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Committee Environment
Author Lucy Harper, Team Leader, Environmental Policy

Clean Water proposals

1. Purpose

The purpose of this paper is to provide a summary of the key proposals from Government for freshwater management and consider the implications for GWRC planning and operations, in particular:

- Our whaitua programme for implementing the NPS-FM
- New monitoring requirements and costs, and
- The need for plan changes for the Natural Resources Plan (NRP).

Officers will prepare a draft submission for consideration and approval at the Council meeting on Wednesday, 5 April 2017. Submissions are due by 28 April 2017.

2. Background

The Ministry for the Environment has released a discussion document titled “Clean Water” as a further step in the Government’s freshwater reform programme. Most importantly, the document contains proposed changes in four areas:

- A new standard for swimming contact recreation in our large rivers and lakes
- Introducing a framework for Te Mana o Te Wai
- Detail of proposals for national regulations for exclusion of stock from waterways, and
- Further changes to the National Policy Statement for Freshwater Management (NPS-FM) 2014.

There is also a separate Ministerial directive to regional councils requiring proposed swimmability targets and costings by 2018.

The proposed changes respond to the previous round of Government consultation documents ‘Next steps for freshwater’ and ‘Seeking your views’ which Council submitted on in mid-2016.

The full consultation document can be downloaded from:

<http://www.mfe.govt.nz/publications/fresh-water/clean-water-90-of-rivers-and-lakes-swimmable-2040>

There are a number of background documents on the MfE website <http://www.mfe.govt.nz/>

Council has committed to a whitua (catchment-based) implementation programme for the NPS-FM through a community led process, which will meet the timelines as set out in the NPS-FM 2014. This will establish values for water and waterbodies in freshwater management units and will result in water quality and quantity limits being set through plan changes to the Natural Resources Plan and a non-statutory implementation programme.

Council is therefore implementing the NPS-FM via the Proposed Natural Resources Plan (proposed Plan) and associated whitua chapters. We will only be fully implementing the NPS-FM when each whitua chapter is complete.

3. Key proposals in the Clean Water discussion document

There are three principal planks to the proposals which now has a broader focus of management of water beyond the first iterations of the NPS-FM which focused on water quantity and water quality: swimmability targets for our large rivers and lakes replace the current ‘wadeability’ criteria; Te Mana o Te Wai also recognises the place of people in the environment; and a national staged approach for excluding stock from all waterways.

3.1 Key Proposal 1: Swimming and recreational values

Key proposals that seek to improve the swimmability of New Zealand’s waterbodies:

- Swimmability targets: 90% of rivers (nationally)
- New swimmability attribute for E. coli
- Identify swimmable large rivers and lakes in plans
- New monitoring regime in relation to E. coli.

We submitted strongly in previous consultations on the need to reflect the clearly expressed community desire for our rivers to be swimmable, rather than safe to wade in or use for so-called secondary contact as in the present NPS-FM framework. The Government has responded to the feedback and has announced a target of 90% of large rivers and lakes meeting swimmable water quality standards by 2040.

This is a positive move. Its significance has however been overshadowed by the much publicised confusion over the metric or measure in the proposed changes to the NPS-FM and the apparent application of the policy to only larger rivers (4th order and above) and lakes.

The actual proposals are not as weak as portrayed in the media. The full suite of information (available on MfE's website) for swimmability gradings uses four different criteria to define the categories of swimmability, based on measurements of E.coli per 100ml. The criteria are: percentage exceedances over 540, the median, the 95th percentile and the percentage of samples above 260. There are also five categories which are poor, intermittent, fair, good and excellent with an acceptable level for swimming at fair, good and excellent.

The inclusion of a median E.coli level of less than 130 in the NPS-FM is likely to result in fewer rivers being considered swimmable across NZ, than if the previous single test of a 95th percentile below 540 was applied. However in our region at our SoE sites, this does not seem to apply (**see Attachment 1**). There is also a measure for swimmability in lakes and lake fed rivers, based on toxic algae, which is already in the NPS-FM 2014.

Swimmability and contact recreation

Conflicts (and hence confusion) between swimmability maps and LAWA's/GWRC's measure of health risk are likely. This does not mean that either of these reporting avenues is incorrect, but is simply a reflection of the different objectives of NPS-FM and public health reporting. The NPS-FM swimmability targets set for larger rivers and lakes characterise the overall state of the river through time. This approach significantly differs from GWRC's contact recreation programme, which characterises risk on a given week at bathing sites which the community commonly uses. As the NPS-FM requires swimmable rivers to achieve guidelines 80% of the time (i.e. breach 20%), some rivers classified as swimmable will from time to time have health warnings at bathing sites.

Monitoring

There has been some public concern that there is now no standard for smaller streams where previously the requirement in the NPS-FM 2014 was to work towards a wadeable standard for all waterways. However through the whitua process an objective for human health for recreation will need to be set for all freshwater management units, including the smaller streams. That objective can be set at any level as long as it is at or above the existing state, using the proposed human health attribute table in the NPS-FM.

A major implication for Council's monitoring costs will result from moving from a risk-based approach to the requirements suggested in the proposed NPS-FM. We have a whitua-based monthly water quality monitoring network (53 sites) throughout the region, which includes measures of E.coli. In addition, our recreational water quality monitoring programme includes 23 river sites (sampled weekly in summer between Dec and March).

The new requirement will be for weekly, or potentially daily, monitoring at sites through the reaches of the swimmable rivers and in all freshwater

management units set through the whitua process. This will put a significant strain on our monitoring resources, and would require an increase in on-call staff to deal with daily monitoring following any breaches of the 260 E. coli/100ml action level, as set out on the MfE website. It is not clear exactly what the monitoring requirements will be for smaller streams that do not have a fair or above swimmable state, but the cost could be very high, as they may well breach the 260 E. coli/100ml criteria regularly.

GWRC staff are also unclear about how the monitoring information will be used. It is our understanding that progress towards the national targets will be monitored using the national modelling. What is not clear is whether the progress of individual regions will be assessed using the same model, or specific regional assessments run by each of the councils.

Summary of key proposal 1

Proposed NPS-FM changes required: The proposed changes (Policy A5) require our plans to identify large rivers and lakes and their suitability for swimming and state the improvements needed and the timeframe for any improvements needed.

Our proposed Plan provides: As part of the plan review process we have responded to our communities and stakeholders by including objectives and policies which address contact recreation and Māori customary use.

We have schedules of regionally significant primary contact recreational water bodies and water bodies which are priorities for improvement of fresh and coastal water quality for secondary contact recreation and Māori customary use.

Our whitua programme: The whitua programme is the mechanism for implementation of the NPS-FM. The community will identify rivers valued for swimming and timeframes to achieve acceptable swimming standards and produce a whitua implementation plan for each catchment and propose relevant regional plan changes by 2025. The whitua will also set targets for E. coli in smaller streams within the freshwater management units, which are the defined areas in a catchment within which water quality has to be maintained or improved and limits set to protect the values.

GWRC will need to:

- Consider a plan change to amend lists in the proposed Plan as the NPS-FM now uses a different measure.
- Continue with our implementation of the NPS-FM through our whaitua programme.
- Revise our science monitoring programme to be able to provide the information required by the whaitua and for progress towards targets, as well as the community information about particular bathing sites.

3.2 Key proposal 2: Te Mana o Te Wai – the integrated and holistic wellbeing of a freshwater body

Proposals seek to clarify the status and meaning of Te Mana o Te Wai and provide clear direction to regional councils on how to recognise it when implementing the NPS-FM through regional plans.

The revised working promotes a holistic view of the health of water supporting a healthy environment, healthy waterbodies and healthy people.

Upholding Te Mana o Te Wai acknowledges and protects the mauri of the water.

Councils must now consider and recognise Te Mana o Te Wai when giving effect to the NPS-FM.

A second significant change is the introduction of Te Mana o Te Wai as an overarching framework. This promotes a holistic view of the health of water supporting a healthy environment, healthy waterbodies and healthy people. Upholding Te Mana o Te Wai acknowledges and protects the mauri of the water. Previously Te Mana o Te Wai was not described except as the component values of a national value.

The proposed changes to the NPS-FM seek to clarify the status and meaning of Te Mana o Te Wai and provide clear direction to regional councils on how to recognise it when implementing the NPS-FM through regional plans. The proposed amendments include a purpose statement which provides context about the meaning of Te Mana o Te Wai, and its status as the underpinning platform for community (including tangata whenua) discussions on freshwater values, objectives and limits.

There is now an overarching objective that clearly requires councils to approach all other objectives and policies according to Te Mana o Te Wai, and additional policies to provide additional direction about how to implement this objective. The narrative descriptions of national values described in Attachment A of the NPS-FM, have been amended so they more clearly relate

to Te Mana o Te Wai and support regional councils when identifying values, setting objectives and limits, and at all relevant parts of the NPS-FM.

Summary of key proposal 2

Proposed NPS-FM changes require: Councils must now consider and recognise Te Mana o Te Wai when giving effect to the NPS-FM.

Our proposed Plan provides: The proposed Plan has high level objectives to sustain and enhance mauri and objectives and policies for the shared values of aquatic ecosystem health and mahinga kai, and, contact recreation and Māori customary use. There are also objectives and policies to support resource use which provides for the wellbeing of our land, waterbodies and communities. There are schedules of significant values at a regional level which have been reached through engagement with the community and rules and operational programmes to protect these values.

Our whaitua programme: The process is investigating local values held by the community, including iwi, and this will inform the setting of limits and the direction of implementation activities to maintain and improve water quality.

GWRC will need to:

Continue with our programme to give effect to the NPS-FM.

3.3 Key proposal 3: keeping stock out of our waterways

A national approach is proposed to exclude stock from waterways so that:

- Dairy cattle and pigs be excluded from most lakes, rivers and streams by 1 July 2017
- By 2020, this would be extended to all waterways, lakes and wetlands on the plains
- By 2022, deer and beef cattle must be excluded from most waterways on rolling hill country and steep hills when break-feeding
- By 2025 deer and beef cattle must be excluded from all waterways on the plains and by 2030, all deer and beef cattle on rolling land from most waterways.

The Government has previously signalled its intent to require the exclusion of livestock from waterways and the document outlines a proposed framework for achieving national direction in a regulation. We have supported this intention in other submissions.

It is proposed that dairy cattle and pigs be excluded from most lakes, rivers and streams by 1 July 2017. By 2020, this would be extended to all waterways, lakes and wetlands on the plains. By 2022, deer and beef cattle must be excluded from most waterways on rolling hill country and steep hills when break-feeding. By 2025 deer and beef cattle must be excluded from all

waterways on the plains and by 2030, all deer and beef cattle on rolling land from most waterways.

The proposed Natural Resources Plan has rules restricting livestock access to the beds of surface water bodies and these rules generally align with the Dairy Accord. The approach and the timeframes in the proposed Plan were only reached after considerable debate with stakeholder groups and the community over several years. We consider that national requirements will be more efficient in addressing the issue, but we support the ability for councils to put in place more stringent restrictions where considered necessary or desirable.

The proposed regulation also provides for an alternative option of using a 'stock exclusion plan' approved by the regional council when stock exclusion is not feasible. This approach is supported as it avoids the need for a resource consent, and instead supports the use of good management practice and allows for the Council and landowners to work together to find practical solutions. This collaborative approach can lead to a greater sense of ownership for the landowner in managing their effects on water quality and a longer term commitment.

The proposal classifies different timeframes for stock exclusion based on slope according to the national Land Resource Inventory (LRI) slope dataset. This dataset is at a 1:50,000 scale and in the proposal is split into 3 typographies (plains, rolling land and steeper land). There are potential timeframe implications, implementation issues and costs for councils around the use of the LRI dataset and further investigation and clarification is needed as to what scale is appropriate for use at the farm level.

The Resource Legislation Amendment Bill, currently before Parliament, proposes to extend the regulation-making powers of the Minister for the Environment. We understand that those powers are the Minister's preferred mechanism for the stock exclusion regulation discussed here, but an alternative would be to use a national environmental standard.

Summary of Key proposal 3

Our proposed Plan provides: Restrictions in the proposed Plan are introduced in a staged manner, which was considered appropriate to address the issues facing our region, and also differentiates on slope. The proposed Plan has only two geographical areas defined: a mapped lowland area, and by default, the hill country.

A shorter timeframe is considered necessary to protect areas identified as having regionally significant values. Cattle (including dairy cows), sheep, farmed deer and pigs are to be excluded from significant areas (such as sites of significance to mana whenua and sites with significant indigenous biodiversity) within 3 years of notifying the plan (mid-2018). Note that sheep are not excluded from significant natural wetlands.

The proposed break feeding rule has a setback of 5m from any waterway and the proposed Plan also requires the exclusion of dairy cows from waterways on dairy relief blocks, by 2022 (as in the proposed regulation). We have limited

requirements to exclude beef cattle from streams in the steeper land, for example from trout spawning streams.

The stock exclusion rules are supported by a method in the proposed Plan and a non-regulatory programme.

GWRC will need to:

Participate in working groups and discussions with officials around the implications for Councils of the details of implementation of the proposals on a farm scale.

Once the regulation is in force we will need to consider whether a plan change is needed to provide a consistent approach to the identification of plains, rolling or steep land especially with reference to slope and the management for different classes for stock.

3.4 Key proposal 4: further changes to the NPS

There are a number of other proposals that have implications for our planning and operations:

- Councils required to monitor macroinvertebrates as part of their assessment of ecosystem health and the scope of regional council monitoring plans have been extended
- Require councils to set in-stream objectives for dissolved inorganic nitrogen and dissolved reactive phosphorus as part of their approach to managing periphyton
- New wording to clarify that water quality should be maintained or improved within a freshwater management unit, rather than the region/catchment
- Clarifies when councils might set targets below national bottom lines infrastructure listed in the NPS-FM
- Removal of confusing footnote providing direction about the unique monitoring requirements for coastal lakes and lagoons
- Addition of provision to provide for economic wellbeing, including productive opportunities.

3.4.1 New requirements for monitoring plans

It is proposed that councils be required to monitor macroinvertebrates as part of their assessment of ecosystem health and the scope of regional council monitoring plans have been extended to include e.g. freshwater accounting, Mātauranga Māori, and the health of indigenous flora and fauna.

Our proposed Plan provides: The proposed Plan sets an objective for macroinvertebrate community indexes in different river classes and requires that where the objective is not met, water quality should be improved over time

to meet that objective. This applies to all freshwater bodies. There are also objectives and provisions to safeguard aquatic ecosystem health and mahinga kai, with a narrative description of these values.

Macroinvertebrates are already monitored annually at a subset of our river and stream monitoring sites. We have a commitment to develop cultural health monitoring programmes with our mana whenua partners and some initiatives are underway.

Freshwater accounting is already underway.

Our whitua programme: The new requirements for monitoring only refer to monitoring once objectives in the freshwater management units in a whitua have been set for that value.

GWRC will need to:

Consider how the new human health attributes relate to the mahinga kai and Maori customary use values and monitoring requirements and their inclusion in our proposed Plan objectives for regional water quality.

Extend our cultural health monitoring programme for monitoring both the progress of the whitua freshwater management units and the effectiveness of the proposed Plan.

3.4.2 NPS-FM Managing nitrogen and phosphorus

A specific requirement has been added to require councils to set in-stream objectives for dissolved inorganic nitrogen and dissolved reactive phosphorus as part of their approach to managing periphyton.

Our proposed Plan provides: The objectives for periphyton management use chlorophyll a as a measure, not nitrogen or phosphorus. We do however measure nitrogen and phosphorus at our 53 river and stream sites monthly.

Our whitua programme: Policy CA2 requires that objectives are set so that identified values will not be worse off when compared with existing water quality. If periphyton growth was identified in a freshwater management unit as a value being managed for, then nitrogen and phosphorus limits would need to be included.

GWRC will need to:

Determine numeric objectives for nitrogen or phosphorus if a freshwater management unit is being managed for periphyton.

3.4.3 Changes to clarify and remove ambiguity in the 2014 NPS-FM

Maintain and improve water quality: Previous wording suggested that councils could trade off degradation in one part of a region against improvements elsewhere which is at odds with the Resource Management Act. The new wording clarifies that water quality should be maintained or improved within a freshwater management unit, rather than the region.

Our whitua programme: The changes clarify the scale at which water is being managed in the whitua which is the freshwater management unit. We will have limited information about our progress until the freshwater management units and the monitoring has been in place for some time.

Effects of infrastructure: The amendment clarifies when councils might set targets below national bottom lines infrastructure listed in the NPS-FM. Note there is no listed infrastructure at this time, but if storm water networks and wastewater are not included in a future list, this could have significant cost implications for the region.

Coastal lakes and lagoons: A footnote to the total nitrogen lakes attribute has caused confusion as to whether the lake attributes apply to coastal lakes and lagoons that intermittently open to the sea. To address this confusion, a proposed NPS-FM amendment removes the footnote and provides some direction about the unique monitoring requirements for these coastal lakes and lagoons.

Economic wellbeing: In practical terms, the affordability of measures to improve water quality is always a consideration in deciding how ambitious targets should be - there was some concern that this was not reflected in the NPS-FM framework. It should be noted that the proposal is to include economic wellbeing as a matter to be considered in freshwater planning, not as a value or objective in its own right.

Our proposed Plan provides: There is a beneficial use and development section which has an objective (O8) which requires recognising and providing for the economic benefits of taking and using water in the water allocation framework, but not specifically when targeting water quality improvements or setting whitua objectives. There may be some pressure to extend this objective.

Changes in the attribute tables: These tables are either numbers or descriptions of the values which are managed in the NPS-FM, including in many instance national bottom lines. Most attributes with the exception of swimmability are only changed to reflect the increased emphasis on periphyton and larger water plants (macrophytes) health.

3.5 Ministerial requirement regarding swimmability targets

There is a statement in the discussion document (page 9) but not part of the revised NPS-FM about the need for regional councils to inform Government of proposed regional swimmability targets for large rivers and lakes by October of this year and the final targets and indicative costs of reaching those targets by March 2018. The statement has now been backed up by a letter from the Minister for the Environment to regional council chairs requiring this information.

In this letter, the Minister has also made it clear that the 90% swimmable target is a national target and that because of regional variability some regions will need to have a target well in excess of 90 %. This reflects a drive for improvement in *all* large rivers, not simply those that are below standard now.

While aware of the Minister's desire to get real improvement in water quality for swimming as a matter of urgency, this request in effect completely cuts across the community driven whitua process and timeframe set for implementation of the NPS-FM. For the regional council to pre-set a standard on one attribute only and the ways of reaching that target will limit the ability of the whitua to consider how all aspirations for the waterbody contribute to its management. We are strongly opposed to this requirement but we are seeking further clarification about the process and also the implications for our region of our contribution to the 90% target. We hope to be able to report back at the Council meeting on 5 April with clarification.

3.6 Freshwater Improvement Fund

A Freshwater Improvement Fund of \$100 million will be available over the next ten years, focused on vulnerable catchments. Eligible waterbodies will be showing signs of stress, but will not have yet reached a tipping point. The fund will cover a maximum of 50 percent of project costs; grants will be for a minimum of \$200,000. Applications open immediately. The Fund does not appear to have been well publicised.

4. Communication

This is a briefing paper and there is no content requiring community engagement.

5. The decision-making process and significance

No decision is being sought in this report.

5.1 Engagement

Engagement on this matter is not necessary.

6. Recommendations

That the Committee:

- 1. Receives the report.*
- 2. Notes the content of the report.*
- 3. Notes that a draft submission on the 'Clean Water' discussion document will be prepared for consideration by Council on 5 April 2017.*

Report prepared by:

Lucy Harper
Team Leader, Environmental
Policy

Report approved by:

Matt Hickman
Manager
Environmental Policy

Report approved by:

Nigel Corry
General Manager
Environment Management
Group

Attachment 1: Swimmability comparison