stormwater discharges however the nature and extent of these varied greatly.<sup>6</sup> The result is that stormwater quality management practices are often not implemented by stormwater operators, with stormwater networks being managed with flooding as the sole focus. In our 2017/18 NPR we reported:

*Slightly under half the NPR's participants have implemented stormwater quality monitoring or catchment management plans (23 and 22 respectively) ... The variation in management practices is likely a reflection of the different consenting approaches for stormwater discharge.*

The failure to implement policy can also be found within government departments. In 2007 the Health (Drinking Water) Amendment Act set out duties for water suppliers and regulatory functions for Drinking Water Assessors. The Ministry of Health was responsible for

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<sup>4</sup> Report of the Havelock North Drinking Water Inquiry: Stage 1. pg. 92.

<sup>5</sup> National Performance Review 2018/19. Water New Zealand. pg. 7.

<sup>6</sup> National Performance Review 2018/19. Water New Zealand. pg. 7.

implementing this legislation and policy. The Report of the Havelock North Drinking Water Inquiry: Stage 2 found that:

*the Ministry of Health failed in its responsibility to promulgate an effective and useful enforcement policy from 2007 to 2017.*

Further failures of regulation by the Ministry of Health were clearly outlined by the reports of the Havelock North Drinking Water Inquiry.

The above examples indicate that good policy is never enough on its own to achieve a desired outcome. Good policy needs to be effectively implemented and that implementation needs to be measured, monitored and reported on.

Water New Zealand considers that one of the main reasons for the implementation failures outlined above is that the organisations tasked with enforcement are not specifically regulatory organisations. Regional councils have a range of planning functions and relationships with some of the organisations they are required to regulate which discourages them from taking regulatory action. When undertaking NPR audits of stormwater and wastewater consent abatement, infringement and enforcement orders, the auditor of our report commented:

*The impression is that regional councils prefer to work quite closely with organisations to ensure improvements are made and it is only if there was repeat non-compliance would the regional councils get heavy-handed.<sup>7</sup>*

Though there are constraints on introducing any further legal reporting measures on regional councils (we note that a comprehensive review of the Resource Management Act has recently been announced) Water New Zealand considers there is a need for further measurement, monitoring and reporting on the performance of regional council's freshwater policy implementation.

Water New Zealand recommends the introduction of some further measures to assess the performance of regional councils with respect to their functions under the National Policy Statement for Fresh Water Management and National Environmental Standards for Freshwater, Sources of Drinking Water, and Wastewater.

### **3.1 Monitoring regional council healthy waterways performance**

Water New Zealand recommends that an annual report is prepared on the implementation by regional councils of the proposals in the *Action for Healthy Waterways* document. Specifically, the report could compare the performance of regional councils implementation of the National Policy Statement for Fresh Water Management and National Environmental Standards for Freshwater, Sources of Drinking Water, and Wastewater.

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<sup>7</sup> Audit Report for Water NZ's 2017/2018 National Performance Review, AECOM, 2018. pg. 13.

The report could be similar in nature to the National Performance Review which Water New Zealand currently prepares to compare the performance of District Councils three waters services. It could also build on and use some of the parameters in the 2017 NPS-FM Implementation Review<sup>8</sup> carried out by the Ministry for the Environment.

On July 31, a Cabinet Paper (CAB-19-MIN-0332) was released which will require wastewater and stormwater operators to report annually on a set of nationally prescribed environmental performance metrics, and for that information to be collected, validated, analysed, and published by a central regulatory agency. Our understanding is that the central regulatory agency will be the new drinking water regulatory agency and it will have responsibility for oversight, in the manner outlined above, of the performance of wastewater and stormwater utilities. We understand that these functions will be set out in the new Water Services Act.

We recommend that the Water Services Bill is extended to include a requirement that:

regional councils report annually on a set of nationally prescribed performance metrics related to the National Policy Statement for Fresh Water Management and National Environmental Standards for Freshwater, Sources of Drinking Water, and Wastewater, and for that information to be collected, validated, analysed, and published annually by a central regulatory agency.

We suggest that it would be appropriate for this function to be added to the wastewater and stormwater oversight functions that the new drinking water regulatory agency will be tasked with.

### **3.2 Longer term regulation of drinking water, wastewater, stormwater and freshwater.**

Water New Zealand considers that the problems related to regulation of wastewater, stormwater and freshwater are deep seated and embedded in the regional structure of regional councils. The delegation of water regulation promotes inconsistency of approach across New Zealand. Additionally, the functions of regional councils include both planning and regulation. This results in regional councils having complex relationships with those they regulate, particularly District and City Councils, which causes them to be reticent about enforcement of Government policy. Regulation works best when it is the sole function of an organisation and all the organisation's resources are devoted to that task.

Water New Zealand considers that New Zealand would benefit from having a central regulator for drinking water, wastewater, stormwater and freshwater, similar to the approach taken in Scandinavian countries. We accept that this would require considerable reform of the Resource Management Act and that a review of this legislation has commenced. But with appropriate changes to the Resource Management Act, the new drinking water regulator could progressively take on the role of national wastewater regulator, national stormwater

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<sup>8</sup> <https://www.mfe.govt.nz/sites/default/files/media/Fresh%20water/npsfm-implementation-review-national-themes-report.pdf>

regulator and national freshwater regulator. Several organisations have recently promoted the idea of a Water Commission, which Water New Zealand supports.

#### 4. Responses to questions posed in the *Action for healthy waterways* proposals

### Overview – the health of our nation depends on the health of our freshwater

#### 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?

Water New Zealand considers that in general the proposals, if fully implemented, will go some way to stopping further degradation of New Zealand waterways. We support the direction of travel that the proposals indicate as we consider that changes are urgently needed.

However, achieving improvements to urban waterways within five years may be difficult as council long term plans set out the investment direction for the next 10-20 years, though they are updated in response to investment priorities every three years. Some of the proposals in the *Action for healthy waterways* document will require significant urban infrastructure upgrades which are unlikely to be achieved, given the current planning process, within the five-year timeframe.

Water New Zealand has some concerns about the record of regional councils in implementing the types of policy, outlined in the *Action for healthy waterways* document and has made some suggestions about what can be done to monitor the regional council implementation of the NPS-FM and NESs above. We have some concerns about the detail of the proposals and have outlined these in our responses to the following questions.

Water New Zealand considers that if material improvement to water quality are to be achieved in 5 years, clear and easily enforceable rules must be prioritised. Clear rules – particularly ‘technical standards’ that must be met by farm owners and managers, including those outlined for intensive winter grazing and targeted rules for excessive nitrogen loss through fertiliser and leaching caps are the most likely method of achieving measurable improvements in five years. While farm plans are a useful tool for farmers to use to meet rules and achieve environmental performance goals, they should not replace clear rules.

We support improving, extending and mandating the use of farm environment plans, but oppose the use of farm plans for the implementation of rules and policies.

These reforms provide a real opportunity to put freshwater management on the right path towards land use that operates within the environmental limits of land and water (the assimilative capacity) and appropriately shares governance between iwi and the crown at central and regional government level.

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

Again, this remains to be seen, but the proposals (notwithstanding our comments in response to the following specific questions) represent the most comprehensive change of direction with regards to freshwater quality that any New Zealand Government has proposed. For this reason, Water New Zealand commends and congratulates the Government on advancing the proposals and encourages the Government not to dilute the effect of the proposals in response to opposition of some sectors.

**3. What difference do you think these proposals would make to your local waterways, and your contact with them?**

Water New Zealand considers that the proposals have the potential, if effectively implemented, to improve the quality of waterways, both urban and rural, across New Zealand. Particularly important are restrictions to further dairy conversions/intensification and restrictions on further draining of wetlands. We consider that the inclusion of te mana o te wai and broadening the focus of national direction and planning to a more holistic view of ecosystem health is critical to improving freshwater quality.

Water New Zealand supports the introduction of new attributes and higher standards for recreational contact as this will encourage greater connection between people and the waterways in their communities. An example is the growth of cyanobacteria in waterways which is promoted by elevated nutrient loads. Cyanobacteria can produce toxins which are harmful to human and animal health. When waterways are affected by cyanobacterial blooms public health advice is to avoid contact. Contact with cyanotoxins can be, and regularly is, fatal for dogs. The better the quality of water in our waterways, the greater communities engagement with them. Engagement with waterways has the potential to improve quality of life.

Improved water quality can also reduce costs for water utilities. For example, the costs of removing cyanotoxins from water prior to delivering it for community supply are considerable. Reducing the nutrient load in freshwater has the potential to reduce the risk of cyanobacterial growth and hence the need for costly water treatment infrastructure.

Additionally, improved water quality will encourage greater contact with streams and rivers for recreational and food gathering purposes.

**4. What actions do you think you, your business, or your organisation would take in response to the proposed measures?**

Water New Zealand will take action to support our members to adjust to any changes that the proposals precipitate. Most local authorities are corporate members of Water New Zealand and many people who work in local authorities are members. Water New Zealand has a role



providing information about the proposals and the implications of the proposals to members. We will prepare guidance and technical documents if required.

Water New Zealand will also take action to assist Government officials on aspects of the proposals that are relevant to us. For example, we would like to have input to the drafting of NPS-FM and the NES for Freshwater. Water New Zealand staff and members have considerable expertise in all aspects of drinking water, wastewater and stormwater services, including the assessment and management of risk.

We consider that we can make a useful contribution to the preparation of NESs for Sources of Drinking Water and Wastewater, particularly regarding preparation of material for a minimum standard for wastewater discharges and the preparation of risk management plans for wastewater and stormwater.

## **5. What support or information could the Government provide to help you, your business, or your organisation to implement the proposals?**

Water New Zealand will not be required to implement the proposals, but many of our members will. With regard to the wastewater and stormwater requirements templates and guidance documents for wastewater and stormwater risk management plans will be useful.

It would be useful for the public to have available to them easy to follow guides to the NPS planning process as it could facilitate greater public engagement at regional level.

For agriculture the Government could provide increased support for the preparation of farm environment plans as a support tool for farmers and other land managers to meet the rules set out in the NES and required by their local NPS regional planning process.

A precedent for this is found in the drinking water area where suppliers are required by legislation to comply with drinking water standards and prepare water safety plans. These plans set out how a water supplier will identify and manage public health risks to their water supply. The Ministry of Health has prepared videos and booklets about the value of risk management and a framework for their preparation.<sup>9</sup>

## **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?**

Water New Zealand considers that the costs of implementation of some of the proposals will be a barrier to implementation. These include the costs of monitoring, surveillance and regulation that will be placed on regional councils. Additionally, there is likely to be additional costs on district, unitary and city councils, particularly around urban wastewater and stormwater infrastructure, but also in the preparation of wastewater and stormwater risk management plans.

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<sup>9</sup> <https://www.health.govt.nz/our-work/environmental-health/drinking-water/drinking-water-publications>

Apart from any major costs that may arise for the farming sector if relocating or transitioning to alternative land-use is required, there will be costs to farmers for additional fencing and the preparation of farm plans.

A further difficulty will be developing the expertise to undertake the work required by the proposals, for example, new expertise will need to be developed around the preparation of wastewater and stormwater management plans and the freshwater modules of farm plans.

**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?**

As indicated above in our general comments, we consider that it is essential to have an independent national body to provide oversight of freshwater management implementation. This is because regional councils have a poor record of implementing Government water policy. Regional council implementation of the *Action for healthy waterways* proposals is too important to be inconsistently or ineffectively implemented. We have suggested above that annual monitoring of a range of metrics relevant to the NPS-FM and NESs in a manner similar to the National Performance Review that Water New Zealand undertakes would be a suitable mechanism. It would compare regional council performance and expose poor performers.

We have further suggested that the new national drinking water regulator would be a good organisation to perform this function. It will have a similar function of requiring wastewater and stormwater operators to report annually on a set of nationally prescribed environmental performance metrics and will collect, validate, analyse, and publish this information.

The Government has indicated that the authority to do this will be set out in a new Water Services Act. We recommend that the Act include the authority for the new drinking water regulator to also require regional councils to report annually on a set of nationally prescribed performance indicators which relate to the implementation of the NPS-FM and NESs for Freshwater, Sources of Drinking Water, and Wastewater.

Water New Zealand considers that in time and subsequent to a review of the Resource Management Act, freshwater regulation is best delivered by a national body. This could be a national water regulator which had responsibility for drinking water, wastewater, stormwater and freshwater regulation. With a commitment to te mana o te wai, such an organisation could have kaitiakitanga as a core value.

**8. Do you have any other comments?**

Water New Zealand considers that some further human resource capability and capacity will be required in the sector to ensure that the *Action for healthy waterways* proposals are effectively implemented. Some new training initiatives are underway. For example, Water New Zealand have developed a stormwater training and sector development plan which will assist with training in sensitive water design, a key element in improving freshwater quality.

There may be opportunities in the Government's reform of vocational education proposals for further training initiatives related to the proposals.

## Setting and clarifying policy direction

### 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?**

Yes, this is an appropriate hierarchy of obligations. However, there is more that lies behind te mana o te wai. If we are to adopt the concept of Mana in relation to water, we also need to consider the involvement of iwi and hapu in decisions about te wai. We have for many years considered that Maori need to be consulted on decisions about water. Actually, as both tangata whenua and mana whenua, Maori need to be involved in decisions about water and to have greater control over what happens with water. The question of Maori rights and interests in water needs to be addressed and we accept the statement from the Minister that the Government will consider rights and interests when the water quality measures are in place. It would also seem to be a matter for the Government if it is elected to a second term, but we need to have a national discussion about Maori rights and interests in water, and we need, as a nation to come to some resolution of this question.

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

Not on their own. There is quite a shift in thinking involved to make the rights of a river or other waterbody of primary and intrinsic importance. It will require more New Zealanders to have a greater understanding of te ao Maori, and to accept a Maori world view as legitimate and valuable. Things are slowly changing and recognition of te mana o te wai is an important step that supports changing mindsets about the place of Maori and a Maori viewpoint in a Pakeha dominated society.

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

It is not entirely clear in the *Action for Healthy Waterways* proposals other than in general terms what regional councils will need to do to manage freshwater in a manner that is consistent with te mana o te wai. There is further detail in the NPS-FM. Parts 3.2 and 3.3<sup>10</sup> where requirements are set out, including to *engage in discussions, involve tangata whenua in freshwater management decision making and identify tangata whenua values and interests*. These approaches are an improvement on what many regional councils currently do

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<sup>10</sup> Draft National Policy Statement for Freshwater Management 2019. pg 7,8.

regarding Maori interests in water, but they do not represent tino rangatiratanga for Maori and don't give Maori an opportunity to exercise kaitiakitanga over water. These measures continue (and strengthen) an approach of consultation with Maori but do not represent relinquishing control or a true partnership approach over water.

Water New Zealand would like to see the NPS-FM provide stronger measures for co-governance and co-management of water with Maori and a clear intention to share control over, and decisions about water with Maori.

In many respects it is unfortunate that the NPS-FM has a section on te mana o te wai because those values should be embedded into every aspect of the document. The NPS-FM remains a very euro-centric view of freshwater management.

We are also concerned that many regional councils do not have the necessary staff, skills and expertise to implement te mana o te wai provisions of the NPS-FM. In many regional councils the requirements will be interpreted by Pakeha staff. Regional councils will need to improve their knowledge and skills of te ao Maori if they are to effectively implement the intentions of te mana o te wai.

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

A long-term vision regarding te mana o te wai has been missing for a long time. There is much more to do but the provisions in the *Action for healthy waterways* proposals makes a good start.

## New Māori value

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

Water New Zealand considers that both proposals would have some effect on improving the incorporation of Maori values into regional freshwater planning, but our view is that proposal 1 would be more effective because it sets a national direction whereas proposal 2 is more open to regional interpretation.

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

Only, as mentioned above that regional councils may need to improve their levels of expertise with regard to understanding mahinga kai values.

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

The benefit is that recognition of mahinga kai as a value privileges that which is of value to Maori. This gives effect to the idea of te mana o te wai. It also gives recognition to values that

are different to western scientific values and those that recognise the interconnectedness of a freshwater environment. Further, it recognises our relationship to freshwater as an environment which provides food resources. Food resources that are dependent on water quality for survival.

**16. What implementation support will need to be provided?**

Many regional councils will need to engage greater expertise in understanding the meaning and significance of mahinga kai. It will not be sufficient for Pakeha to interpret what mahinga kai as a multi-faceted integrated indicator is, but regional councils will need input from Maori who understand this concept.

## New planning process for freshwater

**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.**

Yes, Water New Zealand does support the new planning process for freshwater. We anticipate that the faster planning process may highlight capacity and capability issues in regional councils.

We consider that it will be necessary to have a national approach, i.e. a national panel for all regions that then has local reps including iwi etc on each one. This will ensure consistency of approach and speed of implementation and assist with resourcing.

The panels will need to include a range of expertise including an expert in public health, and where possible more than one local hapu representative, a representative who speaks solely for the needs of future generations (to be consistent with the RMA), a representative who provides a voice specifically for the waterways and a representative who has expertise in freshwater ecology.

## More integrated management of freshwater

**18. Does the proposal make the roles and responsibilities between regional councils and territorial authorities sufficiently clear?**

The intention to have more integrated management of freshwater is clear and supported by Water New Zealand. The intention to have territorial authorities responsible for managing the effects of urban development on water is also supported. However, there is still insufficient clarity on how iwi and hapu are to be involved in governance.

## Exceptions for major hydro 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?**

The exemptions may have the intention of balancing freshwater health needs and climate change obligations, but that doesn't make them acceptable. Water New Zealand does not support the trading of one environmental good for another. Both beneficial environmental outcomes should be achieved. Because 50% of the country's water flow passes through the six hydro-schemes proposed to be exempt, their exemption would undermine the goals of the proposals.

Te mana o te wai maintains that the health of the water is the first priority. If te mana o te wai is so important, it seems inconsistent that some sectors would be exempt from that requirement.

Water New Zealand considers that improving freshwater quality requires all sectors, regions, and communities to do their part. This includes the hydro-electricity sector. If as stated in the *Action for healthy waterways* proposals, consents include flow regimes, consent conditions manage environmental impacts, and the proposed exemptions will not lead to declines in water quality, why are they needed? If the exemptions will have little impact on hydro-electricity generation and will not adversely affect freshwater quality, they are not needed. Additionally, if freshwater quality improvements are so important to New Zealanders and to the Government, then all groups and sectors should be bound by the intentions of the *Action for healthy waterways* proposals.

Water New Zealand considers that the freshwater health needs and climate change obligations can be balanced without an exemption for hydro-electric power generation.

The exemptions set a bad precedent. If the exemptions are included, other sectors have a case to also be exempt from the proposals. They can (and will) claim that freshwater health needs must be balanced against the need to have a productive economy, thriving rural communities, our low carbon agricultural methods etc.

The proposals are more robust and indisputable if they do not include exemptions for any groups, sectors or communities.

## Raising the bar on ecosystem health

### Attributes

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

Water New Zealand supports continued use of existing attributes and the introduction of the proposed new attributes. The intention to broaden the focus of those making decisions that impact waterways to include the five proposed components is also supported.

A requirement for regional councils to report on all five components of ecosystem health using the new/national attributes is supported. As suggested earlier in this submission, there is also a need for national comparative reporting of the regional councils performance against these measures.

The requirement for regional councils to set targets for attributes is supported but those targets must be the same as or better than national attribute limits. All attributes should have limits set in regional plans rather than a separate 'action plan' process. Separate action plans for ecosystem health attributes don't appear to have any legal standing.

The targets if implemented through regional plans should prevent further degradation of freshwater quality but responding to monitoring which identifies adverse effects is presumably intended to identify where the targets have not been met. The adaptive management approach is useful as a response where targets have not been met, however the primary focus should be on preventing the problems like sedimentation, in the example outlined, from occurring. The implementation of an adaptive management approach would indicate that the measures intended to protect freshwater quality had failed and hence needs to include an investigation not only into the problem, but also into why the framework of attribute targets has failed.

Overall, Water New Zealand considers that the proposed attributes and management approach has the potential to improve ecosystem health, however it is dependent on regional councils having the necessary resources and capability to implement this approach.

**21. If we are managing for macroinvertebrates, fish, and periphyton, do we also need to have attributes for nutrients that have been developed based on relationships with aquatic life?**

It is important to set limits for inputs, like nutrients and sediment and to also assess attributes for macroinvertebrates, fish and periphyton. The relationships between ecosystems and inputs like nitrogen and sediment can be complex and temporally dependent. In some circumstances the effects of input contaminants can take time to affect ecosystems or can become more severe when an ecosystem is under stress. Input contaminants can affect the resilience of ecosystems and levels which do not appear to have adverse effects under some conditions may adversely affect ecosystems under changing conditions, for example, during drought.

For this reason, it is important to set scientifically based limits to ecosystem inputs rather than to rely solely on measures of ecosystem health.

## Threatened indigenous species

**22. Do you support the new compulsory national value? Why/why not?**

Water New Zealand supports a new compulsory value for threatened indigenous species. Indigenous species are a good indicator of ecosystem health and have an intrinsic right to

occupy habitats in which they have evolved. Water New Zealand agrees that some habitats may need more active management, including rahui or prohibitions on catching some species that are under threat.

## Fish passage

### **23. Do you support the proposed fish passage requirements? Why/why not?**

Water New Zealand supports the proposed fish passage requirements. Many Water New Zealand members, including corporate and individual are involved in the design and construction of structures in waterways which have the potential to prevent fish passage. We are aware that our members are active in designing and constructing for fish passage as it is considered best practice. Hence the inclusion of fish passage requirements in the NPS-FM should not represent a significant change for the industry.

It is noted that the success of fish passage depends on the type of fish for which the passage is being designed. Standard designs may not be suitable for all species. Water New Zealand supports the requirement in section 3.17 which requires regional councils to identify the species that fish passage is intended to support.

### **24. Should fish passage requirements also apply to existing instream structures that are potentially barriers to fish passage, and if so, how long would it take for these to structures to be modified and/or consented?**

Water New Zealand considers that the fish passage requirements should be retrospective. We are aware of many structures installed in streams to abstract water for drinking water supply which make no allowance for fish passage. These structures have generally been installed many years ago but are usually constructed of steel and concrete. The natural life of these structures could be in the hundreds of years. When they are abandoned, they usually remain in place as relatively permanent barriers to fish passage. Consenting and construction of simple fish passage structures in these situations would be relatively inexpensive.

Water New Zealand considers that all structures which provide barriers to fish passage should be removed from natural waterways if they are unused, or fish passage structures should be required to be constructed at these sites within a five-year period.

## Wetlands

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

Water New Zealand supports the proposal to protect remaining wetlands because wetlands are very important natural habitats for a range of species and provide significant ecological functions which improve freshwater quality. Wetland protection should apply to all remaining wetland areas including those on private or public land and also for land used for forestry.



Water New Zealand supports the STAG's condition index attributes for wetlands because the quality of wetlands is crucial to their function. The extent attribute to encourage nation-wide development of new wetlands is also supported.

Water New Zealand considers that preventing the draining of further wetlands is not a sufficiently strong position from the Government and the *Action for healthy waterways* proposals need to be bolder in calling for the restoration of wetland areas that have previously been drained. There are many areas in New Zealand that would return to wetland if they were not continually drained. Some of these areas include publicly owned land, for example, Queen Elizabeth Park at Raumati. Our understanding is that the land is owned by the Department of Conservation and managed by Greater Wellington. Some of the land in the park has been restored to wetland. A large area that was historically wetland is currently actively drained and leased to a local farmer. Farming activity contributes nutrients and microbiological contaminants from animal faeces and chemical contaminants from the use of herbicides and pesticides. If the lease was ended it would be a simple process to restore this land to its former state as a natural wetland. Currently the needs of a local farmer are prioritised over the ecological benefits of the land being returned to wetland.

Water New Zealand accepts that some measures promoting the restoration to wetland of previously drained areas may be contained in the proposed Biodiversity Strategy and NPS for Indigenous Biodiversity but considers that the *Action for healthy waterways* proposals provide an opportunity for the Government to signal clearly to regional councils that there is a need for them to actively seek the restoration of wetlands, especially where land drainage has occurred on publicly owned land.

## **26. If this proposal was implemented, what would you have to do differently?**

The proposals would not have a material effect on the activities of Water New Zealand but may affect the activities of some of our members.

## **Streams**

### **27. Do you support the proposal to limit stream loss? Why/why not?**

Water New Zealand supports the proposals to limit stream loss. Many Water New Zealand members, including corporate and individual are involved in the design and construction of structures in waterways which have the potential to pipe natural streams. We are aware that our members are active in designing and constructing in a manner consistent with the principles of water sensitive design and incorporating this approach as best practice. This approach actively tries to prevent stream loss. Many property developers do not follow this approach and consider the piping of streams to be the most pragmatic approach. The proposals will need to be effectively enforced by city, district, unitary and regional councils if they are to be effective.

Water New Zealand would also like to see the *Action for healthy waterways* proposals provide clear encouragement to district and regional councils to promote the daylighting of previously piped streams.

**28. If this proposal was implemented, what would you have to do differently?**

The proposals would not have a material effect on the activities of Water New Zealand but will affect the activities of some of our members. It will be necessary to provide some guidance for those involved in limiting stream loss. For example, on how to assess options for off-setting and how to compare off-set environments with stream loss environments.

**29. Do the ‘offsetting’ components adequately make up for habitat loss?**

Water New Zealand is concerned at the offsetting proposals as they provide an ‘escape route’ for property developers or others who are not motivated to protect the environment. Again, it is the enforcement of the proposals that is material. Regional councils will need to actively enforce the measures contained in the *Action for healthy waterways* proposals. To provide an incentive to prevent stream loss, the off-set option needs to be considerably more onerous than leaving streams intact. Advice to regional councils will need to make this approach clear.

## New bottom line for nutrient pollution

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

Water New Zealand supports new bottom lines for nitrogen and phosphorus. There are a number of reasons for our support. Water New Zealand considers that where suitable science is available, water quality policy should be based on that science, hence we agree with the Science and Technical Advisory Group that the bottom-line level for dissolved organic nitrogen should be set at 1.0 milligram per litre.

While the *Action for healthy waterways* document specifically states that there is no direct comparison of the nitrate bottom line level to drinking water standards and the level is set based on ecosystem health, the level of nitrate in waterways remains important to drinking water supply.

The current World Health Organisation (WHO) and New Zealand drinking water standards maximum acceptable value (MAV) is 50mg/L<sup>11</sup> nitrate-ion based on the risk of methemoglobinemia or “blue-baby syndrome” which affects the oxygen carrying capacity of blood in infants under four months of age. This MAV was established in the early 1960s.

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<sup>11</sup> Drinking Water Standards for New Zealand 2018. Ministry of Health.

More recently, a Danish population-based study<sup>12</sup> of more than 2.7 million people found statistically significant increased risks of colorectal cancer at drinking water levels above 3.87mg/L nitrate ion, well below the current MAV of 50mg/L. While the study acknowledged that there are other causes of colorectal cancer, these confounders were accounted for. Moreover, while individuals can avoid nitroso containing compounds in their diet, it is difficult to avoid nitrate when it is a contaminant in drinking water.

The significance for drinking water supplies is that removal of nitrate from water is very difficult and requires the technologies of ion exchange or reverse osmosis which are very expensive. While the effect of nitrates on human health was once considered to be limited to a small number of vulnerable infants, there is now increasing evidence that nitrate contaminated drinking water may have much wider human health implications at much lower levels.

For this reason, restricting nitrate levels in fresh water and groundwater, water that is currently used for, or in future may be used for drinking purposes, is an important measure required to protect public health. The science of water quality and health effects changes constantly as research provides more information. It is highly probable that in time the WHO and New Zealand drinking water MAVs will be lowered to around 3.7mg/L, in line with the Danish study. Some New Zealand rivers already exceed this nitrate level and if action is not taken to limit nitrate levels in fresh water, the consequences for drinking water treatment and many communities will be expensive and difficult.

Greater protection for sources of drinking water is a major outcome of the Department of Internal Affairs 3 Waters review and is to be included in the proposed Water Services Bill. Limiting nitrate levels in to 1mg/L in fresh water is consistent with these intentions, is relevant to drinking water and has the potential to protect the New Zealand population against what is becoming apparent as a significant risk of colorectal cancer. This is a significant reason for the proposed nitrate bottom line and one reason why Water New Zealand supports it.

**31. If this proposal was implemented, what would you have to do differently?**

The proposals would not have a material effect on the activities of Water New Zealand but will affect the activities of some of our members.

**32. Do you have a view on the STAG's recommendation to remove the 'productive class' definition for the periphyton attribute?**

Water New Zealand supports the STAG recommendation to remove the 'productive class' definition for the periphyton attribute.

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<sup>12</sup> Nitrate in drinking water and colorectal cancer risk: A nationwide population-based cohort study: *Int. J. Cancer*: 143, 73–792. 2018.

## Reducing sediment

- 33. For deposited sediment, should there be a rule that if, after a period (say five years), the amount of sediment being deposited in an estuary is not significantly reducing, then the regional council must implement further measures each and every year? If so, what should the rule say?**

Water New Zealand considers that deposited sediment provisions should not be part of a separate “action plan process” but should be part of the regional planning process as this is likely to result in better outcomes.

Our concern with the adaptive management approach that is proposed, is that it implies a retrospective action for an outcome that should not have occurred.

- 34. Do you have any comments on the proposed suspended sediment attribute?**

Water New Zealand supports the proposed suspended sediment attribute.

- 35. If this proposal was implemented, what would you have to do differently?**

If implemented the suspended sediment attribute would not have implications for Water New Zealand but may have implications for some of our members.

## Higher standard for 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?**

Water New Zealand supports the recommended approach to improving water quality at swimming sites but agrees that this should only be a holding pattern until a Quantitative Microbial Risk Assessment approach can be implemented. Such an approach represents a sound scientific risk level assessment.

Water New Zealand notes that there are considerable limitations to using *E. coli* monitoring data alone to determine public health risks at swimming areas due to the retrospective nature of the information it provides. Water New Zealand recommends that the Ministry for the Environment investigate the Safeswim programme that is used by Auckland Council to advise the public about the safe times to swim at Auckland beaches to see if it could be more widely applied. Safeswim provides real-time data using a modelling system and 120 remote sensors placed around overflow/stormwater systems. It is possible that this system could be adapted for popular freshwater swimming locations and provide better advice to the public about the safest times to swim.

## Minimum flows

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

Water New Zealand considers that there is a significant shortage of central government direction on setting flows for rivers which has the potential to affect the success or the *Action for healthy waterways* proposals because water quality and quantity are interdependent and cannot be separated.

Additional information and support are needed to ensure water taken from freshwater bodies is used efficiently. This applies particularly to improving water use efficiency which can reduce the amount of water taken from freshwater bodies leaving more water for environmental flows. Currently there are few incentives, resources or drivers for assessing and improving water use efficiency.

In the urban environment a significant proportion of water is not put to productive use but is lost through inefficient practices in the home and in the operation of urban networks. In 2017/18 more than 108,474,706m<sup>3</sup> of water, equivalent to more than 43,000 Olympic-sized swimming pools, was lost from urban water networks.<sup>13</sup> This constituted more than 20% of the water supplied to these systems. This indicates that there is room to save both money and water through the implementation of water loss initiatives.

The office of the Auditor General has noted that:

*Currently, there are stronger incentives for councils to take a traditional supply management approach and relatively weak incentives for councils to carry out demand management by conserving water when managing their drinking water supply.*<sup>14</sup>

They further noted:

*...that regulation could be needed to ensure that all public water suppliers achieve any national outcomes. ... Political incentives to minimise costs to voters (such as by limiting rates increases) and financial constraints (because of debt caps or competing priorities) do not support a long-term and sustainable approach to supplying drinking water.*<sup>15</sup>

We recommend the development of water efficiency targets for common end uses of water that can be used by regional councils when assessing withdrawal volumes in water take consents - for example in an urban setting water use of 250L/person/day with system losses of 10% may be a useful target. We expect that improving our understanding of where water is used will allow better calculation of consent limits and contribute to the maintenance of minimum ecological flows.

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<sup>13</sup> National Performance Review 2017-18.

<sup>14</sup> Office of the auditor General, Managing the supply and demand of drinking water <https://www.oag.govt.nz/2018/drinking-water>

<sup>15</sup> Office of the auditor General, Managing the supply and demand of drinking water <https://www.oag.govt.nz/2018/drinking-water>

## Reporting water use

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

Water New Zealand supports the proposed changes to the collection of water abstraction data and the proposal by KWM and FLG regarding the total volume of water take when deciding which users are required to install telemetry devices.

Water New Zealand considers that the proposed telemetry requirements will not fully address issues regarding the patchiness and usefulness of available information on the amount of water taken for most water permits.

The Office of the Auditor General has noted that Land, Air, Water Aotearoa publishes some national freshwater consumption information online, however, often only permit and allocation data rather than actual-use data is presented because data from councils is not consistent enough<sup>16</sup>. To enable a consistent assessment of New Zealand's water use we recommend:

Central government take a leadership role in the development of nationally consistent data standards and capture methodologies to enable regional councils to publish water quantity data based on water metering on the LAWA website. Following this consolidated real-life data drawn from meters should be used to replace the "Consented freshwater takes" indicator in New Zealand's environmental reporting series.

## Raising the bar on ecosystem health

### **39. Do you have any other comments?**

As noted earlier, Water New Zealand has concerns about regional councils ability to introduce many of the proposed measures and consider that there is a need for an annual report which compares the performance of regional councils with respect to the proposals in the *Action for Healthy Waterways* document.

## Draft NPS-FM

### **40. Are the purpose, requirements, and process of the National Objectives Framework clearer now?**

Water New Zealand has considerable concerns about the draft NPS-FM and how well it will work in practice. Our concerns are set out in the appendix to this submission which contains a legal analysis. Water New Zealand would be interested in providing input into any drafting changes to the draft NPS-FM based on the recommendations in the legal analysis.

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<sup>16</sup> Office of the auditor General, Monitoring how water is used for irrigation, paragraph 4.5

**41. Are some components still unclear?**

See response to question 40 above.

**42. What are your thoughts on the proposed technical definitions and parameters of the proposed regulations? Please refer to the specific policy in your response.**

See response to question 40 above.

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

See response to question 40 above.

## **Supporting the delivery of safe drinking water**

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

Water New Zealand supports the proposed amendments to the Drinking Water NES. Until the Havelock North drinking water contamination event, the approach taken to water supply was to abstract the best water you could find and rely on water treatment to ensure that it was made safe to drink. This is highlighted by the New Zealand drinking water standards<sup>17</sup> which do not require any microbiological or chemical monitoring of source water. In other parts of the world, particularly the EU for example, considerable assessment of source water quality is required. Many jurisdictions require completion of a quantitative microbial risk assessment of source waters. The Havelock North event highlighted the need for greater source water protection.

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

There is a lot of detail to be worked out for the Drinking Water NES, including how it will apply to situations where water suppliers abstract water from extensive catchments like the Waikato River. It will be difficult, for example to determine source protection areas in these situations.

**45. Do you have any other comments?**

Clearly considerable consultation with the drinking water industry will be required if the drinking water NES is to be useful and workable. Water New Zealand has indicated to the

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<sup>17</sup> Drinking Water Standards for New Zealand 2018. Ministry of Health.

Ministry for the Environment that we would like to be involved in the preparation of the Drinking Water NES.

## **Better managing 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?**

Water New Zealand is concerned that the proposed wastewater NES (as described in the *Action for healthy waterways* proposals) refers only to wet weather-related sewage overflows from engineered overflow points. It should also include overflows from other points in the network as they can occur at gully traps, manholes, or pump stations.

We recommend that the proposed NES prescribe requirements for setting consent conditions on discharges from wastewater treatment plants and for wet weather sewage overflows (not only those from engineered overflow points).

Water New Zealand considers that there is value in setting targets or limits on the volume and frequency of wet weather overflows in consent conditions and that a requirement for targets should be included in the Wastewater NES.

There is considerable difficulty in assessing and measuring wastewater overflows because of a lack of standardisation in the approaches used. For example, wet weather overflows contributed to less than a third of reported wastewater overflows in the 2017-2018 National Performance Review<sup>18</sup>. 15 network operators did not have a standard approach for sizing wastewater pipelines to accommodate wet weather flows, and 17 had either no approach or relied on verbal reports to identify wastewater overflows<sup>19</sup>. This makes it difficult to assess the extent of national issues with wet weather wastewater overflows and indicates a need for the wastewater NES to identify standardised approaches.

It is also not clear whether the Wastewater NES will apply to both municipal wastewater discharges and industrial wastewater discharges. Water New Zealand considers it important that the wastewater NES is applied to both.

### **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?**

Water New Zealand supports the introduction of risk management plans for wastewater and stormwater as they have the potential to promote flexible outcome-based approaches to achieving desired freshwater outcomes. The risk management plans should promote

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<sup>18</sup> 2017-18 National Performance Review, Water New Zealand.

<sup>19</sup> 2017-18 National Performance Review, Water New Zealand.



transparency and accountability relating to risk management in the operation of wastewater and stormwater systems, but it is important that risk is also accounted for in the design and construction of these systems.

Water New Zealand considers a need for consideration of the following:

- The requirement for wastewater and stormwater plans is implemented in a phased manner. Territorial authorities have numerous hydrological catchments, each with unique challenges and peculiarities and the development of expertise will be required to support the preparation of these plans.
- In some places there are cross boundary difficulties. Hydrological boundaries are not always the same as territorial authority boundaries which may complicate some risk management plans.
- There is a need to take account of social fairness to ensure investments are not disproportionately directed toward higher value land and subsequently the higher socioeconomic areas.
- There is a need to take account of how the wastewater and stormwater risk management plans will work together as these systems interact in a number of ways and the effects are best understood in a risk-based framework.
- That stormwater quality is inherently linked to land use and the risk management plans will need to take account of land use.
- That stormwater and wastewater risk management plans should be initially required for systems that are not compliant with resource consent conditions or have expired consents.

Water New Zealand staff and members have considerable expertise in water, wastewater and the preparation of risk management plans (for drinking water supplies) and would appreciate the opportunity to work with Ministry for the Environment staff to assist with the preparation of support material and the implementation of wastewater and stormwater risk management plans.

**48. What specific national level guidance would be useful for supporting best practice in stormwater policy and planning and/or the use of green infrastructure and water sensitive design in stormwater network design and operation?**

Water New Zealand considers that national guidance is required for the preparation by regional councils of consents for stormwater systems. The large majority of stormwater discharges across New Zealand do not operate on discharge consents and there are few drivers to improve stormwater quality (with Auckland being the one notable exception).

The 2017/18 National Performance Review found that a minority of stormwater operators (8 of the 38 providing data) had all stormwater discharges covered by a consent.<sup>20</sup> Other networks had partial consents, for example only related to new upgrades, private subdivisions, or

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<sup>20</sup> 2017-18 National Performance Review, Water New Zealand, pg. 39.

discharges to sensitive water bodies, and many had no stormwater consents at all. Improved freshwater outcomes could be achieved if stormwater consents were used to drive the use of green infrastructure and water sensitive design.

Guidance on a consistent, standardised and national approach to stormwater management and green infrastructure design (for stream health) would create efficiency and ensure there is a good understanding of critical success factors. Regional variations could be accommodated in the guidance to address specific situations. A national standard or code would allow qualified designers to give producer statements to provide accountability and improved performance.

There would also be benefit in National guidance on the assessment of waterways and development management plans for the restoration of waterways. A good example of this is the TMDL approach prescribed by the USEPA and the Clean Waters Act.<sup>21</sup>

**49. What are the most effective metrics for measuring and benchmarking the environmental performance of stormwater and wastewater networks? What measures are most important, relevant and useful to network operators, regional councils, communities, and iwi?**

We note that there is already a range of environmental performance metrics (as well as social metrics) that wastewater and stormwater operators are required to report on annually via the Non-Financial Performance Measure Rules 2013. These metrics provide a good starting point for the development of benchmarking stormwater and wastewater networks.

The measures in the Water New Zealand National Performance Review (published by Water New Zealand) have been aligned with the Non-Financial Performance Measure Rules since mandatory reporting requirements were introduced in 2015. However, while the Non-Financial Performance Measure Rules are reported in council annual reports and information is collated by the Department of Internal Affairs it is our understanding that the data has never been validated, analysed or published. Collating, reporting and scrutiny of these metrics is essential if they are to deliver any value.

We suggest that rather than having two sets of environmental performance requirements, the Non-Financial Performance Measure Rules 2013 for stormwater and wastewater systems as well as measures under the NES, the measures are either aligned or the Non-Financial Performance Measure Rules are abandoned.

We understand that Auckland Council is developing a holistic set of measures that reflects both the performance of assets and the quality of the service.

**50. Do you have any other comments?**

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<sup>21</sup> <https://www.epa.gov/tmdl/overview-total-maximum-daily-loads-tmdls>

The current knowledge of stormwater treatment technology does not allow designers to design a treatment device to achieve a certain stormwater quality. The quality of the output from treatment devices will be largely influenced by the quality of the input. On large catchments it is not possible to manage the quality of the input. On smaller catchments this is more possible. Better management of stormwater requires a holistic approach and organisations responsible for stormwater will need to improve their management of stormwater inputs if freshwater quality in urban areas is to improve. The requirement for stormwater consents will facilitate this.

## Improving farm practices

### Restricting further intensification

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

Water New Zealand supports interim controls on intensification. Increases in areas under irrigation should be restricted in the interim with an emphasis on the granting of consents only for low quantity water use systems (i.e. not centre pivot irrigation) and no new irrigation in catchments that are already under environmental strain (either not meeting bottom lines or displaying negative water quality trends). Assessment and issuing of consents should take particular notice of soil type and no new irrigation should be allowed on vulnerable soils.

**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?**

Water New Zealand supports both options and would prefer to see an option which prohibits increases in contaminant discharges and requires farms to operate at or above good management practices.

**53. How could these regulations account for underdeveloped land, and is there opportunity to create headroom?**

Water New Zealand considers that it is important not to decouple land activities from water quality, but rather that discharges are based on the land and water's assimilative capacity. This would avoid the issue of 'underdeveloped' land as land's development could only be based on its inherent environmental limits.

## Farm plan options

**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?**

Water New Zealand supports the mandatory requirement to prepare farm plans and likens it to a drinking water suppliers mandatory requirement to prepare a water safety plan and the proposed requirement for wastewater and stormwater operators to prepare risk management plans for their operations. However, we do not support the use of farm plans as regulatory instruments to implement rules and policies.

**55. What are your thoughts on the proposed minimum content requirements for the freshwater module of farm plans?**

Water New Zealand considers that the minimum content provides a good starting point for preparation of material that outlines the requirements for the freshwater module of farm plans but this level of detail would be best to be consulted on separately, rather than as part of the *Action for healthy waterways* policy proposals

**56. What are your thoughts on the proposed priorities and timeframes for roll out of farm plans, as set out in the proposed Freshwater NES?**

Water New Zealand considers that they are optimistic given the capacity and expertise issues in the sector.

**57. Do you have any comment on what would be required to ensure this proposal could be effectively implemented, including options for meeting the cost of preparing, certifying and auditing of farm plans; and on financing options for other on-the-ground investments to improve water quality?**

Water New Zealand considers that the farm plan proposal should be kept separate – but aligned to – freshwater reform. Farm plans can be beneficial to improving on farm practices but if used as a compliance tool, risk becoming a ‘tick box’ exercise. This is what happened with drinking water safety plans, the Havelock North risk management plan being a good example. For farm plans to work, they need to be seen by farmers to be a useful tool that will assist them to manage on-farm risks to freshwater quality, rather than a compliance hurdle.

The Government can support improved farm planning that will support farmers to make changes across their farms to meet freshwater, climate and biodiversity goals while at the same time improving profitability. Farm plans should aim to optimise farm systems where possible (i.e. have minimal impact and improve profitability – as has been demonstrated on a number of farms in the Waikato and elsewhere) and if optimisation is not possible, because of

the nature of local land and water (i.e. parts of Canterbury), farm plans must have the ability to identify and support land use change.

## 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?**

Water New Zealand supports a nitrogen cap for excessive leaching alongside a fertiliser cap. We believe that these would have complimentary effects that would support reduction of the highest polluting systems.

These options are most usefully applied nationally. The application of these caps in only 12 catchments appears inconsistent given that nitrogen pressures exists nationally. The fertiliser cap should be applied nationally but a case could be made for applying the nitrogen leaching cap nationally except in regions where leaching is already low (this could be where a regional 75<sup>th</sup> percentile is 30kg N/ha/year, for example).

### **59. If you are in a high nitrate-nitrogen catchment, what would you have to do differently under these options?**

Water New Zealand considers that if applied nationally, farmers would be encouraged to optimise farm systems, which is likely to lead to lower stocking rates, reduced inputs (water, feed) including reduced fertiliser use (applied more strategically) and reductions in polluting practices like intensive winter grazing.

### **60. In addition to those already identified, are there other high nitrate-nitrogen catchments that should be subject to these options?**

No response

### **61. Do you think the action already underway in five regions (identified in section 8.4) will be effective in reducing excessive nitrogen leaching in those high nitrate-nitrogen catchments?**

Water New Zealand considers that it is unlikely that the five regions identified in section 8.4 will be effective in reducing excessive nitrate leaching and that nitrate rules should be applied nationally unless the conditions set out in set out in our response to question 58 are met.

Evidence in Canterbury for example suggests that nitrate levels in groundwater are increasing, putting drinking water sources at risk.

**62. Should there be higher thresholds for farms that produce food products in winter, and if so, which food products?**

No response

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

Water New Zealand considers that efforts to reduce nitrate levels in groundwater and waterways are most likely to be effective if they directly target the source of nitrate - fertiliser, cattle and cows. This could be achieved by enhancing and improving the measures to control and limit fertiliser use and reducing stock numbers particularly in areas which are vulnerable and/or where there are already elevated nitrate levels in waterways.

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

Improved oversight by regional councils and auditing of regional council performance as has been outlined at the beginning of this submission.

## Excluding stock from waterways

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

Water New Zealand strongly supports excluding stock from waterways. Stock which have access to waterways directly contaminate those waterways with faeces and urine. This adds microbiological contaminants, including pathogens that can cause human illness, and chemical contaminants like nitrate in urine. Water New Zealand is concerned that the stock exclusion requirements appear to apply to cattle, pigs and deer but not sheep. While this may be because sheep do not enter waterways, they do however drink water from waterways and so can be in very close proximity. Such proximity will allow their faeces to be easily washed into waterways.

Sheep faeces was the source of campylobacter that infected at least 5500 people in the Havelock North drinking water supply contamination event. Clearly sheep present a risk to contamination of freshwater rivers and streams and setbacks should apply to areas used for the grazing of sheep. While it may not be practical to fence waterways in high country where sheep are grazed, rules that apply to pigs, dairy, cattle and deer on low slope land and land outside the low slope category (excluding high country) should also apply to sheep.

Water New Zealand does not support the definition of stock exclusion which includes temporary fencing and allows the use of technologies such as virtual fencing and 'smart' stock collars. These options only exclude stock from waterways if and when they are in use. Use of these options on one day does not mean they will be used on any subsequent day or by a different person. Stock exclusion needs to mandate permanent fencing. A grace period which allows temporary methods for a transition time, perhaps ten years would be

acceptable. Further, we consider that where temporary fencing methods are in use, it should be recorded in a farm plan and a timeline for the installation of permanent fencing included.

**66. Do you have any comment on the proposed different approach for larger and smaller waterbodies?**

Water New Zealand supports the fencing of all waterbodies. The proposal for a different approach for large and small water bodies may work, but it will depend on the status and effective implementation of farm plans. Water New Zealand proposes that a requirement is placed on farm plans to set out how, over time (perhaps 10 years) all waterways, regardless of size will be fenced. Alternatively, rules similar to those for waterways of one metre width should be applied to all waterways.

The proposals do not deal with ephemeral streams, wet paddocks or immediate catchment areas at the tops of streams. These areas, if excluded will contribute considerable quantities of faeces to waterways when moderate or heavy rain occurs. At some point, consideration needs to be given to excluding stock, particularly cows and cattle from ephemeral streams, wet paddocks and immediate catchment areas at the tops of streams.

While these areas may not be considered to contribute significant quantities of animal faeces to waterways individually, there are many areas like this, particularly in the upper reaches of any catchment and the cumulative effects of faecal deposition and moderate or heavy rainfall can be significant on freshwater quality.

**67. Do you have any comment on the proposed five metre setback, or where it should be measured from?**

Water New Zealand supports the proposed five metre setback. We do not agree with the provisions in the Draft Stock Exclusion Section 360 Regulations which suggest that setbacks on low slope land should be *5 metres on average across a property (with a minimum of with of 1 metre)* but recommend that the requirements be rewritten to require setbacks to be *5 metres unless it is not practicable, in which case they should be as much as is possible up to 5 metres.*

**68. Are there any circumstances that are appropriate for allowing exemptions to the stock exclusion regulations? If so, please give examples.**

Water New Zealand considers that fencing of waterways is a bottom line and exemptions to the stock exclusion regulations should not be permitted

## Controlling intensive winter grazing

### **69. Do you prefer Option 1: Nationally-set standards or Option 2: Industry-set standards? Why?**

Water New Zealand supports the setting of national standards rather than industry set standards. This is because the agricultural industry (as is the case with many industries) do not have a good record of appropriately addressing their environmental impact. Industries, when setting standards have a conflict of interest which in this case risks compromising water quality.

If the Government wants to solve water quality issues it will need to take a leadership role and clearly indicate the outcomes it wants. This will require it to set the standards.

Water New Zealand supports option 1 as a technical standard that all farmers who undertake intensive winter grazing must adhere to.

### **70. For the proposed nationally-set standards, which options do you prefer for the area threshold, slope, setback, and pugging depth components of the policy?**

Water New Zealand prefers:

- Slope <10
- Setback 20 meters
- Pugging depth less important as long as clean drinking water and a dry place to lie is available to respond to the needs of animals but also to encourage them away from treading in the same small areas.

## Restricting Feedlots

### **71. Do you have any comment on the proposal to restrict feedlots?**

Water New Zealand supports the proposals in the draft NPS-FM for feedlots but would also like to see the inclusion of a requirement that feedlots should not be permitted where any connectivity to aquifers or waterways is likely.

## Reducing pollution from stock holding areas

### **72. Do you support the proposal relating to stock holding areas? Why/why not?**

Water New Zealand supports national regulation for stock holding areas as they are areas where significant quantities of stock effluent can be generated. High concentrations of stock effluent are at risk of being washed into waterways during heavy rain events.

### **73. Do you think sacrifice paddocks should be included?**



Water New Zealand supports the requirement that sacrifice paddocks should be more than 50 metres away from a waterway but recommend that use of sacrifice paddocks in a matter to be included in farm plans.

**74. What would you have to do differently if this proposal was implemented?**

This proposal would have no material effect on Water New Zealand.

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

No comment

## Draft proposed National Environmental Standards for Freshwater

**76. Are the definitions used in the policies accurate, and if not, how do you suggest improving them?**

Water New Zealand considers that the definitions in the NES for Freshwater are accurate and practical

**77. What are your thoughts on the proposed technical definitions and parameters of the proposed regulations? Please refer to the specific policy in your response.**

No response

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

Water New Zealand considers that the timeframes for each of the proposed regulations are reasonable.

## Aligning RMA national direction

**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?**

The document (and the other national direction proposals) makes a comment about the interface between the different objectives in each of these proposals. There is no particular tension or confusion as the objectives of all the proposals are very clear. There are some

areas in the Draft-NPSFM that may result in tensions and confusions with these proposals and generally and these are commented on further in the attached Appendix.

**80. Do you think a planning standard is needed to support the consistent implementation of some proposals in this document? If so, what specific provisions do you consider would be effectively delivered through a planning standard tool?**

A planning standard as such (in the sense it is used to be some kind of regulation that all councils must adopt) is probably not necessary. However, clear, consistent national guidance in a number of areas is going to be required. Even with the level of detail contained in the proposal there is still a considerable amount of uncertainty that exists and the ability for councils to take totally different approaches which may result in delay, costs and the likelihood of lengthy and unproductive litigation. One area where consistency could be driven is having consistency around the panels that will be considering the new plans that are produced to give effect to the new regime. This could involve a standing panel of an expert chair and supporting technical experts with local panel members being involved at the regional level to bring that local knowledge and input.

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