

Next steps for fresh water

**Submission to the Minister for the Environment
and the Minister for Primary Industries**

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Te Kaitiaki Taiao a Te Whare Pāremata

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Ka ora te whenua, ka ora te wai, ka ora ai te iwi
If the land is well, and the water is well, the people will thrive

Introduction

Thank you for the opportunity to make a submission on the Government's proposed changes to fresh water policy.

Over recent years, public concern has grown about the quality of the water in many of our rivers and streams, lakes, wetlands, estuaries, and aquifers.

For tangata whenua, the concern about fresh water is especially strong, because iwi relationships with particular awa and roto is central to identity.

The decline in water quality that has become so evident in the last decade has been many years in the making. Turning it around is not easy and will take time. We need to be both aspirational and practical. While our long term goal should be for good water quality across the country, we need to be realistic and focus on protecting our most precious and vulnerable areas first.

It should not be underestimated how challenging it has been to get this far, and the Government is to be commended for its work to date. I am also pleased to see a number of my recommendations being addressed in this proposal. Much of the onus now falls on regional councils to make sure the policy is implemented well.

There are seven sections in this submission. The first summarises five proposed changes that I support. The other six cover areas where I want to see more improvements in policy. These are:

- The 'maintain or improve' objective for water quality
- The debate about 'swimmability'
- The continued omission of estuaries
- A strategic approach to setting objectives and limits
- The Freshwater Improvement Fund
- Economic use of fresh water

Some encouraging proposals

I am generally supportive of the following five proposed changes.

Stock exclusion from water bodies

Under the Sustainable Dairying: Water Accord, many streams on dairy farms have been fenced to prevent cows from urinating and defecating in the water, and from trampling down banks. The Government is proposing that such fencing be required on all dairy (and pig) farms by July next year. It is also pleasing to see that deadlines for such fencing on other kinds of intensive farms are proposed.¹

Exceptions to bottom lines

The defining feature of the Government's National Policy Statement (NPS) for managing fresh water is the setting of bottom lines for water quality. However, regional councils can let water bodies stay below bottom lines if existing infrastructure is a contributing factor. This was one of my major concerns in my 2015 examination of the NPS.²

The discussion document contains a proposal that would significantly tighten up the conditions for allowing exceptions. Under the proposal, councils and infrastructure owners would have to apply for exceptions based on evidence, and the public would be consulted. It is important that this change is made.

Increased engagement with iwi

The discussion document contains a number of proposals that would increase the engagement of iwi in the management of fresh water. These include a requirement for councils to engage with the iwi and hapu that have relationships with particular awa when identifying values and setting objectives for a catchment.

Measuring ecosystem health

In my 2015 report on the Government's NPS for managing fresh water, I recommended that the Macroinvertebrate Community Index (MCI) be included as a mandatory 'attribute' that councils must use when setting water quality objectives and limits.

The Government is proposing that councils must use the MCI for monitoring ecosystem health. But this stops short of setting a 'bottom line' for the MCI, or using it as a yardstick for judging whether water quality has been maintained or improved. However, the Government is proposing further work on the MCI, with a view to including it as an attribute in the future.

Other work underway

The management of fresh water is complex and developing the NPS over time as understanding grows is sensible. Two omissions that particularly concern me are the lack of an attribute for measuring sediment and the lack of any attributes for measuring the quality of the water in wetlands. It is good to see that work is underway to develop these and other attributes.

The ‘maintain or improve’ objective for water quality

A key objective in the NPS is that “*the overall quality of fresh water within a region*” be “*maintained or improved*”.

It is good to see that the discussion document contains proposals aimed at clarifying this problematic objective. The word ‘maintain’ and, implicitly, the word ‘improve’ would now be defined in line with the definition first proposed by the Land and Water Forum.

There is also a proposal that goes some way toward dealing with the far more intractable problem of what ‘overall’ means. The ‘maintain or improve’ objective would be applied not to the overall quality of fresh water within a *region*, but to the overall quality of fresh water across a *catchment*.³

This is a positive step, but it remains ambiguous as to whether some form of ‘unders and overs’ accounting is still envisaged, despite this having been rejected by the Environment Court.

Is it intended that each aspect of water quality in a catchment must be maintained or improved? If this is the case, it should be made explicit by removing the word ‘overall’ from the objective.

Or is it proposed that one aspect of water quality, or a part of a catchment, may be permanently degraded provided this is offset by an improvement elsewhere? In this case, the accounting challenges highlighted in my 2015 examination of the NPS remain. I do not see how the ‘unders and overs’ approach can be made workable.

- 1. I recommend that the Minister for the Environment either removes the word ‘overall’ from the ‘maintain or improve’ objective, or directs officials to develop and consult on accounting rules for judging the overall state of water quality across a catchment.**

The debate about ‘swimmability’

In the NPS, the bottom line for protecting human health is “*no more than a moderate risk of infection to people when they are wading or boating*”. Regional councils are free to set a stricter objective that would make swimming safe.

The omission of ‘swimmability’ as a compulsory national value in the NPS has become very contentious. At the end of March a hikoi marched to Parliament and petitioned for all lakes and rivers to be swimmable.

The arguments for and against compulsory swimmability both have merit.

It has long been part of the New Zealand way of life to go down to the nearest river and jump into a swimming hole on a hot day, and for children to splash around in the shallows.

On the other hand, there are some places where no one would ever want to swim. Moreover, we have built towns and cities and developed agriculture, and gained the benefits from this. But what we have done on the land has affected the water.⁴

The question we need to answer is how is it possible to be both aspirational and practical?

One element of the way ahead may lie in distinguishing between compulsory swimmability and universal swimmability – ensuring most places are safe for swimming most of the time, without setting a strict bottom-line that would apply everywhere.

Another element of the way ahead may lie in setting realistic time frames. The Waikato River Authority has as one of its objectives: “*The restoration of water quality within the Waikato River so that it is safe for people to swim in and take food from over its entire length.*”⁵ The Authority’s Chief Executive has said that achieving this objective could take as long as a century.⁶

It is my view that we must aim at generally ensuring waterways are safe for swimming across the country, including working hard to restore those that have been most treasured. To achieve this, we need to develop a national policy that compels regional councils to set swimmability objectives, but stops short of requiring universal swimmability.

This policy should place the onus on councils to provide evidence for exceptions, by transparently demonstrating where and why setting a swimmability objective would be too costly or too impractical.

- 2. I recommend that the Minister for the Environment directs officials and/or the Land and Water Forum to develop a policy for swimmability that is compulsory but not universal**

The continued omission of estuaries

New Zealand's 300 estuaries are areas of considerable biodiversity, cultural, and recreational significance. But many are under great pressure, primarily from sedimentation and high concentrations of nutrients.

Estuaries also function as nurseries for young fish. Most of the snapper off the west coast of the North Island originate from the Kaipara Harbour, one of the biggest estuaries in the world. Sediment from the catchment threatens to overwhelm the snapper nurseries – the horse mussel beds and seagrass meadows.⁷

The discussion document proposes bringing the country's seven coastal lakes and lagoons into the NPS. This is commendable, because meeting the bottom lines for these will be a considerable challenge, particularly in the case of Te Waihora/Lake Ellesmere.

The NPS does not include estuaries because it *"...applies only to freshwater, not coastal waters like estuaries. National direction on management of estuaries is provided in the New Zealand Coastal Policy Statement"*.⁸

The Coastal Policy Statement requires that the water quality in estuaries be maintained and enhanced where *"... it has deteriorated from what would otherwise be its natural condition ... because of discharges associated with human activity"*.⁹

The problem is that the water quality in estuaries is not a consequence of poor coastal management, but of their position at the bottom of catchments where they are receptacles for the contaminants in the inflowing fresh water.

This is recognised in the NPS in the Integrated Management objective. What is missing from the Coastal Policy Statement is a requirement to set limits on contaminants in estuaries, and specify methods and timeframes for achieving them.

The way ahead is to work towards including estuaries in the NPS – after all the water in them is partly fresh water and partly sea water. I acknowledge this will be difficult, but estuaries are too important to let them linger in the 'too hard basket' forever.

- 3. I recommend that the Minister for the Environment directs officials to develop a work programme aimed at the inclusion of estuaries within the NPS.**

A strategic approach to setting objectives and limits

By 2025, regional councils must have 'implemented' the NPS. In the language of the NPS, implementation means only that the different elements of the NPS are incorporated into regional plans.

In many water bodies, delaying action until the NPS has been fully implemented, will lead to water quality falling, making the task of improving it that much harder and more costly. In some cases, water quality could fall below bottom lines, possibly irreversibly.

It is therefore critically important that councils prioritise their water quality efforts so that immediate problems and pressure points are tackled early. Not every water body in the country is in need of management. And where water quality is under pressure, not every attribute is important. Comprehensiveness should not trump effectiveness.

In my 2015 report, I recommended that the NPS be amended to require councils to take a strategic approach to prioritising the setting of objectives and limits, but have yet to see a response.

Developing a set of prioritisation criteria is not a simple exercise. In my view priority should generally be given to water bodies and catchments that are the most precious and particularly vulnerable. This should include catchments that are under increasing pressure.

The Ministry for the Environment intends to review the implementation of the NPS soon. This provides an opportunity to look closely at how regional councils have been prioritising the setting of objectives and limits.

- 4. I recommend that the Minister for the Environment directs officials to develop a draft set of criteria for prioritising the setting of objectives and limits.**

The Freshwater Improvement Fund

In 2014, the Government announced that it would set up a \$100 million fund that would be used to buy and retire areas of farmland next to waterways to improve water quality. In the discussion document, it is proposed that the use of the fund be more flexible. Ten criteria to guide the allocation of this funding are suggested.

Broadening the focus of the Freshwater Improvement Fund makes sense, but its primary purpose must be to improve the quality of our waterways. The funding criteria need to make this very clear. A project should not be funded without a very strong scientific case that it would actually improve water quality.

The Crown has already spent hundreds of millions of dollars on improving water quality. But how cost-effective has this expenditure been? Are there cases where, for instance, money has been spent to stop phosphorus getting into a waterway when the critical nutrient pollutant is nitrogen?

An independent review of the effectiveness and the cost-effectiveness of past expenditure on water quality by the Crown would lay the groundwork for revising the criteria.

The criteria for the allocation of this fund are confusing and unclear. As currently written, it seems that it is to be largely used to supplement the Irrigation Acceleration Fund. The Government can choose to do this, but if this is the intent, it should be made clear.

It also seems that without a clear principle of 'additionality', public money could be used to assist some private businesses to comply with regulations that others must comply with unassisted.

5. I recommend that:

- a. A review of the effectiveness and cost-effectiveness of Crown-funded water quality projects be undertaken, and**
- b. The eligibility criteria for the Freshwater Improvement Fund be substantially revised using the results of this review, incorporating the principle of additionality, and making its purpose absolutely clear.**

Economic use of fresh water

The discussion paper contains proposals aimed at improving the economic use of fresh water.¹⁰ These include:

- Requiring councils to apply technical efficiency standards in catchments where the water has been fully allocated, or nearly so.
- Investigating how existing consents for taking water can be transferred to those who would get greater value out of the water.
- Developing guidance on dealing with over-allocation of water.

There is no mention of water pricing, although pricing is the standard way of dealing with such problems.¹¹ Pricing incentivises technical efficiency, and it enables trading so that water can 'flow' to where it is of most value.

It is not surprising that water pricing is controversial – paying for something which Nature provides freely seems wrong and unfair.

But it makes economic sense to price water in catchments where it is *scarce* (or likely to become so) and it is being used as an *input to production*.

One of the problems is that talking about pricing water can get muddled with talking about the ownership of water.

Another is that paying for water can get muddled with paying for the infrastructure that delivers water. Aucklanders pay a per litre price for water, but what they are actually paying for is not the water *per se*, but the dams, pumps, and pipes that deliver it.

Water pricing is not a subject that I have investigated in any depth. But I do see merit in a system in which the revenue gathered would be spent on improving and protecting our rivers and lakes. After all, overallocation of fresh water concentrates pollutants by reducing river flows and lowering lake levels.

Sooner or later New Zealanders must have a serious discussion about water pricing.

Notes

1. There are, however, some nuances to consider before this regulation is confirmed. First, it should be recognised that the exclusion of livestock will not always require a permanent fence. In some situations, a cliff edge or a portable electric fence may be sufficient to effectively exclude stock. Second, the consultation document is unclear how the regulation will ensure a fence is adequately set back so as to avoid the need to move it back in future in order to create a riparian zone.
2. Parliamentary Commissioner for the Environment, 2015, "*Managing water quality: Examining the 2014 National Policy Statement*".
3. The proposal is actually for 'overall' to apply across a freshwater management unit (FMU). The discussion document has now provided a definition of an FMU – it is "*most commonly a whole catchment*". I find the term 'freshwater management unit' unhelpful, and much prefer Environment Canterbury's term – 'water management zone'.
4. It is unfortunate that the time of year when most people want to swim in lakes and rivers is when water quality is often poor. In summer, water flows are low and thus pollutant concentrations are relatively high. In summer also, sunlight and warmth encourage the growth of slime and potentially toxic cyanobacteria.
5. Waikato River Authority, "*Vision and Strategy for the Waikato River*", Objective k. Note that this document is legally binding – council plans must 'give effect' to it.
6. Radio NZ interview with Bob Penter, 22 March 2016.
7. Morrison, et al., 2009, *A review of land-based effects on coastal fisheries and supporting biodiversity in New Zealand*. NZ Aquatic Environment and Biodiversity Report No. 37. 100p.
8. Ministry for the Environment, 2014, "*Report and recommendations on the proposed amendments to the National Policy Statement for Freshwater Management and public submissions*", p.24.
9. New Zealand Coastal Policy Statement, 2010, Objective 1.
10. This section covers both the allocation of the right to use fresh water and the allocation of the right to contaminate – the first concerned with water quantity and the second concerned with water quality. Bundling discussion of these two together is unnecessary and confusing for the general reader. Part A of the NPS is titled Water Quality and Part B is titled Water Quantity – the same structure should be followed in future discussion papers. My comments in this section are focused on water quantity.
11. The New Zealand Emissions Trading Scheme is based on pricing the right to emit carbon dioxide.