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Ministry for the Environment
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Dear Sir/Madam

ACTION FOR HEALTHY WATERWAYS: A DISCUSSION DOCUMENT ON NATIONAL DIRECTION FOR OUR ESSENTIAL FRESHWATER

Please find attached the submission on behalf of the Hawke's Bay Regional Council, Hastings District Council and Napier City Council to the Action for Healthy Waterways proposals.

We welcome the opportunity to provide this submission and encourage you to contact Mary-Anne Baker in the first instance if you have any questions or concerns.

The Regional Council's address for service in relation to this submission is:

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Yours sincerely

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

Hawke's Bay Regional Council submission on action for healthy waterways: A discussion document on national direction for our essential freshwater

1. Support

The Hawke's Bay Regional Council supports the government's proposal to improve the management of natural resources and to ensure the state of our water bodies meets the values agreed by our communities. The outcomes being sought by this national direction mirror what our communities are looking for at a regional scale. However, the Council has concerns about the speed at which change is envisaged, the complexity of the proposals and the degree of prescription contained within the various aspects of the package.

2. Submission structure

The Hawke's Bay Regional Council ('HBRC') fully supports the submission by the LGNZ and has contributed to the development of that submission and the provision of evidence in support of it.

The submission below addresses issues that are of particular concern and have impact directly on Hawke's Bay Regional Council in ways that could not be considered at a national or sectoral level and should be considered in addition to the Council's support of the LGNZ submission.

3. Capacity

The Hawke's Bay Regional Council is already undergoing significant change to meet some of the environmental challenges facing us, including adoption of a programme of plan reviews to ensure the NPS Freshwater Management (2017) could be given effect to. The HBRC regional planning programme, our extensive erosion control and tree planting programmes, our adoption of a focused climate change response and building resilient sustainable communities is changing the way we interact with and manage land and water and coast. This programme of work is impacting on our relationships with land owners and resource users, however our iwi partners and communities expect more from us, and we are already committed to this new way of working.

The LGNZ submission has expressed significant concerns about capacity of the sector to deliver all the components of the proposed NES and NPS package. The HBRC has increased staff resources significantly since 2017 in order that it is better equipped to deal with the range of environmental issues facing it. The new staff positions cover a wide range of supporting as well as technical staff positions across the Council's environmental roles and several new positions to respond to Tāngata whenua issues. As at 1 July 2016 there were 187.3 FTE (200 positions) permanent or fixed term positions. In the 2018-2019 year the staff resource had increased by 63.2 FTE to 250.5 full time equivalent staff (264 separate positions).

The additional staffing included a new team, including a senior executive role, to provide organisation-wide leadership, guidance and representation to help staff and councillors engage more effectively with tāngata whenua. Note also that not all anticipated new positions have been filled and HBRC has been seeking additional experienced policy planners for some time.

The staff changes and a more focussed level of attention on environmental issues across our region has come with a significant impact on general rates reflected in an approximate increase of 10% per year over the last 4 years.

HBRC would like to re-iterate the concerns expressed in the LGNZ submission about capacity to deliver on the freshwater proposals and further states that while the HBRC is prepared for the existing programme, speeding up the rate at which programmes are delivered and increasing the complexity of the regulatory direction will mean additional resourcing is required within HBRC. This also implicates choices for delivery of other aspects of HBRC's wide range of functions and duties.

Tāngata whenua and communities will also face similar challenges. Not only do faster planning processes have an impact on parties outside of HBRC, significantly improving our land and water management will come at a cost for councils, iwi, stakeholders and our communities and it takes time to assess options, costs and benefits.

3.1 Tāngata whenua

In addition to capacity constraints within our organisation, Hawke's Bay Regional Council would also like to particularly support the LGNZ submission in respect of the tensions between speedy delivery of regional plans to give effect to the NPS and the capacity and readiness of local iwi to contribute to these processes.

The scale of engagement at local marae and hapū level also has significant impact on resourcing and timing by HBRC for these engagements to occur and for Council to support local involvement.

Of particular relevance here in Hawke's Bay is a separate Act of Parliament being the Hawke's Bay Regional Planning Committee Act 2015. The purpose of that Act is to improve tāngata whenua involvement in the development and review of regional plans and regional policy statements for the Hawke's Bay Region. To that end, that Act established the Hawke's Bay Regional Planning Committee as a joint committee of the HBRC. The Regional Planning Committee's purpose is to oversee the development and review of regional plans and regional policy statements, including those that are required to give effect to the NPSFM and other national direction under the RMA.

Our solution

The Council considers a more staged approach to the implementation of the new NPS FM is required.

It supports exemptions for the Tukituki catchment (section 8.4 of the discussion document) but seeks greater recognition be given to all plans notified following NPSFM 2017 that also commit Councils and communities to a pathway of improvement in the management of and outcomes for land and water.

Production of those plans represent a large investment (including staff, research/science and consultants) by Councils and their communities and tāngata whenua. The Council considers a requirement for the review of their content before the otherwise applicable 10 year review does not represent a wise use of resources, especially given the need to complete plans in remaining catchments.

4. Fresh Water – Farm Plans

The HBRC supports national direction and support for a farm plan based approach to managing rural land, including measures and tools to support and standardise local and industry based initiatives as well as the development of robust information management systems to assist in monitoring and reporting at local, industry and national scales.

HBRC's significant Plan Change for the Tukituki catchment was made operative in 2015. It followed an extensive and costly process including lengthy Board of Inquiry proceedings. Since then, part of HBRC's increased staffing levels have been directed to the implementation of that Plan. The Plan depends heavily on the preparation, monitoring and auditing of Farm Environment Management Plans (FEMPs) to meet identified water quality issues. Given the effort by HBRC, farm owners and the supporting industry providers, HBRC seeks that it is made clear that these FEMPs will be compliant with any (future) national FW-FP proposal.

As part of the Tukituki Plan implementation, HBRC has had to commit a lot of time to ensuring third parties were able to support the farming industry in the preparation of suitable and acceptable farm plans. It notes that not all providers operate at the same level and that the range of necessary skills to prepare a good FEMP are not consistently available. HBRC has developed a local accreditation process to ensure providers meet acceptable standards. We consider local approval processes should be provided for as it ensures relationships can be developed and local issues properly accounted for. We consider approval of providers by two Ministers to be unnecessarily complex. However, we do support national development of the minimum requirements for certification and this could be signed off by the two Ministers.

The establishment of this FEMP framework for the Tukituki catchment will support (but is not a template for) subsequent regional planning provisions including the Council's next Proposed Plan for the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments (TANK). It will also support the government's own objectives for farm management that encompasses addressing contaminant loss risks more transparently and robustly. However, the HBRC has not yet identified a need to make farm plans mandatory across the whole region and is staging requirements for plans to account for scarce resources (both skilled providers and HBRC staff). For example, it's soon to be notified Proposed TANK Plan Change allows for 3 x three year timeframes in which to target high, medium and low priority areas and ensure farm plans are developed to address local water quality issues.

A further component of the Hawke's Bay Regional Council's approach is to enable and support collective management by land owners at a catchment scale. Not only does this have a range of benefits for landowners (and further information can be provided on this if requested), it also enables HBRC to reduce the amount of regulatory and compliance interactions and reduce associated administration and compliance costs.

While the proposed requirement for farm plans reflects the HBRC's own management approach, the rate at which the national direction anticipates the development and roll out of the Fresh Water- Farm Plan framework at a much larger scale is not supported by the Hawke's Bay Regional Council's experience. The Council considers that the impacts of rapid implementation of the new NPS FM alongside the resourcing implications of the new NES's has not been sufficiently assessed.

Tukituki Farm Plans

The Tukituki plan covers only about one fifth of the Hawke's Bay region. The Plan introduced a requirement for farm plans (FEMPs) by 2018. Over the last few years the Council has been developing the management framework necessary to support and develop accredited farm plan providers as well as managing review, monitoring and audit processes for the farm plans.

FEMPs require 3 yearly review as condition either of the permitted land use activity rule or as a condition of resource consent and this is being managed as a compliance issue. The process that will be adopted to monitor farm plan reviews is still under development.

The audit of farm plans will be at an average cost of \$2400 per farm. (Calculated at 16hrs of work at \$150 hr rate). The Council will audit plans according to the consent status of the farming activity and outstanding water issues, and at an intervals to be determined on a case by case basis. Some auditing requirements will be imposed through consent conditions.

Council has been assessing the staffing requirements for these monitoring, review and auditing aspects of the FEMP framework. The implementation of the Tukituki Plan Change will require additional resource, and the introduction of the FEMP requirements as part of the Proposed TANK Plan change is also likely to impact on staff resources. The Council may need re-assess these needs in light of any national Farm Plan requirements.

The Council requires providers of farm plans to follow a local accreditation process. HBRC's accreditation process requires a potential provider to have an interview, demonstrate adequate experience (multidiscipline) and to submit at least 3 farm plans that are audited by HBRC to ensure they meet the Council's required standard.

The Council provides additional guidance to potential providers before accreditation if necessary. As a minimum, HBRC require the advanced nutrient management certificate from Massey University to be held by the provider.

There are currently have 15 accredited providers, with a further 2 in the application process.

Our solution

HBRC requests that further time is provided in order to grow the management frameworks and industry support required for rolling out the FW-FP initiative. More attention to the detail of the regulatory mechanism, supporting information management and the auditing and reporting requirements is still required as per the LGNZ submission.

More specific consideration and provision for collective action should be included within the requirements for farm plans

5. Nitrogen-loss cap options – Taharua River

The proposal includes the Hawke’s Bay catchment of the Taharua River in schedule 1 of the NES. The Taharua River is a tributary of the Mohaka River.

The Hawke's Bay Regional Council does not support any of the options proposed for managing nitrogen loss in this catchment, for the following reasons:

- A plan change process is already underway for the whole of the Mohaka Catchment, of which the Taharua River is one tributary (as recorded in HBRC’s November 2018 PIP);
- The Taharua Catchment has only a few farms (see box). Those farming landholders previously formed as an informal group and are re-forming again (from mid-2019) to look at how best to address water quality and their land use practices and effects at a local scale;
- The Council considers it is potentially confusing and counterproductive for land owners and managers to have to comply with the NES requirements while also considering plan change options to address the wider effects of their land uses on fresh water;
- With changes of land ownership within the Taharua catchment (within the past 5 years), the impact of farming on nitrogen concentration in the Taharua has changed (HBRC monitoring sites in the catchment show levels increasing after a few years of reduction). The 50% N reduction provisions would perversely penalise those farmers who have already reduced their nitrogen losses over the past 10 years;
- A plan change for the whole Mohaka catchment could be publicly notified by the time specified in the NES that farmers must apply for consent (which could be early 2022, assuming the NES-FM commencement date is mid 2020).

The Council expects to manage the Mohaka Catchment as an FMU. There has been no indication that there will be smaller FMUs, although monitoring does occur across the whole catchment.

The Mohaka Plan Change is subject to a refreshed approach by the HBRC. The plan development process is being co-designed with iwi, and not yet finalised. This work, and timeframes for notification, could still be altered as a consequence of the final requirements of the Essential Freshwater package: if all plan changes to give effect to the NPS-FM 2020 must be publicly notified by the end of 2023, resources will need to be re-prioritised, and it is likely there will be an impact on the management of this plan change project and potentially impact on the extent and style of engagement with the community.

The Taharua Catchment

The Taharua catchment has 4 large farms and a couple of smaller properties. Proposed Options 1 and 3 would have quite different impacts on the farms within the catchment. Option 1 might result in only one farm affected because it seems to apply on a per farm basis. In contrast Option 3 would require all farmers in the catchment to have a farm plan and outline how they would reduce leaching. It doesn’t have any further detail on what amount of reduction would be acceptable.

The combination of these regulatory options with the DIN and DRP proposals in the NPS is also a further complexity in the Taharua catchment. The Council has previously considered management levels for nitrate in both the Taharua and the Mohaka rivers. There is also undeveloped Māori owned land that is a relevant consideration. Algal growth is not a problem in Taharua River (due to mobile pumice substrate in stream) while nitrate levels in the Mohaka River need to be carefully managed to avoid algal growth. Contributions of nutrients from the Mohaka tributaries needs to be managed in an integrated way and this is only possible through a plan change process that enables community involvement.

As noted above the co-design of the Mohaka Plan Change is already progressing between HBRC and iwi and is considered to be the most appropriate place to manage these specific issues. *Action for healthy waterways* acknowledges that the proposed reduced timeframes for regional councils to give effect to the NPS-FM may impact on engagement timeframes with iwi and hapū and their capability and capacity to participate in the process. This could have significant impact on the Mohaka Plan Change.

Our solution

The Hawke's Bay Regional Council seeks that the Taharua catchment be deleted from Schedule 1 of the proposed NES

6. Attributes

The proposed NPS contains 23 compulsory attributes. HBRC already monitors most of those attributes in some form, but nonetheless, the array of proposed attributes (even with the inherent drafting ambiguities) plus assumed monitoring protocols will certainly have significant implications for HBRC’s environmental monitoring networks and monitoring expenditure. We note that the submission by LGNZ provides an extensive commentary on the attributes, their precision (or not), and the practicalities of implementation. We do not repeat that critique here in this submission.

The HBRC supports a wider ecosystem health focus and this is also reflected through community involvement in development of regional plans. However, the Council is concerned about the direction for all attributes to be monitored in all FMUs. The Council's approach previously has been to deploy resources to areas of risk and in line with the significance of the issues and suggest that the NPS be re-phrased so that monitoring decisions better enable this approach to resource allocation.

An estimate of the costs of the new NPS requirements for environmental monitoring for the HBRC is \$1.6M over three years = \$500,000 p.a. based on an assumption that there will be about 10 FMUs established. This estimate includes installation of new equipment and approximately 2 additional staff for the additional monitoring demands. This is extra unbudgeted cost.

The resourcing requirements imposed by the new attributes would be better and more rationally addressed by more considered timeframes for implementation. This would allow for supporting monitoring protocols and information management frameworks to be developed. This work needs to specifically address challenges posed by the lack of clarity about what and how to incorporate aspects relating to matauranga Māori tools or approaches within this attribute framework.

Our solution

Separate expectations for the delivery of schedules 2A and 2B and allow time for development of the associated monitoring protocols

6.1 Dissolved Oxygen

The Hawke's Bay Regional Council considers that the proposed NPSFM needs to better account for different oxygen states in depositional rivers. The depositional rivers should not be subject to the same DO states as other river types and more granularity should be provided in the new attribute standards for dissolved oxygen.

The proposed deposited sediment and macroinvertebrate standards recognise the different potential of depositional streams. This recognises the natural physical drivers of stream environments. The same approach should also apply to oxygen. This is discussed in more detail in the box below.

Our solutions

Develop oxygen state attributes that better reflect the different oxygen potential of depositional streams.

Base the NPSFM on oxygen saturation, rather than concentration.

Dissolved oxygen in rivers

The Leaders Report (2019) supported dissolved oxygen bottom lines for New Zealand rivers (page 15). Oxygen is vital for life, and resource management must maintain adequate oxygen if rivers are to support healthy ecosystems. The problem comes in the specific dissolved oxygen concentrations chosen for Table 19 of the proposed NPS, in particular, the attempt to apply a single set of oxygen standards as a blanket rule across all rivers, regardless of their natural potential. This fails to recognise the fundamental physical drivers of river environments, in particular the greater oxygen demand and lower reaeration in depositional environments.

Oxygen is naturally lower in environments where organic matter settles to bottom, and accumulates over time. That is how fossil fuels and peat soils occur. Neither would have accumulated over millennia if oxygen remained above the Table 19 standards prior to the Anthropocene. Depositional environments, like estuaries, wetlands AND low-energy rivers support precious, and unique, ecosystems because of their depositional nature, despite their inability to achieve the proposed NPSFM oxygen standards. Actually, some of their values fundamentally depend on low oxygen conditions (e.g. carbon sequestration, denitrification). There is no simple delineation between river, wetland and estuary – low energy rivers blur any point of distinction through gradual transitions. The streams left behind when wetlands are drained will be depositional – because the same physical processes that created the wetland continue to deposit organic matter. These low energy environments are also where pressure on natural resources is highest, with the most intensive land uses concentrated on flat, alluvial soils. The depositional processes which create the land form and soils that support more intensive land uses are the same processes that support different ecosystems and lower oxygen potential. As written, the proposed national standards for oxygen ignore these fundamental physical drivers.

In contrast, the proposed NPSFM standards for macroinvertebrate do recognise the importance of physical processes by using different MCI taxa scores for REC classes that correspond to depositional environments (Table 18 and footnote in Tables 13, 14 in the proposed NPSFM). Given oxygen tolerance is a major driver of invertebrate taxa score, the potential for oxygen to vary by stream type is recognised in the proposed macroinvertebrates scores. Deposited sediment varies by stream type, this is also recognised in the proposed Deposited Fine Sediment standards (Table 18). The two-class system for invertebrates is an over-simplification of a broad continuum, however it is an improvement over the single blanket rule proposed for oxygen.

The REC is a fantastic tool for large-scale resource management issues. But it is also in desperate need of an upgrade. Stream gradient is an important driver of the erosional energy of a stream (in addition to flow regime). The developers of the original REC had to make do with elevation data that was inadequate for flatter areas. A river can travel tens of kilometres before crossing the first 20 metre contour, as defined in the source topomap data. LiDAR mapping of all flat areas vastly improves our ability to distinguish depositional stream reaches – those with lower potential for oxygen. Many regional council have already completed LiDAR mapping of flat areas. MfE is therefore well placed to revise the REC framework for New Zealand rivers, and revise the classification as a more defensible basis for macroinvertebrate, sediment and oxygen standards. As it stands, the REC classes used for deposited sediment encompass a wide range of stream types, so still has the potential to under-protect some streams, and over-protect others. Hawke's Bay Regional Council have developed oxygen saturation standards that are relevant and achievable for depositional streams. The LiDAR and oxygen information is available and ready for MfE to use in revising the NPSFM oxygen standards, standards that better reflect the last 30 years of scientific research.

We also need different oxygen measures to facilitate more holistic management. The proposed NPSFM oxygen standards are copied from 1980's standards developed for cold water rivers by the United States Environmental Protection Agency (actually, just one from the set of

tables). In the 1980's, point discharges were the primary management target, both in the USA and here. The USEPA made a conscious decision to use oxygen concentration, instead of obvious alternatives (oxygen saturation or partial pressure), which simplified the effect of temperature in dealing with point discharges. Regional Councils have come a long way since then in tackling raw sewage, meat works effluent, and other oxygen-demanding discharges. Councils don't just manage point discharges anymore, there have been significant advances in terms of scientific understanding of what drives oxygen in rivers.

Using concentration to measure oxygen only serves to confuse and complicate resource management. Temperature is a vital resource and potential stressor of stream ecosystems in its own right, and is driven by separate management variables (compared to oxygen), including riparian management, shading and climate change. A more holistic management framework would recognise these as important management variables, rather than concealing them within oxygen concentration. Further, the discipline of fish physiology does not recognise oxygen concentration as a valid measure of oxygen availability. Decades of debate between physiologists and ecologists was put to rest in 2011 by Verberk, who demonstrated the true measure of oxygen availability more closely resembles oxygen saturation, rather than concentration (i.e. temperature and salinity play a minor role in oxygen supply). The NPSFM should therefore be based on oxygen saturation, rather than concentration. Temperature is an important determinant of life-supporting capacity in its own right, for many reasons, including its role in determining how much oxygen a fish needs to stay alive (oxygen demand, rather than oxygen supply). This provides clarity in terms of both what must be managed to maintain ecosystem health, and what should be measured and monitored in providing a clear path to achieving more holistic objectives.

6.2 Nutrient management

The HBRC has particular concerns about the management of nitrogen and phosphorus in the NPS. It supports the LGNZ submission in this regard. The Council notes that the regional plan provisions for nitrogen management in the Tukituki catchment do not align well with the proposed new NPS requirements. Tukituki has DIN limits more severe than NPS proposed bottom lines with consents needing to be issued to allow production land uses to continue operating. A higher minimum standard as a national bottom line may lead to concerns at a local level about the level of performance necessary.

The HBRC also notes that the improvement of ecosystem health in lowland rivers such as those in the Karamū catchment is complex and fraught in some places by lack of good information about sources and pathways of nutrient loss from land. Furthermore, the Council has research information to support a focus on management of macrophytes as the priority action for improving ecosystem health in these lowland rivers. The main environmental stressors for those rivers have been found to be low dissolved oxygen caused by excessive macrophyte growth and high temperatures. The proposed TANK Plan Change for these rivers therefore has a particular focus on riparian land management. The NPS requirements for DIN and DRP would divert attention away from mitigation measures that would have the greatest benefit for ecosystem health outcomes.

Our solution

Remove DIN and DRP as Appendix 2A attributes and replace with more general policy direction to consider dissolved nutrient impacts on ecosystem health on a more site specific basis.

6.3 Lake management

The HBRC has continuing concerns about how the NOF applies the same standards to deep alpine lakes as it does to shallow lakes. Shallow lakes have quite different water quality and might be a high C band naturally (this is supported by a Waikato study which suggests some shallow lakes may be high C and D bands naturally). Shallow lakes are often more valued for wetland type values than for their water quality based values. A shallow lake with wetland type values cannot be compared to a deep alpine lake. For example, an alpine lake in the C band would represent both a huge deviation from its natural state, and would be a large deviation from what those deep lakes are typically valued for (e.g. clear water). A shallow lake in a C band might represent natural water quality state for that type of ecosystem.

While state objectives based on deviation from natural state is considered more appropriate than applying the same banding to all lakes (deep, shallow, lowland, upland, coastal etc.), we appreciate this may not be achievable at this time. However, the HBRC does suggest an additional proviso to the lake attribute states that recognises that shallow lakes may be subject to objectives that are relative to their natural state and local values for their management.

Our solution

Include proviso or exception for all lake attributes that recognises relative natural state condition for shallow lakes and that water quality objectives are set appropriate to the primary values held for the lake.

7. E. coli and human health (Clause 3.18 and Tables 11 and 23)

The HBRC has significant concerns about the impact of the new requirements in respect of E. coli and managing water for primary contact.

The HBRC supports and complies with the "Microbial water quality guidelines for marine and freshwater recreational areas" and supports the alignment with these guidelines in the NPS proposals.

However, the HBRC is concerned with the sampling and management directions given in clause 3.18(3) a) and b). These sections should be redrafted to reflect the protocols already developed and agreed in the Guidelines (see box). The Council suggests the NPS is too prescriptive and should be amended to better reflect the roles and responsibilities of other parties as well as sampling directions as described in the Guidelines.

The local recreational water quality issues provided for in the Guidelines are not reflected in the NPS and will have a substantial impact on existing recreational water quality bathing programmes with a consequential impact on costs of this programme.

The proposed clause 3.18 does not reflect responsibilities of other parties in managing risks to public health. A regional council is not the only party responsible for protection of public health or undertaking steps to find cause. The Medical Officer of Health has a lead role, given their

responsibilities under the Health Act, to ensure the proper steps are taken by the territorial local authorities to protect public health. In some situations a Local Authority may be required by the Medical Officer of Health to carry out a sanitary survey.

A further concern is impact on frequency of monitoring implied by the new clause 3.18 (3). The HBRC swimming season is already defined as being from 1 November to 31st March and the Council samples weekly at 38 key swimming places throughout the region. However, it notes that not all regions have similar swimming seasons and supports a greater level of discretion to reflect regional climate differences.

The specified requirement to increase to daily monitoring if a high value is recorded is unreasonable where higher values are routinely expected after rain or where the reason for a high value can be established. Council would carry out follow-up monitoring if there was a need to ascertain the cause or if the result was transitory or unexpectedly high value.

The HBRC also notes that the definition for “primary contact site” may be problematic given its very wide scope. It refers to inhalation of water vapour and requires predictions by the Council as to where people might choose to swim in the future. The Council already identifies its primary contact sites according to the protocols established in the Guidelines.

The Microbiological Water Quality Guidelines for Marine and Freshwater Recreational Areas:

The Guidelines have been developed for the agencies involved in the monitoring and reporting of recreational waters. This is primarily regional, territorial and unitary councils, District Health Boards and Medical Officers of Health.

The guidelines provide consistency and clarity about roles and responsibilities by way of protocols, agreed to by the different agencies that have a role in monitoring and reporting recreational water quality. These have been jointly agreed by Ministry for the Environment and Ministry of Health. They enable local variations but provide clear instructions for identifying the agreed roles, responsibilities and accountabilities, how the programme will be implemented and the management and communication/ education responses will be to exceedance events.

The Ministry for the Environment and Ministry of Health recommend in the Guidelines that the sites to be included in the monitoring programme be agreed by all agencies involved in the programme and documented in the regional bathing water protocol.

Our Solution

Review the requirements of Clause 3.18 (3) so that they are consistent with the Microbiological Water Quality Guidelines for Marine and Freshwater Recreational Areas.

Allow for regional differences to be reflected in sampling requirements for the bathing season.

Clarify public health responsibilities, including in relation to public information and sanitary surveys and responses to pollution events.

8. Interim targets

The NPS sets up a requirement for target attribute states for every attribute (apparently including appendix 2B attributes). This is largely supported by the HBRC, although the Council has significant concerns about the need for interim targets set at no more than 10 year intervals. To deliver an evidence basis for these predictions will require complex integration of models, from land (nutrient discharge and sediment mobilisation) coupled with fate and transport models in waterways and ultimately deposition models for estuaries and coast. Particularly for sediment, the models will also need to be event-based rather than the annual average that we currently have available. Event-based sediment mobilisation models are being developed by Landcare Research, but this is new science and only recently available to practitioners.

Furthermore, establishing interim targets for some of the attributes such as cyanobacteria and macroinvertebrates is not currently well supported by models that enable 10 year state predictions.

The HBRC science section is aware of this and is preparing funding proposals to enable this integrated modelling. Data collection for model calibration is required, followed by development of innovative models and integration to capture processes from mountains to the sea. Due to complexity and novelty of the technology, integrated modelling for selected catchments is unlikely to be achievable in less than five years. To develop models for the entire region will take significant resourcing (in the millions of dollars) and a best case estimate of ten years to be realised.

The Council notes that the TANK Plan Change addresses this issue by specifying milestones for delivery of mitigation actions which are known to have beneficial impacts on ecosystem health generally. For example, measures for which targets and milestones have been developed include stock exclusion, better riparian land management, protection of existing and construction of new wetlands and the farm plan requirements, including nutrient budgets and adoption of good farm practice.

Our solution

Delete requirement for interim water quality states to be specified for attributes. Consider use of other milestone actions for mitigation measures instead.

9. Wetlands

The Hawke's Bay Regional Council has adopted multi-agency approach to the protection and enhancement of biodiversity across the region. It has led to the development of a separately funded and managed biodiversity strategy with very widespread support and buy-in. The strategy includes measures for the development and protection of wetlands.

The HBRC is also building its wetland monitoring strategy in recognition of the significance of these habitats in the region. The primary purpose of the Council's state of the environment monitoring for wetlands is to produce a snapshot of their state, and to monitor trends to detect early signs of decline or improvement. By doing so, monitoring results could inform the effectiveness of national and regional statutory frameworks. A monitoring methodology was developed for the Council by Landcare Research.

A pilot study was completed for the Tukituki catchment (only) in which site selection framework, survey and reporting methods were explored and field-tested. As a result, 10 freshwater wetlands were selected to represent a range of wetland types typical of the Tukituki catchment, and baseline data for condition, vegetation, soil and plant nutrient status, water level, and wetland birds (spotless crane and fernbird) were compiled. The pilot study total expenditure was approximately \$124,000. This included some one off costs such as the methodology development by Manaaki Whenua Landcare Research (approximately \$17,000) and a helicopter inventory survey (17,000). The HBRC carries out regular twice yearly monitoring of these representative wetlands, including bird surveys at an annual cost of \$15,000.

This process will be followed to establish a regional wetland monitoring programme across the remaining catchment areas. The approach enables a targeted approach to be taken that provides an overview of wetland state and trends across the region.

The NPS appears to require mapping and monitoring of wetlands above 0.05ha. This would represent a large departure from the Council's wetland monitoring strategy and it is suggested that this scale of monitoring would be unsustainable and would not add sufficient value to the bio-physical and environmental outcomes being sought.

10. Freshwater Planning Process

The HBRC feedback on the proposed new planning processes for freshwater will be via the RMA Amendment Bill.

11. Drinking Water

The HBRC supports proposals to clarify duties, roles and obligations in respect of the management of groundwater quality and supply of safe community drinking water. Together with the local authorities, District Health Board and drinking water assessors, the Council has introduced a number of initiatives to better understand risks to community health and ensure protection of drinking water quality as a result of the Havelock North drinking water contamination. It welcomes further national direction and supports development of consistent methodologies and processes.

The HBRC is addressing protection of source water for the Hastings and Napier urban supplies in its TANK Plan Change (soon to be notified). It largely follows the direction indicated by the proposals in the discussion document and were also informed by work already done by Environment Canterbury. The Plan Change:

- establishes Source Protection Zones for the Napier and Hastings municipal water supplies and
- establishes a default methodology to be followed for all other supplies.
- directs the choice of method to determine protection zones according to level of risk and source of supply
- identifies risk activities where additional regulatory oversight is required
- requires Farm Plans located in SPZs to include details about how activities that may pose a risk to g/w quality will be managed
- identify SPZs as priority areas for ensuring landowners have Farm Plans
- enable SPZs to be updated or reviewed through consent processes where new information may change what we know about groundwater (such as the proposed SKYTem survey of Heretaunga Plains and Ruataniwha aquifer systems)

The HBRC asks that further development of these national proposals take into account this work. The HBRC also observes that an increase in coverage in the NES to include communities of 25 people or more is quite a change in focus for small communities and potential costs relative to benefits will need to be carefully considered.

12. Wastewater and Stormwater

The HBRC supports development of tools and measures that enable consistent and transparent management of wastewater and stormwater services.

The Council is addressing these issues through its own planning documents including for the cities of Napier and Hastings in the soon to be notified TANK Plan Change. It has acknowledged the legacy impacts of waste and stormwater management on receiving water quality and ecosystem health as well as the need to ensure future decisions result in more sustainable outcomes.

While it welcomes the development of national direction for improving management of this infrastructure, it seeks that the focus is on methods and outcomes rather than things like minimum treatment standards that have potentially varying impacts and associated costs and benefits across the country.

Development of consistent reporting requirements would also enable council, infrastructure managers and local communities to assess levels of performance and the costs of upgrades.