

What does good governance look like for irrigation schemes to be perceived as successful?



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Executive Summary

Water for New Zealand has been described as a ‘Wicked Problem’.

This is a term that has been used to relate the degree of social and ecological complexity involved. It also describes how different world views on such problems can shape both the definition and the solution. This is not always positive or balanced.

For New Zealanders water is a passion, an integral part of our lives and our environment. It is also an important resource for agriculture and economic development. Our need to balance expectations to achieve optimal outcomes for all New Zealand is paramount.

There are many layers of water governance in New Zealand. For irrigators and irrigation schemes the many elements at play and competing voices are creating an increasingly complex environment for them to work in.

The aim of this project is to clarify for Irrigation schemes the breadth of elements at play in water governance in New Zealand. Through conversations with stakeholders, it is also to provide some direction for schemes as to what is going to be required of their own governance structures. This will enable them to be perceived as successful, legitimate and trusted users of water, our public resource.

For the wider public in New Zealand water quality has consistently been seen as a pressing environmental issue. The scrutiny of governance and management of water has never been greater than now. Competing needs have come to the fore and the environmental impact of land and water use has become better understood. As the degradation of our water ways has become more evident environmental groups and the media have been increasingly effective in highlighting any issues through campaigns and negative commentary. This has done an enormous amount of damage to the confidence and trust placed not only in irrigators and irrigation schemes as water users, but also ‘brand Agriculture’.

Understanding how the layers of water governance in New Zealand work is critical to understanding how we got to this place. There is no doubt that water governance in New Zealand is complex. It is not well integrated. There is responsibility for, or a connection to, water in almost every government department.

New Zealand’s primary legislation for the sustainable management of its natural and physical resources – the Resource Management Act (RMA) was passed in 1991. The councils charged with implementing this piece of legislation were often poorly resourced.

The slow response to environmental expectations politically, regionally and by the primary sector led to the growing influence of less formal but significant voices being heard. The accumulative effect of these voices and government policy development, including environmental bottom lines has led to the unprecedented scope and pace of change now being experienced on the ground by irrigators and irrigation schemes.

This scope and pace of change is an enormous challenge. Not only logistically for implementation but also the expectation for environmental results. This is impacting on irrigation schemes and their role.

Once conveyors of water to the farm gate, irrigation schemes are now finding themselves in a far more complex situation. Their role is now one of resource management – that is management of water and nutrients with responsibility and liabilities for meeting consent obligations. They are being ambitious, and investing significantly in supporting their shareholders in implementing change but this is uncharted territory and not all benefits or pitfalls can be anticipated. Maintaining relationships, with both shareholders and councils as the granters of the consent, are of primary concern and this is going to be critical to their success.

This project has exposed deep challenges around trust and confidence at all levels of water governance in New Zealand. There is no silver bullet to deliver an immediate change to water quality to fix this. The interviews show a clear commitment by the schemes to work through implementing change and ensuring they work with those stakeholders directly connected to best effect.

This research however has highlighted a new opportunity to effect real change. This is the opportunity to change perceptions so that irrigators and irrigation schemes be acknowledged as effective, legitimate and trusted users of water for the benefit of New Zealand.

This will mean irrigation schemes need to be willing to embrace a more diverse and outward looking board. They need to bring people in that will challenge their thinking and hold them to account. Building diverse boards that look outwards and have societal values will go a long way to building external confidence. As one interviewee pointed out *“There has been some tinkering around the edges – mainly with lawyers and accountants and while they can be valuable additions the question needs to be ‘what is the skill we need?’ and ‘what is the issue we are dealing with?’ Not who do we know that we can work with... and definitely not representing where you come from (leave your hat at the door!)”*

Such an approach will be confronting but it will provide a transparency and an openness to start discussion. It will also provide an opportunity to have realistic conversations and find reference points for communities to collaborate. It will negate negative commentary because the wider community along with irrigation scheme boards will own the outcomes.

This is a first and critical step for irrigation schemes to ‘break the ice’ and become trusted users of water, our public resource.

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Foreword

Working in my role as Business Manager for Irrigation New Zealand I am privileged to be exposed to the many views on irrigation schemes and their governance. Working with irrigation scheme boards, it has become clear that schemes have to rapidly move and adapt as they deal with increasing levels of pressure and influencing factors that are at play.

These factors are forcing change on the ground for irrigators but are also influencing outcomes for rural communities and schemes, changing and challenging the very core of schemes' historical *raison d'être*.

The impact of water - social, recreational and environmental is undeniable. While it has always been significant, the scrutiny of governance and management of water has never been greater than now as competing needs have come to the fore and the environmental impact of land and water use has become better understood.

I, like the irrigators and schemes I work with believe we need to look after our water resource not only because it is essential to farming businesses, but also because of its importance to surrounding communities. It is well known that the health of the environment is inextricably linked to economic and social activities and as a result the well-being of our communities and people.

If effective water governance is the solution for healthy environments and the well-being of communities then how is it working presently for New Zealand? What is the role of those governing irrigation schemes? How do they gain the trust and confidence that their use of water, a public resource, is both legitimate and respectful of wider community expectations?

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I would like to acknowledge the financial support of Crown Irrigation Investments Ltd and the financial and time support from my employer Irrigation NZ Inc. to undertake this project, I very much appreciate it. I would like to thank Andrew Curtis for his interest and supporting commentary along the way.

I would like to offer a special thanks to all those who allowed me to interview them. Having access to the thoughts and values of those holding an important and influential view on water governance in New Zealand has been invaluable. Often a politicised and contentious issue, their views have substantially enriched the value of this report. A full list of those interviewed has been included.

Further thanks must go to all those who provided advice along the way particularly the Kellogg Rural leadership programme team – Anne and Patrick – for your advice and kind words of support.

Thank you to Tony McCormick of Opuha Water who provided the cover shot for my report and photos used for my in-course presentation.

Finally, I would like to make special mention of my husband Tom and children Frederic, Olivia, William and Anna ... who have survived a slightly cranky mum over the past month or so of researching and writing this report.

1. Introduction

Water is taonga, a treasure and from the beginning of time it has shaped who we are. Its influence has been critical to how and where we have lived, what we have eaten but also influenced our work and our play.

Man has always tried to control or manipulate water ...Water systems simultaneously represent the depths and limits of human control over nature, challenging artificial divisions between what is natural and social (White 1995).

All New Zealanders are passionate about our environment and our water. Water is relatively abundant in New Zealand due to the temperate climate and maritime weather patterns. However, even here our water resource is vulnerable to threats of overuse and degradation, magnified by the growing use of water and climate change. An integral part of our lives and our environment, water is also an important resource for agriculture and economic development so our need to balance expectations to achieve optimal outcomes for all New Zealanders is paramount.

The challenges immediately facing irrigation schemes include the refinement and implementation of best practice for the governance of water, for current and future generations. These challenges are being exacerbated by the increasingly complex environment irrigation scheme boards work within. For irrigation schemes to perform their roles with confidence, be effective and successful, they need to sit comfortably within New Zealand's wider water governance story. They need a clarity of purpose, role and responsibility.

2. Aim & objectives

There are many layers of water governance in New Zealand, and through my research I aim to understand better what these layers are and how they interact with one another. It is intended that this platform of understanding might better inform schemes of the wider political environment and what this means for them.

I wish to critically review the information I collate to clarify the breadth of the elements at play and as a consequence the depth of expectations on irrigation schemes. I hope to clarify the role water governance now plays in irrigation schemes, their challenges, and what factors need to be in place for them to be effective, legitimate and provide confidence to their shareholders and for all New Zealanders.

In order to achieve this I will undertake background reading to extend my knowledge on the decision making framework in New Zealand. Following this, identify and approach a broad range of people holding an important and influential view on water governance in New Zealand to participate in a survey. The survey will include a range of key influencers but will be limited in number reflecting the time frame for this project. Through conversations (qualitative survey questions Appendix 2) I will seek feedback on where the tensions lie within and between these water governance layers. I wish to understand views on what role irrigation schemes have to play held by both schemes and external stakeholders. My research will look for commentary and observations of interest, reoccurring remarks, and ultimately themes that will provide schemes with context to the complex environment they work in. With water, knowledge is everything and I hope this research will ultimately help schemes to perform their roles with added confidence.

3. Purpose of research

The purpose of this research is to understand what an integrated approach to water management means in the New Zealand context. To examine the importance of all the parties affected by water; particularly irrigation schemes. To look at their influence and involvement as well as understanding their constraints – both technical and institutional.

I hope to provide some context for schemes, who are dealing with enormous change. To expose the modes of hierarchy that are at play, and to examine the interactions and tensions that exist between the layers of decision making for fresh water management in New Zealand.

The intention is to provide additional information for irrigation schemes that will enable them to perform their governance role with added confidence.

4. Research method

This explorative research studied irrigation schemes and their place in the governance of water in New Zealand. Two distinct groups were approached – irrigation schemes, and external stakeholders.

Scheme and stakeholders were selected by purposeful sampling.

Irrigation scheme interviews were held with:

- Irrigation scheme Chairs/Directors
- Irrigation scheme CEO's
- IrrigationNZ Chairperson

External Stakeholder interviews were held with:

- Politicians
- Government ministries and entities
- Community incl. iwi, environmental, local government
- Industry – legal and farm consultancy

Qualitative semi-structured interviews:

The research is based on qualitative semi-structured interviews held with representatives from each of the above categories. Once identified, interviewees were contacted by phone and then an email sent to provide a more formal basis for interviewees to make an informed decision to participate in this research. A copy of the email can be found at Appendix 1. Once agreed, the interview process was designed to be relaxed to create an opportunity for open dialogue.

The interviews were carried out mainly by phone but on occasion in-person and all interviewees had the option of either having comments attributed by name and/or organisation or remaining anonymous.

The research questions were tested prior to use. A copy of the survey can be found at Appendix 2.

Early on I made the decision to analyse my qualitative semi-structured interviews using *thematic analysis in psychology. A widely-used qualitative data analysis approach it is one of a cluster of methods that focus on identifying patterned meaning across a dataset.

My process

- Interviews
- Transcription of interviews (not included in report but used to inform my notes)
- Mind map of ideas about what is in the data and what is interesting about them
- Identify potential themes
- Map themes and relationships between them (identify tensions and inconsistencies)
- Identify the essence of what each theme is about (as well as the themes overall), and determining what aspect of the data each theme captures, identify what is interesting about them and why
- Consider how themes fit into the broader overall story that reflects the data in relation to your research question

- Consider the themes themselves, and each theme in relation to the others and sub themes
- Extracts embedded within an analytic narrative to illustrate the story that data tells, with analytic narrative beyond description of the data, and make an argument in relation to the research question
- Identify weaknesses or pitfalls

5. Findings and discussion

Governance describes the '*management of the course of events in a social system*' and the use of institutions and structures of authority to allocate resources and coordinate or control social activity'.

This 'social steering' has often been done by regulation through the state (ie. Laws and enforcement). But today much social steering takes place irrespective of whether the state is involved or what role it plays.

For example, governance may involve networks of social and economic actors who collaborate to achieve solutions without relying centrally on state intervention.

Landcare Research, Old Problems New solutions, 2011, page 15

Too many elements at play, with many competing voices...

5.1 The layers of water governance in New Zealand

Water governance has often been described as a 'Wicked problem' - a term used to relate the degree of social and ecological complexity involved, and how different world views on such problems can shape both the definition and the solution. Not always positively or balanced. It would be fair to say that this complexity has been clearly reflected in interviews for this Kellogg Project where the different categories of respondents differ enormously in their views of the problem and the solution ... but there are also glimpses of opportunity if all segments of society can be encouraged not to revert to their respective 'fighting' corners.

5.1.1 Twenty years

The formal governance of water became centralised when it was integrated into a single framework known as the 'Resource Management Act' (RMA). This legislation was passed by Parliament in 1991. It is significant, and frequently, as exposed through the media and confirmed through this project's conversations, controversial.

The RMA promotes the sustainable management of natural and physical resources such as land, air and water and is considered by all interviewees as the principle legislation for managing the environment. It primarily has the biggest influence over water and all respondents acknowledged it.

However, views on the RMA's effectiveness in today's environment vary. Some respondents see it as a piece of legislation ahead of its time. A good statute, providing clear guidance, but ultimately for environmental interests it is seen as having failed to do what it was set up to do – protect water. Its downfall for some is its 'wimpy implementation'.

Twice conversations reflected on the final drafting of the RMA. Former Minister Simon Upton called for a review of the 'purpose and principles' of the Act and that they should provide controls required to protect water. These principles were described as sound and fair, they were about sustaining, safeguarding, avoiding, remedying, and mitigating the adverse effects of the use of natural resources.

Respondents responsible for the implementation of the RMA (regional councils) on the ground however reflect on their economic responsibilities in the statute. This emphasis is seen in the development of their regional policies, which are not just focused on the environmental, and many believe environmental groups choose to ignore this aspect of the legislation.

Part 2

Purpose and principles

Definition of sustainable management

The RMA, in Section 5, describes “sustainable management” as

Managing the use, development and protection of natural and physical resources in a way, or at a rate which enables people and communities to provide for their social, economic, and cultural well-being and for their health and safety while-

- (a) Sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and
- (b) Safeguarding the life-supporting capacity of air, water, soil, and ecosystem; and
- (c) Avoiding, remedying or mitigating any adverse effects of activities on the environment.

Source: https://en.wikipedia.org/wiki/Resource_Management_Act_1991

The RMA does recognise economic value in its sustainable management definition and that both environment and economic well-being are part of the conversation.

It is also interesting to note that experiences from the Canterbury Water Management Strategy would suggest that when decisions are made collaboratively, by communities about their community, they do not separate out the environment from economic well-being. A good example of this is the experience of the Selwyn Te Waihora Zone Committee who started their deliberations about what, as a community, they could do to improve their lake, Te Waihora (Lake Ellesmere). Their first look was to see what the ultimate would look like – a pristine lake. The outcome was a lake surrounded by forest with only farming up the sides of the rivers ... but the community decided that that change was too much and unacceptable. It would mean enormous change for the townships and communities that presently surround the lake. For them this was unacceptable in the medium term. A clear message was sent to the zone committee (zone committees are expected to work collaboratively to develop water management implementation programmes in Canterbury) that this scenario was too extreme for the community and an alternate scenario was sought.

This is as Simon Upton foresaw - activities will have to be compatible with hard environmental standards and society will set those standards.

From 1991, environmental groups not seeing implementation or ‘on the ground change’ applied pressure for the delivery of a National Policy Statement for Fresh Water to give

guidance and direction for local authorities whose responsibility was to give effect to the RMA. The government of the day, however, was unwilling as councils were already under pressure grappling with the major changes of the RMA. The councils that were now grappling with this new responsibility were also discovering that they were resourced inadequately to meet the expectations of the legislation, and increasingly the modern expectations of society. Efforts were compromised and councils acknowledge they were slow to get up to speed. Now there is enormous speed and an enormous catch up underway.

It is possibly inevitable; therefore, that environmental groups see successive governments as slow to pick up on their role and that the lack of guidance for consistent implementation has led to a lot of time for them in court seeking clarification. This lack of clarification has meant a long journey to understand what the RMA means and this has led to uncertainty and cost for all stakeholders.

In 2004 the Parliamentary Commissioner for the Environment Morgan William's report 'Growing for Good' was released.

'It highlighted what everyone knew - intensification of land use was our greatest threat to water quality and the government of the day responded with the Water programme for action' (David Parker – Labour Party).

However iwi saw the Water programme for action as compromising their rights and claims under the Treaty of Waitangi and it quickly became overtaken by the Foreshore and Seabed controversy and it wasn't until 2007 that a draft National Policy Statement began to be developed.

A change of government and growing interest from less formal but increasingly influential voices were starting to take effect, especially in those regions in New Zealand where the growth in irrigation became very noticeable. Irrigation growth was a consequence of a collision of international events – the Uruguay round of GATT to reduce agricultural subsidies, high grain prices and high energy prices. New Zealand suddenly found itself, as a low cost producer of dairy products, with an enormous economic opportunity. To take advantage of this opportunity and meet demand it meant increasing production and the answer to that was water.

Mind map 1. Less formal but significant influences affecting water governance



Increasingly environmental groups were seeing intensification of land use. It was also becoming more evident to the wider public as the growth in on-farm infrastructure could be seen from the road, with increasing numbers of irrigation systems and of course the very visible increase in the numbers of black and white cows. No more evident was this than in Canterbury.

In 2002, the Fish & Game Council initiated a high profile campaign to highlight this increasing intensification and in its view the unchecked consequences of this on New Zealand's freshwater health. The "Dirty Dairying" campaign was born and would be recognised even today as having an enormous effect on the wider public's view of agriculture, particularly urban New Zealand. Well supported by mainstream media, a growing number of organisations and commentators gave credence to the issue that the environment, and in particular water quality, was now a major issue for New Zealand.

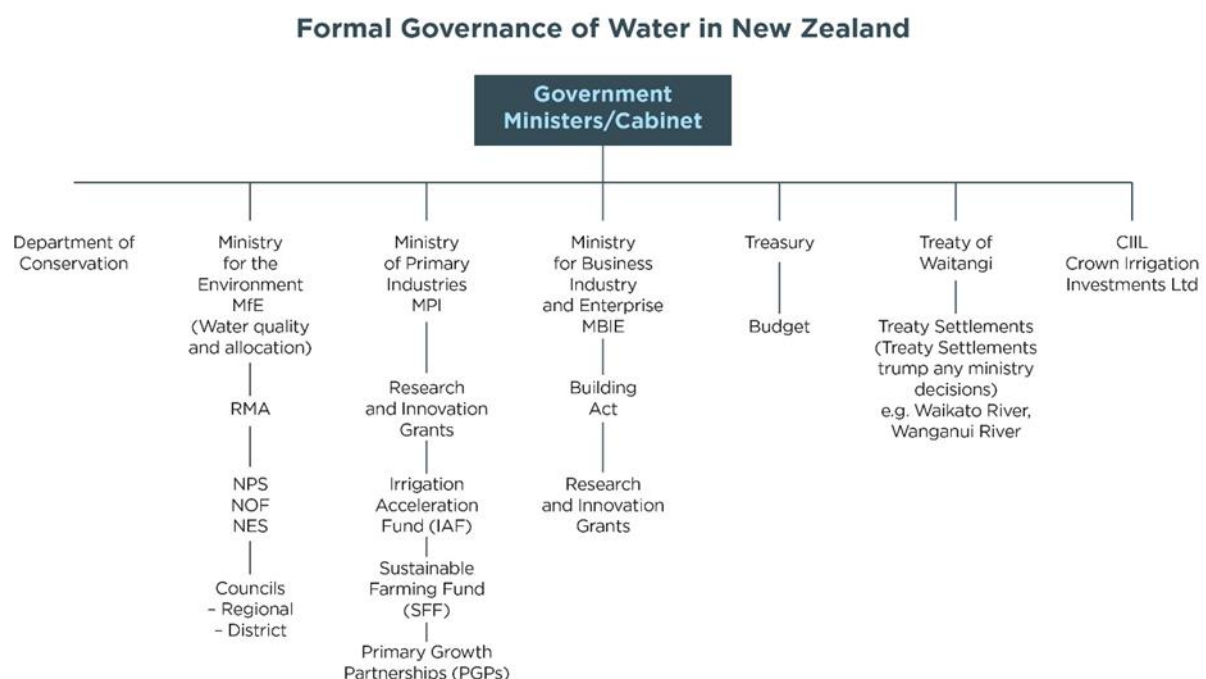
Successive governments continued to grapple with the need to change the way we manage water. The pressures were greater as the cumulative effects of intensification were starting to be realised, and simultaneously there was an increasing loss of trust by the public about the framework in place to protect their environment. This was being driven by environmental groups and the media.

In 2009, a group representing a wide range of stakeholders, looking to find a common direction for freshwater management in New Zealand and provide advice to the Government was initiated. This group was called the Land and Water Forum. In a short time it became a very effective medium, it resulted in the report 'A Fresh Start for Freshwater', which identifies a set of outcomes and goals for freshwater management and recommended a number of policy changes to achieve those.

It wasn't until 2011, 20 years after the arrival of the Resource Management act that the first National Policy Statement for Freshwater Management was delivered.

Informed partly through 'A Fresh Start for Freshwater', the forum provided direction about how local authorities should carry out their responsibilities under the RMA for managing fresh water. The National Policy for Freshwater Management (NPS-FM) was born.

Mind map 2. Formal water governance in New Zealand



So over this 20 year period water governance in New Zealand under the RMA continued. The RMA was the most significant piece of legislation and the act that gave regional councils their power to implement change. However councils were highly varied by their geography and resourcing and this meant they would never be able to behave in the same way. All respondents reflected on not only the formal legislation and statutes for direction, as discussed above, from the Treaty of Waitangi, Ministries for the Environment and Conservation (responsible for RMA), Ministry for Primary Industry and Ministry for Business Innovation and Enterprise who have policy and delivery mechanisms through programmes and organisations including the Irrigation Acceleration Fund and Crown Irrigation Investments Ltd relating to water. But also formal, but indirect influences affecting water governance which has included (but not limited to) the Land & Water Forum, Ministry for Health – drinking water standards, Ministry for Business Innovation and Enterprise - Dam safety act

and building act, Department for Internal Affairs – Three Waters Project, International treaty obligations and wider policy constructs like the present governments ‘Growth agenda’.

Mind map 3. Formal but indirect influences affecting water governance



While these elements were all continuing to play their part at varying levels of authority and with varying levels of effect, it would be fair to suggest that water governance in New Zealand, at least at government level, is not well integrated. This together with a growing level of commentary and influence from outside these formal processes has made water governance increasingly complex.

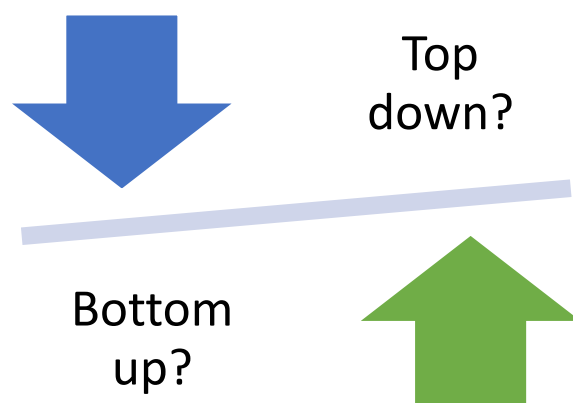
5.1.2 Bottom up, Top down

The growing recognition that a change was needed to the way we manage water happened at both a regional level and a central government level – but their efforts were not co-ordinated.

In the absence of government direction through national standards, guidance and methodologies promised, many councils developed their own approach. One respondent described New Zealand local government, relative to other international models, as ‘dangerously independent’ with regards to their ability to generate funds and make rules. It may have been this, together with the slow machinations of central government to deliver on

an NPS that encouraged them to take their own course of action and respond to local pressures, needs and expectations for better water governance.

The regional councils Horizons (Manawatu, 2004), Otago (2004) and ECan (Canterbury, 2005) had all started to think about how water may be better managed in their respective regions. The community, to a wider or lesser extent, in each of these regions were at the heart of this decision making.



*Water Governance, there are two ways of looking at it - top down and bottom up
Both are appropriate and have come together nicely over a similar time frame*

(David Caygill, ECan Commissioner)

Their documents – the One Plan (Horizons), Canterbury Water Management Strategy (ECan) and Water for Otago (ORC) all were about the sustainable management of their region's water resources. Their interpretation of the RMA, approach and outcomes varied from full collaborative programmes for decision-making to community consultation and engagement, and from input focused to output focused.

For some, the motivation was that the issue of water management needed to be addressed; for others it was to ensure that government didn't impose something on them nationally that didn't fit, rather choosing to initiate something that suited them.

So water limits – quantity and quality were set in some of the major water-use regions for New Zealand well in advance of the arrival of the NPS-FM. An opportunity for national consistency was lost and the variations in interpretations often led to contentious hearings and environmental court cases. The RMA is a legislation that is hugely enabling but full of ambiguity, and that certainly has played out in the region's interpretations.

*“We are now starting to see very different approaches across the regions”
(Nicky Hyslop INZ Chair).*

Since 2011, the regional councils and unitary authorities (hereafter called ‘councils’) role has been to give effect to the National Policy Statement for Fresh water. A set of instructions to regional councils issued using powers available to the government under the RMA, it’s had the effect of requiring councils to set limits on quantity and quality of freshwater across their respective regions. For those who had already developed their own approaches and interpretations, it required adjustments.

For Canterbury, the government’s Land and Water Forum started conversations not dissimilar to the Canterbury Water Management Strategy programme, the language was similar and the intent was the same and while the CWMS preceded LAWF, there was comfort in their similarity.

The Otago experience with the introduction of the NPS was simply to assess the difference, identify the gaps and address them as well as thinking about what else was needed to meet the intent of the NPS.

There is no doubt that the impact on councils of the NPS –FM is significant.

‘The impact of the NPS is huge , it is not just about water — it’s about land and water, and about surface and ground water and it also requires council to take in to account climate change and coastal impacts – so it is fully integrated catchment management that it is driving. It drives councils to consider the economic, cultural, social, as well as environmental dimensions’ (James Palmer, HBRC).

On the whole, councils interviewed felt that the NPS provides enough guidelines for them to implement good policy and regulation. We see different approaches to implementation from region to region and, while the methodology may differ, the objectives are the same.

Environmental NGO’s and political opponents to central government on the other hand believe that the National Policy Statement for Freshwater Management is flawed and does not provide adequate implementation guidance. It is on this point that much time is spent in the environment court, high court and court of appeal. They see councils often dominated by farmer interests and negligent in their implementation, that ultimately intensification is continuing and that there is still no point of control. They hold concerns that government can only monitor the ‘consent granting processes, not monitor how well councils deliver against the purposes and principles of the act. Even then, one environmental respondent could only see the auditor general would be trustworthy of such a role.

Given that all segments of society were represented on the Land & Water Forum that informed the NPS, this is an interesting outcome and possibly this represents a conflict in expectation. The philosophical elements are there but they are too general. Every council has a different set of circumstances they are dealing with, and while the direction is set,

putting it into practice on the ground is not proving to be easy. Methodological challenges now exist as the regions head into these uncharted territories.

Since 2011, there have been four amendments to the National Policy Statement for Freshwater Management. The 2014 updates were to provide greater direction and support for councils to apply the requirements in a consistent way across New Zealand. This included a National Objective Framework (NOF) with compulsory bottom lines for both human and ecosystem health. Further amendments are expected in late 2016.

So the hierarchal mode of governance is increasingly coming back into play with those having the power and the capacity to make changes (at Ministerial level) passing them down to those who enforce (councils). It is with the intention of establishing uniformity and expectation on activities to achieve environmental outcomes. However the complication of altering a policy statement is that it doesn't require full consultation or engagement, as it would were it an amendment to an act and in making change they are amending a full set of regulations. This has significant implications on the ground making it difficult for councils to plan long term or at least do so with any certainty. This uncertainty in turn flows onto the community that uses and values water, introducing much greater risk for investment and creating business uncertainty. It undermines confidence in the process set as the rules are changed or new expectations are delivered and once again it relies on each council's resourcing, capability and capacity to deliver.

So the modes of water governance, hierarchical – top down, and collaborative – bottom up, have both played a part in New Zealand's water governance. The approaches have worked well in combination but it appears to have been effective more as a matter of chance than co-ordination.

This lack of co-ordination or alignment is now creating tensions as government shows increasing interest for involvement through amendments of the National Policy Statement for Freshwater Management.

“....In a perfect world – things would be introduced and articulated, staged well with a clear pathway for implementation and a window for transition and support”

(Kevin Steel -MPI)

5.2 Scale and pace of change

5.2.1 Need for speed

With government withdrawal from water governance at a regional level in the 1980's, the delivery of the RMA in 1991 the councils, at first, were slow to realise their role. By contrast in the last 10 years they have been increasingly undertaking science and research work streams previously driven by the crown to understand better their region's geography, water bodies, water quantity, quality movement and availability, soils and climate, farming systems and present and future needs. This is to enable them to develop good regional policy to support implementation with practical regulatory frameworks. The quantity and quality of this work has been completely dependent on their resourcing, capacity and capability.

As one council describes:

“they have an enormous resource endowment (land and water) to manage relative to a small population. A big portion of this land is dedicated to agricultural and it is the water that underpins its productivity. In managing the natural resources of communities in a holistic and integrated manner however, it doesn't matter if your population is small or big the process is the same. The problem with a small population however – is that the resources aren't the same.” (James Palmer –HBRC)

As councils have fully realised their responsibilities for their region's natural resources, they have also been coming under increasing pressure. These pressures have been political (national and local) for example - doubling the value of agricultural exports by 2025, implementation of water meters (2012), implementation of Farm Environment Plans in Canterbury 2017 amongst others. At this same time environmental NGO's, and wider public having been demanding evidence of increased protection for our waterways and environmental gains. The media was increasingly presenting negative commentary, highlighting damage and degradation.

In most regions, as with the Land & Water Forum, the approach chosen to progress an inclusive and positive change in water management has been a collaborative one. Here we find an uneasy juxtaposition where the hierarchical governance approach meets the collaborative approach. The preferred mode of decision-making at local level

“Collaboration needs support, needs resource and it needs the right peoplethe collaborative governance experience is one that is evolving and some of it is a bit ugly around the edges but we need to give it time to mature”

(Kevin Steel –MPI)

Collaboration is an iterative process that involves participatory dialogue, deliberation, flexibility, transparency, devolved decision-making, and consensus building practices. Whether at a national, or regional level, it involves representatives of all parties with an interest in water, but to be successful it also needs to have the right people. There can be a wide range of expectations and approaches. It can be a very messy process and to succeed it needs commitment, requires confidence and trust and takes time. The local government underpins community-based initiatives with ground rules and resources.

In Canterbury's Canterbury Water Management Strategy experience:

"There (in each zone) is no standard process, no right or wrong answer and interestingly, discussions about similar problems, at times, produced different answers"

(David Caygill ECan commissioner)

So we have a long slow process that ultimately could deliver the best results but there are political pressures coming to bear that are demanding very short time frames for decisions, implementation and 'visible' results – particularly wins for the environment.

One respondent council reflects

"...that the overall management system is breaking at the seams with the scale and pace"

of expected change. For irrigators and schemes this is being translated (through regulatory framework) to a scale and pace of change in the management of their farming systems and their practices that they have never experienced before.

For irrigators', their ability to influence policy and regulatory outcomes is the same as for any individual or entity with an interest in water – water is a public resource and is governed by a public process. They have the choice to go it alone or co-ordinate themselves but for individual schemes it is a resource-hungry exercise. Science and research propping up the policy needs to be reviewed and sometimes challenged and irrigators and schemes are finding that once notified they are given very little time to respond. Farmers initially were slow to get involved, however, increasingly schemes are collaborating, merging and/or working through their peak body, like IrrigationNZ to lobby and influence outcomes. This scope and the pace of change is making it important for schemes and individuals to have someone across the systems (national and local) to be informed and where necessary inform.

What we have seen with farming is the same as has been seen with many industries, sectors faced with rapid change. The education review would be a good example of this, where in 2004 South Canterbury experienced closure of approximately half of its schools. Just as with this experience - rural communities have moved a long a continuum ...initially inertia and an unwillingness to act, to pushing back against change and then look to the future to see how they can embrace the change and create new opportunities. This is human nature no matter what the issue or the sector, industry or community.

The process for change continues and not at all regions, schemes or irrigators are in the same place along this continuum. Some still have their heads in the sand and others have a vision of scheme mergers and growing structures that can create a critical mass for advocacy, influence and implementing change. This evolution has also been reflected in the changing governance structures of irrigation schemes as wider influences on their role come to play.

5.3 Irrigation schemes – a changing role

Schemes are about long run infrastructure, with long run rates of return, and if you look into history until the 1980's nearly all infrastructure development was crown or state delivered as it was for the flood schemes and drainage schemes. So the government played the major lead in water governance through the drainage board act, soil conservation and river control act ... all well before any environmental legislation existed. With the disestablishment of the Ministry of Works in 1988 the government stepped back from this lead role. Most irrigation schemes were sold to their communities and river and drainage became the responsibility of regional councils.

Irrigation schemes then were just 'a collective of water users' attached through infrastructure. With purchase of the infrastructure, this collective of irrigators co-ordinated their own leadership group or board under cooperative structures to ensure the scheme would continue to convey water to their shareholder's farm gate – historically they were focussed on quantity and supply, delivery in a timely fashion and at least cost. That was the extent of their responsibility and irrigators were largely left to farm as they saw fit.

Councils responsible for the implementation of the RMA largely dealt with individual irrigators and individual consents at this time. Then the focus was on the water take but

“...as the link between land use intensification and water quality became better understood it is almost more important now, what you are doing with the water..”
(Bill Bayfield - CEO ECan)

As the regions began to implement their strategies, the expectations of the NPS, NOF have come into play, there was a growing realisation of the scale of what was to be achieved by both councils and water users. Running in parallel was the increasing expectation that those responsible for the use of a public resource will operate at a very high level and need to be accountable.

For individual consent holders understanding the laws influencing their use of water on-farm continues to become more and more complex. Suddenly expectation exists that they should talk with their neighbours, share in times of low flow, and talk to local communities, Department of Conservation, iwi and not just around their use and application but measure and monitor, so they can provide evidence. A new expectation of transparency and reporting was being required to build public confidence.

However, the ability for individual irrigators to undertake environmental assessments, engage consultants and deliver on these wider interactions is logistically almost impossible.

Individual irrigators are most at risk and most likely to fall through the cracks
(Rab McDowell – director BCI)

As communities started to come together to discuss the wave of regulatory changes coming their way, they and councils discovered conversations were allowing efficiencies.

Councils could see the advantages existing irrigation scheme management offered them with a single entry point to communicate with many consent holders. Water user groups would provide the same efficiencies of scale.

“Conversations allow efficiencies.....Water-users were encouraged to group up. It was a pragmatic evolution that entirely makes sense”
(Stephen Woodhead – Chair ORC)

Schemes had become ‘ready-made’ conduits for the transfer of regulatory information and so the evolution to the single consent has been somewhat inevitable. In irrigation, as in any industry the bell curve exists. Some schemes anticipating the environmental expectations coming their way, long before any consents requirements were in place, developed environmental strategies. Wanting to lead in good management practice they sought global consents for water take, use and nutrient loads and championed change within their schemes. Others have chosen to maintain their historic role and taken minimal responsibility and make minimal effort to get their take and use consents.

However, inertia is not an option and schemes are increasingly finding themselves in a transitional phase. As new laws like the Health & Safety Act take hold, schemes and water-user groups are starting to get their heads around the benefit a coordinated approach has.

Some still resist change - and in Otago where the history of water permits were the result of gold mining – many still see it as their property right. In a state of transition, with all mining privileges lapsing in 2021, one disgruntled Otago irrigator at a public consent hearing was reported to say

“You can take my wife but you’re not getting my water!”

As consents are renewed and rules change the older schemes are finding this expectation almost forced upon them. While it is still their choice ...moving behind the farm gate, telling their shareholders about how they will use their land, when as directors they are shareholders themselves, is not always comfortable.

For those who have jumped on board with change, this opportunity has been by choice and has enabled schemes and user groups much greater flexibility. The self-managing aspect of this change makes sense as it optimises opportunities for both the users and the use of resources. It is, however, a step up as schemes now start to move and influence behind the farm gate... something they have never done before.

From the council's perspective the willingness of schemes to pick up this opportunity has surprised them. They can see that it is working and are encouraging more to do the same as global consents now enable greater speed of change and administrative efficiencies.

On the wider stage there is much debate about this move by councils to devolve their duties to irrigation schemes, giving them much greater powers to manage their shareholders resources and consents. On the one hand all interviewees can see the advantages that collectivised management can bring...ensuring everyone is meeting their consent conditions, rolling out good management practice more easily, requiring investment by schemes in environmental expertise (Farm environment managers). On the other

“Councils are handing over too much responsibility”

(Eugenie Sage – Green Party)

“...too in-house as schemes will always benefit beneficiaries not the wider public”

(Bryce Johnson CEO Fish & Game NZ)

And yet the councils believe in the opportunity for efficiencies and gains for schemes. That schemes can be more than just the seller and deliverer of water ... “and if they want the water then they take responsibility for who does what with the water”.

At a scheme governance level there has had to be a paradigm shift in thinking, a willingness to navigate uncharted territories, invest and raise funds to deliver on these new expectations. But while there is a sense of opportunity, there is also a sense of trepidation; this uncharted territory is proving, at times, to be quite uncomfortable.

Schemes and councils are not always able to anticipate the benefits or the challenges in this new role.

The new framework for schemes has been enabling with schemes having a more complete understanding of their business and practices – both collectively and of their individual shareholders. To achieve this schemes are investing heavily in their structures, their management and staff to support their new role and responsibilities. An example of this is to keep abreast of changes and ensure they are informed, they are now seeking independent science and research to help them in their local advocacy, while also continuing to support organisations like IrrigationNZ, Federated Farmers and their peak sector bodies advocating at a national level and on precedence setting policy both nationally and locally.

Schemes role in the governance of water was once simply defined within the parameters of their entity, their shareholders and their command area.

While schemes are responsible for their shareholders within their command areas, they are increasingly finding themselves now with wider expectations beyond their boundaries. Sometimes their command area may cover only a portion of their catchment and yet as the visible entity involved in the take and use of water, they are the first port of call when environmental degradation is identified. Some are now finding themselves responsible for irrigators they have no direct influence over. So these layer of governance and responsibility are at times becoming blurred.

In response to this shift in expectation schemes and collectives are increasingly bringing independent irrigators under their umbrella to build strong and unified voices for their catchment, and to collectively ensure a greater level of control over their environmental footprint. A good example of this is the Waitaki Independent Irrigators Incorporated - made up of those irrigators with a resource consent to extract surface or groundwater from the Lower Waitaki catchment for irrigation purposes (2011), this group now sits within the wider Waitaki Irrigators collective (WIC).

With global consents irrigation schemes are responsible for managing their consent. It is their biggest asset and they need to meet conditions – so there is governance of this process and now also governance of a nutrient consent. As outlined earlier, schemes' structures are changing to reflect these new needs... but with new levels of responsibility and at times blurred lines, schemes are no longer as sure where their responsibility starts and stops.

One respondent reflects on this transition they describe it as 'messy', while another says it 'is not messy but logical and it just reflects that people are at differing stages of transition and have different perspectives on how things should be done'.

Internally leading schemes are trying to address this issue. Building clarity for their entity and their shareholders they are developing a number of broad and powerful water use agreements. As schemes they are taking responsibility for their members, leadership in good management practice and transparency of outcomes. The introduction of environmental managers are aiding and making transition for companies and irrigators more orderly. Not necessarily comfortable however.

Some schemes are working to ensure regulator and scheme are on the same page through building a tight relationship, with regular meetings that ensure full transparency. They are building a partnership, spending a lot of time to ensure policy set will work for the company and shareholders. Schemes are creating an iterative process continuously communicating with regulator and shareholders so that once the policies are in place the transition and on the ground change is realistic and can be as smooth as possible.

So for irrigation schemes, the goal posts have shifted and the elements involved and influencing their role have changed significantly. Those interviewed operating under this new regime, now understand their targets and the outcome they want to realise to meet or

exceed their consent conditions, but as they do so they are also realising their potential exposure (liability) with this new level of responsibility.

So schemes now find themselves in a significantly new governance space but what is their authority to play judge and jury? How will that work in practice? How does it change their relationship with their shareholders, the councils and what implications will it have for perception of them as trustworthy stewards of their water resource with the wider public?

For one environmental respondent, if schemes were to have more responsibility then they should have authority and be held statutorily accountable. This would mean a standard governance model, policies and expectations. An accountability that would move back up the line to those (Councils) they receive water from. This approach, in their view could provide confidence.

For opposition parties interviewed it is simple and clear – schemes have no role to play in water governance, only in water use, and that they are subject to it rather than drivers of it.

Most interviewees however see the new role of irrigation schemes as one that is evolving. Once again it is uncharted territory and as one respondent commented

“..it has not yet been tested”

For regional councils they are comfortable with these changes. They acknowledge the increased levels of responsibility that schemes will carry as a result. It is, however, a step schemes have chosen. One respondent leaves the responsibility squarely with schemes indicating that good structures, sound processes and transparency will stop the ‘blurr’. While another acknowledges it has implications for scheme governance, and while they believe it is over to the schemes as to how it plays out, it is important for them as a council to work closely with the schemes through this period of rapid change.

For schemes it is a little less clear

“...there is real danger with increased responsibility for schemes, responsibilities councils once held – they are now asking schemes to act as policemen and manage and audit resource consents across schemes. Schemes are now holding liability before the individual (in breach). I’m not sure schemes fully understand yet where this liability sits – or if they do how far reaching it is in terms of their governance and director liability.” (Nicky Hyslop, Chair INZ)

As outlined previously, schemes are developing and implementing broad and powerful water use agreements for their shareholders. This provides an opportunity to pass on liability but they are also now looking to their respective councils for memorandum of understanding and more formal agreements about where they sit relative to their individual irrigators.

Schemes are not convinced they have all the tools and knowledge on hand to meet regulatory expectations. And what is a breach? The context is vital – as they can be anything from an administrative, a technical failure, to a significant breach. But this becomes irrelevant in the public arena and potentially damaging to their brand where no context is provided.

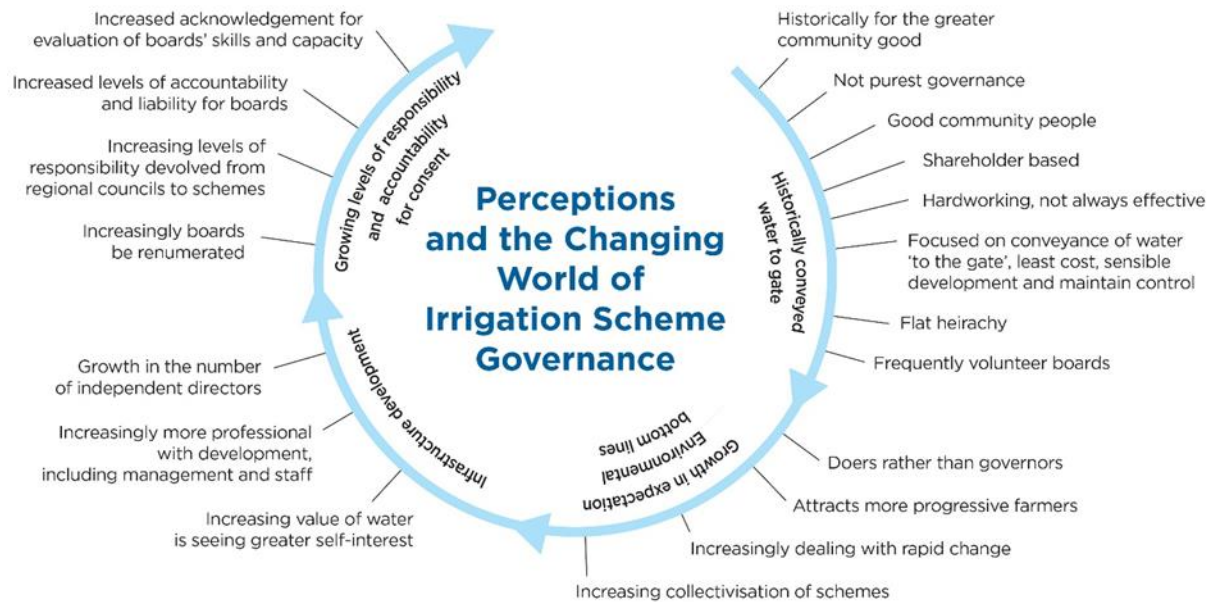
The robustness of process, science and the quality of tools are all important. For those who are output based, they are looking to understand better their environment and the tools – their veracity. For those with an input based system, the targets have been set through models. There are questions about the quality of the tool chosen. Are the targets achievable? And what happens, having accepted the challenge, if it becomes apparent it is not a realistic target and schemes don't meet them? And once again ...What does this do for the wider public perception of irrigation schemes as trustworthy stewards of their water resource?

Most interviewees agree that regional plans and consent conditions already provide the framework for a scheme role and are comfortable that this gives them authority to deliver. Change has been constant and will continue to be so, but most felt there was no further authority or recognition needed. To be effective in this new role it will be about good scheme-council relationships and good scheme-shareholder relationships and excellent communication.

“‘got you’ isn’t intended ...it’s a conversation about what are you doing? And how are you doing it?’ (David Caygill – ECan)

Primarily scheme functions will remain the same – the introduction of auditing is about checking and the councils provide the backstop. There needs to be trust both ways. There needs to be a carrot and a stick.

Mind Map 4. Commentary reflecting perceptions and the changing world of Irrigation scheme governance





Throughout the case literature ... trust stands out as a critical factor. After a [collaborative] process is completed and deemed successful or not, the element most commonly pointed to is the presence or absence of trust, often expressed as stakeholders claiming they had no voice in the process or decision. The challenge posed is the development and maintenance of trust, but this is an abstract term, easy to know it when you see it but difficult to deliberately plan for with any confidence of effect.

Walker, Gregg B and Susan L. Senecah Collaborative Governance: Integrating Institutions, Communities and People – Chapter: Value of community-based environmental collaboration, (2011:134-135).

5.3 Trust and Confidence

All through the interviews it became clear there are some deep challenges around trust and confidence at all levels of water governance in New Zealand. The conflict for water is central, not peripheral.

While the RMA is acknowledged by all as the primary statute for the protection of water it appears that there is a great variation between regional ecosystems and populations and, that in particular, resource has played a big part in the capacity and capability of a region to implement the RMA directly. It has also taken some time for understanding and acknowledgement by the primary sector as a whole that action needed to be taken. Many of those interviewed noted that still, the primary sectors efforts and actions are not collective or coordinated. This lack of coordination has meant a lost opportunity for a single voice acknowledging the environment imperatives and advocating on behalf of agriculture.

Over the past 20 year period, these two factors together with growing evidence of intensification leading to environmental degradation and significant political and environmental NGO commentary has undermined public confidence.

With the introduction of the National policy statement in 2011 and subsequent amendments and bottom lines through the National Objectives Framework there has been a step change in activity and a more consistent approach to water management across the country.

5.3.1 Economic development

Infrastructure has been one of the tools regions are adopting to mitigate the effects of climate change, address the issue of efficiency but it also enables regions to enhance environmental outcomes. A number of councils have chosen to support scoping, feasibility and development process through loans.

As one respondent outlined that this has created huge mistrust from the environmental fraternity who believe there has been capture of the councils by rural interests and that rural representative bodies have employed effective strategies to ensure they have a good representation around the table. They began to see Councils now as now promoting irrigation in their regions. For environmental groups and opposition politicians this was seen as a conflict for councils whose mandate is dominated by the RMA and environment. This activity supported their views of council bias and increased levels of mistrust.

When councils were interviewed about this it was pointed out that councils have always played in this space. The Regional Council's genesis was an aggregation of different boards (rabbit, harbour etc...) -they did have commercial roles, compliance roles and economic development roles. "This (conflict) is nothing new".

Opposition spokesman for water David Parker (Labour Party) doesn't believe economic aspirations should be allowed to conflict with their regulatory role. As schemes proposed are funded by councils and set up as commercial entities perceptions of this conflict is raised further. It is interesting to note, however, in the CWMS experience that when local communities define strategy that economic activity is not separated from environmental aspirations.

Recently, in contrast to the environmental views of council being captured by farmer interests some regions are now seeing a shift with increasing effort by environmental groups to ensure they are well represented. The 2016 Hawkes Bay local body elections are a good example of this.

5.3.2 External stakeholder trust for the process of implementation

Implementing change, to deliver improved environmental outcomes and public confidence for councils is not simple. Of the regions interviewed all implemented an approach that involved community engagement. The extent of that engagement and style of consultation differed.

The Canterbury collaborative approach, to the development and delivery of a programme, is arguably the most inclusive and iterative process with society setting the values, norms and limits for each of the 10 zones within the region. A number of further regions also opted for a variation on this model.

A great deal of trust and open conversation is needed by all parties for this approach to be successful.

For those using water initially there was scepticism, reluctance to education as the first line of change and pushback on the tools but gradually there is a growing understanding of a 'continual improvement' approach and acceptance to use the tools. Council's acknowledge there are challenges with the tools but that they are the best available today and that they too will be expected to improve with time.

There is also the challenge within the process itself where broadly accepted community outcomes are turned into planning speak and then goes into a statutory hearing process but what 'pops out' doesn't always reflect what was originally agreed.

For those more removed like the urban dwellers, not intimately involved in a zone they can see the process from a far but there remains a lag in understanding.

There is also a lag in environmental interest group acceptance and this is often about the timeframes involved. They believe that water users are disingenuous in their willingness to change and that the long transitional periods reflect this.

So once values, norms and limits are agreed and set, the issue of time to achieve these changes is addressed. The target dates for transition have become a contentious issue with environmental groups.

“Don’t get rose tinted glasses that everyone agrees – irrigators, mining, developers, oil, fishermen- none of them come out and say they want to damage the environment..... but their actions and what their representative bodies do when push comes to shove. How they manage things and their talk is quite the opposite.

Kevin Hackwell -

But in Canterbury, at least, all interests group had a chance to have their say. A robust process was put in place and the timeframe and steps were agreed after hearing all sides by an independent panel (inclusive of an ex-environment court judge). So this seems a little unfair but then not all regions are at the same point of development with their programme. Some regions recognise that there is pushing back and not a yet a deep internalisation by farmers that the game has changed.

There is a reconciliation of expectations that is needed, with positive and useful acknowledgements of the situation and effort from both sides. Presently both sides of the ledger appear to be working in parallel. The problem is becoming highly politicised where the philosophical and cultural values sit squarely with interests groups.

5.3.3 Irrigator and Irrigation scheme trust for the process of implementation

As the scale and pace of the change underway is realised. Schemes have found themselves at the intersection between economic growth and public perception.

Scheme shareholders are now looking to their directors for direction and support. Historically their directors have been people prepared to do their share (a volunteer role) for their community. By nature farmers are “doers” and this has been reflected in their ability within their co-operative structures to achieve multi-million dollar upgrades - on time and on budget. They have delivered some outstanding outcomes given that in the broader governance sense they often don’t reflect the diversity of views, values and skills expected of modern day board.

Boards are now finding themselves facing decisions they have never faced before and as a consequence it is testing interests and values. Activity from scheme to scheme varies from the minimum to succeed to championing change and environmental stewardship. When it was about conveying water it was easy to agree but with the arrival of nutrient allocations for some schemes they now find themselves in a difficult and confusing position of making decisions about their neighbours. Decision that will affect their livelihood – for better or worse. This new responsibility involves an enormous amount of trust that directors ‘leave their hats at the door’ and govern for the greater good of all parties.

Schemes have invested enormously in gearing up to support their ability to make good decisions and to support their shareholders transition. Early Farm Environment plans were about good efficient water, nutrient use, soil practice, effluent water way practice, stock management practice - these were all physical things you can see and do on farm. With the introduction of nutrient management in Canterbury that involves a model it is highlighting the new variables at play. The model takes the focus away from the values of a cultural change and focuses on a number.

“A lot of assumptions are that farmers know about FEP (Farm Environment Plans) and Nutrient budgets because there has been so much talk (5-10 yrs). But actually they get up every morning and go farming so they read about it just like everyone else but until they have to, they generally aren’t making change. It is overwhelming.

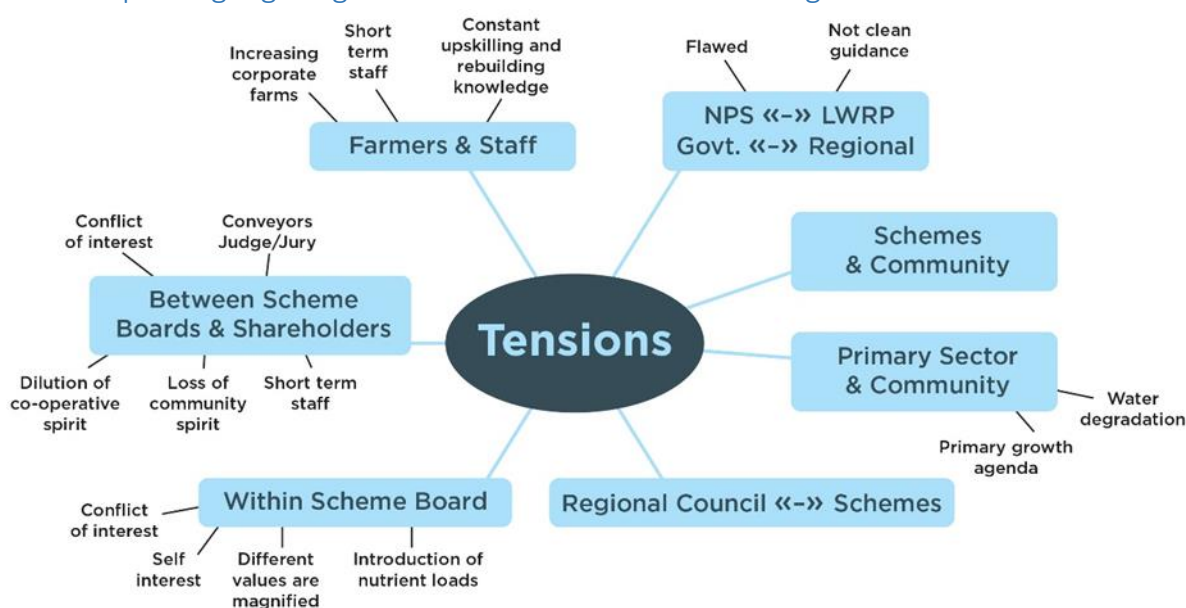
(Sue Cumberworth- Agribusiness Group)

Where global consents exist directors often find themselves in the position of telling their shareholders they have to do things they don’t want to do. Where the irrigator/shareholder responsibility and the scheme boards responsibility stops and starts is not always clear. Some schemes are now employing staff in this environmental role. This is uncharted territory so the trust to implement change, the understanding of expectation is being explored and clarified in unison. It is only just the beginning.

The tension between shareholders and the new and increased responsibilities of directors is very real and the traditional cooperative model of scheme governance has the potential to compromise the need for change. One respondent reflected that this could be said for many of our primary sectors peak bodies – also cooperatives or levy paid organisations.

Where they communicate to their own people and are elected by ‘their own’ people there is a reluctance and unwillingness to make their constituents uncomfortable, or to deliver messages or instructions they don’t want to hear. This unconscious bias and ‘group think’ is a risk for many of the present irrigation schemes governance model where there is little diversity. It can lead to them being less open to change and has the potential to reduce wider public confidence.

Mind Map 5. Highlighting areas of tension identified through conversations



5.3.4 Irrigation schemes governance role in building trust with external stakeholders

Irrigation scheme governance has historically been a cooperative model and it has served irrigators schemes and their communities well. This traditional model has seen scheme boards as community shapers and creators as schemes managed their water resource and infrastructure and built opportunities that have enhanced community wealth. The changing role and new responsibilities are creating a power shift with directors no longer just responsible to their shareholders but to a whole new audience.

Through a conversation with one respondent scheme it became apparent they have started this journey looking at themselves in a societal context. Intentionally or otherwise they appear to be shifting to a value based governance where the act of using water is not about a consent to take and use but rather one of stewardship where its use will be sustainable, respectful of the environment and of benefit to all in the community. A governance that employs, skills, processes and a framework, and that the framework while maintaining its unique irrigation scheme culture is now also about connectivity to what is going on around them.

There is a lot of respect for the skills of farmers/irrigators throughout the interview conversations. Interviewees acknowledged their business acumen but the question was raised repeatedly about how irrigation scheme governance looks now (it's make up) and the need for change. A lot of this external commentary and desire to see change is about the opportunity it can bring schemes to build wider community trust and confidence.

Irrigation schemes and their representative directors are dealing with a volume and complexity of issues beyond anything they have previously experienced. This change is

challenging the direction, the values and the core purpose of their being. The knowledge required is often beyond what can be accessed traditionally through shareholder experiences.

Scheme's in general believe they have the capability around the table, they are good at managing risk and their new found responsibilities and liabilities – provide just another layer of risk for them to work through. Increasingly they are aware of the breadth and depth of knowledge they will need to ensure they fulfil their roles effectively. They are investing heavily in the expertise and skills needed to ensure good decision making on behalf of their shareholders. There has been some tinkering around the edges with the introduction of legal and accounting expertise on to boards, particularly where there has been scheme infrastructure upgrades or new development. These skill have come on to the board as independent directors.

One respondent is critical of these changes, not saying they are not good skills to have, nor that lawyers or accountants don't make good directors rather that schemes need to challenge themselves to understand what they have and what they need.

“It (the question) has to be what is the skill we need? and what is the issue we are dealing with? Not who do we know that we can work with... and not representing where you come from (leave your hat at the door!)”

Increasingly schemes are starting to do just this - review and evaluate their boards to understand what they have and what they need. But the makeup of the directors round irrigation scheme tables is an issue with many interviewed, one respondent describing them as

‘...a club that talks to itself’

All agreed that shareholder directors are still important to schemes – they have the ability and influence to effect change on the ground, as farmers by nature learn better peer to peer. However, many of those interviewed challenge schemes to appoint truly independent directors. Directors that don't see things like they do, directors that will hold the scheme to account.

If you get the right independent directors they will help external confidence

Two respondents challenged schemes to appoint environmentalist to their board – neither of these respondents were environmentalists!

Building diverse boards that are focused on societal values and look outwards not inwards was communicated repeatedly as critical to building public confidence.

6. Conclusions

In evaluating the interviews it is clear that water governance in New Zealand is very complex. It has many layers. The responsibility for, or a connection to, water can be found in almost every government department.

This complexity has been exacerbated over time through not only poor integration but also the regions battling to implement the RMA often without resource, capacity or capability. A number of councils interviewed initiated their own process to find a better approach to water management prior to national guidelines arriving.

The difference in interpretation of the legislation and policy set by the varying quarters interviewed became very evident. There was a good deal of interdependence and trust needed between the layers to understand the rules, the intent and expectations to get it right. This was most evident in the regions.

The slow response to environmental expectations politically, regionally and by the primary sector has led to the growing influence of those less formal but significant players on policy. It is this influence that driven the scope and pace of change.

This scope and pace of change is an enormous challenge for irrigators and schemes. If agriculture is the still 'a cornerstone' of the New Zealand economy and we all prosper from its success then the process for change needs to be a whole of society response. That everything is connected – environment, society, economy is not well understood.

There is no silver bullet to deliver immediate change to water quality but the schemes do have an enormous opportunity to take the first step to effect real change, particularly in changing increasing negative attitudes towards them and their shareholders.

It is a challenge that awaits them and governance structure of schemes can offer the bridge to build the confidence and support of their wider communities. It is not about throwing the baby out with the bath water but rather looking to the future towards a more hybrid model. If willing to embrace a more diverse and outward looking board, schemes will have something to bring to the table. It will provide a transparency and openness to start discussion, an opportunity to have realistic conversations and find reference points for communities to collaborate. It will negate negative commentary because the wider community along with irrigation scheme boards will own the outcomes.

This is a first and critical step for irrigation schemes to be perceived as successful, effective, legitimate and trusted users of water, our public resource.

7. Recommendations for further work

Due to time constraints this project was relatively narrow in scope. In the course of this project it became evident that a few key areas could do with further work. Sadly none of them are small!

Models & structures of governance

There is more work to be done on the look and opportunities attached to an outwardly looking irrigation scheme boards. This project has suggested a hybrid model with a split between irrigator shareholders, those representing scheme needs and wider world view to bridge to societal values. It would be timely however for an examination of the effectiveness and relevance of the different models available to schemes. Understanding the opportunities and value around the structure and diversity of a board will also be a critical part any models success.

A national conversation

Everything is connected - environment, society, and economy this is a factor that is not well understood. There would be merit in looking how one could expand the local collaborative programmes that seem to yield results to this wider platform.

This question was raised by one of the interviewees

‘New Zealand’ needs to have a conversation about what it is we want. New Zealand is a modified landscape. Many of our forest are gone, our land is drained. We are happy to sit in a winery and be comfortable in that environment, drive past paddocks of vegetables or pick berries or fruit in the summer in orchards in the regions but equally we expect our water bodies to be pristine. What is realistic because we modify the environment all the time to meet society’s needs?

Primary sector collaboration

This project highlighted the role for a coordinated primary sector. Something New Zealand presently doesn’t have. This lack of a coordinated front appears to have played a part in the slow response of farmers to the environmental imperatives expected of them. There would be value in exploring further the opportunity that a ‘primary sector New Zealand’ voice could have on building the trust and confidence of the wider New Zealand public as producers ... no matter what the sector.

As one respondent described

“Agriculture is in such a deep hole ‘brand Agriculture’ has had so much damage”

Governance
Collaboration Scale
Wicked Problem
Values Pace Confidence
Uncoordinated Trust
Complexity

References

*Braun, V. and Clarke, V. (2006) Qualitative Research in Psychology, 3 (2). pp. 77-101. ISSN 1478-088

Hans M. Gregersen, Peter F. Ffolliott, Kenneth N. Brooks,
Integrated watershed management : connecting people to their land and water
Publisher: Wallingford, Oxfordshire, UK ; Cambridge, MA : CABI, ©2007.

Fred Pearce, When the rivers run dry : water, the defining crisis of the twenty-first century,
Publisher: Boston : Beacon Press, ©2006.

New Zealand Legislation website, Current Rules and legislation
<http://www.legislation.govt.nz/act/public/1991/0069/latest/DLM230265.html>

Resource Management Act | Ministry for the Environment, www.mfe.govt.nz/rma

Old Problems New solutions, Integrative research supporting natural resource governance,
Edited by Shona Russell, Bob frame & James Lennox, Lincoln NZ, Publisher Manaaki Whenua
press, 2011

<http://www.landcareresearch.co.nz/publications/books/old-problems-new-solutions>

Environment Canterbury
Canterbury Water Management Strategy Targets – progress report 2015

Water for Otago (the Water Plan)
<http://www.orc.govt.nz/Publications-and-Reports/Regional-Policies-and-Plans/Regional-Plan-Water/>

C. Howard-Williams, R. Davies-Colley, K. Rutherford and R. Wilcock; National Institute of
Water and Atmospheric Research, New Zealand ,Issues and solutions to diffuse pollution and
freshwater degradation: New Zealand perspectives

Land and Water Forum, website : <http://www.landandwater.org.nz/>

Appendix 1:

Example of contact material used to approach interviewees

Dear Sir/Madam

My name is Chris Coughlan. I am currently a participant in the Kellogg rural leadership programme at Lincoln University. As part of the programme I am carrying out research to identify

‘What does good governance look like for Irrigation schemes to be perceived as successful?’

Water is a current and important issue for New Zealand. An integral part of our lives and our environment it is also an important resource for agriculture and economic development. There are many layers of water governance in New Zealand and through my research I hope to understand better how these layers of governance are perceived by irrigation schemes and external stakeholders (those with an interest and influence in the governance, management and use of water). I am interested in their views on

- The layers of water governance in NZ
- How & where schemes fit into this hierarchy
- Where, if any, tensions do or may potentially lie

To begin answering my research I have identified you as holding an important and influential view on water governance in NZ. Given your standing I would like to invite you to participate in my research by completing a short survey. This survey can be face to face or by phone (your preference) and should take no longer than 30-40 minutes and will be recorded to allow further analysis. The recording will be used to inform my notes for the final report and then will be destroyed.

Should you agree to participate, you have the option of being identified or remaining anonymous. If you choose to remain anonymous your comments will simply be described in the project as those of a leader from your sector.

Please select by ticking one of the following two options (your tick indicates your agreement to participate in the research project):

○ Yes: I am happy to participate in this survey and format preference is

- Face to face
- Telephone

○ Yes: I am happy to be identified in the research

How would you prefer to be identified? (i.e., name only/name and organisation/organisation only):

☐ No: I would prefer to remain anonymous and identified only as a leader from my sector

Many thanks in anticipation of your support

Kind regards,

Chris Coughlan

Kellogg Rural Leaders Programme

Appendix 2:

Survey

Schemes:

There are many layers of water governance in NZ – can you please name/describe them?

- How would you describe the hierarchy
- How do irrigation schemes fit in this hierarchy?

Where do the (potential) tensions lie?

What actions do you think irrigation schemes could take to address these tensions?

External Stakeholders:

There are many layers of water governance in NZ – can you please name/describe them?

- How would you describe the hierarchy
- Do you agree irrigation schemes have a role to play?

If so

- How & where do you see irrigation schemes fit in this hierarchy?

Where do you perceive tension (and potential), if any, lie?

What factors need to be in place for schemes to play a role and ensure they are

- Effective
- Legitimate
- Perceived as successful

If not

- *Why not*
- *What is their role?*

Interviewees

Early conversations to build some clarity around my research question and direction of my project were held with:

Crown Irrigation Investments Ltd - Murray Gribben

IrrigationNZ - Andrew Curtis

Opuha Water Ltd - Tony Mc Cormick

Mc Keague Consulting -Susie Mc Keague

Landcare Research - Dr Bob Frame

The following parties were interviewed as formal part of my research:

Schemes:

Waimakariri – Gavin Reed (Chair), Brent Walton (CEO)

Barrhill Chertsey – Rab McDowell (past Chair and now director)

North Otago Irrigation Scheme -Leigh Hamilton (Chair)

Irrigation NZ – irrigator & scheme advocate – Nicky Hyslop Chair

External stakeholders:

Politicians

Green Party - Eugenie Sage

Labour Party - David Parker

Government (ministries)

MAF- Kevin Steel

Local Government

Environment Canterbury - David Caygill (Commissioner)

Environment Canterbury - Bill Bayfield (CEO)

Hawkes Bay Regional Council – James Palmer (Strategy)

Otago Regional Council – Stephen Woodhead (Chair)

Environmental

Forest & Bird – Kevin Hackwell

Fish & Game – Bryce Johnson

Wainono Lagoon restoration project, John Wilkie, Kaumatua, Ngai Tahu Te runanga o Waihao

Waihora Ellesmere Trust – Terrianna Smith (Taumutu)

Iwi

Ngai Tahu ECan commissioner - Elizabeth Cunningham

Industry

Tom Evert/ Giselle McLachlan (Tavendale Partners – legal)

Sue Cumberworth (Agribusiness group – farm consultant)

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