



# Reflections on our water future



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**W**e have been grappling with the issue of water quality for some time with the initial focus on point source discharges.

The issues here, once there was agreement that action was required, were ones of technology availability, how much the actions took and who paid for them. Identifying who was responsible was easy; the ones making use of the pipe.

Now our national focus is directed to diffuse contaminants, transported by overland flows or through groundwater, and often associated with land use. Things in this area are not so simple.

At the same time as this change in focus at policy level, there has also been a change in the expectations at the community or “grass roots” level. Almost all discussions on water quality now show an expectation of water at a much more natural state, where the ability to swim in safe natural water is the bottom line for many.

Again the question as to how to achieve this desired state comes down to technology and cost. But this time ‘technology’ includes land management practices and land use applied over many hundreds (or in some cases thousands) of individual land holdings encompassing entire catchments. The costs too, are

now more spread and the outcomes less known.

While the objectives for water quality – to improve it and provide the community with water bodies that have the values the community wants – are understandable and a positive step, do we currently have the technology to deliver this outcome? Is the path we have taken to achieve the desired outcomes aspirational or one we can realistically follow to the end?

## Why do we care?

Of course we care about water. We care about access to it, about our ability to harness it, to be able to interact with it culturally, recreationally or spiritually, and as an intrinsic part of our environment. As a nation we are lucky to have the access we have to the volume and quality of water we have. Water underpins our environment, our businesses, and our culture.

Having the water resource we have places this country in a wonderful position. It underpins our way of being and our economy. It is a resource we need to treasure and treat with respect to ensure a sustainable future.

Each of us will, however, bring a different perspective to what priorities should be given to water and to the extent to which we should protect or improve its quality. The National Policy

Statement for Freshwater (NPSFM) attempts to recognise this – it provides a mixture of compulsory values for waterways while allowing communities to determine specific values that resonate with them, and then it provides the mechanisms for managing water resources to achieve these values.

So far, so good.

But do we have it under control? Perhaps.

We would all agree on the importance of freshwater to our country and communities, but it seems to us that we are struggling to agree the values to be applied to water bodies and in implementing effective mechanisms to achieve these values.

The values associated with a waterway will be, almost without doubt, a key determinant of the extent to which new technology or behaviour change will be required. The setting of a compulsory primary contact value within the NPSFM sets a high bar. The degree of priority given to different values for freshwater varies across our communities. Achieving consensus on these values will always be difficult as we all see the ‘value’ of water, of what it means to us, through our own lens.

Having determined water body values we turn to the next steps of identifying what needs to change and who will be tasked with making those changes.

Questions of impacts, policy frameworks, resource allocation (to name but three considerations) bring with them the need for a solid basis of information to work from. The call on council science resource to understand and then articulate current water state, what the water quality issues are and where they originate has always been high. This will only increase in the future, especially where a collaborative approach to policy development is taken, given it is often a lay audience, the community, who receives this information.

If this becomes a common trend this will impact on the ability of councils to meet the timelines of the NPSFM.

The NPSFM has moved water management to a limits-based context. When dealing with quantity this has proven (relatively) simple. We can measure volumes, rates, takes – both at a water body and a user level. With quality it is not proving so simple.

Nitrogen (N) loss has been a key focus of limit setting to date. This has been for very practical reasons; as a means of controlling land use intensification and because in some catchments N is a key contributor to sub-standard water quality.

If we are honest though it has also been driven by the fact that there is little else that we can measure (or even model) and link from a water body load back to specific activities on land. Without this ability some leaps of faith are required – a landowner’s modelled N losses from the root zone at point A contribute to the in-river load at point B in such a way.

This may well be the case, but what is the extent of the linkage and is it a similar linkage for other land owners losing N within the catchment? Does the complexity of the spatial and temporal context of N loss mean we should be making such assumptions?

Are we being honest with ourselves about the extent of our ability to connect N losses from the root zone and then to water body loads? Perhaps we are.

Are we trying to convince ourselves that a more ‘accurate’

model makes up for a lack of actual knowledge of the degree of contribution any particular kilo of N has to water quality outcomes? Can we say with much certainty who is using which ‘pipe’ in this situation?

We do know that some land use activities will have a degree of impact on water quality. There is no disagreement on that. So is a better starting point on this journey to improve water quality to ensure the key land use activities identified transition to at least good, if not best practice? We would suggest so. Perhaps we should achieve this in the first instance at least.

This is not to say there are not places where the link of land use to contaminant loads can’t be made clearly, there are. But this isn’t always the case.

So, having determined what we want from our water bodies by way of established values, gathered information and followed a pathway, be it a collaborative or more traditional consultative processes, to determine our framework of action we finally reach implementation.

And the question is – are we being realistic as to how we expect many aspects of these water management frameworks to be implemented?

As a country we only have so many Farm Plan advisors, so many trained nutrient advisors, so many people to fence waterways, plant plants, and monitor activity available to turn these plans into a reality that delivers improved water quality.

Are we expecting and asking that this resource is available everywhere across the country, delivering on all plans at the same time, and that the resource delivers across a range of different implementation systems?

At times it seems we are, with each region now developing their plans in line with the requirements of the NPSFM, but with seemingly little coordination of resources. Do we actually have enough trained people to do the job we expect to be done? Perhaps, but initial indications are that implementation is causing councils serious problems. You can write a plan but making it work in practice is a very different thing.

Are there alternative ways to do things that may help?

It may be time to look at national tools, national approaches and a degree of national prioritisation of where efforts are expended. Perhaps a planned approach to this, led by central government in conjunction with the regional councils, will give greater hope of us achieving the water quality outcomes our communities have decided upon. At the least such an approach should deliver increased efficiency and effectiveness.

This doesn’t mean moving away from communities determining the values for their water bodies, but it may mean, for example, a single national farm plan system, a commonly held and used information system, or common agreement on what good (or best) practice is.

Perhaps we have everything right – perhaps the NPSFM will be delivered through the approaches we are taking now and with the resources we have available.

Or perhaps we should be willing to take a breath every so often and ask whether the path we are on really will take us to our final objective.

Perhaps. But if our water resource is as important to us as we say it is, are we willing to bet our future on a ‘perhaps’? **WNZ**