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**REGULATION OF WATER IN NEW ZEALAND –
BETTER ALLOCATION OF WATER RIGHTS**

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Abstract

The following research paper deals with the current allocation of water in New Zealand. However, due to the legal background and the current practice of water allocation, some water crises have occurred, as the current regulatory system in New Zealand has its oddities and flaws. The author will identify three major issues that will all have relevance for the question whether New Zealand should rather strengthen administrative processes or integrate more market elements in the regulatory regime of water. At the end, the author will conclude that a combined effort is desirable to achieve the best regulatory outcomes.

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I INTRODUCTION

Water is an essential part of human life and therefore, it is also of vital interest to a country to find the best regulatory scheme to deal with this valuable resource (II).

Even a country that has such an abundance of water as New Zealand¹ faces problems with this most precious good human beings can own. This became clear in the Canterbury case,² where different usages of water opposed each other (III). The current regulatory framework (IV) as well as the nearly non-existing allocative approach for water in New Zealand³ (V) have their flaws. The author has chosen three main points of criticism that all have an influence on the question of in how far New Zealand should rely on an administrative or a market approach regarding water regulation.

Regional regulators often do not receive sufficient guidance by national government, so that the question arises in how far and to what extent public authorities should be involved.⁴

The most urgent problem, however, is the fact that it simply follows a "first-in [,] first-served"⁵ approach which disregards the principle of efficiency.

Finally, Maori participation has been criticized as weak (VI).⁶

¹ Ministry of Environment *The State of New Zealand's Environment 1997* (Ministry for the Environment, Wellington, 1997), as found in Kevin Counsell *Achieving Efficiency in Water Allocation* (New Zealand Institute for the Study of Competition and Regulation 10 October 2003), 4

² "Troubled Water" (5 September 2003) *The National Business Review* (found without page indication in the database Newstext Magazines)

³ Compare: Lincoln Environmental *Water Allocation: A strategic overview* (Report No. 4455/1, prepared by Christina Robb – in association with Simon Harris (Harris Consulting) and Ton Selder (NIWA) - for the Ministry for the Environment, May 2001), as found in Counsell, *Achieving Efficiency in Water Allocation*, above n 1, 12
See also Ministry for the Environment *Water Programme of Action, Water Allocation and Use, Technical Working Paper* (June 2004), 9

⁴ Ministry for the Environment *Report of the Sustainable Development, Water Programme of Action, Local Government Workshops* (July 2005) 5

⁵ Counsell, *Achieving Efficiency in Water Allocation*, above n 1, 12, with further reference to Lincoln Environmental *Water Allocation: A strategic overview*, above n 3

⁶ Ministry for the Environment *Report of the Sustainable Development, Water Programme of Action, Local Government Workshops* (July 2005), above n 4, 5

The author argues that the solution to these three issues is not white or black but grey, i.e. a regulatory mix that combines improved administrative processes with the implementation of market elements.

These market elements could foster efficiency and contribute better to a sensible distribution of scarce resources in some parts of the country,⁷ as the Australian context has shown.⁸ The author argues that it will be necessary to modestly enhance market elements and to encourage the public to become involved in this approach (VII).

However, market elements will only be a tool for some regions and some market participants in New Zealand.⁹ Just as in Australia,¹⁰ there will still remain an administrative approach, which is also necessary, due to the characteristics of water.¹¹ The author argues for slight reform processes in this context; the preponderance of local councils¹² should be assisted by better guidance by national government (VIII).¹³

Finally, markets will probably discriminate against Maori and their specific values that should be translated into western standards. Therefore, public involvement is necessary; for this, Western science has to be combined with the

⁷ Compare in respect of an improved trading/model: Counsell, *Achieving Efficiency in Water Allocation*, above n 1, 18-19, with further reference – among others – to M. Thobani “Formal Water Markets: Why, When and How to Introduce Tradable Water Rights” (1997) 12 (2) *The World Bank Research Observer*, 161-179

Also see: Lincoln Environmental *Attitudes and Barriers to Water Transfer* (Report Nr. 4464/1, prepared for the Ministry for the Environment, 2001), 39

⁸ Kevin Counsell *Methods for the Allocation and Valuation of Water Property Rights in New Zealand* (Thesis submitted to VUW for the fulfilment of the requirements of the degree of Master of Commerce and Administration (Economics), Wellington, December 2004)

28, with further reference to J. McKay and H. Bjornlund “Recent Australian market mechanisms as a component of an environmental policy that can make choices between sustainability and social justice” 14 (4) *Social Justice Research*, 387-403

⁹ Lincoln Environmental *Attitudes and Barriers to Water Transfer*, above n 7, 39

¹⁰ Counsell, *Methods for the Allocation and Valuation of Water Property Rights in New Zealand*, above n 8, 27

¹¹ Arguing against too much private involvement: The European Commission Community Research Final Report for Work Package 1 (Phase 1) Analysis of the European Unions Explicit and Implicit Policies and Approaches in the Larger Water Sector (2003) 127

¹² Compare in respect of the benefits of a decentralized regulatory structure: Worldbank, *Toolkits for Private Participation in Water and Sanitation, Toolkit 1, Annex 2 – Options for regulating water and sanitation*, 3rd page <www.worldbank.org/html/fpd/wstoolkits/index.html> (last accessed 11.02.06)

The page relevant for this research paper was accessed via <www.worldbank.org/html/fpd/wstoolkits/Kit1/annex6.html> (last accessed 11.02.06). The relevant text was under the heading “How decentralized should regulation be?”

¹³ Compare the wishes of great parts of the public as documented by Ministry for the Environment *Reflections: A summary of your views on the Sustainable Water Programme of Action* (July 2005) 4

Maori culture, which could be achieved by closer cooperation between Pakeha and Maori (IX).¹⁴

At the end, it will become clear that a combined effort seems to bring the best regulatory results.

II THE GOOD "WATER"

Water is a resource that has a paramount importance for human society. Therefore, it needs good regulation. Water plays an essential role in enabling life on this planet. Apart from that, it is a prerequisite for agriculture and industry and it is also a device used for the production of electricity. Water is often the desired environment for recreation and it has a preponderate intrinsic value for culture and human society as a whole.¹⁵

The importance of water cannot be derived solely from the chemical formula H₂O; one has to become aware of the fact that it is the most basic resource for the human species.¹⁶ An individual is estimated to survive about 3 weeks without nutrition, but only about 3 days without water. Therefore, water has an outstanding importance for human societies, which will even increase in the next decades. A former World Bank Vice President said: "If the wars of this century were fought over oil, the wars of the next century will be fought over water".¹⁷

Water also has a spiritual significance, which becomes vital in New Zealand in respect of the belief of the Maori. Maori attach religious importance to water, as water establishes a link between the past and the present as well as between the earth and the sky so that it must be treated like a treasure that has to be handed over by our generation to the next in a good state.¹⁸

¹⁴ Compare – in respect of one concrete project: Gail Tipa; Laurel Teirney *A Cultural Health Index for Streams and Waterways* (Indicators for recognising and expressing Maori values, Report prepared for the Ministry for the Environment, June 2003) 50

¹⁵ Counsell *Methods for the Allocation and Valuation of Water Property Rights in New Zealand*, above n 8, 1

¹⁶ Counsell, *Methods for the Allocation and Valuation of Water Property Rights in New Zealand*, above n 8, 1

¹⁷ Ismail Serageldin, World Bank Vice President, 1995, as found in Counsell *Achieving Efficiency in Water Allocation*, above n 1, 1

¹⁸ Ministry for the Environment *Water Programme of Action, Water Allocation and Use, Technical Working Paper* (June 2004), above n 3, 4

Due to this vital importance of water, politicians have said that water is “different from other commodities and that the government must allocate it”¹⁹ on the one hand. But on the other hand, some held the opinion that “in fact the opposite is true; because it is so precious, we cannot afford the misallocation that comes from political control.”²⁰

Others stress the limits of a market-orientated approach and point out the wider legal framework and prerequisites for functioning water regimes.

“How they work is influenced by legal rules, political choices, institutional arrangements, economic and geographical conditions and cultural practices – they are, in short, unavoidably complicated. For the same reasons they can never be ‘neutral’, automatic or self-regulating, as some of their proponents claim.”²¹

Anyway, water needs regulation. In many jurisdictions, water rights exist; to obtain such a right, every user has to apply for it to be granted to him or her.²²

However, even this concept is not a matter of course. As the Canadian water activist Maude Barlow once asserted, “[w]ater must be declared and understood for all time to be the common property of all. No one has the right to appropriate for profit.”²³

Although these are leftist views, it at least becomes clear that the resource water is not a usual good, such as a car or so. Put in plain words, if someone does not have a car, for instance, he or she can walk or make use of public transportation. If a community has problems with electricity, especially developed countries which normally rely heavily on these devices will have serious problems, some people might even die, but a chance of survival exists. In contrast, if someone is without water for about three days, he or she will inevitably die due to this fact.

Water has many characteristics of a public good, which means that its social benefit outweighs the private benefits. The question is: “Who should regulate the water?” It can be said that up till now, there is a heavy reliance on public authorities,

¹⁹ T. Anderson; P. Snyder “Priming the Invisible Pump” PERC Policy Series 1997 Issue Number PS – 9 (who dissent with this opinion), as found in Colin McLellan *Water Allocation in New Zealand A role for trading water permits* (VUW Thesis, Wellington, December 1998) 3

²⁰ Anderson; Snyder, above n, as found in McLellan, above n 19, 3

²¹ C.J. Bauer „Bringing Water Markets Down to Earth: The Political Economic of Water Rights in Chile, 1976-95” *World Development* 25(5), 639, 652, as found in McLellan, above n 19, 3

²² Counsell, *Achieving Efficiency in Water Allocation*, above n 1, 25

²³ Maude Barlow, as quoted by Richard Tren “Water is not ‘different’”,

<<http://www.techcentralstation.com/120903D.html>> (last accessed 31.01.06)

as it is often held that public authorities have a greater understanding than consumers of the aspect of clean water and its importance for society as a whole.²⁴

In general terms, two distinct ways exist how water allocation is handled.

One is administrative allocation; here, a public agency deals with the matter of allocation.

The second is markets on which users can transfer water rights. Markets can be described by free decisions of market participants, who can set priorities and try to achieve their personal goals.²⁵

Most allocation markets on the planet form part of a continuum on the scale between administrative allocation on the one hand and market allocation on the other hand. Whereas New Zealand and England rely heavily on the administrative approach, Australia can be placed in the middle, while Chile is known for its dominance of water markets.²⁶

The way water is currently regulated in New Zealand, especially in the field of allocation, has to do with the peculiar characteristics of New Zealand's environment.

The author of the research paper argues that in the context of New Zealand, it is not a black or white solution that will contribute best to an efficient and sustainable use of water, which also protects Maori values, but a grey solution, a combination of public regulation with market elements. In this concept, special importance has to be attached to the aspect of Maori values,²⁷ which has to be reflected in the regulatory structure. As the author argues, this could be achieved by a special agency²⁸ for the protection of Maori values.

A market approach could be applied in some areas in New Zealand.²⁹ It could be combined with regional authorities, regulating water at a local level,³⁰ whereas, at a

²⁴ The European Commission Community Research, above n 11, 124

²⁵ Counsell, *Achieving Efficiency in Water Allocation*, above n 1, 25, with further reference to J. McMillan *Reinventing the Bazaar: A natural history of markets* (W.W. Norton and Company, New York, 2002)

²⁶ Counsell, *Achieving Efficiency in Water Allocation*, above n 1, 25-26

²⁷ Compare Tipa; Teirney, above n 14, 50

²⁸ Compare in general terms in respect of the agency solution: Robert Baldwin; Martin Cave *Understanding Regulation – Theory, Strategy, and Practice* (Oxford University Press, Oxford, 1999) 69-70

²⁹ Lincoln *Environmental Attitudes and Barriers to Water Transfer*, above n 7, 39

³⁰ Compare in respect of the benefits of a decentralized regulatory structure: Worldbank, above n 12, Annex 2, 3rd page, found under the heading "How decentralized should regulation be?"

national level, the agency for Maori concerns could be installed and, additionally, further guidance could be given to local entities.³¹

Anyway, a regulatory change in New Zealand is necessary, due to the growing problems in New Zealand's water allocation

III PROBLEMS WITH NEW ZEALAND'S WATER ALLOCATION

Due to New Zealand's abundance of water resources, the allocation of these "has never been a high priority".³² An analysis of the natural conditions of New Zealand might be helpful in this context.

A Natural Conditions in New Zealand

New Zealand – as an island nation – is autonomous in the way that it largely relies on its own water resources. As no rivers can deliver the important water, precipitation and natural aquifers are the only two big sources of water supply. Therefore, these water resources have to be protected, especially as climate changes will have a greater impact.³³

New Zealand, however, can rely on a great amount of rainfall, adding up to an estimated figure between 300 and 600 billion cubic metres per year.³⁴ For purposes of analysis, it is necessary to become aware of the fact that this rainfall is unevenly spread, both in a temporal and a geographical dimension. In the course of a year, the amount of rainfall varies, so that droughts occur in some parts of the country, whereas in other seasons floods occur. Furthermore, whereas some regions are very dry, for instance Central Otago, with a rainfall of about 350 mm per year,

³¹ Compare the wishes of great parts of the public as documented by Ministry for the Environment *Reflections: A summary of your views on the Sustainable Water Programme of Action* (July 2005), above n 13, 4

³² Counsell, *Achieving Efficiency in Water Allocation*, above n 1, 2

³³ Molly Walsh; Alex Belinky; Brian Goebel, Globalchange, Chapter 4, Ireland and New Zealand, Water Resources, <http://www.globalchange.umich.edu/globalchange3/current/students/ireland_nz/water_report.htm> (last accessed 31.01.06), introduction

³⁴ Ministry of Environment *The State of New Zealand's Environment 1997* (Ministry for the Environment, Wellington, 1997), as found in Counsell, *Achieving Efficiency in Water Allocation*, above n 1, 4

other areas receive abundant rainfall, e.g. Westland with an average rainfall of more than 6,000 mm.³⁵

The rainfall is stored in surface water, such as the 70 major rivers, over 770 lakes and wetland and the huge number of groundwater deposits. What makes New Zealand so special in this context is the fact that often a large number of small autonomous catchments exists that do not have major connections to others. Countries such as Australia or the Western United States rely on large rivers with often one big catchment area. Rivers and Lakes deliver about 60 percent of the water which is consumed in New Zealand; the rest comes from groundwater resources.³⁶

The water New Zealand receives is an input for several activities. The most important sector water is needed for is hydro-electric generation, with over 100 billion cubic metres annually.³⁷

Other uses cover recreational and environmental matters, for instance for the preservation of the flora and fauna. Apart from that, some lakes, rivers and wetlands form an integral part of national parks.³⁸

Up to 2 billion cubic metres a year are used for consumption – excluding hydro-electric generation. Irrigation, household uses and industrial consumption play an important role in this. Irrigation, however, is the dominant sub-group of these uses, amounting to about 57 percent.³⁹ Other sources even speak of about 77 percent in this context.⁴⁰

³⁵ Counsell, *Achieving Efficiency in Water Allocation*, above n 1, 4

³⁶ Ministry of Environment, *The State of New Zealand's Environment 1997*, above n 34, as found in Counsell, *Achieving Efficiency in Water Allocation*, above n 1, 4

³⁷ Statistics New Zealand in *New Zealand Official Yearbook 2002* (Statistics New Zealand, Wellington, 2002), as found in Counsell, *Achieving Efficiency in Water Allocation*, above n 1, 4-5

³⁸ Counsell, *Achieving Efficiency in Water Allocation*, above n 1, 5

³⁹ Statistics New Zealand, above n, as found in Counsell, *Achieving Efficiency in Water Allocation*, above n 1, 5

⁴⁰ Lincoln Environmental "Information on Water Allocation in New Zealand", Report Nr. 4375/1, 2000, prepared for the Ministry of the Environment, as found in Counsell, *Achieving Efficiency in Water Allocation*, above n 1, 5

B Water Crises as Causes for Regulatory Reform

1 Water crises

Given the fact that New Zealand – overall – has an abundance of the natural resource of water, it seems – at first glance – to be surprising that there should be any need for reform.

As one commentator said, New Zealand has “a lot of the stuff”⁴¹. New Zealand is – in respect of the water available per person – second only to Norway and has 40 times more than in China.⁴²

However, an improvement of regulation is not only possible, but also necessary. The population in some parts of New Zealand is growing and competition between the conflicting uses of water arises. Considering the fact that some areas of New Zealand rely on water in times when it is scarce, a re-assessment of water allocation has become a major issue on the agenda of the regulators.⁴³

But why was this the case? The stimulus for the new debate on reforming water regulation was some major crises that have illustrated the problem of water allocation in New Zealand. One can think of the Auckland water crisis in 1994, the drought period of Marlborough in 2001, the crisis in hydro power production due to low lake inflows in 2001 and 2003, the water scarcity on the Kapiti Coast in 2003 and the conflict in South Canterbury in respect of the Waitaki river, where irrigation and hydro-electric usage opposed each other.⁴⁴

The last case shall be illustrated in more detail. In his famous movie *Chinatown*, Roman Polanski “wove a tale of corruption and skulduggery around the acquisition of water rights in the arid San Fernando Valley near Los Angeles.”⁴⁵

The plot is partly based on events that happened in California in the 1900s, where a battle took place between ordinary citizens and businessmen involved in

⁴¹ Rod Oram “Out of our depth and sinking” (9 October 2005), <www.waternz.co.nz> (last accessed 31.01.06)

⁴² Oram, above n 41

⁴³ Compare: Oram, above n 41

⁴⁴ Counsell, *Achieving Efficiency in Water Allocation*, above n 1, 2

⁴⁵ “Troubled Water”, above n 2

land development plans. In the Waitaki Valley, situated between Canterbury and Otago, another battle took place – definitely a legal one, without any reported crimes (as was the case in Polanski's movie).⁴⁶

But who are the actors in this real world plot?

On the one hand, there is Meridian Energy, a state-owned power company that itself owns the Manapouri power station and is responsible for the Waitaki scheme. This company can make use of large water resources in the Upper Waitaki catchment, where around 40 percent of the country's electricity is produced.⁴⁷

The problem arose when Meridian wanted to draw up the 1,2 billion project with the title "Project Aqua"⁴⁸, that provided that more water should be taken from the lower Waitaki River and around two-thirds of the river's water should be diverted into a canal to generate even more electricity with the help of six additional power stations, thereby delivering an additional 8 percent of the country's energy.⁴⁹

On the other hand, there are the farmers, represented by interest groups and claiming water themselves. Farmers intend to make use of the same water for the purpose of irrigating pastures and crops in South Canterbury and North Otago – the two major cities that are separated from each other by the Waitaki Valley. The problem was aggravated by the fact that farmers had converted land uses from low water-consuming grazing land use to more intensive uses, such as cropping. Despite Meridian's offer to settle this dispute, namely to grant 43 Million Dollars for a new irrigation scheme that could provide water for around 40 000 ha of land in the region of North Otago, the dispute still went on.⁵⁰

All in all, Project Aqua was regarded as "New Zealand's first major clash between competing interests wanting to get their hands on the same water".⁵¹

In the end, around 40 resource consent applications lay on the table of the responsible regional council. Under normal circumstances, the Resource Management Act (RMA) 1991 provides in these cases that applications are to be

⁴⁶ "Troubled Water", above n 2

⁴⁷ "Troubled Water", above n 2

⁴⁸ "Troubled Water", above n 2

⁴⁹ "Troubled Water", above n 2

⁵⁰ "Troubled Water", above n 2

⁵¹ "Troubled Water", above n 2

served according to the "first-come"⁵² principle. However, what the national government did was to bypass the normal RMA-procedure and to establish a special panel, appointed by the government. However, this intervention was regarded sceptically, especially by the side of irrigation proponents, who feared that governmental interests could interfere in the decision-making process.⁵³

Actually, central government had to intervene, as Environment Canterbury simply did not draw up an allocation plan in the past decades.⁵⁴ After the first plan "fulfilled Meridian's worst fears"⁵⁵, requiring them "to double the minimum flow of water it was sending downriver"⁵⁶, in the end, a modified plan was drafted, which was met with the general acceptance of the parties involved.⁵⁷

Therefore, this case made everyone aware of the fact that water is "a scarce asset"⁵⁸ and that "Project Aqua has brought some issues to a head – particularly issues regarding national interests versus local interests."⁵⁹

Finally, discussions arose about a remodification of water allocation. These water crises have not only gained the attention of the media and raised general concern about the current legal framework of water allocation, but they have also made analysts aware of the fact that the current legal allocation system has been developed in times when "scarcity of water" was a foreign term in New Zealand. Politicians, obviously consulted by water experts, have realized that in a comparative perspective, growth in New Zealand has gone very quickly and that the current water regulatory scheme has not kept pace with this development.⁶⁰

⁵² "Troubled Water", above n 2

⁵³ "Troubled Water", above n 2

⁵⁴ Oram, above n 41

⁵⁵ Oram, above n 41

⁵⁶ Oram, above n 41

⁵⁷ Oram, above n 41

⁵⁸ Sue Powell (from the Ministry of the Environment), as quoted in "Troubled Water", above n 2

⁵⁹ Sue Powell, as quoted in "Troubled Water", above n 2

⁶⁰ Ministry for the Environment *Water Programme of Action Water, Allocation and Use, Technical Working Paper* (June 2004), above n, 6

In order to understand the reform process better, it is important to know who originally began the debate about reforming water. To some degree, this is speculation, but the author of this paper is inclined to claim that politicians, who naturally want to be re-elected, became aware of the fact that the media transported certain messages when reporting about cases such as the Waitaki case. Whereas in this event, a kind of “David-and-Goliath clash as one between national and local priorities”⁶¹ was detailed, in others it simply seemed to be possible that cities such as Dunedin were “drying out”⁶² and people did not have sufficient water to use for ordinary purposes. These messages could have become very dangerous for the MPs in New Zealand, as water affects the most basic human instinct, namely the instinct to live. Therefore, water allocation is a “hot potato [...which brings] people’s emotions to the boil”.⁶³

The best way for politicians to get out of this dilemma consisted of accepting the fact that more and more debates about recent water problems were going on and to consult different interest groups – the public – about their views. One of the most important interest group is farmers, as around 77 percent of all water is allocated and used for agriculture,⁶⁴ so that the author of this paper is inclined to see them as major driving force for recent developments.

All in all, the New Zealand Government established a project, the “Sustainable Water Programme of Action”⁶⁵ in 2003 in order to make sure that “the country’s freshwater resources are managed to best support New Zealand’s future sustainable development”.⁶⁶

⁶¹ “Troubled Water”, above n 2

⁶² Steve Hepburn “Restraint in water use urged” (11.11.05), www.waternz.co.nz (last accessed 31.01.06)

⁶³ Jim Sutton “Water management is a hot potato” *Rural News* (2 September 2002)

⁶⁴ Sutton, above n 63

⁶⁵ Ministry for the Environment *Reflections: A summary of your views on the Sustainable Water Programme of Action* (July 2005), above n 13, 1

⁶⁶ Ministry for the Environment *Reflections: A summary of your views on the Sustainable Water Programme of Action* (July 2005), above n 13, 1

It is a crucial point to “de-politicise the issue”⁶⁷ and to work on the project of water reform in a foreseeable time-scale, which – as a commentator said – was “unlikely”⁶⁸, as in New Zealand’s politics, blood flows thicker and faster than water.”⁶⁹

3 The “[s]ustainable [w]ater [p]rogramme of [a]ction”⁷⁰

This program was one element of the Government’s “Sustainable Development Programme of Action”.⁷¹ This project started with working groups whose task was to analyse three major areas, namely water allocation and use, water quality and the identification of water bodies of national importance. These working groups released three technical papers in July 2004, namely “Water allocation and use”⁷², “The effects of rural land use on water quality”⁷³ and “Potential water bodies of national importance”.⁷⁴

On the basis of these three major papers, a public discussion document was developed and the three topics were dealt with in an integrated manner. Eight key issues of water regulation were identified and proposals were made to find solutions to the major problems of water resources.⁷⁵ These key issues included the criticism of a lack of “strategic planning approach”,⁷⁶ failures in the water allocation process and concerns about the unsatisfactory Maori participation in this approach. As discussing all eight key issues would go beyond the scope of this research paper, the three aspects mentioned will form the main part of the following analysis.⁷⁷

⁶⁷ Oram, above n 41

⁶⁸ Oram, above n 41

⁶⁹ Oram, above n 41

⁷⁰ Ministry for the Environment *Reflections: A summary of your views on the Sustainable Water Programme of Action* (July 2005), above n 13, 1

⁷¹ Ministry for the Environment *Reflections: A summary of your views on the Sustainable Water Programme of Action* (July 2005), above n 13, 1

⁷² Ministry for the Environment *Reflections: A summary of your views on the Sustainable Water Programme of Action* (July 2005), above n 13, 1

⁷³ Ministry for the Environment *Reflections: A summary of your views on the Sustainable Water Programme of Action* (July 2005), above n 13, 1

⁷⁴ Ministry for the Environment *Reflections: A summary of your views on the Sustainable Water Programme of Action* (July 2005), above n 13, 1

⁷⁵ Ministry for the Environment *Reflections: A summary of your views on the Sustainable Water Programme of Action* (July 2005), above n 13, 1

⁷⁶ Counsell, *Achieving Efficiency in Water Allocation*, above n 1, 8

⁷⁷ Ministry for the Environment *Reflections: A summary of your views on the Sustainable Water Programme of Action* (July 2005), above n 13, 4-7

The discussion document was published on 14 December 2004 and was the reference and starting-point for a consultation process that began in February 2005. Meetings took place in 20 locations all over New Zealand in order "to hear what New Zealanders had to say about freshwater management."⁷⁸ In the end, this consultation process showed that – generally – the public shared the issues already presented by the government. However, additional topics were addressed, for instance bio security and health aspects as well as an integrated management approach.⁷⁹

In order to sum up this process and to place it in a wider context, the available reform options range from a general change of the regime of regulation to slight changes in the current legal and economical framework. Two major and groundbreaking issues may illustrate this.

First of all, a general question has to be answered with respect to the aspect of who should govern water distribution. The responsible institutions can be markets, where offer and demand interplay and govern the way water is dealt with, or political decision-makers, that prescribe how water should be handled. In practical terms, there is often a mixture of both.⁸⁰

Secondly, the vehicle to allocate and distribute water resources is property rights, which are legal claims to make use of the water and to enjoy the benefits of its use.⁸¹

For the decision of how to handle water, the international perspective has become more and more important. Practical experiences in other countries have shown first-hand efforts,⁸² undergone by other states working as pioneers in some areas, which are analyzed and provide valuable clues as to which regimes turn out to be more successful than others. It is clear that economic theories are an important

⁷⁸ Ministry for the Environment *Reflections: A summary of your views on the Sustainable Water Programme of Action* (July 2005), above n 13, 2

⁷⁹ Ministry for the Environment *Reflections: A summary of your views on the Sustainable Water Programme of Action* (July 2005), above n 13, 3, 7

⁸⁰ Counsell, *Achieving Efficiency in Water Allocation*, above n 1, 3

⁸¹ Counsell, *Achieving Efficiency in Water Allocation*, above n 1, 3

⁸² Counsell, *Achieving Efficiency in Water Allocation*, above n 1, 25

tool; however, they have to be applied in practical terms, which may be different in each state, environment and legal framework.

IV THE LEGAL BACKGROUND

A The Way towards the RMA – an Integrated Approach

The current legislative framework has developed through a number of inconsistent statutes, namely the Water and Soil Conservation Act 1967 (WSCA) and the Town and Country Planning Act 1977 (TCPA) and culminated in the passing of the Resource Management Act 1991 (RMA).

Whereas the WSCA established water rights that were granted on an individual consideration of benefits and drawbacks without providing a consistent policy,⁸³ the TCPA directly affected the land use and only had mediate consequences for water regulation.⁸⁴

The RMA integrated these different regimes into one major law. It promoted decentralised decisions, the individual players on the stage – local governments as well as companies – being the decision-makers so that a national consensus on the matter of regulation is not mandatory.⁸⁵

The purported goal of the RMA is “to promote the sustainable management of natural and physical resources”⁸⁶. As the Act itself says, “sustainable”⁸⁷ management covers “managing the use, development and protection of natural resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural wellbeing and for their health and safety”⁸⁸.

At the same time, it has to sustain “the potential of natural and physical resources [...] to meet the reasonably foreseeable needs of future generations”⁸⁹ and

⁸³ McLellan, above n 19, 7

⁸⁴ McLellan, above n 19, 7

⁸⁵ Counsell, *Achieving Efficiency in Water Allocation*, above n 1, 6; McLellan, above n 19, 7

⁸⁶ Section 5 RMA 1991

⁸⁷ Section 5 RMA 1991

⁸⁸ Section 5 RMA 1991

⁸⁹ Section 5 (a) RMA 1991

to "safeguard[...] the life-supporting capacity of air, water, soil, and ecosystems."⁹⁰ It relies on the principle of "[a]voiding, remedying or mitigating any adverse effects".⁹¹ All in all, the RMA first focuses on the activities, analyses their effects and puts forward the idea of reducing or eliminating these harmful consequences.⁹²

This act is governed by three major principles. Firstly, according to section 6, "matters of national importance"⁹³ have to be taken into account, the "natural character",⁹⁴ the "indigenous vegetation"⁹⁵ and peculiar matters of the Maori⁹⁶ being of utmost importance. Section 7 mentions "[o]ther matters",⁹⁷ giving a list of them, e.g. the matter of efficiency,⁹⁸ the "[I]ntrinsic values of ecosystems"⁹⁹ and the environment as a whole¹⁰⁰ are mentioned. Finally, section 8 refers to the Treaty of Waitangi, which has to be regarded in the decision-making process.¹⁰¹

B The Authorities

In respect of organization the RMA provides a framework which favours decentralized decision-making.¹⁰²

The paramount responsibility for water allocation – in the hierarchical order of authorities (with the Minister for the Environment at the top and the districts and city councils at the bottom)¹⁰³ – is exercised by the regional councils and unitary authorities.

⁹⁰ Section 5 (b) RMA 1991

⁹¹ Section 5 (c) RMA 1991

⁹² Counsell, *Achieving Efficiency in Water Allocation*, above n 1, 6

⁹³ Section 6 RMA 1991

⁹⁴ Section 6 (a) RMA 1991

⁹⁵ Section 6 (c) RMA 1991

⁹⁶ Compare section 6 (e) RMA 1991

⁹⁷ Heading of Section 7 RMA 1991

⁹⁸ Compare section 7 (b) RMA 1991

⁹⁹ Section 7(d) RMA 1991

¹⁰⁰ Section 7 (f) RMA 1991

¹⁰¹ Compare Counsell, *Methods for the Allocation and Valuation of Water Property Rights in New Zealand*, above n 8, 10

¹⁰² Kevin Counsell *Methods for the Allocation and Valuation of Water Property Rights in New Zealand*, above n 8, 9

Also compare part 4, sections 24 -42 A RMA 1991

¹⁰³ Counsell, *Methods for the Allocation and Valuation of Water Property Rights in New Zealand*, above n 8, 11

At a national level, the Ministry for the Environment and the Department of Conservation are concerned with the management of the RMA. Whereas the Department is only important in respect of New Zealand's coastal regions, the Ministry theoretically plays a vital role with regard to the release of national policy statements and national environmental standards when a matter of national significance is affected. However, in practical terms, the Department has not often made use of this authority.¹⁰⁴

The decisive role is attributed to the 12 regional councils and 4 unitary authorities. These regional councils or unitary authorities respectively – the latter can be found in those regions where no regional councils exist and which have a double function, comprising the competences of the regional councils as well as those of the local district or city councils – have broad competences in respect of the management of the major water catchments.¹⁰⁵

Section 30 of the RMA assigns them the function of “the establishment, implementation, and review of objectives, policies and methods to achieve integrated management of the natural and physical resources of the region”, the “control of the taking, use, damming, and diversion of water, and the control of the quantity, level, and flow of water in any water body” and finally the “control of discharges into or onto land, air, or water and discharges of water into water.”¹⁰⁶

Apart from regional policy statements¹⁰⁷, they can prepare regional plans where objectives, policies and methods are laid down, determining the distribution of water resources.¹⁰⁸ For instance, minimum flows for surface water as well as minimum levels of groundwater can be specified.¹⁰⁹ Additionally, other components are finalized, including allocation limits, rations of water for times of scarcity and the options of water rights trades.¹¹⁰

¹⁰⁴ Counsell, *Achieving Efficiency in Water Allocation*, above n 1, 7-8

¹⁰⁵ Counsell, *Achieving Efficiency in Water Allocation*, above n 1, 7-8

¹⁰⁶ Also see McLellan, above n 19, 9-10

¹⁰⁷ Compare Counsell, *Methods for the Allocation and Valuation of Water Property Rights in New Zealand*, above n 8, 11

¹⁰⁸ Section 30 (1a) RMA 1991

¹⁰⁹ Section 30 (1e) RMA 1991

¹¹⁰ Counsell, *Achieving Efficiency in Water Allocation*, above n 1, 11-12

At the lowest level, there are the district and city councils.¹¹¹

C The “[S]trategic [P]lanning [A]pproach”¹¹² of the RMA

This approach consists of a series of tools, which, on the whole, enable measures for the purpose of water regulation. They comprise plans and policy statements, resource consents and, finally, enforcement mechanisms.

1 Plans and policy statements

Starting with the plans and policy statements, one must take note of the fact that they are arranged in a hierarchical order, where those at the bottom must be complementary to those at the top.

However, the top, namely the Minister for Environment, who can release national environmental standards and national policy statements, does not play a significant role in practical terms.¹¹³

Regional policy statements must be issued by all councils. They provide a concise summary of the natural and physical resource aspects in the region.

Additionally and voluntarily, the councils can – they do not have to – also issue regional plans. These plans reflect the goals and measures applicable to govern the region’s water management. These plans also have to be in compliance with regional policy statements.

Finally, district plans are mandatorily issued by the district and city councils which describe the aims and methods for water management at a local level.¹¹⁴

2 Enforcement mechanisms

They are only a minor tool in the context of the RMA and comprise notices, declaring an abatement and infringement, to make sure that specific uses of water comply with the RMA.¹¹⁵

¹¹¹ Counsell, *Achieving Efficiency in Water Allocation*, above n 1, 7-8

¹¹² Counsell, *Achieving Efficiency in Water Allocation*, above n 1, 8

¹¹³ Counsell, *Achieving Efficiency in Water Allocation*, above n 1, 8

¹¹⁴ Counsell, *Achieving Efficiency in Water Allocation*, above n 1, 8

¹¹⁵ Counsell, *Achieving Efficiency in Water Allocation*, above n 1, 9

3 Resource consents

Generally, a person may only “take, use, dam or divert any water”¹¹⁶ if this is allowed by “a rule in regional plan [...] or a resource consent”¹¹⁷.

A resource consent is a permit under the regime of the RMA, which is necessary to make use of natural resources. When these consents affect water, they are called water permits and released by regional councils and unitary authorities.

Regional plans normally subdivide these activities involving the use of water into five classes.¹¹⁸ They range from permitted activities with minor detrimental consequences, which do not even require a resource consent, to – for instance – discretionary activities, where the regional councils have wide discretion whether to grant a permit, to refuse it totally or to add conditions to the permit.

When a regional plan does not say anything about an activity, it is unclassified, which is then equal to a discretionary activity.¹¹⁹

In practical terms, a resource consent is necessary to undertake measures that have effects on the natural environment. When this involves the taking of only a small amount of water – 10 to 20 m³ per day – councils regard them as permitted activities that do not need a consent. When this threshold is crossed, activities are often classified as discretionary, meaning the councils have wide scope in their assessment and the way they consent.¹²⁰

¹¹⁶ Section 14 (1a) RMA 1991

¹¹⁷ Section 14 (3a) RMA 1991, in connection with section 14 (1a) RMA. The other exceptions in section 14 (3b) – (3e) RMA do not have any relevance for the purpose of this analysis. See also: Counsell, *Achieving Efficiency in Water Allocation*, above n 1, 12

The RMA classifies the activities in several classes, ranging from permitted activities (that do not require any consent) to prohibited activities (which are strictly interdicted).

Section 77 (b) RMA 1991.

Also compare Colin McLellan, above n 19, 12

¹¹⁸ Section 77 (b) RMA 1991

Also see: Counsell, *Achieving Efficiency in Water Allocation*, above n 1, 9

¹¹⁹ McLellan, above n 19, 12

Also see section 77 (b) RMA 1991

¹²⁰ Counsell, *Achieving Efficiency in Water Allocation*, above n 1, 9

4 The application process

The process starts with consultations between the applicant, the council staff and third parties that might have an interest, followed by preparatory works. They include an assessment of the real and potential effects of the activity and the options of the applicant to avoid or at least mitigate them. When the activity is detailed, an application can be launched.¹²¹

The council now has to decide whether to consent to the activity and whether to notify the public. This enables the public to issue objections to the consent. The first possibility for this is the hearing, where the public – according to section 96 RMA “anyone”¹²² – can make submissions. The final decision regarding the consent, made by the hearing panel, can be appealed to the Environment Court.¹²³ All in all, this process has been attacked as being too complex, too long and a process which is “bogged down in objections”.¹²⁴

The RMA Amendment Act of 2003 sought to bring relief to some of these flaws. It involved changes to the notification in the area of such activities which involve only minor detrimental effects. A comprehensive public notification is no longer necessary and can be replaced by a process in which only directly effected parties are notified. Furthermore, this Act allows the authorities to consider certain effects on a case basis and allows them to disregard them, so they gain more flexibility in assessing an application.¹²⁵

A further step was the Resource Management Act 2005, attempting to facilitate and speed up the application process. Three of the amendments shall be introduced in this context.

¹²¹ Counsell, *Achieving Efficiency in Water Allocation*, above n 1, 10

¹²² Section 96 RMA 1991

¹²³ Counsell, *Achieving Efficiency in Water Allocation*, above n 1, 9-10

¹²⁴ R. Kerr “The Resource Management Act: Fundamentally Sound or Fundamentally Flawed”, a speech to the Massey University Planning Program 2002, as found in Counsell, *Achieving Efficiency in Water Allocation*, above n 1, 9-10

¹²⁵ Counsell, *Achieving Efficiency in Water Allocation*, above n 1, 10-11

Firstly, the importance of pre-hearing meetings is strengthened. Councils can now prescribe attendance at these. If a person does not fulfil this requirement, his submission can be declined, as stated in section 99 (5) RMA.¹²⁶

Secondly, section 99 (A) RMA states that mediation can be contracted between the parties. It could help them to distill their real desires and interests – not their positions¹²⁷ – and to come to negotiated solutions which might correspond better to their wishes.¹²⁸

Finally, the time for decision-making by the Environment Court was shortened. Now, hearing dates can take place within 6 months. Furthermore, the Court can take evidence in a written form and can consider those media of proof that were already brought to the consent authority, section 290 (A) RMA.¹²⁹

The author of this paper is convinced that the lengthy application processes are not the main problem of the current regulatory approach. It is crucial for a good regulatory scheme to involve public authorities in the allocation of water. This will often take time, which is necessary for good decisions in some cases. It definitely is a step in the right direction to speed up these processes to a reasonable degree, maintaining a high quality of decision-making. But all this should not dilute the fact that the most urgent problems are different from mere long-term application processes.

¹²⁶ Ministry for the Environment *Resource Management Amendment Act 2005 – Improving decision making* (August 2005), as found under the heading “Pre-hearing meetings”

¹²⁷ The author of this paper can refer to a course he attended as part of his professional legal training, provided by the state of Bavaria. The course – held by Robert Rost and Peter Guenter – had the title “Muenchener Workshop zum Verhandlungsmanagement“, where this important difference was evaluated.

Compare the article of a former colleague of the author, who also attended this workshop: Thilo Schulz, *Verhandlungsfähigkeit – Eine Schlüsselqualifikation*, <<http://www.jurawelt.com/referendare/ra-beruf/7904>> (last accessed 31.01.06), with further references at the end of his article, among others to Fritjof Haft *Verhandlung und Mediation. Die Alternative zum Rechtsstreit* (C.H.Beck, 2000)

¹²⁸ Ministry for the Environment *Resource Management Amendment Act 2005 – Improving decision making* (August 2005), above n 126, found under the heading “Mediation”

¹²⁹ Ministry for the Environment *Resource Management Amendment Act 2005 – Improving decision making* (August 2005), above n 126, found under the heading “Improving decision making at the Environment Court”

D Features of the Water Permit

Once a water permit is gained, it can be seen – in legal terms – as a right of action, allowing to take, make use or divert water, under the maxim that water factually is available. However, it does not create legal ownership or some sort of property rights in the technical sense and, moreover, it does not give a guarantee that water still exists in sufficient quantities.

Furthermore, they can be granted up to 35 years or – if nothing else is provided – for five years, according to section 126 of the RMA.¹³⁰

What is also of importance in this context is the fact that, once a permit is issued, it will not exist for an unlimited period of time. Sections 125 and 126 of the RMA contain the so-called “use it or lose it provisions”¹³¹.

According to section 125 RMA, a consent lapses after 2 years after the commencement of the consent, unless another provision exists in the consent.

Finally, section 126 RMA deals with the cancellation of consent, which allows authorities to cancel the consent if “it has not been exercised for a continuous period of 2 years”.¹³²

E Transfer of Water Permits

Once a water permit is issued, it is not – for all times – attached to the original applicant, but can be transferred to other users.

Section 136 of the RMA differentiates in this context:

A holder of a water permit granted for damming or diverting water may transfer it to any owner or occupier of the affected site.

Holders of water permits for other activities may grant it – at their discretion – to any owner or occupier of the site.

¹³⁰ Also see: Ministry for the Environment, *Water Allocation and Use, Technical Working Paper* (June 2004), above n 3, 8

¹³¹ McLellan, above n 19, 12

¹³² McLellan, above n 19, 12-13

If they want to transfer it to other persons, this is only possible if the other person is in the same area of catchment, aquifer or geothermal field and the transfer has been approved – either generally in the regional plan or individually by the authorities.¹³³

Thereby, tradable water permits are one of the economic tools of the RMA which are declared to be a medium to achieve the purpose of the Act, as section 24 (h) of the RMA provides. However, the RMA itself limits the use of economic instruments by stating that only the permit holders have to be charged with the costs that arise. A charge by economic value or an allocation by auction is not provided in the RMA.¹³⁴

V METHODS OF ALLOCATION

In respect of the organization, the RMA provides a framework which favours decentralized decision-making.¹³⁵

The paramount responsibility for water allocation – in the hierarchical order of authorities (with the Minister for the Environment at the top and the districts and city councils at the bottom)¹³⁶ – is exercised by the regional councils and unitary authorities. Apart from regional policy statements¹³⁷, they can prepare regional plans where objectives, policies and methods are laid down, determining the distribution of water resources.¹³⁸ For instance, minimum flows for surface water as well as minimum levels of groundwater can be specified.¹³⁹ Additionally, other components are finalized, including allocation limits, rations of water for times of scarcity and the options of water rights trades.¹⁴⁰

¹³³ Also see: McLellan, above n 19, 13-15

¹³⁴ McLellan, above n 19, 14-15

¹³⁵ Counsell *Methods for the Allocation and Valuation of Water Property Rights in New Zealand*, above n 8, 9

Also compare part 4, sections 24 -42 A RMA 1991

¹³⁶ Counsell, *Methods for the Allocation and Valuation of Water Property Rights in New Zealand*, above n 8, 11

¹³⁷ Compare Counsell, *Methods for the Allocation and Valuation of Water Property Rights in New Zealand*, above n 8, 11

¹³⁸ Section 30 (1a) RMA 1991

¹³⁹ Section 30 (1e) RMA 1991

¹⁴⁰ Counsell, *Achieving Efficiency in Water Allocation*, above n 1, 11-12

The underlying principle for all this is the “sustainable development of natural and physical resources”.¹⁴¹

When issuing a resource consent, applications are compared with the goals of the regional plans and it is assessed whether the desired activity complies with them. In doing this, any potential harm to environment is scrutinized.¹⁴²

The crucial aspect of allocation is, however, that despite these theoretically sensible parameters, authorities often act on the basis of priority so that the first applicant will receive the first resource consent, which often causes the situation of a “gold rush”.¹⁴³

It is important to become aware of the fact that the RMA demands persons managing environmental resources to make efficient use of them, section 7 (b) RMA. However, in practical terms, councils do take efficiency into account but with the perspective of the individual user and the applied technical efficiency but not at the level of allotment of the resource as a whole within the pool of potential users.¹⁴⁴

The applicants that came last and were therefore not served are sometimes put on a waiting list. In times of scarcity, rationing schemes are most often applied to reduce the taking of water from the resources. Here, certain uses are preferred, for instance domestic water and fire-fighting water.¹⁴⁵

Trading of water could be a solution and a major provision exists in the RMA, section 136 RMA, requiring that the transfer takes place between users of the same catchment, aquifer or geothermal field and, additionally, the transfer was provided in the regional plan and consented by the council. However, up till now, there are not many practical examples of water trades.¹⁴⁶

¹⁴¹ Section 5 RMA 1991

¹⁴² Counsell, *Achieving Efficiency in Water Allocation*, above n 1, 12

¹⁴³ Lincoln Environmental *Water Allocation: A strategic overview*, above n 3, as found in Counsell, *Achieving Efficiency in Water Allocation*, above n 1, 12

¹⁴⁴ Counsel, *Achieving Efficiency in Water Allocation*, above n 1, 13-14 with reference to Lincoln Environmental, *Water Allocation: A strategic overview*, above n 3

¹⁴⁵ Counsell, *Achieving Efficiency in Water Allocation*, above n 1, 13 with reference to Hawkes Bay Regional Council *Regional Water Resources Plan* (Napier, 2000)

¹⁴⁶ Lincoln Environmental *Information on Water Allocation in New Zealand* (Report No. 4375/1, prepared for the Ministry for the Environment, 2000) as found in Counsell, *Achieving Efficiency in Water Allocation*, above n 1, 13-14

In respect of costs, councils will charge applicants with the processing costs for the consent. After the consent has been issued, an annual charge for monitoring by the council is due for payment, which normally is based on the amount of water extracted, for which water meters are used to determine the volume of the extracted water.¹⁴⁷

VI PROBLEMS WITH THE CURRENT REGULATORY APPROACH – REQUIREMENTS FOR FUTURE REGULATION

The current approach of water allocation addresses a number of problems that were intensively discussed in the Water Programme of Action and several working papers of the Ministry of the Environment. In these, the experiences of participants of workshops and consultations were analyzed.¹⁴⁸

A Lack of Planning – Better Guidance by National Government

One point of criticism arose due the fact that up till now, only “[l]ittle strategic planning”¹⁴⁹ exists for water management as a whole. For instance, local councils are the dominant players at the moment. Their decisions can hardly be predicted and trans-regional projects become difficult. Besides, regional councils often do not receive guidance by the national government, which could support the councils in their – practically – independent decision-making process. Especially the industry is in favour of greater direction by central government and of giving them greater certainty. One example of this is to determine national important sites and values in the field of water management.¹⁵⁰

In this area, the Resource Management Amendment Act 2005 – which is even called “the biggest ‘tune-up’ of the RMA since 1991”¹⁵¹ – gave some relief.

¹⁴⁷ Counsell, *Achieving Efficiency in Water Allocation*, above n 1, 14

¹⁴⁸ Compare: Ministry for the Environment *Reflections: A summary of your views on the Sustainable Water Programme of Action* (July 2005), above n 13, 1

¹⁴⁹ Ministry for the Environment *Water Programme of Action, Water Allocation and Use, Technical Working Paper* (June 2004), above n 3, 9

¹⁵⁰ Ministry for the Environment *Reflections: A summary of your views on the Sustainable Water Programme of Action* (July 2005), above n 13, 4-5

¹⁵¹ Ministry for the Environment *Resource Management Amendment Act 2005 – Overview* (August 2005), found under the heading “Background”

These changes will not affect national policy statements in the field of the water industry so much, as the current discussions rather focus on other resources than water.¹⁵²

Moreover, the role of the Minister for the Environment seems to have changed. Even before the RMA Amendment Act 2005 was released, the Minister had some powers in the field of water regulation. If he or she considered a resource consent to be a matter of national significance, he could call in an application. Once this application was called in, the Minister had to appoint a board of inquiry, which held a hearing and made proposals to the Minister, who then had to decide about the application, thereby replacing the decision of the local authority.¹⁵³

The Resource Management Amendment Act 2005 makes available a wide range of more flexible and useful tools which widen the central government's influence, of which three examples shall be specified.

Sections 140 and 141 (A) of the RMA now grant the Minister for the Environment the option to call in a subject-matter. If the Minister acts in this way, he or she can either hand over the application to a board of inquiry – a body of experienced people, chaired by a – current or former – Environment Court judge – or to the Environment Court. One of these instances then has to make a decision, which then can be appealed to the High Court, but only on questions of law.¹⁵⁴

Apart from that, he or she can now directly interfere with the measures of local authorities. This starts with section 24 (A) RMA, which gives the Minister for the Environment the power to inquire into the performance of a local authority and to deliver further recommendations to the local entity. For doing so, the Minister has a wide range of measures, starting with requests for information (section 27 RMA), stretching to formal warnings to the local authority to take action and culminating in

¹⁵² Ministry for the Environment *Resource Management Amendment Act 2005 – Improving national leadership* (August 2005), found under the heading “National Policy Statements”

¹⁵³ Ministry for the Environment *Resource Management Amendment Act 2005 – Improving national leadership* (August 2005), above n 152, found under the heading “Decisions on matters of national significance”

¹⁵⁴ Ministry for the Environment *Resource Management Amendment Act 2005 – Improving national leadership* (August 2005), above n 152, found under the heading “Decisions on matters of national significance”

the possible appointment of persons to substitute the functions of the local authority when it fulfil its tasks (section 25 RMA).¹⁵⁵

Finally, section 25 (A) RMA enables the Minister to direct local entities to prepare plans or parts of them to deal with aspects of resource management. However, in doing this, the Minister cannot prescribe a defined outcome of the planning process. In contrast, the local entity still is accountable for the preparation of the plans. This tool is mainly a procedural stimulus to motivate local authorities to become active.¹⁵⁶

All in all, these amendments are meant to give the Minister for the Environment limited powers to monitor the implementation of the RMA and to foster as well as compare council performance.¹⁵⁷

The crucial point is, however, whether these extended powers of the Minister – especially his power to “call in”¹⁵⁸ – are an appropriate regulatory tool to improve the management of water resources. However, one has to consider that these ministerial powers will probably often play a major role in cases where bigger projects are involved and where the clash of differing interests is regarded sceptically by the media. This became obvious in the case of Project Aqua, where the special government panel and its intervention in the application process “aroused suspicion from irrigation proponents who fear[ed] the decision-making process [might have] favour[ed] Meridian over private local interests.”¹⁵⁹ Public dissatisfaction was even increased as Meridian Energy is a state-held company.¹⁶⁰

This practical example goes hand in hand with regulatory theory which says that one reason why regulatory agencies received an ever-greater importance at the cost of ministerial powers was because it helped to keep political issues out of

¹⁵⁵ Ministry for the Environment *Resource Management Amendment Act 2005 – Improving national leadership* (August 2005), above n 152, found under the heading “Ministerial powers”

¹⁵⁶ Ministry for the Environment *Resource Management Amendment Act 2005 – Improving national leadership* (August 2005), above n 152, found under the heading “Ministerial powers”

¹⁵⁷ Ministry for the Environment *Resource Management Amendment Act 2005 – Improving national leadership* (August 2005), above n 152, found under the heading “Ministerial powers”

¹⁵⁸ Compare new section 141 RMA, amended in 2005, as found in Ministry for the Environment *Resource Management Amendment Act 2005 – Improving national leadership* (August 2005), above n 152, under the heading: “Decisions on matters of national significance”

¹⁵⁹ “Troubled Water”, above n 2

¹⁶⁰ “Troubled Water”, above n 2

regulatory issues. This enhanced continuity of planning-processes and contributed to greater fairness. Even pure "suspicions of political bias"¹⁶¹ should be avoided in this context.

Apart from that, the Minister will need feasible criteria when to interfere and when not. If he tends to interfere in everyday transactions, the capacities of the Ministerial Department could be overstretched, especially due to the fact that it will perhaps lack the expertise necessary to deal with the issues.¹⁶²

B Water Allocation – Problems of Efficiency

Perhaps the major element that must be improved is the aspect of water allocation. The "first-in [,] first-served"¹⁶³ approach was in the focus of the debate, as such a method will not contribute to an efficient use of scarce water resources.

Efficiency has – as the Environment Court said in *Marlborough Ridge Ltd. v Marlborough District Council*¹⁶⁴ – three dimensions, namely "allocative efficiency"¹⁶⁵, "productive efficiency"¹⁶⁶ and "dynamic efficiency"¹⁶⁷. "Productive efficiency"¹⁶⁸ means that a better product is generated with the same costs, for instance. "Allocative efficiency"¹⁶⁹ refers to the situation in which resources are guided to those production sites where the most valuable goods and services have their origin.

¹⁶¹ Baldwin; Cave, above n 28, 69, with further reference to F.M.G. Willson "Ministries and Boards: Some Aspects of Administrative Development since 1832" (1955) Pub. Admin. 43 and to Baldwin *Regulating the Airlines*, chapter 7

¹⁶² Baldwin; Cave, above n 28, 69

¹⁶³ Counsel, *Achieving Efficiency in Water Allocation*, above n 1, 12, with further reference to Lincoln Environmental, *Water Allocation: A strategic overview*, above n 3

¹⁶⁴ Environment Court *Marlborough Ridge Ltd. v Marlborough District Council* C 111/97, as found in McLellan, above n 19, 21

¹⁶⁵ Environment Court *Marlborough Ridge Ltd. v Marlborough District Council* C 111/97, as found in McLellan, above n 19, 21

¹⁶⁶ Environment Court *Marlborough Ridge Ltd. v Marlborough District Council* C 111/97, as found in McLellan, above n 19, 21

¹⁶⁷ Environment Court *Marlborough Ridge Ltd. v Marlborough District Council* C 111/97, as found in McLellan, above n 19, 21

¹⁶⁸ Environment Court *Marlborough Ridge Ltd. v Marlborough District Council* C 111/97, as found in McLellan, above n 19, 21

¹⁶⁹ Environment Court *Marlborough Ridge Ltd. v Marlborough District Council* C 111/97, as found in McLellan, above n 19, 21

“Dynamic or innovative efficiency”¹⁷⁰ means that technology changes are promoted and additional gains are some sort of market present for the pioneers responsible for them.¹⁷¹

The current regime of the RMA does not really provide methods that contribute to efficiency, as competition between different uses is not dealt with in an economic way. The RMA is mainly focused on the detrimental effects of use, therefore has a negative role, but does not positively provide in detail how water should be used in the most beneficial way. This becomes clear in the situation of Waitaki, when a water resource is nearly or fully allocated. Furthermore, even after a consent has been issued, few incentives exist for technical efficiency when making use of the consent.¹⁷²

And the issue of efficiency continues with the aspect of payment for the good water. Although section 19 of the Local Government (Rating) Act 2002 enables local government to apply the principle of “the user pays”,¹⁷³ which could contribute to efficiency, in practical terms most residential customers only pay a small, nearly invisible water charge as an element of their rates bill. Water metering and volume-orientated charges are becoming more important, but are still an exception. All in all, the user has to cover the full capital and operational costs of the water supply which could contribute to sustainability, which is the maxim of the RMA.¹⁷⁴ Hence, water is not allocated “to the highest environmental, social, cultural and economic value[...].”¹⁷⁵

The RMA Amendment Act 2005 sought to bring some relief to this problem. For instance, section 30 of the RMA has been amended in 2005, clarifying that it is the main function of the regional councils to set up rules in regional plans for the

¹⁷⁰ Environment Court *Marlborough Ridge Ltd. v Marlborough District Council* C 111/97, as found in McLellan, above n 19, 21

¹⁷¹ Environment Court *Marlborough Ridge Ltd. v Marlborough District Council* C 111/97, as found in McLellan, above n 19, 21

¹⁷² Ministry for the Environment, *Water Programme of Action, Water Allocation and Use, Technical Working Paper* (June 2004), above n 3, 9-10

¹⁷³ Ralph Chapman; Eddy Goldberg; Guy Salmon; Jim Sinner *Sustainable Development and Infrastructure Report for the Ministry of Economic Development* (2003) 88

¹⁷⁴ Chapman; Goldberg; Salmon; Sinner, above n 173, 88

¹⁷⁵ Ministry for the Environment *Water Programme of Action, Water Allocation and Use, Technical Working Paper* (June 2004), above n 3, 9

allocation of the natural resource water (and others).¹⁷⁶ However, the scope of regional plans is limited as further concrete guidance is not provided by the national government.

Apart from that, sections 124 (A)-(C) RMA now provide that – once a resource consent has expired – the existing consent has priority in case of conflict with a new applicant for the same resource. Even though regional plans can implement exceptions from this “default rule”,¹⁷⁷ it rather seems to be the case that the right of priority has been fixed¹⁷⁸ and therefore also the – often criticized – “first-in [,] first-served”¹⁷⁹ approach.

It is definitely a good starting-point when – as provided by section 124 (B) RMA – efficiency and the use of good industry practice on the one hand¹⁸⁰ and the value of existing investments (section 104 (A) RMA) on the other hand have to be considered¹⁸¹ when deciding about an application.

However, it seems to be the case that the status quo has been fixed rather than a flexible approach to water allocation having been chosen. The criteria for water allocation are wide and it is questionable whether these open terms give useful guidance. One can admit that this would be the case if a number of leading cases that might work as a pattern came into the focus of the authorities. Whether this will happen is very doubtful.

A possible remedy for this, namely water transfers, do not play a major role in practical terms. Therefore, spare capacities have often not been transferred. One reason for this is that transfers must be permanent under the regime of the current

¹⁷⁶ Ministry for the Environment *Resource Management Amendment Act 2005 – Improving natural resource allocation* (August 2005), found under the heading “Clarification of regional council’s role”

¹⁷⁷ Ministry for the Environment *Resource Management Amendment Act 2005 – Improving natural resource allocation* (August 2005), above n 176, found under the heading “Right in Priority”

¹⁷⁸ Giving an overview how the principle of priority still works in these cases:

Ministry for the Environment *Resource Management Amendment Act 2005 – Improving natural resource allocation* (August 2005), above n 176, found under the heading “Right in priority”

¹⁷⁹ Counsel, *Achieving Efficiency in Water Allocation*, above n 1, 12, with further reference to Lincoln Environmental, *Water Allocation: A strategic overview*, above n 3

¹⁸⁰ Ministry for the Environment *Resource Management Amendment Act 2005 – Improving natural resource allocation* (August 2005), above n 176, found under the heading “Right in priority”

¹⁸¹ Ministry for the Environment *Resource Management Amendment Act 2005 – Improving natural resource allocation* (August 2005), above n 176, found under the heading “Recognition of the value of existing investment”

legislative framework and there is not an option available for a transfer to take place only for a limited period of time. Apart from that, partial transfers are not allowed. Finally, there is no provision in the RMA that the consent is re-transferred after a certain period of time. For that, a separate agreement would be necessary, which would be beyond the scope of the RMA.¹⁸²

Although the Resource Management Amendment Act has been amended in section 137 in order to allow transfer of discharge permits,¹⁸³ there still seem to be deficiencies in the transfer system.

The length of resource consents increases the difficulty, as some consents are concretely defined and last up to 35 years so that a re-allocation is hardly possible and transfers of water permits – up till now – hardly ever take place. Therefore, tension between certainty for industry when making investments on the one hand and flexibility – on a national scope of allocating water to the most efficient uses – on the other hand – exists.¹⁸⁴

C Maori Participation

Another issue that was discussed is the Maori participation in allocation processes, which does not exist to a satisfactory degree. Maori place particular values in water and they should be protected. Section 6 of the RMA deals with the special relationship of Maori to water, calling it a matter of national importance. However, in practical terms, few opportunities to take part in management processes exist. Therefore, Maori would like to have a greater impact on these processes.¹⁸⁵

The Resource Management Act 2005 tried to improve this status and to provide more clarity about the practical implications of consultation processes with Maori. This started with the implementation of a duty to keep records about certain

¹⁸² Ministry for the Environment, *Water Programme of Action, Water Allocation and Use, Technical Working Paper* (June 2004), above n 3, 10

¹⁸³ Ministry for the Environment *Resource Management Amendment Act 2005 – Improving natural resource allocation* (August 2005), above n 176, founding under the heading “Flexibility for transfer of water and discharge permits”

¹⁸⁴ Ministry for the Environment, *Water Programme of Action, Water Allocation and Use, Technical Working Paper* (June 2004), above n 3, 11

¹⁸⁵ Ministry for the Environment, *Water Programme of Action, Water Allocation and Use, Technical Working Paper* (June 2004), above n 3, 11

Maori groups, which means that each iwi authority has to be recorded and even groups of hapū must be listed when the hapū notifies the council.¹⁸⁶

However, the scope of these reforms does not so much affect consultation processes in the framework of resource consent applications. Section 36 (A) RMA now points out that there is no duty to consult in these cases, unless such a duty exists under any other law or regulation. However, sometimes Maori groups will be affected parties and therefore have to be consulted in order to investigate the effect on tangata whenua and, furthermore, consultation at an early time of the application process "will often be good practice".¹⁸⁷

The most important stage of consultation shall now take place at the level of preparing policy statements or plans. The new clause 3 A of the First Schedule of the RMA now generally¹⁸⁸ requires the councils to consider certain steps in the consultation process. Councils have to consider the ways of how to foster the capacities of iwi authorities to effectively exercise their rights, namely to build consultation capacities, to consult and identify special concerns of interest.¹⁸⁹

An interesting tool that has been integrated into the RMA is the possibility of joint management agreements. Thereby, public and iwi authorities can enter into management agreements about natural or physical resources (sections 36 (B)-(E) RMA, as amended by the RMA Amendment Act 2005). The fact that the agreement can be terminated quickly, namely within 20 working days' notice,¹⁹⁰ makes clear

¹⁸⁶ Ministry for the Environment *Resource Management Amendment Act 2005 – Improving certainty for consultation and iwi resource planning* (August 2005), found under the heading "Duty to keep records about iwi and hapū"

¹⁸⁷ Ministry for the Environment *Resource Management Amendment Act 2005 – Improving certainty for consultation and iwi resource planning* (August 2005), above n 186, found under the heading "Consultation on resource consent applications and notices of requirement"

¹⁸⁸ An exception exists in clause 3 (B) of the RMA, as amended by the RMA Amendment Act 2005. The procedure described above is not compulsory if the same matter has already been subject to another consultation process between the same people under another Act within 1 year prior to the public notification of the proposed policy statement or plan.

Ministry for the Environment *Resource Management Amendment Act 2005 – Improving certainty for consultation and iwi resource planning* (August 2005), above n 186, found under the heading "Consultation with iwi authorities"

¹⁸⁹ Ministry for the Environment *Resource Management Amendment Act 2005 – Improving certainty for consultation and iwi resource planning* (August 2005), above n 186, found under the heading "Consultation with iwi authorities"

¹⁹⁰ Ministry for the Environment *Resource Management Amendment Act 2005 – Improving certainty for consultation and iwi resource planning* (August 2005), above n 186, found under the heading "Joint management agreements"

that this clause is some sort of experimental provision, providing enough flexibility to leave the agreement if the cooperation fails in practical terms.

The Ministry for the Environment is currently undertaking further steps to improve the co-operation between iwi and the government, as well as the local and the national level. Measures are taken, including the promotion of pilot projects, environmental forums and assistance.¹⁹¹

However, these modifications mainly affect consultation processes but – leaving the joint management agreements aside, which will probably not gain great importance – an institutionalized implementation of the Maori interest groups does not take place. However, in order to properly comply with the landmark case *Mabo v Queensland*,¹⁹² further improvements are necessary. Theoretically, an effort comprising the institutionalized representation of Maori interests, even at a national level, would be desirable. However, this will probably not find broad acceptance and is therefore not feasible.

D The Need for Good Regulation

So far, the author has analyzed some major concerns and problems, relating to the current regulatory framework for water. The author of this paper proposes a good regulatory framework. This comprises two basic claims, namely that there is a need to regulate and that there is a need to regulate it better than up till now.

Therefore, the decisive question at the start of the regulatory mix, proposed in this paper, now is whether – despite all the problems listed above – there really is a need for overcoming the status quo, a status where there seems to be reliance on an abundance of water resources¹⁹³ so that neither central government nor regional

¹⁹¹ Ministry for the Environment *Resource Management Amendment Act 2005 – Improving certainty for consultation and iwi resource planning* (August 2005), above n 186, found under the heading “Building capacity and promoting best practice”

¹⁹² High Court of Australia, (1992) *Mabo v Queensland* (No. 2) 175 CLR 1 FC 92/014 (3 June 1992) This case can be accessed, among others, via <<http://www.austlii.edu.au/au/cases/cth/HCA/1992/23.html>> (last accessed 10.02.06) and is also published in High Court of Australia, *Mabo v Queensland* [1992] (No. 2) HCA 23.

¹⁹³ Counsell, *Achieving Efficiency in Water Allocation*, above n 1, 2

councils nor the institution of a market – I would call it a “quasi-regulator” – really operate as regulating forces in the pure sense of this expression.

Theoretically, human beings act in a rational way. This ratio comprises a balancing of benefits with costs, the probability of certain events – under certain circumstances – playing a major role.¹⁹⁴ Therefore, applied to the subject-matter of this research paper, a reform towards a stronger regulation of water – especially of water allocation – depends on the question whether the probable benefits of this outweigh the costs or risks.

Put in other words, one has to ask the question what benefits and risks are involved if the current status quo is maintained.

One benefit would be that one would rely on a permanent process of improvement in regional councils, so that these institutions gain more expertise and strive to make the best use of the potentials the current legal framework offers them. Practically, this means that councils develop better water plans, better regional policy statements and focus more on matters of efficient use.¹⁹⁵

However, this evolution is very uncertain and central Government has hardly any influence on directing these processes. Availability of water will become a more and more important constraint of water management. Hence, the “first-in [,] first-served”¹⁹⁶ approach could become more and more apparent so that tensions increase. However, this seems to be a vicious circle, as this would give rise to barriers against water transfers, which are a sort of tools to overcome the current status. Moreover, regional councils could be forced to make use of claw-back arrangements or not to renew permits in order to protect environmental bottom lines. It is this risk of a vicious circle that seems to be the driving force to start with reform processes right now and not in some years, when problems might be more urgent.¹⁹⁷

¹⁹⁴ George P Fletcher; Steve Sheppard *American Law in a Global Context The Basics* (New York, Oxford University Press, 2005) 441 with reference to the “Learned Hand formula” and to *United States v Carroll Towing Co* (1947) 159 F 2 d 169 (2d Cir)

¹⁹⁵ Ministry for the Environment, *Water Programme of Action, Water Allocation and Use, Technical Working Paper* (June 2004), above n 3, 13

¹⁹⁶ Counsel, *Achieving Efficiency in Water Allocation*, above n 1, 12, with further reference to Lincoln Environmental, *Water Allocation: A strategic overview*, above n 3

¹⁹⁷ Ministry for the Environment, *Water Programme of Action, Water Allocation and Use, Technical Working Paper* (June 2004), above n 3, 13-14

Therefore, the short-term costs and the long-term benefits of a change in the regulation of water have to be compared and the potential long-term benefits (or, put in other words, the long-term potential harms to New Zealand's water resources) are the crucial argument for reform. These long-term costs comprise a loss of consumer confidence in the functioning of public water supply that could be irrevocably destroyed. Of course, the change comprises regulatory costs, caused by special training programs for regional councils or the implementation of market elements. However, benefits of change are an efficient system of water allocation, which deals carefully with the scarce resource so that even the "problematic" regions of New Zealand can reasonably master the problem of scarcity.

The second issue is the principle of good regulation. Although some measures have been taken, whose benefits cannot be exactly predicted, but only preliminarily assessed, further steps have to be taken according to the view of the author of this paper. It is necessary to find new ways to allocate water more effectively in special regions of New Zealand, allowing efficiency, sustainability and Maori participation to be achieved properly.¹⁹⁸

A good regulatory approach has to combine these values. The competing uses of water are best integrated into a strategic concept. Technical efficiency has to be ensured, adequate processes have to be provided to limit the amount of water extracted from the resources and processes governed by the maxims of fairness and equity have to be provided. It must also be ensured that a user cannot block the supply of water and harm his or her competitors.

Allocation has to be consistent with water quality standards. Water should not be inappropriately polluted by users and health standards have to be regarded.

Finally, greater certainty has to be provided for users so that investments are made and not postponed, meaning that processes have to be adaptable to changed needs.

All in all, regulation has to manage all these conflicting requirements.¹⁹⁹

¹⁹⁸ Also see the main issues, as identified by Ministry for the Environment *Report of the Sustainable Development, Water Programme of Action, Local Government Workshops* (July 2005), above n 4, 5

¹⁹⁹ Ministry for the Environment, *Water Programme of Action, Water Allocation and Use, Technical Working Paper* (June 2004), above n 3, 12

VII MARKET APPROACH

One solution for the problem of allocation in some areas at some times in New Zealand could be the introduction of markets in water rights.

A Possible Advantages

These markets could foster allocative efficiency, which is a state of distributed goods or rights in which any re-allocation could not improve the position of any person and – at the same time – not worsen his situation. Water could be transferred from a low value use to a higher one. Additionally, customers would also receive an incentive to sell unused water as they would receive a benefit for transferring it to others and not simply storing it.²⁰⁰

Furthermore, local regulation tends to have close links to its citizens so that political lobbyism in a local rather than national regulatory scheme is perhaps more likely. Even though the initial decision might be influenced by these political influences, tradable water rights could contribute to giving redress to them at second hand.

These transfers could contribute to new investments, which are water intensive, as the transfers increase the probability that the investor will receive as much water as he or she needs for his or her project.²⁰¹

One theoretical model outlining the potential benefits was offered by Dr. Raffensperger of the Department of Management and Dr. Mark Wilke of the Department of Engineering, at the University of Canterbury, with the title “Forever Fair Fresh Water Trading System.”²⁰²

²⁰⁰ Counsell, *Achieving Efficiency in Water Allocation*, above n 1, 19

²⁰¹ Counsell, *Achieving Efficiency in Water Allocation*, above n 1, 19

²⁰² Raffensperger; Mark Milke “Forever Fair Fresh Water Trading System”, as found in Judith Petheram “Trading Water” (31 May 2005) *The Nelson Mail* (ed 2) 13ff.

(note: only the first page was indicated in the source the author used for his research paper)

In this model, it is proposed that water users have two options what to do with their water within one catchment: they can either retain it or trade with it, not the water, but the use of it being sold for defined time periods.²⁰³

This scenario could foster economic efficiency²⁰⁴ and create “win-win situation[s].”²⁰⁵

This can be easily illustrated by an example, given by Dr. Raffensberger. In it, there is a conflict between two water users. On the one hand, there is a tomato grower, who could increase his revenue by 50 \$ if he or she receives another 10 cubic metres of water or – alternatively – lose a potential 50 \$ by losing 10 cubic metres of water. On the other hand, a peach crop grower could earn an additional 30 \$ by adding 10 cubic metres of water (or losing it in the alternative situation).

The solution for this dilemma would be for the tomato grower to buy the necessary 10 cubic metres of water from the peach grower for 40 \$ so that both make a profit of 10 \$ (and New Zealand makes 20 \$).²⁰⁶

B Experiences in Australia

At the moment, Australia is taking reform steps in the field of water. This process started in 1994, when the Council of Australian Governments created a framework for these measures at a national level. The basic elements were reforms in pricing (for instance usage-based pricing), water allocation (a systematic approach, where water licences were separated from land), a trading system for water licences and institutional reforms (separation of water service providers from regulatory agencies).²⁰⁷

²⁰³ Raffensberger; Mark Milke “Forever Fair Fresh Water Trading System”, as found in Petheram, above n 202, 13ff.

²⁰⁴ Found in Petheram, above n 202, 13ff., obviously quoting Tasman District Council resource scientist Joseph Thomas, commenting on a trading system of water.

²⁰⁵ Raffensberger commenting the “Forever Fair Fresh Water Trading System”, as found in Petheram, above n 202, 13ff.

²⁰⁶ Raffensberger giving a practical example for the usefulness of the project “Forever Fair Fresh Water Trading System”, as found in Petheram, above n 202, 13ff.

²⁰⁷ Counsell, *Methods for the Allocation and Valuation of Water Property Rights in New Zealand*, above n 8, 26-27

Australia's system is on its way to becoming "a mix of administrative and market-based methods."²⁰⁸

The basis is an administrative process, where the responsible state or territory government issues a water licence. Water licenses are separated from the land and have a typical duration of 5 to 15 years. In order to acquire a water licence, the applicant has go through an administrative process, which involves "application, assessment and notification"²⁰⁹ similar to those in New Zealand, for instance. The framework is set by plans which define minimum water flows, rules for the re-allocation in periods of low flows and principles for the trade of water licences. The plans also contain methods for consultation processes and provide additional information about the catchment, for instance about the question of when it will reach full allocation.

After this allocation process, the trading of licences is possible, which was already the case before the reform process, however only in some states.²¹⁰

For instance, New South Wales had to face increased scarcity of water and there, more than 20 percent of allocated water rights were transferred from 1987 to 1988.

In this state, the regulators defined a maximum volume of available water. If there was more demand than offer, the entrants had to purchase existing water rights.

Two types of water rights existed, normal and high security. The owners of the latter were normally given preference, whereas the first only received the rest of the water. It was also possible for irrigators to borrow some of the water allocated for the following year in the current year. This system has, all in all, contributed to a transfer from rather unproductive to more productive areas and increased efficiency in water use.²¹¹

Most regimes are heavily regulated, meaning that transfers can only take place temporarily and only within the same supply system. Restrictions exist to

²⁰⁸ Counsell, *Methods for the Allocation and Valuation of Water Property Rights in New Zealand*, above n 8, 27

²⁰⁹ Counsell, *Methods for the Allocation and Valuation of Water Property Rights in New Zealand*, above n 8, 27

²¹⁰ Counsell, *Methods for the Allocation and Valuation of Water Property Rights in New Zealand*, above n 8, 27

²¹¹ CS First Boston NZ Limited (Principal author: Susan Begg) *Reform of the Water Industry* (Final Report for the New Zealand Business Roundtable, August 1995) 3.3.15

mitigate harmful effects on third parties and the environment. Although in most regions only a small proportion of water was transferred, there are particular states where this transfer system has worked successfully.²¹²

There are definitely some obstacles in Australia. For instance, markets are regarded as thin, in respect of the number of trades,²¹³ and “sleepers’ licences”²¹⁴ – licences that were up till now not used – might also exist, which could have negative consequences for the environment by way of increased extraction.²¹⁵

However, all in all, markets are regarded to have brought some benefits for Australia, for instance the distribution of water from low value to high value uses.²¹⁶ The water markets in Australia have become mature²¹⁷ and they already contribute to efficiency, which is supported by the establishment of information systems, such as brokerages.²¹⁸

C *A Model for New Zealand*

Increasing the possibility to transfer water rights or even establishing real water markets could be a solution to the problem of scarcity in some regions. In a survey conducted by Lincoln Environmental, the potential of this tool was widely acknowledged by private water users as well as regional councils. This was supplemented by the general willingness of regional councils to play an active part in this process.²¹⁹

²¹² CS First Boston NZ Limited, above n 211, 3.3.15

²¹³ J Pigram *Tradable Water Rights: The Australian Experience* (Centre for Water Policy Research, University of New England, Armidale, 1999), as found in Council, *Methods for the Allocation and Valuation of Water Property Rights in New Zealand*, above n 8, 28 (with further reference)

²¹⁴ Counsell, *Methods for the Allocation and Valuation of Water Property Rights in New Zealand*, above n 8, 28, with further reference to McKay; Bjornlund, above n 8, 387-403

²¹⁵ Counsell, *Methods for the Allocation and Valuation of Water Property Rights in New Zealand*, above n 8, 28, with further reference to McKay; Bjornlund, above n 8, 387-403

²¹⁶ Counsell, *Methods for the Allocation and Valuation of Water Property Rights in New Zealand*, above n 8, 28, with further reference to McKay; Bjornlund, above n 8, 387-403

²¹⁷ H. Bjornlund „Are Water Markets Maturing“ (Eight Annual Pacific-Rim Real Estate Society Conference, Christchurch, January 2002), as found in Council, *Methods for the Allocation and Valuation of Water Property Rights in New Zealand*, above n 8, 28

²¹⁸ Counsell, *Methods for the Allocation and Valuation of Water Property Rights in New Zealand*, above n 8, 28, with further reference to Bjornlund, above n 217

²¹⁹ Lincoln Environmental, *Attitudes and Barriers to Water Transfer*, above n 7, 27

1 *Objections of users*

There still are barriers to transfers in New Zealand. Water users said that only about 4 to 10 percent were willing to actually take part in transfers, although about 75 percent saw a potential in this tool.²²⁰ Water is sometimes regarded as “a gift of nature”²²¹, which should not cost anything, regardless of the quantity consumed, the transportation costs or the purpose,²²² so that it “belongs to everyone”²²³ and that the public should therefore control water services and “no one should be allowed to make a profit out of this activity”.²²⁴ Up till now, water transfers are rather seen as an ultimate possibility to “help each other out if there was unused water available”.²²⁵ However, if this approach gave rise to a rather institutional arrangement, where a mere ecoeconomic exchange “water for money” should take place, this was seen with discomfort due to the exceptional position money has in their view. Water commonly is regarded as a public good available to all people and not subject to markets.²²⁶

However, this view disregards the fact that water is also some sort of product, which is delivered by public entities that have to make investments in this field. The raw material water has to be collected, treated and delivered to the customer. A service task has to be fulfilled, which produces costs. In other words, water is far from being a free good.

The notion of a public good could possibly also be an objection, raised to impede necessary change and to hinder possible higher prices. However, prices normally reflect scarcities.

If no markets exist, increased costs must be covered. In public entities, this works by way of cross-subsidising. Other aspects of concern were practical issues in respect of infrastructure and the lack of storage options. All in all, water transfers normally require “a mature water economy”²²⁷

²²⁰ Lincoln Environmental, *Attitudes and Barriers to Water Transfer*, above n 7, 27

²²¹ Chapman; Goldberg; Salmon; Sinner, above n 173, 89

²²² Chapman; Goldberg; Salmon; Sinner, above n 173, 89-90

²²³ Chapman; Goldberg; Salmon; Sinner, above n 173, 90

²²⁴ Chapman; Goldberg; Salmon; Sinner, above n 173, 90

²²⁵ Lincoln Environmental, *Attitudes and Barriers to Water Transfer*, above n 7, 27

²²⁶ Lincoln Environmental, *Attitudes and Barriers to Water Transfer*, above n 7, 28-29

²²⁷ R. Jones; W. Musgrave; M. Bryan “Water allocation and supply reliability in the Murrumbidgee Valley” *Review of Marketing & Agricultural Economics* 60 (2) 155-172, as found in Lincoln Environmental, *Attitudes and Barriers to Water Transfer*, above n 7, 28

Up till now, this can obviously not be said about New Zealand.

One of the barriers is the belief that water and land use should coincide and not be separated. It was generally seen that access to water is essential for land use and a transfer of water would reduce the value of the land. Therefore, selling water was regarded to be similar to selling the land itself.²²⁸ However, the clear separation between land and water rights has been detected as one important prerequisite for water markets, alongside with tradability between different uses and locations.²²⁹

Another aspect that was detected in this survey is that water generally is not seen as a tradable good, meaning that one user relies upon its use and receives monetary compensation for this. A loss of water could reduce production, lower the earnings and will be harmful for existing contracts.²³⁰

Apart from that, residents are even reluctant to changes in water use within their catchment and even between productive land uses. An increase of transfer could encourage larger corporate entities to become active, which could cause outsiders to become active on this market, too. Hence, a conservative attitude seems to be mingled with realistic worries in respect of social changes.²³¹ However, if a model such as the "Forever Fair Fresh Water Trading System" was applied, users would not have to take part in such a regime, as it provided only an "opt in and out"²³² approach.

One major and grave objection against water markets especially in the area of irrigation is that infrastructure is needed. However, there will always be some immobile elements of irrigations systems. Therefore, addressees of water transfers would have to pay not only for the use of water itself, but also for infrastructure. In order to cover investment costs, long-term transfers would be necessary, whereas the often short-term transfers would not be sufficient to guarantee that.²³³

²²⁸ Lincoln Environmental, *Attitudes and Barriers to Water Transfer*, above n 7, 28

²²⁹ Cousell, *Methods for the Allocation and Valuation of Water Property Rights in New Zealand*, above n 8, 41

²³⁰ Lincoln Environmental, *Attitudes and Barriers to Water Transfer*, above n 7, 28

²³¹ Lincoln Environmental, *Attitudes and Barriers to Water Transfer*, above n 7, 28

²³² Petheram, above n 202, 13ff., referring to the model proposed by Raffensperger; Mark Milke "Forever Fair Fresh Water Trading System"

²³³ Lincoln Environmental, *Attitudes and Barriers to Water Transfer*, above n 7, 28-29

Finally, objections exist in respect of the features of possible markets. Due to New Zealand's regional structure, there might only be few market participants. Only few transfers would therefore occur each year. When one user gave up water, he or she could not be sure that water would be still available once he or she needed water again. Therefore, many users would be prone to retain their water for future needs. Temporary transfers would be hindered by the time-consuming administrative processes. With the growing scarcity of water, this problem would even increase in importance.²³⁴

However, the trade of stored water could be a solution for these problems. Building capacities for storage means an investment in "a 'futures' interest."²³⁵ This investment would yield a profit in times of scarcity and would contribute to water supply. Then, an approach similar to the "user pays"²³⁶ principle would be followed.²³⁷

There are also uncertainties in respect of the clear ownership of water. It seems to be the case that water as a liquid good does not fall under the common categories of other goods, where exactly defined ownership is attached to the good.²³⁸

2 Barriers of regional councils

Councils have to monitor and to assess the environmental effects of water use. For this, not only the individual effects of one water use, but also the cumulative consequences of water uses have to be taken into account. There is strict scrutiny before a consent is issued. Therefore, the current legal framework does not provide many opportunities for immediate and flexible transfers, which are legally doubtful. This is also why information is a key issues when granting transfers, which are often permitted on a case by case basis, which even increases uncertainty. As long as

²³⁴ Lincoln Environmental, *Attitudes and Barriers to Water Transfer*, above n 7, 29

²³⁵ Tasman district councilor Michael Higgins, as found in Petheram, above n 202, 13ff.

²³⁶ Tasman district councilor Michael Higgins, as found in Petheram, above n 202, 13ff.

²³⁷ Tasman district councilor Michael Higgins, as found in Petheram, above n 202, 13ff.

²³⁸ Lincoln Environmental, *Attitudes and Barriers to Water Transfer*, above n 7, 28-29

councils only allocate as much as they suppose people need, which is time-consuming, water transfers are seen with reluctance.²³⁹

However, the system could define specific trading periods – for instance one week – in which the trade for a certain period could take place, which could foster the desired flexibility²⁴⁰ and could perhaps also reduce the work that has to be done by the councils.

Finally, Councils often point to the fact that there is not a sophisticated mechanism of registering user interests in water. A waiting list might be helpful, but it would rather prolong the “first-in [,] first-served”²⁴¹ approach by other means. Better tools are not available and up till now, councils are not able to develop them.²⁴²

3 Evaluation

There are definitely many attitudinal objections against water transfers which sometimes are based on valid arguments. Nevertheless, in many cases they just reflect a mere fear of change²⁴³ that can be overcome by developing a legal framework and by the time factor. For instance, in the Ashburton-Lyndhurst Scheme,²⁴⁴ originally many residents opposed water transfers, which changed in the course of the years after their introduction.

These could be accompanied by regional councils delivering consent conditions which enable fast and uncomplicated transfers. They could encourage and foster trade by flexible resource consents.²⁴⁵

²³⁹ Lincoln Environmental, *Attitudes and Barriers to Water Transfer*, above n 7, 30

²⁴⁰ Petheram, above n 202, 13ff., referring to the model proposed by Raffensperger; Mark Milke “Forever Fair Fresh Water Trading System”

²⁴¹ Counsel, *Achieving Efficiency in Water Allocation*, above n 1, 12, with further reference to Lincoln Environmental, *Water Allocation*, above n 31

²⁴² Lincoln Environmental, *Attitudes and Barriers to Water Transfer*, above n 7, 30

²⁴³ Compare Lincoln Environmental, *Attitudes and Barriers to Water Transfer*, above n 7, 28

²⁴⁴ This scheme is situated in Canterbury, it has been operated since the 1940s by a company. The water users hold shares, allowing them to irrigate a defined region at a specific flow. Since the end of the 1990s, the company constitution enables to transfer shares to farmers who do not possess water. Up to December 2001, only one major and some small transfers have taken place.

Compare: Lincoln Environmental, *Attitudes and Barriers to Water Transfer*, above n 7, 4

²⁴⁵ Lincoln Environmental, *Attitudes and Barriers to Water Transfer*, above n 7, 35

Additionally, a fair demonstration about possible advantages of transfers could be made in order to deliver a message. This message would highlight the opportunity costs when water is not transferred to its best use and it would also make clear that water transfers actually work to distribute water to the users who really need it.²⁴⁶

What could foster acceptance in the population is the creation of a system of "checks and balances",²⁴⁷ where land owner retain certain amounts of extractable water and where democratically chosen and prescribed environmental bottom lines have to be regarded, such as minimum river flows.²⁴⁸

The market structure itself has some barriers that could be a major problem. For instance, an infrastructure problem exists, as it is often connected with high sunk costs. Apart from that, transfers over wide distances often are physically restricted.²⁴⁹

However, there are some implementations that could be made to foster market mechanisms.²⁵⁰

Up till now, no monetary incentive exists to transfer water from a regulatory viewpoint. A user who holds the water without making use of it is not charged for that. Therefore, a charge for the right as well as the use of water could stimulate competition.²⁵¹

Furthermore, uncertainties have to be reduced, for instance by properly defining water resources and allocation limits by the Regional Council.²⁵²

As the markets will possibly not be very large, it will be of utmost importance to provide information flows between the users. This could happen by means of middlemen – agents, for example – or even by means of user groups or web trading.²⁵³

Unlike energy, water can be stored. Up till now, few storage capacities exist in New Zealand. They would, however, be of utmost importance. It contributes to

²⁴⁶ Lincoln Environmental, *Attitudes and Barriers to Water Transfer*, above n 7, 35

²⁴⁷ Dr. Raffensberger, as found in Petheram, above n 202, 13ff.

²⁴⁸ Dr. Raffensberger, as found in Petheram, above n 202, 13ff.

²⁴⁹ Lincoln Environmental, *Attitudes and Barriers to Water Transfer*, above n 7, 36

²⁵⁰ Lincoln Environmental, *Attitudes and Barriers to Water Transfer*, above n 7, 36

²⁵¹ Lincoln Environmental, *Attitudes and Barriers to Water Transfer*, above n 7, 36

²⁵² Lincoln Environmental, *Attitudes and Barriers to Water Transfer*, above n 7, 36

²⁵³ Lincoln Environmental, *Attitudes and Barriers to Water Transfer*, above n 7, 36

certainty as well as liquidity. It enables users to apparently estimate how much water is still available and it increases the confidence in the existing resources. It would also make it easier to transfer water from one place to another.²⁵⁴

Last but not least, regulatory barriers exist which could be overcome. It is of utmost importance that interests in water are properly registered so that the market participants can encounter each other. Especially, the system of consent to the individual water transfer is time-consuming and could be replaced by a consent to the idea of water transfers as such. This would make it possible that a consent is not necessary each time *ex ante*, but the effects of it could be assessed *ex post*. However, this would require a clarification of the legal provision of the RMA.²⁵⁵

D Conclusion

There definitely is potential for the system of water transfer. Even though water users rather seem to prefer short-term transfer of water when water is abundant, permanent and long-term changes are seen with discomfort. This has to do with attitudinal barriers that can be overcome when users become aware of the practical and economical usefulness of the system of water transfers. A number of practical barriers exists, which can best be dealt with when each of them is tackled, if possible. For instance, the practical transportation problem and also the fact that water rights entail an element of uncertainty can be handled by making use of more storage capacities.²⁵⁶

However, the idea of water markets will only be a tool in some areas and some regions of New Zealand. Up till now, no big market exists but a rather small number of water users are active. There will not be many transactions. However, good information tools and additional storage capacities can contribute to a better allocation system.²⁵⁷

In order to foster this idea, some amendments to the regulatory framework are mandatory. For instance, the notion that water is nearly free should be given up,

²⁵⁴ Lincoln Environmental, *Attitudes and Barriers to Water Transfer*, above n 7, 37

²⁵⁵ Lincoln Environmental, *Attitudes and Barriers to Water Transfer*, above n 7, 37

²⁵⁶ Lincoln Environmental, *Attitudes and Barriers to Water Transfer*, above n 7, 39

²⁵⁷ Lincoln Environmental, *Attitudes and Barriers to Water Transfer*, above n 7, 39

having in mind that it is a scarce resource.²⁵⁸ Effective markets will require a functioning legal framework, properly defined water rights and the appropriate infrastructure for water trade.²⁵⁹

VIII PUBLIC INVOLVEMENT

A The Need for Public Involvement

The water sector needs involvement of government, and it is needed more than in other areas.

Water is definitely different from other resources as it is "such a ubiquitous and vital part of nature, society and the economy"²⁶⁰. Therefore, water has many elements of public good. In health-related aspects, public authorities will in many cases have a better understanding of consumers. However, in economical terms, to admit that water is generally open to a market approach and to private participation would enable a better analysis of water regulation.²⁶¹

The author of this paper therefore argues that on the one hand, the potential of market elements should be acknowledged. On the other hand, public involvement is necessary. This is due to three major reasons.

The most basic argument for public involvement is the character of the good "water".

Water is essential for the conservation of life. Therefore, strong objections exist against too much private involvement in water supply.²⁶²

Apart from that, the supply of water has some elements of a natural monopoly. Normally, the supply of water relies on an underground network that often has been built at high costs. Hence, under economic considerations, it does not make sense to duplicate this structure. Therefore, the service provider normally has monopoly rights to deliver water for a specific area. However, regulators have to intervene in

²⁵⁸ Lincoln Environmental, *Attitudes and Barriers to Water Transfer*, above n 7, 39

²⁵⁹ Counsell, *Achieving Efficiency in Water Allocation*, above n 1, 46

²⁶⁰ Chapman; Goldberg; Salmon; Sinner, above n 173, 85

²⁶¹ The European Commission Community Research, above n 11, 124-125

²⁶² The European Commission Community Research, above n 11, 127

order to prevent the monopolist from abusing his market position. For instance, the provider could try to raise his profits, for instance by reducing costs – which could lead to bad water services.²⁶³ Another related scenario could occur if certain areas are under-supplied, especially in parts where poorer parts of the population live, which can be explained by its “strong merit good characteristics”.²⁶⁴

Analysts have elaborated the water scenario. The market situation in respect of water – in contrast to other goods – is characterized by a reverse relationship between price and demand. This fact is called the low price elasticity of demand, the term price elasticity referring to the decrease in demand when prices rise, expressed in percentage. In respect of drinking water, the elasticity is close to zero as drinking water is essential for life and there is hardly any substitute.²⁶⁵

Other sectors – such as industry and agriculture – demonstrate a more elastic slope as more alternatives for water are available. One could think of the introduction of water-saving production technologies or the change of production towards such products or crops that demand less water. Therefore, it is necessary to differentiate between various sectors.²⁶⁶

In respect of urban water supply, for instance, price elasticity is low.²⁶⁷ Therefore, any increase in tariffs will not result in big changes of consumers’ behaviour. As a consequence, in the unregulated scenario the water monopolist could raise tariffs, as consumers will still pay for it. Efficiency, provided by a private market approach, and equity, provided by a regulatory approach, have to be harmonised.²⁶⁸

²⁶³ BPD Water and Sanitation, BPD Water and Sanitation Cluster, The Interference between Regulatory Frameworks & Tri-Sector Partnerships, Annex A – Regulation in the Water Sector, <www.bpd-waterandsanitation.org/english/docs/regulationannex.pdf#search='Regulation%20Water%20bpd%20Annex%20A'> (last accessed 01.02.06), 1

Note: This text, accessed via a yahoo-search, seems to be the appendix of the text: Sophie Trémolet; Sara Browning (ERM London) “The Interface between Regulatory Frameworks and Tri-Sector Partnerships” in *BPD Water & Sanitation Cluster, Research and Surveys Series* (BPD Water & Sanitation, London, April 2002), accessible via searching <www.bpd-waterandsanitation.org> or – directly - via <www.bpd-waterandsanitation.org/english/docs/regulation1.pdf> (last accessed 01.02.06)

²⁶⁴ The European Commission Community Research, above n 11, 124

²⁶⁵ The European Commission Community Research, above n 11, 127-128

²⁶⁶ The European Commission Community Research, above n 11, 127

²⁶⁷ The European Commission Community Research, above n 11, 127 (with further reference to C. Nauges; A. Thomas “Privately-operated Water Utilities, Municipal Price Negotiation, and Estimation of Residential Water Demand” (2000) 76 (1) *Land Economics* 68-85

²⁶⁸ The European Commission Community Research, above n 11, 127-128

Secondly, water has strong externalities which are related to health. Positive externalities exist in the way that clean water contributes to preventing water-borne diseases. Negative externalities can be detected, as water forms an integral part of a cycle and, for instance, it has to be cleaned before it is discharged back to environment.²⁶⁹

The scope of externalities is even wider. For instance, over-abstraction in local entity may cause harm to other consumers, who might not have enough water left. That is why the public sector has to exercise its influence and to burden producers and – indirectly – consumers with the social costs of this harmful behaviour.²⁷⁰

Another limitation of the idea of markets is the information problem. Asymmetries of information exist between suppliers and customers. This does not correspond to the perfect market model, which states that all market participants have perfect knowledge of supply and demand. Although a perfect market will – anyway – never exist in reality, the water market is perhaps further away from this ideal than markets for other goods. For instance, water producers often have a greater knowledge of the quality of water they deliver than their customers.²⁷¹

Bad water can make consumers ill but this will be realized only after the consumption, as consumers often do not have the necessary knowledge of the water quality. Even though a market participant will have some self-interest not to be involved in any scandals uncovered by the media, public involvement is essential. This has to take place by way of defining quality standards and by way of monitoring health-related issues. These problems have to be addressed by the public regulator.²⁷²

All in all, markets rather seem to be a supplementary element of regulation that should still rely on public regulation.

²⁶⁹ The European Commission Community Research, above n 11, 126

²⁷⁰ BPD Water and Sanitation, above n, 1-2

²⁷¹ The European Commission Community Research, above n 11, 128

²⁷² BPD Water and Sanitation, above n, 1

B The Regulatory Framework

According to regulatory theory, it is a crucial point to design an appropriate environment which contributes to “the outcomes that society wants.”²⁷³ In principal terms, one regulatory solution consists of creating incentives for politicians to foster quality regulation and implementing officials who execute these political decisions. In practical terms, however, indirect tools can be used that contain a number of principles.²⁷⁴

This had to be coupled with “consistent and strong commitment from the highest political and administrative levels”,²⁷⁵ which can communicate a set of standards as to what is expected from individuals and organisations, and which should be backed up by “effective performance management systems”.²⁷⁶

Another crucial aspect is to provide the daily decision-makers with profound expertise so that they have the means to comply with the standards of good regulation. Hence, regulators must not only have the will, but also the abilities to perform well.²⁷⁷

Transparent regulatory processes are of equal importance. The public has to be well-informed about the issue as to what constitutes good performance. If the responsible regulators fail to do so, the responsible persons could come under pressure and might then have enough incentives to improve their regulatory output.²⁷⁸

Finally, “follow-up”²⁷⁹ becomes relevant. The desired outcomes of regulation have to be compared with the factual performance in order to give adequate responses to “success or failure”.²⁸⁰ This can involve a number of measures, ranging

²⁷³ Kevin Guerin *Encouraging Quality Regulation: Theories and Tools* (New Zealand Treasury, Working Paper 03/24, Wellington, September 2003) 9

²⁷⁴ Guerin, above n 273, 9

²⁷⁵ Guerin, above n 273, 10

²⁷⁶ Guerin, above n 273, 10

²⁷⁷ Guerin, above n 273, 10

²⁷⁸ Guerin, above n 273, 9-10

²⁷⁹ Guerin, above n 273, 10

²⁸⁰ Guerin, above n 273, 10

from information about regulatory performance, for instance by way of documentation, to "formal process reviews."²⁸¹

This paper cannot discuss all possible options regulatory theory has to offer in order to comply with these principles. However, at least the basic question has to be answered whether management of water processes should rather take place at a national or at a local level. Definitely, a rather centralized approach would perhaps provide economies of scope.²⁸² However, creating a new regulatory agency, the national level would also increase costs at first. Apart from that, the disadvantages of greater ministerial powers have already been discussed in this paper.

Even though there are many chances for improvement at a local level, the benefits of a decentralized organisation of water management should not be underestimated. It may create closer links to the special conditions in the local communities, may contribute to a better monitoring and also provides easier access to relevant data about water projects.²⁸³ All in all, a proximity exists between water supply and consumption.²⁸⁴ Apart from that, the decentralized regulatory structure also reflects the decentralized character of New Zealand's water resources that are unequally distributed throughout the country.²⁸⁵ Central government will therefore perhaps have practical problems in organizing water allocation by way of a central department.

Potential exists for a variety of improvements in this decentralized approach that should take into account the elements of a good regulatory scheme.

This starts right with defining the characteristics of good regulatory outcomes.²⁸⁶ In this context, economic efficiency of water use as well as equity should be identified as one major aspect of good regulation²⁸⁷ – apart from good

²⁸¹ Guerin, above n 273, 10

²⁸² Baldwin; Cave, above n 28, 66

²⁸³ Worldbank, above n 12, Annex 2, 3rd page, found under the heading "How decentralized should regulation be?"

²⁸⁴ The European Commission Community Research, above n 11, 125-126

²⁸⁵ Counsell, *Achieving Efficiency in Water Allocation*, above n 1, 4

²⁸⁶ Guerin, above n 273, 9

²⁸⁷ Lincoln Environmental *Water Allocation: A strategic overview*, above n, 3

water quality.²⁸⁸ Regional councils often tend to consider efficiency only with respect to the individual user and not in respect of the resource water as a whole. Incumbent users of water often expect their consent to be renewed after expiry, considering the investments they have often made in water abstraction.²⁸⁹ However, this existing practice²⁹⁰ does not take into account the notion of “[e]quity between existing and potential users”.²⁹¹ The best allocation of water at a regional level cannot be achieved by doing so. In contrast, “the concept of water resources being used as a portfolio rather than being treated individually”,²⁹² seems to be the crucial issue in this context. A “strategic approach”²⁹³ is needed in order to find a balance between the different usages of water. A greater number of – more sophisticated – regional plans could be useful in this context.²⁹⁴

Up till now, one primary difficulty exists in this approach. Whereas national government can define “their preferred course of action”,²⁹⁵ local entities are accountable for the results from that guidance. Hence, it will be of crucial importance to give more concise “national direction on implementation of the RMA and its application to water allocation issues”²⁹⁶ and to remove local councils, for instance, out of the spotlight of public criticism to a certain degree, when introducing necessary – and perhaps unpopular – changes.²⁹⁷ For instance, a publication of “best practice”²⁹⁸ could contribute to significant improvements at this point and would satisfy the element of “commitment”,²⁹⁹ as stated above.

After having defined these major goals of regulation, councils need the necessary expertise to introduce improved water management techniques.³⁰⁰ As water allocation is a complex process, involving natural, social and economic issues, councils must receive sufficient input, at best by a small number of experts who are

²⁸⁸ Compare BPD Water and Sanitation, above n, 1

²⁸⁹ Lincoln Environmental *Water Allocation: A strategic overview*, above n 3, 15

²⁹⁰ Compare Lincoln Environmental *Water Allocation: A strategic overview*, above n 3, 15

²⁹¹ Lincoln Environmental *Water Allocation: A strategic overview*, above n 3, 9

²⁹² Lincoln Environmental *Water Allocation: A strategic overview*, above n 3, 8

²⁹³ Lincoln Environmental *Water Allocation: A strategic overview*, above n 3, 14

²⁹⁴ Lincoln Environmental *Water Allocation: A strategic overview*, above n 3, 14

²⁹⁵ Lincoln Environmental *Water Allocation: A strategic overview*, above n 3, 16

²⁹⁶ Lincoln Environmental *Water Allocation: A strategic overview*, above n 3, 16

²⁹⁷ Lincoln Environmental *Water Allocation: A strategic overview*, above n 3, 16

²⁹⁸ Lincoln Environmental *Water Allocation: A strategic overview*, above n 3, 19

²⁹⁹ Guerin, above n 273, 10

³⁰⁰ Compare in general terms Guerin, above n 273, 10

already active in some councils and should share their knowledge to multiply their expertise.³⁰¹ In order to enhance public acceptance, stakeholders could also express their ideas and provide “strategic input”,³⁰² for instance by delivering Iwi documents or strategic papers.³⁰³

In order to satisfy the requirements of transparency and monitoring processes,³⁰⁴ performance indicators³⁰⁵ could enable a comparative approach between the different councils,³⁰⁶ allowing the public to find the responsible entities for good – or bad – performance in certain regions of New Zealand. This approach could be assisted by more sophisticated monitoring processes. Up till now, councils rather focus on biophysical effects when reviewing their policies and leave aside other factors.³⁰⁷ This competitive approach should be backed up by financial stimuli for the regional councils in order to ensure that there is a realistic incentive to get better.

As a supplement of this comparative element, a better coordination³⁰⁸ between the local communities, especially in the field of water transfers between different catchments could be an invaluable tool to enhance the regulatory performance of the councils. In this context, a stronger reliance on market elements is not hindered by the sometimes purported character of water as a “local monopoly.”³⁰⁹ Unlike other network sectors, water has often been delivered at a local level, which was also a consequence of high transportation costs. However, in Europe, there currently is a trend towards regional water service providers, partly delivering water over distances of around 100 km.³¹⁰ This “regionalisation”³¹¹ could therefore also be an argument for water markets in New Zealand that would also rely on storage and transfer of water.³¹²

³⁰¹ Lincoln Environmental *Water Allocation: A strategic overview*, above n 3, 16

³⁰² Lincoln Environmental *Water Allocation: A strategic overview*, above n 3, 20

³⁰³ Lincoln Environmental *Water Allocation: A strategic overview*, above n 3, 20

³⁰⁴ Guerin, above n 273, 9-10

³⁰⁵ Guerin, above n 273, 16

³⁰⁶ Compare in general terms Guerin, above n 273, 18

³⁰⁷ Lincoln Environmental *Water Allocation: A strategic overview*, above n 3, 7-8

³⁰⁸ Baldwin; Cave, above n 28, 66

³⁰⁹ The European Commission Community Research, above n 11, 125, which obviously does not really share this thesis.

³¹⁰ The European Commission Community Research, above n 11, 125-126

³¹¹ The European Commission Community Research, above n 11, 126

³¹² Compare, in respect of the European scenario: The European Commission Community Research, above n 11, 125-126

All in all, the author of this paper argues for keeping the local structure of water allocation – with the preponderance on public regulators – and for giving greater assistance and also keeping control by the national government.

IX MAORI PARTICIPATION

Another issue that favours administrative regulators is the issue of Maori participation.

A Legal Starting Point

One major decision in respect of rights of indigenous people was *Mabo v Queensland*.³¹³ The High Court of Australia held that the notion of “terra nullius”³¹⁴ can no longer be retained.³¹⁵

“If it were permissible in past centuries to keep the common law in step with international law, it is imperative in today’s world that the common law should neither be nor be seen to be frozen in an age of racial discrimination”.³¹⁶

This decision, where unjust discrimination was put to an end, where common law was notably held to be pursuant to international law and where the rights of indigenous people were strengthened,³¹⁷ is not limited to the specific facts of this case, but must also have consequences for regulation in the context of New Zealand.

³¹³ High Court of Australia, (1992) *Mabo v Queensland* (No. 2) 175 CLR 1 FC 92/014 (3 June 1992)

³¹⁴ High Court of Australia, (1992) *Mabo v Queensland* (No. 2) 175 CLR 1 FC 92/014 (3 June 1992), Nr. 41

³¹⁵ The High Court of Australia also contrasts this decision with a prior decision in *re Southern Rhodesia* [1919] AC 211, 233-234

See High Court of Australia, (1992) *Mabo v Queensland* (No. 2) 175 CLR 1 FC 92/014 (3 June 1992), Nr. 41

³¹⁶ High Court of Australia, (1992) *Mabo v Queensland* (No. 2) 175 CLR 1 FC 92/014 (3 June 1992), Nr. 41

³¹⁷ High Court of Australia, (1992) *Mabo v Queensland* (No. 2) 175 CLR 1 FC 92/014 (3 June 1992), Nr. 42

Also compare the comments of Martin Dixon; Robert McCorquodale *Cases and Materials on International Law* (3ed, Blackstone Press Limited, London, 2000) 271 on this case.

Therefore, the legal approach demands to specifically consider the values of the Maori, as it is already stated in section 6 RMA.

B Cultural Values of Maori

However, in the last century, Maori had to experience that their values were disregarded and they saw a silent process of their principles being harmed. They had no proper representation in the important regulatory bodies. Therefore, they could not properly intervene but most often just complained that their relationship with freshwaters was disturbed, e.g. at the Waitangi Tribunals. Furthermore, the Pakeha practically did not attach high value to Maori culture. Although the RMA provides that the values of Maori should be integrated into the management of water resources, e.g. section 5, 6 (e), 7 (a) and 8 RMA, the view of Maori cannot only be expressed by western standards of economic and ecological terms. In contrast, the cultural values Maori attach to water demands a different approach.³¹⁸

Maori have four central cultural features and principles which should be regarded in respect of water.

Maori believe that all life, all natural elements of the earth – such as the forest and the waters – as well as natural phenomena, e.g. wind and rocks – have an innate life-force, “mauri”,³¹⁹ which is holy and must not be desecrated. Practically, this means that freshwater has to be protected in its integrity and threats to a cultural use of rivers for instance have to be limited as far as possible.³²⁰

“Mahinga kai”³²¹ literally can be translated with “food works”.³²² This wide term refers to the possibility to have access to a resource, to gather there as a group and to make use of it. This value is of utmost importance to Maori.³²³

Thirdly, Maori believe that a continuum between the past, the now and the future exists. Today’s tribes have to respect the former generations and have to leave our world in a good state to our successors. “Māori as kaitiaki”³²⁴ have a duty to respect

³¹⁸ Tipa; Teirney, above n 14, 10, with reference – among others – to the Waitangi Tribunal Ngai Tahu Report (Brooker & Friend, Wellington, 1991)

³¹⁹ Tipa; Teirney, above n 14, 7

³²⁰ Tipa; Teirney, above n 14, 7

³²¹ Tipa; Teirney, above n 14, 7

³²² Tipa; Teirney, above n 14, 7

³²³ Tipa; Teirney, above n 14, 7

³²⁴ Tipa; Teirney, above n 14, 8

this line of development, this bond between the times. Therefore, Maori also want to have influence in resource management bodies and relevant data on their values is an integral input of the decision-making process. This is also the underlying principle of section 7 (a) RMA.³²⁵ Last but not least, “Ki uta ki tai”³²⁶ is relevant. This term means that Maori have a view of the entire water circle which must not be artificially separated into its parts. A stream must be seen as originating in the mountains, passing through the land and mixing up with the sea at the end.³²⁷

Due to this spiritual link with the environment, Maori emphasise their wish to contribute their part to maintain certain freshwater sources in a good condition. Some water is considered to be “tapu”³²⁸ – that means sacred – and other sources may be held to be “taonga”,³²⁹ which means to have a protected status.³³⁰

C Tools

One method to correspond to the wishes of the Maori and to integrate them into the decision-making process is the “Cultural Health Index (CHI)”³³¹ which gives one concrete example of how the cultural expertise of the Maori can be combined with western standards of management.

The CHI consists of three elements, respectively traditional association, mahinga kai and stream health.

The traditional association refers to historical significance of a site; here, it is also relevant whether Maori intend to visit this site or not. As a consequence, traditional places with few visits will not receive the importance of other sites, being a concession to practical feasibility of the complex approach of the CHI.³³²

³²⁵ Tipa; Teirney, above n 14, 8

³²⁶ Tipa; Teirney, above n 14, 8

³²⁷ Tipa; Teirney, above n 14, 8

³²⁸ Tipa; Teirney, above n 14, 9

³²⁹ Tipa; Teirney, above n 14, 9

³³⁰ Tipa; Teirney, above n 14, 9

³³¹ Tipa; Teirney, above n 14, 1

³³² Tipa; Teirney, above n 14, 27

The next aspect is "mahinga kai",³³³ which reflects the "mauri"³³⁴ of a waterway and its ability to support life diversity. This factor examines the abundance of species at a place, the possibility to have access to it and the belief of the Maori that they can make use of the site in the same way as in the past.³³⁵ A score system for each of the sub-factors was applied.³³⁶

Finally, Maori had to judge the cultural stream health. 18 indicators existed, such as the overall stream health, the question whether water was safe to drink, the catchment scale, the riverbank condition, sediment, water quality in terms of pollution, smell and discolouration.³³⁷

In respect of the question of whether a water complies with a drinking-water standard, a western standard might be defined as a state in which no or only non-toxic contaminants exist so that some minor degradation is not regarded as detrimental. However, Maori would demand that drinking water has to be free from physical as well as spiritual pollution.³³⁸

All in all, the CHI tries to measure and implement the Maori view of a good state of water management.³³⁹ Cultural values of the Maori were combined with Western scientific techniques; the latter were used to mathematically attribute values to the different sites. Therefore, mutual respect and trust could be encouraged, whereby the common commitment to stream health was emphasised.³⁴⁰

³³³ Tipa; Teirney, above n 14, 27

³³⁴ Tipa; Teirney, above n 14, 27

³³⁵ Tipa; Teirney, above n 14, 27, with reference to the Ministry for the Environment *Environmental Performance Indicators: Proposals for the Air, Freshwater and Land* (Ministry for the Environment, Wellington, 1997)

³³⁶ Tipa; Teirney, above n 14, 28

³³⁷ Tipa; Teirney, above n 14, 30-31

³³⁸ Tipa; Teirney, above n 14, 27 with reference to the Ministry for the Environment *Environmental Performance Indicators: Proposals for the Air, Freshwater and Land* (Ministry for the Environment, Wellington, 1997)

³³⁹ Compare Tipa; Teirney, above n 14, 39 and 50

³⁴⁰ Tipa; Teirny, above n 14, 50

D Integration into Regulation

The question is how these cultural values could best be integrated into a regulatory approach.

Actually, two options are crucial, the first is an improvement of current processes, the other is making greater legislative changes in decision-making.

A rather slight process consists of strengthening capacities for Maori, including funding and training, to improve their management skills and to create more effective working relationships with local government. This could be assisted by a corresponding approach on the side of the councils that could be trained to develop a deeper understanding of Maori values and the implications as set by the Treaty of Waitangi.³⁴¹

Another more fundamental approach that was proposed is to write down Maori involvement in planning processes into regional water plans, to give greater central government direction on this matter, to install ex-ante co-management of resources by amending the RMA (in sections 33 and 34 for instance) or to create an ex-post monitoring process. This last aspect could be made by way of Local Government Act audits or by an Ombudsman process.³⁴²

The author of this paper argues that a pure market approach will often discriminate against minority groups, whose words are not heard. Therefore, governmental regulation is necessary, an improvement of Maori participation at the local level being desirable and a good step in the right direction. It is essential that Maori values are heard, communicated to Pakeha and that both groups can jointly work on one common goal, namely to protect the unique values of Maori.

It is a crucial point in which way regulation should contribute to these efforts. One theoretical option would be an agency³⁴³ for the protection of Maori values. This agency could consist equally of Maori and Pakeha water experts. Both should be

³⁴¹ Ministry for the Environment, *Water Programs of Action, Water Allocation and Use, Technical Working Paper* (June 2004), above n 3, 17

³⁴² Ministry for the Environment, *Water Programs of Action, Water Allocation and Use, Technical Working Paper* (June 2004), above n 3, 18

³⁴³ Compare in general terms in respect of the agency solution: Baldwin; Cave, above n 28, 69-70

specially trained in order to develop a mutual understanding for Maori values as well as water implications.

Maori could define a certain amount of the most valuable water resources which are regularly monitored and which could have certain, but not boundless competences to delay a water transfer by way of veto.

Such a veto could be the beginning of a strict scrutiny of the water transfer that could be undertaken by this independent agency. If the independent agency, after this process, still maintains its position, the water transfer could be subject to a final decision by an Ombudsman, as mentioned above.

Such a process would make it possible to bundle expertise and to work independently from governmental politics and would therefore save costs, compared to an approach in which these agencies are installed at a local level.³⁴⁴

However, as it was said, greater Maori participation could create “a perception of special treatment”.³⁴⁵ Therefore, it is necessary to foster open communicative processes between all stakeholders.³⁴⁶ It will also be necessary to inform the public about Maori values so that it can understand the special importance water has for them.

All in all, the agency-option mentioned above will – in the short run – probably not receive enough support by the New Zealanders as a whole. Maori would perhaps be in the spotlight of public scrutiny,³⁴⁷ which the author of this paper would also count as a regulatory cost in a wider sense, impeding an effective protection by way of this regulatory agency.

Therefore, the realistic alternative for creating such an agency would be to institutionalize communication processes between Pakeha and Maori and implement slight changes in regulatory processes. Government could fund projects where special Maori values are integrated into Western standards³⁴⁸ and could also aim for

³⁴⁴ Baldwin; Cave, above n 28, 69-70

³⁴⁵ Ministry for the Environment, *Water Programs of Action, Water Allocation and Use, Technical Working Paper* (June 2004), above n 3, 18

³⁴⁶ Ministry for the Environment, *Water Programs of Action, Water Allocation and Use, Technical Working Paper* (June 2004), above n 3, 18

³⁴⁷ Ministry for the Environment, *Water Programs of Action, Water Allocation and Use, Technical Working Paper* (June 2004), above n 3, 18

³⁴⁸ Tipa; Teirney, above n 14, 50

a better mutual understanding by workshops for local regulators.³⁴⁹ A further step in the right direction could be an effort that tries to institutionalize these working groups as permanent entities, which could improve the implementation of Maori values in the long run.

X CONCLUSION

The author is convinced that the best regulatory mix will comprise a number of different, probably rather slight changes in regulatory structures. These changes should affect market elements, changes in public involvement and also in the issue of Maori values.

The ideal regulation of water in New Zealand will not be a decision in favour of one special regulatory theory, but a combination and an integrated approach of several theories. There is the question as to what extent certain elements shall prevail at the expense of others. This requires a basic decision whether to rely on competition or not.³⁵⁰ The author of this paper argues in favour of market elements, which shall be strengthened where possible.

This is caused by the fact that, if water is merely declared a public good, responsibility for it is lost. No incentive exists to conserve this valuable good. Water information campaigns may contribute to a better understanding; however, human beings need concrete incentives to deal carefully with scarce resources. Therefore, efficient use of water requires some sort of market elements, and the most basic of them is that it has to be paid for.³⁵¹

This insight is lost when too much emphasis is laid on public involvement. Instead of the concept of "equal suffering",³⁵² New Zealand should provide an innovative approach including market elements.

However, as in practical terms markets will only be a supplementary, but essential element of regulation, administrative processes have to be improved. This is due to the fact that water is a very special good that is essential for human life and

³⁴⁹ Ministry for the Environment, *Water Programs of Action, Water Allocation and Use, Technical Working Paper* (June 2004), above n 3, 17

³⁵⁰ Compare Counsell, *Achieving Efficiency in Water Allocation*, above n 1, 25-26

³⁵¹ Tren, above n 23

³⁵² Dr. Raffensberger, as found in Petheram, above n 202, 13ff.

which needs public involvement,³⁵³ especially when water quality standards are concerned.³⁵⁴ The basic question whether to rely on local or rather national regulators should be answered in favour of local entities.³⁵⁵ What has become clear is, however, that they need better guidance by the national government.³⁵⁶ Here, the ministerial-call-in approach will not be a panacea. As it will mainly be applied in highly politicized cases, where factual or purported lobbying could play a major role, it does not seem to be the appropriate regulatory solution. National Guidance should rather be provided in a non-case-specific way, for instance in prescribing allocation principles or perhaps also in forcing councils to release allocation plans.³⁵⁷ The principle of efficiency is, as said above, of vital importance to New Zealand's long-term supply of water for different usages and this principle will only be applied by market elements³⁵⁸ – in some parts – or by improved administrative processes.

This starts right with the notion of “[e]quity between existing and potential users”,³⁵⁹ which requires a “strategic approach”³⁶⁰ in order to get further away from the “first-in [,] first-served”³⁶¹ approach. For doing so, more guidance by the national government is necessary,³⁶² for instance by guidelines of “best practice”.³⁶³ In order to achieve a more sophisticated allocation of scarce water resources, further communication processes between water experts, sitting in some councils, and other regulators should be enhanced.³⁶⁴ Finally, performance indicators,³⁶⁵ i.e. an increased control of local regulators, will be necessary and could provide further improvements.³⁶⁶

³⁵³ The European Commission Community Research, above n 11, 127

³⁵⁴ BPD Water and Sanitation, above n, 1

³⁵⁵ Compare in general terms in respect of the benefits of decentralized regulation: Worldbank, above n 12, Annex 2, 3rd page, found under the heading “How decentralized should regulation be?”

³⁵⁶ Ministry for the Environment *Reflections: A summary of your views on the Sustainable Water Programme of Action* (July 2005), above n 13, 4-5

³⁵⁷ Arguing in favor of “a more strategic approach”

Lincoln Environmental Water Allocation: A strategic overview, above n 3, 14

³⁵⁸ Compare in respect of an improved trading – model: Counsell, *Achieving Efficiency in Water Allocation*, above n 1, 18-19

³⁵⁹ Lincoln Environmental Water Allocation: A strategic overview, above n 3, 9

³⁶⁰ Lincoln Environmental Water Allocation: A strategic overview, above n 3, 14

³⁶¹ Counsell, *Achieving Efficiency in Water Allocation*, above n 1, 12, with further reference to Lincoln Environmental Water Allocation: A strategic overview, above n 3

³⁶² Lincoln Environmental Water Allocation: A strategic overview, above n 3, 16

³⁶³ Lincoln Environmental Water Allocation: A strategic overview, above n 3, 19

³⁶⁴ Lincoln Environmental Water Allocation: A strategic overview, above n 3, 16

³⁶⁵ Guerin, above n 273, 16

³⁶⁶ Compare Guerin, above n 273, 16 and 18

All in all, the preponderance of administrative regulators is also justified by the fact that Maori values have to be protected better. It would be unrealistic to rely on markets in this aspect. In contrast, institutionalized communication processes between Pakeha and Maori will contribute to a better regulation of water.³⁶⁷ First steps in this directions have been undertaken by the national government; however, potential for improvement still remains. One is to implement permanent panels, consisting of Pakeha and Maori, that could implement Maori values in the long run.

It will be the task of New Zealanders to adopt an innovative approach to competing water interests. Neither a pure market nor a pure administrative process will contribute to long-term sustainability. Moreover, the regulatory scheme will comprise different elements. Changes should be made at a relatively early stage, before public confidence in the existing regulatory framework is lost or reduced. The desired combined effort can be visualized by a regulatory milkshake or some sort of cocoa, with a preponderance of local regulators (= the milk), added by some market elements (= a little cocoa) and also better guidance of national government (= the sugar).³⁶⁸ The author is convinced that the consumers will find that this milkshake tastes better than the current approach.

³⁶⁷ Compare – in respect of one concrete project: Tipa; Teirny, above n 14, 50

³⁶⁸ Actually, the idea of milk shakes or some sort of cocoa in a regulatory context is analogous to a regulatory problem in the Netherlands in the 1990s. This – or at least a similar – metaphor was applied – as far as the author remembers – to the Dutch labor market, as reported in a German News Program (maybe the “heute-journal” on “ZDF”) in the second half of the 1990s. German media then contrasted the German regulatory scheme with the dutch one, and the later was seen as a good example for innovative regulation.

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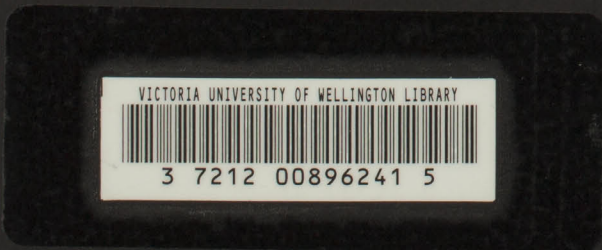
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