



Improving Water governance

Water governance is a global issue that calls for collaborative solutions and studies in New Zealand have contributed to the OECD's new Principles on Water Governance, including a valuable discussion paper first written five years ago. Alan Titchall explains.

Water New Zealand has published online a discussion paper called *Improving Water Governance in New Zealand* (IWGNZ) that was originally published in *Policy Quarterly* and authored by Andrew Fenemor (Landcare Research), Diarmuid Neilan, Will Allen, and Shona Russell.

The full paper can be read at: www.waternz.org.nz

I can only summarise a few points from this 6000-word discussion paper written in 2011. Suffice to say that this document is still very pertinent today, and it contributed to the OECD's Principles on Water Governance, which were adopted at the seventh World Water Forum in Daegu, Korea last year (see box stories).

As pressure on water resources has increased around the world, there has been a realisation that technocratically-driven water management and science is not the full answer. Our rivers, streams, lakes and aquifers need good water governance. "As is the case in many other parts of the world, New Zealand is seeing growing evidence of stresses on its freshwater resources as land uses intensify and demands for water, especially for irrigation, reach limits of availability," says the report.

WHO'S IN CHARGE HERE?

Water governance in this country is under the control of central government agencies and local authorities. The two key pieces of legislation are the Resource Management Act 1991 (RMA), which has a sustainable management focus, and the Local Government Act 2002 (LGA), which has a sustainable development focus. Unlike in most other developed countries, New Zealand is unique in that water policy and decision-making are devolved almost wholly to local authorities at regional level.

This level of devolution in New Zealand has existed since catchment boards were formed in the 1940s to implement soil conservation and flood control measures.

Before the RMA became the statutory basis for 'regional plans', water and soil management programmes were previously prepared by these catchment boards under the 1967 Water and Soil Conservation Act. Regional councils replaced catchment boards and other single purpose organisations in 1989.

Today our 16 regional/unitary councils have a broader mandate under the RMA to develop region-wide policies, develop specific plans for publicly-owned or managed natural resources, and issue consents for use of those resources, including water and discharge permits. Territorial authorities (district and city councils) also develop policies and issue land use consents for development, while unitary authorities (Auckland, Gisborne, Marlborough, Nelson, Tasman) combine functions of regional and territorial authorities within one organisation.

As agencies with major responsibilities for water resource management, council performance has come under the spotlight at times – perhaps best illustrated by the Minister for the Environment's action over 2010-2016 to replace the elected council at Environment Canterbury with non-elected commissioners.

At the next level up, central government develops guiding

A Global Coalition

This year the Organisation for Economic Co-operation and Development (OECD) has set up the Global Coalition for Good Water Governance and has invited interest from around the globe to join it. The OECD has developed global Principles on Water Governance (see separate box) www.oecd.org/governance/oecd-principles-on-water-governance.htm.

The OECD, of which New Zealand is a member, estimates that the global water crisis is mainly a "governance crisis".

"Water demand will increase 55 percent by 2050 due to growing demand from manufacturing, thermal electricity generation and domestic use," it says. "Managing and securing access to water for all is not only a question of money, but equally a matter of good governance."

Water governance is the set of rules, practices, and processes through which decisions for the management of water resources and services are taken and implemented, and decision-makers are held accountable, says the international organisation.

"There is now an urgent need to take stock of recent experiences, identify good practices and develop practical tools to assist different levels of governments and other stakeholders in engaging effective, fair and sustainable water policies."

To this effect, the Global Coalition for Good Water Governance aims to trigger collective action towards effective, efficient and inclusive governance so that water security contributes to global growth and well-being. Over 2016-2018, the coalition says it will guide public action from policymakers, business and society at large through the identification, collection and up-scaling of innovative solutions that can shape the future of water.

"In practice, the Global Coalition will catalyse through its members hundreds of success stories at international, national, basin and local levels, and foster related knowledge and experience sharing."

These world-class solutions to water governance gaps will be disclosed in a user-friendly OECD database at the 8th World Water Forum to be held in Brasilia, March 2018.

"In addition, the 170+ members of the Global Coalition will also be consulted on the ongoing development of indicators to support the implementation of the OECD Principles on Water Governance. Such indicators will help assess, amongst others, whether the framework conditions are in place to get water governance right; the progress over time against a baseline; and the impact of governance structures on policy outcomes in terms of managing too much, too little and too polluted water and ensuring universal coverage of water services."

national policy and binding standards (such as National Environmental Standards), and also adjudicates through independent panels, or the Environment Court, when decisions at either level are contested.

Successive central governments have devised programmes of work to improve water management which have included the National Agenda for Sustainable Water Management (1999); the Sustainable Water Programme of Action

(2003); and the New Start for Freshwater (2009). There has been increasing recognition of Maori interests in water, the first co-governance body being the joint iwi/Crown-governed Waikato River Authority. The Government has committed \$210 million funding over 30 years to restore New Zealand’s largest river.

New Zealand’s water governance has been subject to criticism, especially the legalistic statutory hearing processes imposed by the RMA and the time required to make regional plans operative. There is a perception that both planning and consent decision-making is dominated by “techno-corporatist legal formalism” – or a reliance on legal and statutory planning processes.

The scope of current freshwater management plans is commonly water allocation and water quality management, and their spatial scales range from catchment-scale to regional.

The IWGNZ authors say that these plans demonstrate a regional variance according to regional pressures on water use, as would be expected. Plans are also in varying states of implementation, with some fully operative, some still in the hearing phase, and some being reviewed or rewritten.

“Arguably, the emphasis on integrated and catchment-based planning has been weakened by the broader RMA mandates, and more regional focus of regional and unitary council planning than earlier catchment-based water and soil plans.”

DEFICIENCY IN GOVERNANCE

As a widening range of stakeholders is affected by water decisions, questions of a less technical nature are being raised – such as who gets what water; whose voices and what values are influencing decision making; why are plans and strategies poor at delivering good environmental outcomes; and how could cumulative effects be better addressed, especially between land use and water quality.

“In light of those questions, resource managers are recognising that our inability to adequately manage freshwater stressors is not so much a deficiency of science as a deficiency in governance.”

The test of an effective system of water governance would seem to be whether it sets and delivers sustainable water management outcomes. However, there are other tests, which should also apply, because water governance is also about the *processes* for achieving enduring and adaptive outcomes (see box below for a synthesis of principles of good water governance).

SOME GOOD NEWS

The authors acknowledge “notable advances in water planning” in New Zealand, such as the first catchment plans in the 1980s, for example for the Omaha catchment in Auckland, the Waimea Basin in Tasman, and the Opihi in Canterbury, with the waters of the Waimea Basin all deemed fully allocated by 1996.

Since 2000, Horizons Regional Council (Manawatu–Wanganui) has pioneered the idea of a single consent for farms as a method for controlling sediment and nutrient contamination under its ‘One Plan’. The Waikato Regional Council implemented ‘cap and trade’ for controlling nutrient losses to Lake Taupo, and the Bay of Plenty Regional Council, through its ‘Rule 11’, set limits for nutrient losses to protect the Rotorua lakes from eutrophication.

More recently, the Land and Water Forum has championed collaborative freshwater planning and many regional councils are developing next-generation plans via collaborative groups.

Research and comparative stakeholder opinions about water management planning in the IWGNZ paper revealed a need for staff to work in this more collaborative mode.

“The research has indicated that a ‘think tank’ approach

Table 1

Principles of Good Water Governance

The *Improving Water Governance In New Zealand* paper suggests six principles of good water governance relevant to this country.

These principles (below) are evaluation criteria for a governance evaluation tool which interpreted the results of interviews with 56 stakeholders to identify 14 attributes that, alongside innovations in collaboration and co-governance, would help improve NZ water governance.

Participatory The different stakeholders and iwi involved need to be identified and included in policy and decision-making. Inclusive processes build confidence in the resulting policies, and in the institutions. Two-way communication using engaging language creates trust and a sense of democracy.

Transparent and accountable

Information flows freely and steps taken in policy development are visible to all. This helps ensure legitimacy by being seen to be fair to all the parties. It implies the need to be seen to be ethical and equitable, for the roles and responsibilities of both institutions and

stakeholders to be clear, and for the rule of law to apply.

Integrative A holistic approach is taken to the primary influences within the water system, be they landscape components such as land use or river – groundwater connections, different community world views or diverse scientific interpretations. Integration recognises linkages within the management system; in turn, policies and action must be coherent and aligned – this requires political leadership and consistent approaches amongst institutions.

Efficient Governance should not impede effective action. Transaction costs are minimised, including financial and time costs of decision-making and compliance, administrative costs, complexity, and ease of understanding of how the system operates.

Adaptive The system incorporates collaborative learning, is responsive to changing pressures and values, and anticipates and manages threats, opportunities and risks. It recognises that the system is complex and constantly in flux.

Competent Decisions must be based on sound evidence. Competence requires development of capability at all levels: skills, leadership, experience, resources, knowledge, social learning, plans and systems to enable sustainable water management.

to water management at council level may create a more integrative approach to problem solving, in which consents staff, policy staff and resource scientists meet regularly, especially at consent renewal time, to discuss decisions.”

RMA planning also raised strong opinions.

“The RMA is effects-based and many stakeholders were unhappy with the slow response of plans to emerging water issues such as land use intensification. Examples were cited of existing consents with long-term expiry dates constraining the ability of the council to adjust plan rules – for example to change water allocation limits or environmental flows.

“Stakeholders saw the benefit of having catchment groups involved in monitoring and advocacy so that emerging issues can be addressed more quickly, and of having reviews of consents (RMA, s128) linked to plan review dates (eg, 10-yearly). However, water user stakeholders also wanted consent renewals to be made less bureaucratic.”

STAKEHOLDER INVOLVEMENT

Applying the broad governance principles in Table 1 can improve water governance at the decision-making level. The IGWNZ paper researched and compared stakeholder opinions about water management planning and implementation processes across five case-study catchments in the South Island.

Amongst the findings, the authors found that involving stakeholders in monitoring was considered likely to increase their sense of ownership of any water plan, especially if they can see how the monitoring benefits them and how the data they collect is used for decision making.

“If target outcomes have been adequately defined in the planning phase, stakeholders mostly wanted to be involved in monitoring those targets and considered this would assist in adaptive management.”

Stakeholders expressed frustration about objectives in some plans that had “broad narratives with little connection to what was actually going on at ground level”. They wanted a plan in which objectives, policies and methods were clearly defined so that the ‘rules of the game’ were clearly outlined, including limits on water allocation and water quality.

With only 30–50 percent of council water planning and management costs commonly met by consent holders, funding for water management was also a consistent issue.

“Some stakeholders favoured applying volumetric or flow-based levies on water users to support science and monitoring, including devolved monitoring approaches such as audited self-management.”

Among the primary areas that stakeholders felt needed improvement were: the need for national priorities for sustainable water management, more consistent setting of resource limits in plans, and a mechanism for holding regional and unitary councils more accountable for good water management.

Since this research was completed, the National Policy Statement for Freshwater Management (Ministry for the Environment, 2014) has set some process targets and minimum standards for water quality to address these concerns.

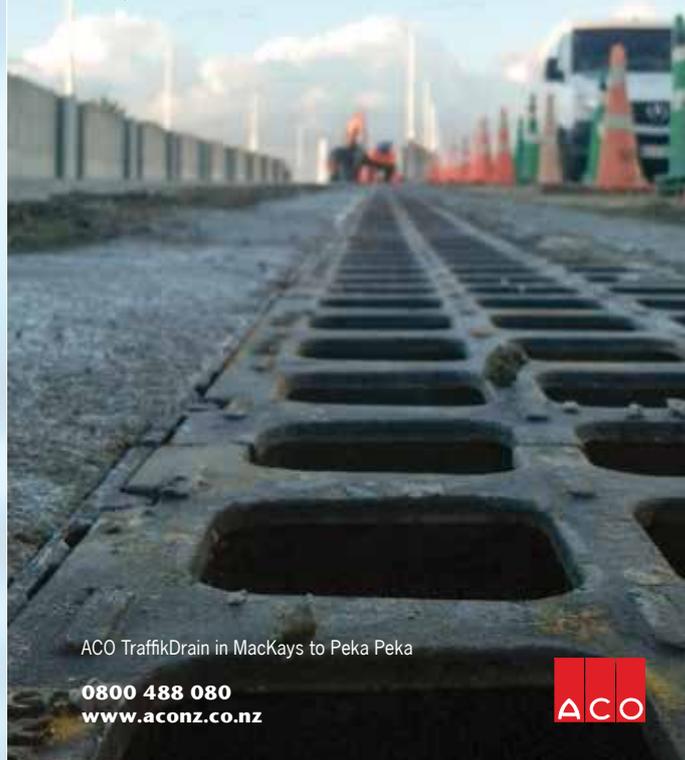


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On the question of governance accountability, some stakeholders supported the idea of a national regulatory authority having a role in benchmarking the effectiveness and efficiency of regional plans and providing guidance on meeting national objectives on a local level.

CONCLUSIONS

The basic theme of this paper is that governance has not received the same attention as technical and infrastructure development in the water sector.

“Water management has for decades relied upon improving technical understanding of water resource occurrence and behaviour, then designing management systems to keep exploitation of those resources, and associated land uses, within biophysical limits.

“Those management systems have often proven unable

to deliver sustainable water management, because of lack of buy-in by stakeholders and poorly-supported sociopolitical and administrative systems.

“Technical understanding of our water resources is vital, but the design of good governance is also fundamental to sustainable water management.

“Identifying principles and attributes of good water management planning helps in evaluating how to improve our water governance. Discussions of governance regimes are not divorced from technological and infrastructure decisions; rather these are intertwined.”

Water decision makers and managers are starting to realise the potential of new forms of governance, such as facilitating collaborative decision-making processes, better recognition of Maori interests in water, and implementation of water plans by catchment groups. **WNZ**

Fresh water forum role in governance

The Land and Water Forum, a group of 68 organisations that have interests in fresh water, was formed to come up with viable solutions to a complex and urgent problem.

Hugh Logan, a lecturer and research associate at Lincoln University, took over as chair of the Land and Water Forum after Alastair Bisley stood down in August after seven years in the role.

The Land and Water Forum was set up in late 2008 in the face of the challenging issue of freshwater policy reform.

The Forum’s recommendations have formed the basis for decisions by Government and regional councils that are progressively deploying its recommendations.

The Land and Water Forum is the trading name for the Land and Water Trust – a small group with around 30 participants who meet on a monthly basis and reports to a plenary, which has a membership of nearly 70 organisations with a stake in freshwater and land management.

Water New Zealand has been a member of the Forum from the outset.

They are joined by central and local government participants in developing a common direction through collaboration for freshwater management and provide advice to the Government. The Forum operates under a mandate from the Minister for the Environment and Minister for Primary Industries.

The strength of the Forum lies in its collaborative approach. It was established in a belief that stakeholders needed to engage



Hugh Logan.

directly with each other if we are to get better water management.

Since 2010 the Forum has produced four reports for central government.

In the first report, it recommended that central government should define objectives for our waterbodies, and that regional councils should express these objectives as measureable environmental states and link them to catchment based environmental limits.

The report highlighted the need for an improved water allocation system, proposed changes to regional and national planning and decision-making processes, and recognised the importance of governance changes, including the role of iwi as stakeholders.

The Forum’s second report set out in greater detail a national framework by which limits would be set in each catchment. It also outlined how collaborative planning should be done so that the community and all interested parties are involved in decisions about water management. It set out how regional water planning could be made more agile and responsive to changing circumstances

and better information. The third report recommended ways regional councils and land and water users could manage within water quality and quantity limits, including the role of industry Good Management Practice and a detailed framework for a better water allocation system. It made a number of recommendations on the role that central government should take to facilitate water management reform.

The Forum’s fourth report set out a range of proposals around integrated catchment management, including the importance of prioritising limit-setting towards high-risk catchments, and an initial focus on identifying and managing critical source areas of contaminants, and protecting areas of significant ecological value.

Its focus was on ensuring that water management limits could be achieved through flexible and adaptive systems that encouraged efficiency, and improving and standardising the science and information needed.

The report also made specific recommendations on keeping livestock out of waterbodies. It included specific recommendations about water quality management in urban environments, including aligning ‘three waters’ infrastructure planning and management with water quality objectives, and the role of water sensitive urban design.

In all of this work, the Forum has had a real focus on the role of good governance and decision-making in water management.

THE VMO PROGRAMME

Landcare Research has published a journal paper on *Science and collaborative processes: changing roles for Science and Scientists* based on an ongoing research programme called Freshwater Values, Monitoring and Outcomes (VMO), along with other papers on water governance.

Now in its second phase, the VMO research programme supports, informs, and helps implement an ongoing programme of reform, retaining flexibility to adapt to meet emerging future policy needs in freshwater management.

The programme is a collaboration between Landcare Research, Cawthron Institute, NIWA, Lincoln University, Geoff Kaine Research, and Margaret Kilvington. The first phase also involved Nimmo-Bell & Company and Will Allen.

The programme brings together

economists, social scientists, ecologists, water scientists, and policy researchers to identify processes and develop tools for freshwater management.

REGIONAL COUNCIL FORUM

Landcare's Regional Council Forum is designed as a pathway for involving regional councils in its ongoing research.

The forum meets at least annually for two days to explore the experiences of councils, share knowledge and insights between the councils and research team, and discuss how research findings can be used and enhanced to improve decision-making in regional councils and other key stakeholders in freshwater management.

Landcare says it currently works with a group of 10 regional councils (Environment Southland, Bay of Plenty Regional Council, Waikato Regional Council, Hawke's Bay Regional Council, Horizons Regional Council,

Tasman District Council, Environment Canterbury, Northland Regional Council, Auckland Council, and Greater Wellington Regional Council) and the Ministry for the Environment.

Landcare says freshwater management is changing with different processes (eg, collaborative processes), different requirements (such as those resulting from the National Policy Statement for Freshwater Management), and different expectations on the extent and type of knowledge needed to support decisions.

Learnings from the programme are communicated through a series of journal articles and conference presentations, policy briefs and guidance documents, workshops, research reports, and seminars. These publications and presentations can be found on the Landcare website.