

Freshwater - Fresh Thinking

Enhancing impact assessment in water management



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Collaborative freshwater management: The challenge of a new paradigm

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As New Zealand embarks on a new way of doing freshwater planning, it is important to consider the forces driving this change and some of the fundamental ideas about knowledge and democratic institutions that are being redefined along the way. Understanding these changes will help us to identify some of the challenges we must address to realise the potential of collaborative processes.

Global pressure on resources and institutions

We now share this planet with seven billion people, and global markets enable consumers in China, India, North America, Europe and Africa to buy food and other products from New Zealand.

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This growing demand puts pressure on land, water, air and biodiversity in New Zealand as businesses respond to global markets. Resources in New Zealand become increasingly scarce, and that means that one person's use of a water body increasingly impacts on other people and their ability to enjoy that same water body.

Meanwhile, more New Zealanders are expressing their concerns about the environment. In a 2010 survey of New Zealanders, water pollution and water related issues were rated as the most important environmental issue facing New Zealand (Hughey et al. 2010).

Our existing institutions, by which we mean not so much organisations as laws and other ways of resolving conflict, were mostly designed – and have evolved – in times of relatively abundant resources. These institutions, and in particular our collective practice in how we use them, have proven to be insufficient to deal with increasing scarcity of water, not just water quantity but also water quality.

A call upon values

After more than 10 years of reports and policy papers to successive governments on how to fill this institutional need, the National Policy Statement – Freshwater Management (NPSFM) was released in May 2011 (New Zealand Government 2011). The NPSFM directs councils to set limits for water allocation and water quality. Overall water quality within a region must be maintained or improved, and over-allocation must be remedied. Over-allocation means that community goals set out in a regional plan are not met and water quantity limits have been exceeded.

The NPSFM says that limits are to be set regionally, based on values. The terms 'value', 'values' and other variants occur 24 times in the NPSFM. There is a list of "important national values" of freshwater, but no indication how catchment-level values are to be identified, assessed or balanced to arrive at limits. This is left up to regional decision-making processes.

There are some bottom lines, however. The RMA provides broad guidance e.g. in section 5 ("safe-guarding the life-supporting capacity of air, water, soil and ecosystems") and sections 70 and 107 prohibit certain adverse effects on water quality. The NPSFM itself requires that there be no overall decline in water quality within a region, and last week the Minister for the Environment released proposals to amend the NPS to establish a National Objectives Framework to set bottom lines for human and ecosystem health.

But, assuming that the implementation of the NPS is not just about setting limits at these bottom lines, communities will need to identify, assess and balance values to reach decisions on where the limits should be. How is this to be done?

The paradigm of "scientific management"

Over the last two decades or more, at least since enactment of the RMA, resource management in New Zealand has been operating under the paradigm of what has been called “scientific management”. This paradigm suggests that through use of science and experts, we can compile enough evidence about ecosystems to determine the ‘correct’ or even ‘best’ objectives for each freshwater body (Brunner & Steelman 2005). In recent years, we have added values to this equation. Those operating under the scientific management paradigm assumed that this was just another scientific challenge, to identify, measure and balance values so experts can determine the ‘right’ management objectives and approaches.

This paradigm has led, for example, to attempts to define objectively “Water Bodies of National Importance” (Chadderton et al. 2004) and also to a method (RiVAS) to assess significance of rivers for a range of uses and values (Hughey & Baker 2010).

But research over last decade has made it increasingly clear that value and values are often constructed in context. That is, how people value something depends on when, how and by whom the question is asked.

If I ask you, “What is the value of this lake, river, wetland?”, before you answer, you are likely to want to know, “Value to whom? For what? And why do you want to know?” And further, “How will you use my answer?” This is not necessarily because people are being strategic in their answers, e.g. trying to influence a study with policy implications, although they might be. More generally, people look for context because they actually need it to define meaning.

The key point here is that value is not always objective and cannot necessarily be determined or measured by experts in ways that are immune from contest in places like council hearings or the Environment Court.

As an example, our case study in Tasman District in 2012 showed that it is not possible to separate the documentation of values from how those values will be prioritised and given effect to in a regional plan (Sinner & Tadaki 2013). That is, we cannot describe or measure values without reference to how that description or measurement will be used. Categorisation and measurement of values involve framing and value judgments.

A new paradigm

So we have a shift occurring from a scientific management paradigm to a paradigm of deliberative democracy to address complex problems. In this new paradigm, there is no ‘right answer’ or optimal solution. Science can help to explain how things work, but not what is ‘best’. Rather than seeing resource management issues as ‘problems to be solved or optimised,’ we see them as complex systems and ‘situations to be improved’.

This paradigm shift has been influenced by Jurgen Habermas, one of foremost philosophers of 20th century. Habermas argued that human interaction and social life require agreed meanings to enable coordinated action, e.g. to agree on policy for freshwater management, through a process he called “communicative reason”. Knowledge, Habermas argued, can only be determined based on what people can agree on in “authentic (open and balanced) dialogue” (Flyvbjerg 1998, Innes & Booher 2010).

The validity of an argument, and knowledge more generally, is defined as consensus reached without the influence of power —

“all concerned in principle take part freely and equally, in a cooperative search for truth, where nothing coerces anyone except the force of the better argument” (Habermas, quoted in Flyvbjerg 1998, p 213).

This applies to science and what we accept as facts and knowledge as much as it applies to values. Elected politicians cannot perform this dialogue on behalf of their constituents — people have to speak for themselves, to test their arguments against those of others.

When this authentic dialogue occurs, we can get a basis for collective action. In other words, we can get agreement on how a community will address a challenge such as how much water to allocate for abstraction and how to manage land use to protect water quality, aquatic ecosystems and *mauri* (a Māori concept: life principle, special nature, a material symbol of a life principle, source of emotions).

New Zealand’s experiment in collaborative planning

Collaborative planning is an experiment in deliberative democracy, a different way of practising democracy at a local level based on the Habermasian notion of authentic dialogue (Innes & Booher 2010).

New Zealand is trying collaborative management because there is dissatisfaction with the current way of doing things and the associated outcomes. Councils have not set limits or made plans to achieve them (especially for water quality) and a range of stakeholders are not comfortable leaving those decisions with elected politicians.

The Land and Water Forum recommended collaborative planning to the Government as a new way to set catchment-level limits. This followed research conducted by Guy Salmon and others based on experiences with collaborative governance in Nordic countries (Salmon et al. 2008).

The Government has accepted this proposition and has proposed to recognise collaborative processes for freshwater management more formally via amendments to the RMA (Ministry for the Environment 2013).

Collaborative planning is much more than consultation; it is delegating decision-making to a group of stakeholders. It requires people to listen to each other and learn to appreciate other values and ways of seeing the world. The central idea of collaborative planning is the Habermasian notion of exploring and constructing values in context to build a vision of the future that everyone can live with, and a consensus on the plan for heading there.

If all parties are fully involved and can reach consensus, then the sponsoring agency, e.g. a regional council, can adopt the consensus agreement without political risk. Conversely, a council decision that deviates from the consensus would be seen as a breach of trust.

Collaborative planning is therefore a way to negotiate a plan of collective action, while recognising that people may have different values and different ways of understanding the world.

That is the theory of collaboration. However, Michel Foucault, another 20th century philosopher, argued that Habermas' ideal conditions are never satisfied, because politics is always distorted by power (Flyvbjerg 1998). Therein lies the fundamental challenge facing New Zealand's venture into collaborative freshwater management. How can we construct dialogue to develop a shared understanding amongst all interested parties, while minimising power imbalances that could lead to outcomes that are not trusted and supported by the wider community?

Sources of uneven power

To address this challenge, the first step to identify and acknowledge how power imbalances can arise. One of the most obvious is that it is not possible to have everyone in the room — there will be individuals, organisations and discourses that are proportionally under-represented or are not represented at all. It is possible that collaborative planning processes could actually decrease opportunities for public participation, especially if they are linked to restrictions of appeal rights.

Another potential source of uneven power is where sponsoring councils are aligned with politically powerful groups. This is most likely to happen where agency management and elected representatives predominantly share the world view of those politically powerful groups. Council staff that organise and direct a collaborative planning process can influence who gets included in a stakeholder group, meeting agendas and how agreements are recorded and translated into policy outcomes, to name just a few examples of how councils can influence these processes.

A third way in which power imbalances might develop is around a well-recognised human trait, which is 'group think'. Studies have shown that a person who has correct factual information about a situation will often not volunteer that information in a group setting if everyone else is united in offering alternative but inaccurate information (Mauboussin 2009). It takes brave people to resist group think and, in a

collaborative planning process, it takes good facilitation to ensure individual viewpoints are heard.

Fourthly, power imbalance can arise around the presentation and use of science. In the current planning process under RMA Schedule 1, submitters engage their technical experts to conference with the technical experts of councils at pre-hearing meetings, and to present information at hearings. This conferencing and questioning at hearings allows for a rigorous, robust debate of the scientific facts, in other words the evidence base for decisions.

Under a collaborative planning process, scientific analysis is likely to be provided by the sponsoring council. We are not aware of any non-council participants engaging scientists to provide technical information for a collaborative planning process in New Zealand up to this point. There may be examples where this has occurred, but council-provided science appears to be the norm. This means that scientific debate between the technical experts is not likely to happen until a plan change is notified i.e. after the collaborative consensus decisions have been determined. Considering alternative science arguments at this stage, assuming the mechanism will still exist for this to happen after the RMA is amended, would seem to be both inefficient and ineffective in terms of process outcomes. Indeed, it undermines the entire collaborative process. So ways are needed to provide opportunities to test scientific analysis during the collaborative dialogue process.

Not business as usual

Enabling constructive, authentic dialogue through collaborative planning process is likely to require a shift in mind-set for council staff and elected representatives. There will need to be recognition that making decisions is not the only way to lead, i.e. you can be a leader or sponsor of a process but allow others in the process to make the decisions. This is another paradigm shift for regional councils: giving up some of the control of planning processes and empowering people who have not traditionally had decision-making power. Some councils will be more comfortable with this than others, depending on their internal culture.

So will councils embrace the collaborative planning model? Factors that might contribute to reluctance include uncertainty of outcomes and the fear of losing control of the process. What if the participants in the process agree on recommendations that the council is not comfortable with?

Councils might also be reluctant because of perceived cost and time requirements. At this stage there is little comparative data on the cost and time required for collaborative planning vs. traditional planning processes. Proponents argue that it will cost less in the long run, or will produce more durable outcomes, but the costs might be 'front-loaded' without an assurance that savings will occur later.

Some stakeholders have been reluctant to embrace collaborative management, with one describing it as “a surrogate for compromise”, “an insidious slippery slope that is fundamentally destructive of our interests” (Johnson 2013). While participants are unlikely to achieve everything they might like in a collaborative process, the more relevant question is whether they can get a better outcome, in both the short and long term, than if they had pursued a more adversarial approach.

There is the possibility that, through power imbalances and group think, environmental outcomes after collaboration could be worse than under the current planning process, if the values of participants are tilted towards jobs and development. The converse also is true (of course); economic and social outcomes could be worse if the values of participants are tilted towards the environment.

Another challenge with collaborative planning processes is that freshwater management is essentially a wicked problem, that is, there are dozens of interrelated complex issues to address. It is difficult for a room full of people, each with their respective viewpoints and interests, to stay within the pre-defined scope of the process. This is a boundary problem, i.e. what's in and what isn't? Define the problem too broadly and the complexity will overwhelm the process. Define it too narrowly and stakeholders will be disempowered and the options will be too limited for diverse stakeholders to construct an outcome that has something for everyone.

Finally, there is still no clear guidance on how to actually 'do' collaborative planning. Without adequate design, failures are likely to occur. There may be situations where recommendations cannot be agreed upon, and some processes may 'blow apart', creating as much or more controversy as existed before a collaborative process began. The possibility of failure is risky for politicians, who are generally conservative and mindful of election cycles.

Conclusions

Having considered some of the ways that power can impact on constructive dialogue and some of the challenges of collaborative management, it becomes clear that design is all-important to achieve successful outcomes.

The promise and the potential for constructive dialogue to deliver freshwater management that is trusted and supported by the communities is most likely to be realised if the following criteria are met:

- The sponsoring council is fully committed to the process and the process is well-resourced.
- The roles of participants, including those of the council are well understood.
- The scope of the process is well-defined.
- Participants are recruited carefully in order to engage a diverse range of views.

- Skilled facilitation ensures that all perspectives get a fair hearing and that scientific analysis and other forms of information are tested.

As for the practice of impact assessment, there are some further implications:

- Those conducting impact assessments should be conscious of power imbalances and the potential for these to influence how assessments are done and how they are used. How can expert analysis be made accessible to lay people, including those not around the table? How can we ensure that it is not just the powerful that determine the questions and the methods?
- What to assess and how to assess it should be determined together with those involved in a collaborative process, rather than pre-determined by the council or an outside expert.
- Categories, indicators and assessment methods do 'policy work' and are not value neutral. They privilege one way of understanding a situation over other ways. For example, if we assess a river for 'whitewater kayaking' rather than for 'boating' we will engender different meanings and different results (Tadaki and Sinner, in press). Reporting impacts on Gross Domestic Product (GDP) will give rise to different conversations than reporting the change in the number of jobs.
- Information is power, and there is also power in choosing the categories of information. While this cannot be avoided, it needs to be recognised and care taken in the choice of categories, indicators and assessment methods. Again, this should be done with stakeholders, not separately by the council or an outside expert.
- For assessments that involve responses from human participants, the answers they provide to questions depend not only on how the questions are asked, but who is asking and how the respondent thinks the information will be used. To take this further, there are many ways to contribute information – should we require people to answer someone else's questions, or can we provide other ways for people to communicate their knowledge, values and opinions?
- Assessments and evidence provided to a collaborative process should be tested during that process rather than at a later hearing, because if it is found to be inaccurate or incomplete, a consensus can come unstuck.
- The impact assessor's job is to inform the discussion, to provide the best science about how A is related to B, and to challenge others' assumptions, intuitions and group think with evidence as a means of promoting a better understanding of a social-ecological system.
- In doing so, the impact assessor needs to be open to the views of people who see the world differently, and to engage in authentic dialogue with them. In doing so, external experts might realise and articulate some of their own assumptions and values and how these have shaped their thinking. This raises the further question of who is in fact the expert, and the need to

recognise local knowledge as equally legitimate in getting a fuller understanding a complex system.

- The task of impact assessment should also include consideration of how stakeholders can be involved in monitoring the things they care about, e.g. including the impacts of a new development, and how this can be constructed to enable adaptive management with active involvement of stakeholders.

In a collaborative process, the external “expert” does not have the last word. What matters is not what an external expert considers to be correct or true, but rather how the stakeholders agree to understand how something works, and how they will work together to monitor and achieve their desired outcomes over time.

References

- Brunner, R.D., Steelman, T.A., 2005. Beyond scientific management. In R. D. Brunner, T. A. Steelman, L. Coe-Juell, C. M. Cromley, C. M. EdwardsD. W. Tucker (Eds.), *Adaptive Governance: Integrating science, policy and decision making*. New York: Columbia University Press.
- Chadderton, W.L., Brown, D.J., Stephens, R.T., 2004. Identifying freshwater ecosystems of national importance for biodiversity: Criteria, methods, and candidate list of nationally important rivers. Discussion document. Wellington: Department of Conservation.
- Flyvbjerg, B., 1998. Habermas and Foucault: thinkers for civil society? *British Journal of Sociology*, 49(2), 210-233.
- Hughey, K.F.D., Baker, M.A. (Eds.). 2010. *The River Values Assessment System: Volume 1: Overview of the Method, Guidelines for Use and Application to Recreational Values*. LEaP Report No.24A: Lincoln University, New Zealand.
- Hughey, K.F.D., Kerr, G., Cullen, R., 2010. *Public perceptions of New Zealand's environment: 2010*. Christchurch: EOS Ecology.
- Innes, J.E., Booher, D.E., 2010. *Planning with Complexity: An introduction to collaborative rationality for public policy*. London and New York: Routledge.
- Johnson B., 2013. Chief Executive's Comment: An insidious slippery slope. Fish & Game New Zealand: 6-7.
- Mauboussin, M.J., 2009. *Think Twice: Harnessing the Power of Counterintuition*. Boston: Harvard Business School Press.
- Ministry for the Environment. 2013. *Freshwater reform 2013 and beyond*.
- New Zealand Government. 2011. National Policy Statement on Freshwater Management. www.mfe.govt.nz/rma/central/nps/freshwater-management.html. Accessed 20 December 2012.
- Salmon, G., Zilliacus, K., Scherzer, J., Barlund, H.-M., 2008. *Collaborative governance on environmental policies affecting rural landowners: comparing Nordic and New Zealand practices*. Paper presented at the Yale University/UNITAR Conference on Environmental Governance.
- Sinner, J., Tadaki, M.Y., 2013. *Understanding Conflict over Freshwater Values in a Regional Plan*. Policy Brief. Manaaki Whenua Landcare Research. http://www.landcareresearch.co.nz/data/assets/pdf_file/0006/64842/freshwater_values_policy_brief.pdf
- Tadaki MY, Sinner J (in press). Measure, model, optimise: understanding reductionist concepts of value in freshwater governance. *Geoforum*.