

## **BARRIERS TO LOCAL GOVERNMENT IMPLEMENTATION OF FRESHWATER POLICY IN AOTEAROA NEW ZEALAND**

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### **Abstract**

New Zealanders have expressed growing concern about the quality of freshwater resources over the last two decades. In response, New Zealand's government has issued new policy, such as the National Policy Statement for Freshwater Management, which instructs regional councils and unitary authorities to set enforceable water quality and quantity limits for freshwater bodies. This manuscript examines the barriers local governments face in implementing new freshwater policy.

Six regional councils and four unitary authorities were interviewed on their experiences implementing freshwater policy. Following a thematic analysis, the authors identified four overarching barriers to freshwater policy implementation identified in these conversations: difficulty aligning local policy with national policy, a lack of local government and community capacity, mismatch between local issues and national priorities, as well as some barriers specific to unitary authorities. The manuscript concludes with recommendations on how to overcome these barriers.

### **Introduction**

New Zealanders are concerned with the quality of freshwater resources. A recent survey of New Zealanders perception of the environment found that rivers and lakes are perceived as being in worse condition when compared with other natural resources such as marine fisheries, soils, and air quality (Hughey *et al.* 2020, p.10). Given these concerns, it is not surprising that over the past decade the New Zealand government has issued several policy responses to address the issue.

One policy response is the publication of the National Policy Statement for Freshwater Management (NPSFM). The NPSFM was first published in 2011 and was subsequently updated in 2014 and 2017. This document instructs local governments to set enforceable water quantity and quality limits for all freshwater bodies by 2025.

Another policy response has been to adopt collaborative processes to inform freshwater planning and policy (Cradock-Henry *et al.* 2017; Brower, 2016; Harmsworth *et al.* 2015). These collaborations were so popular the government amended the Resource Management Act in 2017 to enable Councils to use collaborative processes to bypass Environment Court appeals (MfE 2017a). Over the past decade, a variety of national, regional, catchment and sub-catchment scaled collaborations have been established in New Zealand. Other innovative policy responses include the use of audited self-management of resource consent conditions (Holley, 2015), managed aquifer recharge (Painter, 2018), as well as the use of nutrient modelling to predict diffuse pollution at farm-to-catchment scale (PCE, 2018).

There has been no shortage of innovation in freshwater policy development in New Zealand, however concerns about the quality of New Zealand's freshwater show no signs of slowing. One explanation for this is poor policy implementation. This explanation is supported by the Land and Water Forum (LAWF) who argued that implementation of the NPSFM has "been slow, patchy and insufficiently coordinated" (LAWF, 2017: 5), with the Ministry for the Environment also highlighting policy implementation challenges in their regional reviews of the NPSFM (MfE 2017b; 2017c).

New Zealand's experience aligns with international research findings which conclude that innovative freshwater policy development does not result in similar innovation in freshwater policy implementation (Mitchell, 2011; Bracken and Oughton, 2013; Rouillard et al., 2015; Barbosa et al., 2016; Kirschke et al., 2017). As a result, many of the goals and outcomes envisaged by new policy remain unfulfilled. This research project examines in greater depth the gap between policy development and policy implementation in the context of New Zealand's freshwater management.

Our guiding research question asks: '*what are the barriers to freshwater policy implementation in New Zealand?*' This is an exploratory paper with two aims: to explain why there has not been the innovation in policy implementation that we have seen in policy development, by referring to the barriers identified in this paper; and to provide recommendations on how to overcome these barriers in the New Zealand policy context.

## **Methods**

Data were collected for this research through ten semi-structured interviews with local government representatives in New Zealand. Nineteen staff were interviewed with one organization choosing to respond through a written response rather than an interview. Interviewees were selected through a mix of key informant sampling (Marshall, 1996; Young et al., 2018) and snowball invitations. We first targeted regional council and unitary authority employees that had extensive knowledge and responsibility for freshwater policy implementation, and then we asked these people who suitable interviewees would be.

We coded the interview data using thematic analysis techniques outlined by Braun and Clarke (2006). Themes were identified by the researchers using a mixed inductive and deductive approach developed by Fereday and Muir-Cochrane (2006). This mixed approach allowed us to identify themes that we recognised from literature on policy implementation as well as from the interview data itself. In the initial code book, we included both theory-driven and data-driven codes (DeCuir-Gunby et al 2011). All interviewees were audio recorded and then the interviews were transcribed by the lead researcher. NVivo 11 qualitative data analysis software was used in lieu of physical coding.

This research received social ethics approval through Manaaki Whenua Landcare Research's internal social ethics process (application 1819/13). For all direct quotes, we have removed any details that could identify the specific local government or employee interviewed. The regional councils that participated in our research were the Canterbury Regional Council, Greater Wellington Regional Council, Hawke's Bay Regional Council, Northland Regional Council,

Southland Regional Council, and the Taranaki Regional Council. The unitary authorities that participated in this research were the Auckland Council, Gisborne District Council, Nelson City Council, and the Tasman District Council.

## **Results**

Four broad themes were identified by our thematic analysis as barriers to freshwater policy implementation in New Zealand. These themes include alignment with national policy, local government and community capacity, mismatch between local issues and national priorities, as well as differences between regional councils and unitary authorities. We will explore each of these themes separately.

### *Theme 1 – Alignment with national policy*

Earlier we noted the publication of the NPSFM and how this document instructs local governments to set enforceable water quantity and quality limits. Many of our interviewees reported difficulty aligning this policy – developed by central government – with policy developed within local governments. This can be split into two different sub-themes: difficulty aligning local plans and policy with the NPSFM, and difficulty aligning local plans and policy with the NPSFM and other national policies simultaneously.

In regard to the first sub-theme, the below quotes illustrate how our interviewees struggled to align their local plans to new amendments of the NPSFM.

The challenge we have faced is ... the National Policy Statement for Freshwater management has changed on a regular basis. So, our current [plan is] based on the 2014 NPS, but of course now we have the 2017 version and the 2019 version as well. So, there has been some shifting of the goal posts which has proved challenging for us, especially when playing catch up. (RC4)

Additional changes to the National Policy Statement might actually create a few speed bumps there. (UA4)

Constant changes to the NPSFM are really hard to incorporate quickly. (UA2)

... one of my takeaways is the constantly shifting national space which causes me grief in terms of delivery because we are moving the goalposts every time, and certainly our public seem to be clamoring for certainty – ‘we will do whatever you ask us’... (RC6)

Local governments are struggling to give their constituents certainty regarding long-term policy due to regular amendments of the NPSFM. This can undermine future policy implementation efforts if constituents become cynical that local policy will become obsolete due to changing national policy. Also, the time and money needed by local governments to update plans should not be underestimated. As one interviewee stated:

The only way we can now address those subsequent amendments [to the NPSFM] is through a Plan Change, and that is nearly as time consuming as writing another plan. It will not require us to do a full plan exercise, but we’ve got to write it, we’ve got to produce all

the justifying documents, we'll obviously have to have pre-consultation, we'll then have to notify it for submissions, have a submissions process, submissions hearings, decisions, appeals. We are still dealing with appeals on the plan we notified in 2015, so it just gives you an idea of how long the RMA process is. (UA2)

The second sub-theme was identified when participants articulated their responsibilities for implementing policy beyond freshwater management. Central government issue several different national environmental standards and national policy statements which local governments must then incorporate into their plans and policies. This is a barrier because local governments are unsure what policies to prioritise, especially if these different policies conflict with each other. This barrier was articulated by several interviewees.

... most other regions as far as the NPSFM goes, they don't have an enormous amount of conflicting high-level policy guidance to implement ... [By contrast] we have the NPS for [urban] development [and] the NPS for freshwater management. We've looked at both and know that these high-level documents do not sit well with each other, and we are one of a handful of authorities that have to figure out the misalignments and the frictions and barriers that they create to the other's implementation. (UA1)

At the moment we are just talking about freshwater management, but when we start talking about an ETS [Emissions Trading Scheme], biodiversity policy, and all that sort of stuff, it will become more relevant what's happening at the local [scale] because you will be trading off. Is this person better off meeting their nitrogen requirements or protecting their bit of bush at the back of the farm? (RC2)

... we are going to be forced to make a decision unless we are given direction from central government about what the priorities are. We can't do everything so we're going to have to make a call about what we prioritise: do we prioritise freshwater over planning standards, or do we prioritise planning standards over biodiversity, for arguments sake? Part of what we're doing in trying to integrate the freshwater NPS is juggling all those other things as well – trying to work out what are all the priorities. (UA4)

These quotes illustrate that overlapping national priorities results in confusion around local priorities. Local governments are forced to ask what is the most important issues to their community, for example, hazards associated with climate change, biodiversity loss, or freshwater quality issues? Local governments must then do their best to implement policy given their decision to prioritise some issues as more pressing or critical than others.

### *Theme 2 – Local government and community capacity*

One of the themes identified from our interviews was a lack of local government and community capacity to implement freshwater policy. This has been split into three different sub-themes: local government resourcing, local government staffing, and community expertise. In regard to resourcing one interviewee decried:

“Our huge barrier is money. Our problems are greater than our community’s ability to pay, which means we have to prioritise and don’t achieve as much as we would like in the timeframes we would like” (UA2).

Local governments struggle because they have not been able to convince their constituents that a rates rise is justified, whether it be to help implement freshwater policy or for other tasks. For example, one interviewee stated:

“Whenever we talk to the community about water quality, they say ‘we want the best water quality’ and then you tell them how much it is going to cost, they go ‘ok there are different views on that now’” (UA1).

The unwillingness of local communities to pay more for freshwater policy implementation results in conversations around trade-offs. These trade-offs can be affected by physical geography as much as monetary constraints. For example, the challenges of riparian fencing will be different on the Canterbury plains than it is in the hill country of the Hawke’s Bay than it is in the urban environments of Wellington and Auckland. For some local governments, their unique physical and economic geography makes the task of policy implementation more expensive than in other parts of New Zealand:

If you want to fence a stream on the flats – a river – it costs pretty much \$1 a metre to put a fence up. But if you want to do that in the hill country, somewhere close to [a township], you’re paying \$14–18 a metre. If you want to do it up the Coast, where there aren’t many fencing contractors and it’s in the middle of nowhere, you’re going to be paying somewhere around \$26 a metre. So, the costs are really high because of the environment – we’ve got to address water quality issues because it’s all hill country. And then there’s the question if the fence will be there next year because all the hills are falling down (UA2).

The next sub-theme identified was staffing constraints. Some of the local governments interviewed were so small the tasks of planning, monitoring, policy implementation, and compliance were all done by two or three employees:

“We are a small council – we have one water quality scientist and one water quantity scientist. And that’s it” (UA3);

“[Named employee] is pretty much the freshwater team. So that kind of puts it into perspective in comparison to other bigger councils” (UA4).

Number of staff is a constraint, but so is the number of appropriate people who have the right knowledge to implement freshwater policy:

... even if we had the money who do we employ? If you multiply our money ten times we couldn’t get ten times the amount of people to do the job anyway ... the lag in developing the human capability around what we need to get the job done is a real issue. (RC2)

The third sub-theme identified was community capacity. Our interviewees noted that in remote parts of the country it is difficult to implement freshwater policy because there is a lack of expertise which can be accessed through universities, consultants, and research institutes. Māori

communities also struggle to participate in freshwater policy processes, even if they are actively encouraged and invited to participate by local governments. As one interviewee stated:

I think one of the issues for us, particularly in a post-settlement environment, is our engagement with iwi. There is no lack of willingness or intention on our part, but the issue is capacity within iwi. We have eight iwi in [the region] ... But they are stretched always and so it's very demanding on them when we want to interact with them on some of the planning issues. (UA4)

### *Theme 3 – Mismatch between local issues and national priorities*

The third theme identified during our interviews was a mismatch between local and national priorities. National policies, such as the NPSM, set national priorities and bottom-line for freshwater use and quality. However, local government interviewees perceived these as a barrier for freshwater policy implementation when they are not relevant in the local context.

A simple one-size-fits-all approach to national direction on water quality management has created problems and extra cost for the Council and the community with no added benefit. (RC3)

What we are saying is just that every part of the country is different, and while I totally get and support having national standards and national level things, there needs to be sufficient flexibility to recognize that different areas are different. (UA2)

Some local governments also argue that the national policy conversation around the effects of intensive farming on rural freshwater quality are irrelevant in their region.

... the national conversation about water quality, and the problems of water quality, are largely irrelevant here. And that's because we don't have dairy farming in any significant degree. So I think that has made it harder for us in working with, not just community but industry, to recognize that just because we don't have dairy farms ... [doesn't mean] we don't have our own issues to deal with. (UA2)

Other interviewees added that:

Water quality issues are not the same everywhere and a more regionally based approach would avoid redundancy in regulatory responses. (RC3)

There's been no attribute in the current National Policy Statement for sediment, i.e. turbidity, visual clarity, deposited sediment etc. And that's where the community and council consider accelerated erosion and sedimentation as a big water quality issue in [our region]. (RC1)

There are also competing national and local priorities over what water bodies should be monitored. The *Environment Aotearoa 2015* report argued there was a bias towards "monitoring sites in poor ecological condition" and suggested measuring more waterbodies with comparatively good ecological condition to compensate (MfE and Stats NZ, 2015: 112). However, local governments

are driven to monitor the poorest-quality waterbodies to ensure they are not a health risk to their constituents.

#### *Theme 4 – Differences between regional councils and unitary authorities*

An unexpected theme which was identified in our research interviews was differences in capacity to implement freshwater policy between regional councils and unitary authorities. There are three types of local government in New Zealand: territorial authorities, regional councils, and unitary authorities. Territorial authorities are responsible for local infrastructure and district planning, whereas regional councils are responsible for managing the effects of resource use. Unitary authorities are amalgams of territorial authorities and regional councils in which they have both responsibility for managing resources use and local infrastructure (Cheyne, 2015).

In one interview the question of whether being a unitary authority helped or hindered policy implementation was asked, to which the employee responded:

I think it hinders it. Because, in the end the most important thing to councilors is the roads, pretty much. Maybe number two is the wastewater. Unitary councils I think, particularly when you don't have much money, get driven by infrastructure. So, your district council eats your regional council. We've given it a pretty good go to implement the NPSFM, and we've tried really hard to do our best to be a good regional council, but when the ratepayers are facing these massive rates increases just to pay for roads and waste water, there is nothing left for great non-regulatory incentives" (UA2).

Although many of the issues identified by unitary authorities could equally be issues for regional councils – such as a lack of resources, or a focus on capital expenditure over operational expenditure – it is important to note that the interviewees themselves perceived a difference. This is a topic for future research.

#### **Discussion and recommendations**

The paper was prompted by the observation that innovative freshwater policy is often not matched by innovative freshwater policy implementation. This is a global trend which we investigated in the New Zealand context. What we discovered through our thematic analysis was a freshwater policy system which is burdened by the need to incorporate new national policies and standards while simultaneously identifying and responding to new environmental issues. Subsequently, there is neither enough resources nor staffing capacity to implement freshwater policy.

Thus we argue that there has not been innovation in policy implementation in New Zealand's freshwater management because, when problems are identified, policy is developed through local plans to address these problems, but before policy is implemented new problems are identified, national policy is updated, and local governments are required to rewrite and update plans. Local government policy development is currently not agile enough to respond to new problems and new national policy directions simultaneously. In response, local governments often resources planning and policy development which reduces the resources available for on-the-ground policy implementation, and other critical tasks such as monitoring and compliance.

In response, we suggest that the typical policy cycle – which begins with problem identification, through policy development and decision making, ending with policy implementation (Janssen and Helbig, 2018) – ought to be inverted. We encourage local governments to focus on achieving practice-change first before policy is developed. This practice change ought to be framed within a broad set of integrated national environmental outcomes.

This argument informs the following recommendations, which we hope will provide a way to overcoming the policy implementation barriers noted in this paper.

### *Recommendations*

- (1) To break out of the closed loop of identifying problems and developing new policy, we propose a shift from developing policy first and then implementing it, to focusing first on on-the-ground practice change. To achieve this shift, we propose that local governments focus less on planning and policy development and more on employing intermediary actors (Kivimaa et al. 2019). Intermediaries are organizations or individuals “that connect, translate and facilitate flows of information” (van Lente et al. 2003: 248). Scholars have proposed the use of intermediaries to facilitate practice change and policy implementation because they possess a unique flexibility to engage across contexts, actors, and scales (Moss et al. 2009; Backhaus, 2010; Bracken and Oughton, 2013).
- (2) Following from recommendation 1, we suggest that practice change should be funded as a part of core operational expenditure. Our research highlighted that policy implementation struggles, in part, because some organizations consider it a secondary task for planners, compliance staff, or scientists. A base of operational funding would reverse that presumption through a practice change led approach.
- (3) Guidance should be provided by central government to local governments on how to prioritize different national policy statements and environmental standards. Currently no advice is given to local governments on how to prioritize these, leaving authorities to interpret for themselves which policies are more or less prescriptive. This proposal potentially undermines the RMA’s principle of subsidiarity, but it was local governments themselves that highlighted the need for more guidance from central government. One solution is to develop an integrated set of coordinated national policy statements and environmental standards within a broad outcomes framework, similar to that in Sweden (Swedish Government Inquiries, 2009; Salmon, 2008). Another potential solution is to create a national policy statement on integration that describes how each policy statement and environmental standards ought to interact with each other.
- (4) We believe that the way central and local government approach change could be improved. We suggest the use of resources such as programme logics and theories of change to help draw links between how intended practice changes will help to achieve broad, integrated environmental outcomes. We believe that research on individual and collective practices and their transformation, as well as using integrative, applied, and transdisciplinary research approaches that focus on outcomes, could be used to support local governments looking to adopt a practice change led approach to achieving freshwater outcomes (Bammer, 2013; Mitchell et al. 2015; Duncan et al. 2018; Duncan et al. in review).
- (5) A start should be made on exploring alternative governance models to New Zealand’s local government system. The current system, which defines different responsibilities for



territorial authorities and regional councils (and amalgamates them in unitary authorities), might be incapable of delivering the practice change led policy we envisage. We suggest a review of current governance models, to determine if they are fit to reach the broad outcomes New Zealanders desire from freshwater management.

## Conclusion

New Zealand has developed several innovative freshwater policies over the past decade, but our research confirms that there are several barriers to the implementation of these policies. We offered five recommendations on how these barriers could potentially be overcome. We acknowledge that if adopted, these recommendations would represent a significant reimagining of New Zealand's freshwater management. However, we believe change is necessary if broad outcomes that balance environmental sustainability within a paradigm of continuing innovation are going to be achieved.

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