# Freshwater Management in New Zealand: The world we thought we knew

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# Freshwater management in 2009 and 2010

When we designed the Values, Monitoring and Outcomes research programme in late 2009 and early 2010, freshwater management was in a very different place than it is today. It is easy to forget how quickly things can change.

In 2010, New Zealand was still looking at freshwater management through a largely technocratic lens. We had a proposed National Policy Statement on Freshwater Management and a proposed National Environmental Standard on Ecological Flows and Water Levels.

The focus was on the NPS and NES as documents that were going to provide legal certainty to help address water management issues. The Environment Court was seen as the place to resolve disputes based on legal and technical arguments. We were only getting an early taste of collaborative governance through the early phases of the Land and Water Forum, which did not produce its first report until September 2010, in which it recommended some changes to the NPS recommended by Board of Inquiry (NPS issued in April 2011).

At the regional level, the drawn out process of Environment Waikato's Variation 5 for Lake Taupo was just coming to an end, with an interim decision from the Environment Court in Nov 2008. And Waikato's Variation 6 on water allocation had appeals on every aspect of the plan, and would not be resolved in the Environment Court until 2011.

The Canterbury Water Management Strategy was released in September 2009, and ECan had just started the process of establishing zone committees. Environment Canterbury's elected councillors were sacked in March 2010<sup>1</sup>.

Our research proposal for Values, Monitoring and Outcomes was conceived in 2009 and submitted in April 2010.

We started our research on 1 October 2010. It all seems like a long time ago.

The questions that we were asking in 2010 are in many cases different than what we are asking now, with the benefit of six years of experience and research. I'll give you some examples, as a way of prompting us to reflect on where we've come from and where we are going, so that as you hear about our research today, you will hopefully think not just about its

<sup>&</sup>lt;sup>1</sup> http://www.stuff.co.nz/the-press/news/3526047/ECan-councillors-sacked

direct application to your work, but also what it means more generally about how we manage freshwater in New Zealand, and how we might do it better.

#### Questions of Values

First, with respect to values. In 2010, we were asking 'How do we measure and use values in decision-making?'

From our research, we learned that in complex situations, people construct their values in context. In freshwater planning, values cannot be just measured and put into a model to determine the 'optimal solution' because, in complex situations involving novel policy challenges and competing values, people will form their opinions, and their values, through discussion and deliberation with others. Those making policy need to engage with the public in a way that enables people to share their stories while learning from other people's stories.

So now we are asking, how can we enable to people to share their stories and learn from others, and how do we make decisions based on this? (Figure 1)

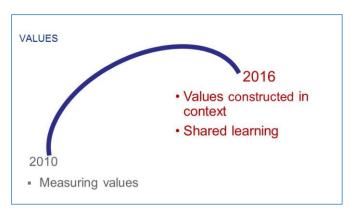


Figure 1. Questions about values in 2010 and 2016

# Collaborative Planning

One way to do that is through collaborative decision-making, which is my second example. In 2010, we weren't focusing on collaborative planning. But after the Land and Water Forum in 2010 strongly endorsed a collaborative approach, suddenly we were all asking how to design and run a good collaborative process, who should be involved and how to choose them, and what are the critical success factors? Collaboration was seen as a transfer of decision-making power to the community, and we tried to design processes that respected that transfer.

Our research highlighted the fact that councils are, among other things, stakeholders themselves, and need to be careful not to tilt the playing field to benefit their interests by, for example, the way that council staff organise meeting agendas, record the minutes or present science.

In the course of our research, however, we have also come to understand that questions of power are not black and white. It isn't necessarily always "good" to give decision-making power to the collaborative group or "bad" for the council to retain it. Councils have legal responsibilities to make decisions taking all matters into account, so they cannot commit in

advance to adopting the recommendations of a collaborative group. They also have to determine the scope of a planning exercise and determine how members of a collaborative group will be selected, and councils have to present the results of their monitoring to inform the collaborative group about current state and trends.

Councils can let collaborative groups set their own agendas and procedural rules, but this can take up a lot of time, especially with larger groups. They could have all science presentations from council staff peer reviewed by other scientists working for various competing interests, but that comes at great expense and is something we are trying to avoid by using a collaborative approach. If all of the science has to be analysed, picked apart and debated by the collaborative group, many members of which do not have technical backgrounds, these processes would take even longer than they do now.

Instead, we generally rely on the integrity of scientists and the trust that they need to establish with the collaborative group. There is an implicit understanding that the scientist needs to be even-handed and as neutral as possible, because if he or she loses the trust of the group, it is likely to affect the confidence the group has in all council staff. Once trust is lost, it is difficult to get it back.

So our understanding of collaboration has changed over the course of our research. It isn't just a matter of empowering a group of stakeholders and tangata whenua to make a decision. Even if that were legally possible, a regional council that sponsors a collaborative process must retain other elements of power.

It isn't possible to turn all the members of a collaborative group into both freshwater scientists and RMA planners, which they would need to be in order to fully understand the finer details of every small decision that implementation of the NPSFM entails. Regional councils still exercise considerable power in collaborative processes, but that power is constrained, and councils have incentives to exercise it responsibly.



Figure 2. Questions about collaborative planning in 2010 and 2016

Now, in 2016, we are asking different questions about collaborative planning (Figure 2). Given the time and resources that have been required, we are asking how collaborative processes can be simplified while still empowering the collaborative group to make the main decisions, without the council inadvertently or otherwise tilting the balance in favour of a particular outcome.

And we are asking deeper questions about how collaborative processes fit with our notions of local democracy, given that not everyone can be represented on the collaborative group and there are proposals to limit appeals to decisions reached through collaborative processes.

- Is collaboration bridging the divide between competing interests, is it strengthening our communities and getting people working together?
- Who is actually making the decisions, how are they being chosen, and who are these people accountable to?

#### Māori involvement

With regard to Māori involvement in freshwater planning, in 2010 we were assisting iwi and hapū to get involved in cultural monitoring and helping councils to understand Māori values. In 2011, the NPS substantially upped the ante, by simultaneously requiring councils to give a greater role to tangata whenua *and* encouraging councils to use *multi*-stakeholder collaborative processes.

In some regions, councils have given tangata whenua formal decision-making roles, e.g. Hawkes Bay RC has a Regional Planning Committee that includes all nine elected councillors and a representative from each of nine Treaty claimant groups, and all RMA decisions must be approved by this committee. Having only recently acquired some decision making power after being denied it for so long, tangata whenua have not been keen to just transfer it to a collaborative stakeholder group. The solution, I believe, is to ensure that tangata whenua are a true partner in establishing the collaborative group, in determining its membership and its terms of reference. If this is the case, they are more likely than otherwise to join the council in giving significant weight to consensus recommendations from a collaborative group.

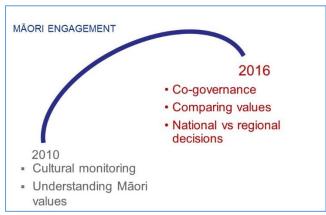


Figure 3. Questions about Māori engagement in 2010 and 2016

Some difficult questions remain (Figure 3), especially if councils do not use collaborative processes in which Māori can speak to their own values and negotiate for themselves a consensus outcome on how to accommodate Māori rights and interests alongside those of others.

- If we revert to more legalistic processes, how will these decisions be made?
- Regarding water allocation for iwi and hapū, what decisions should be made by central government and what decisions left to regional councils?
- How can Māori be involved in decisions at both levels?

# Monitoring

The landscape for monitoring has also changed. In 2010, we were asking 'Is there a statistically significant trend in the data?' and 'How can we improve the reliability and consistency of monitoring?'

VMO research is now changing the way councils interpret data. P-values and significance testing are on their way out, and detection of time trends is in. Rather than asking whether there is a statistically significant trend in the data, we are now asking whether we have enough data to detect the trend that is almost certainly there, and whether that trend is of policy significance.

This highlights the need for sufficient data to detect trends before further intensification of land use makes it very difficult to reverse a declining trend. The requirements of the NPS to set limits for every water body in the country have further increased the expectations about what and where councils should be monitoring.

And so our research has been exploring whether community monitoring can help to fill this gap. We are now asking (Figure 4) –

- Which parameters can be reliably measured by community volunteers?
- How can community volunteers be trained and supported by councils?
- Will the involvement of volunteers in monitoring improve the level of community engagement in freshwater planning processes?
- Are there synergies between community monitoring and collaborative planning?

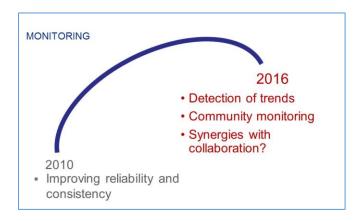


Figure 4. Questions about freshwater monitoring in 2010 and 2016.

#### Adaptive management

This leads me to another theme, that of Outcomes. In 2010 we were asking how best to evaluate the effectiveness of policies and plans and then revise them to improve policy performance.

That question remains as important as ever, and if anything is reinforced by the NPSFM, which is designed to drive outcome-based limits on water use and contaminants. However,



Figure 5. Questions about outcomes and adaptive management in 2010 and 2016

some councils are reluctant to impose hard limits on individual properties when they are not confident about where to set limits to achieve certain outcomes. In this case, councils need to have robust monitoring programmes to ascertain whether land management practices are moving freshwater outcomes in the desired direction, with clear provisions for what land managers must do if this is not the case.

# So now we are asking (Figure 5) -

- How should we monitor for values and outcomes, not just biophysical attributes?
- How can tangata whenua, land managers and other stakeholders participate in monitoring the effectiveness of our freshwater plans?
- How do we design plan provisions, and corresponding monitoring programmes, that achieve adaptive management?

# Beyond collaboration

As councils become more cautious about when they embark on collaborative planning and, in some cases, revert to other consultation methods, questions about values may prove even more challenging.

In a collaborative planning process, the members of the group are expected to represent the diverse values and interests of the community and to implicitly balance these as they negotiate and seek a consensus solutions package.

If councils revert to more consultative processes, then planners, councillors and hearing commissioners will have to decide what is significant and deserves more weight than something else. I don't think this is any easier now than it was in 2010, although at least we have a greater appreciation that values are complex and need to be approached carefully and with a range of methods.

# So now we ask (Figure 6) -

- Can values be assessed objectively by an analyst or decision maker without introducing bias?
- If not, how do we give voice to people who hold diverse values?
- Should hearing commissioners, elected councillors or the Environment Court decide how to balance competing values and interests?
- In other words, how do we want to practice local democracy on freshwater management?

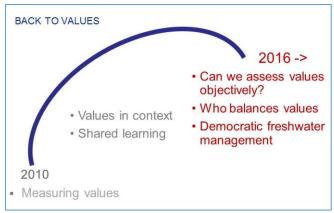


Figure 6. More questions about values, 2016 and beyond

# Conclusion

The world of freshwater management will keep changing, and as we learn more, new questions will emerge. In some cases, these will eclipse the old questions, whose answers might no longer be very helpful.

So as you listen to the presentations today, I encourage you to ask yourself:

- Are things really what they seem to be?
- What assumptions are we making that might not be valid?
- What does this all mean for the future?

We have learned much about how people construct and negotiate values, about the challenges of collaborative planning, about the aspirations of Maori for co-governance of water as a taonga, and the potential to monitor more waterways more often with community groups.

Through this research programme, we've had a special opportunity to work with regional councils, iwi and stakeholders and ask these questions about the implementation of the NPS for Freshwater Management.

VMO is ending, but we need to keep asking ourselves, how can we do freshwater management through local democracy better so that have stronger communities that are working together to achieve better outcomes for New Zealand's waterways?