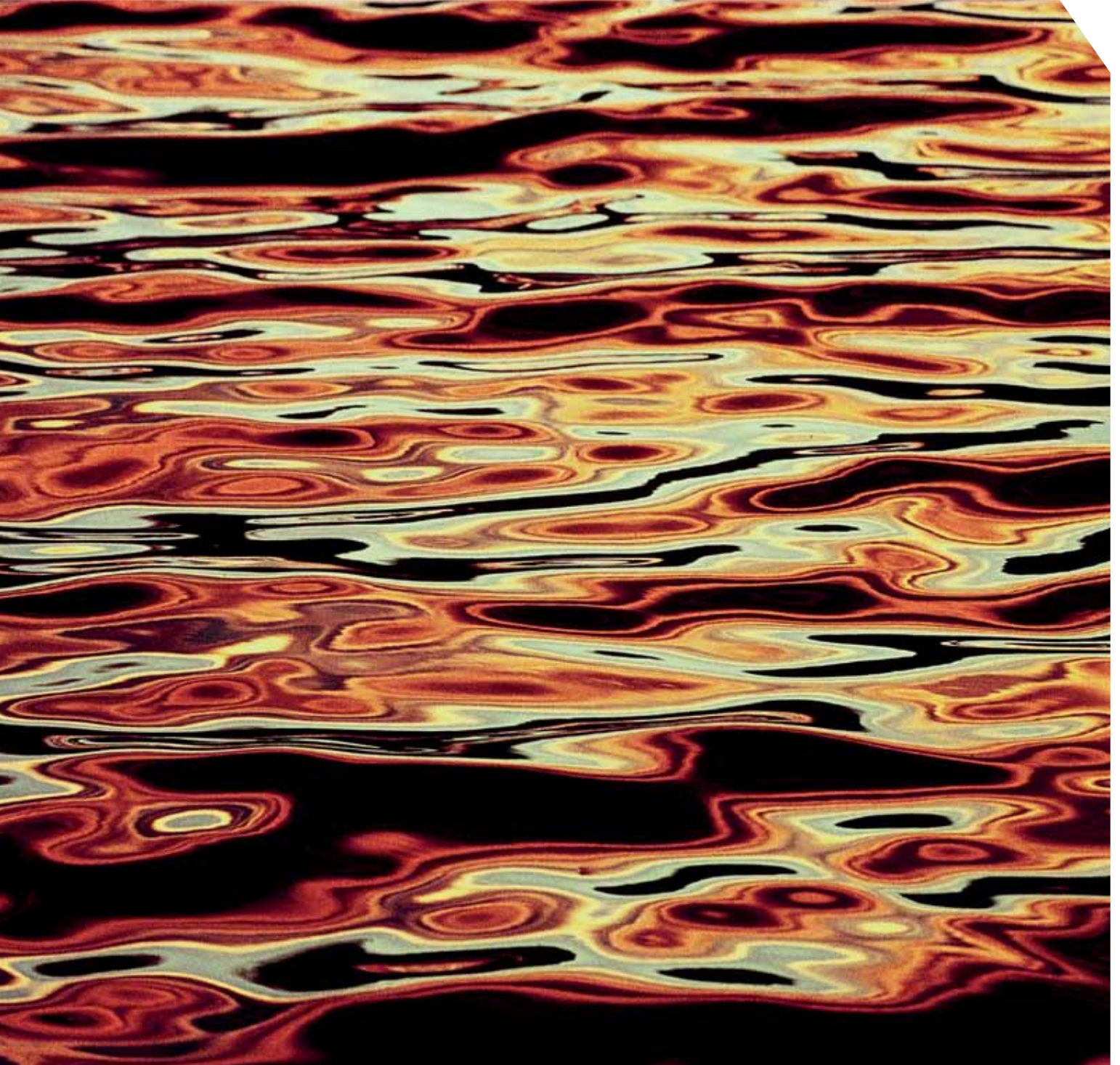




Human Rights
Commission

Te Kāhui Tika Tangata



Human Rights and Water

Tika Tangata me te Wai



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Water is the essence of life and human dignity.

World Health Organization, *The Right to Water*

Purpose

The purpose of the paper is to promote the human rights implications of water at a time when the supply of water, access to it, and its quality are matters of national interest and are at a critical juncture. The Human Rights Commission believes that a human rights approach, which draws on the latest domestic and international information, will be of help to legislators, policy-makers and communities in balancing conflicting interests and points of view. The paper does not purport to be a comprehensive account of freshwater resources in New Zealand.

The Human Rights Commission consulted with a range of interested parties on a draft of this discussion paper during 2011. The final paper includes amendments made after considering the feedback received.

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All the water that will ever be is right now.

National Geographic

Introduction

In 2010, the UN General Assembly and the UN Human Rights Council explicitly recognised the human right to water and sanitation. In commenting on a draft of this paper the Ministry of Foreign Affairs and Trade noted that a resolution of the UN Human Rights Council cannot create legally binding obligations on States.¹ Nevertheless the recognition by the UN Human Rights Council creates legal rights. This recognition has been described as a breakthrough that ended a long-lasting discussion, even though it is a first step.²

Having access to safe drinking water is central to living a life in dignity and upholding human rights.³ Water is life's most essential molecule. Water is so vital for human survival it critically impacts on a wide range of other human rights. As Ban Ki-moon, Secretary-General of the United Nations notes water is life, but water also means livelihoods.⁴ It is essential for life; it allows people to be healthy; it allows farmers to produce food; it is essential in many industrial processes; it is a key element in tourism, rest and recreation; and it allows human beings to clean the surroundings in which they live. Water is also an important renewable energy source.

Water has cultural significance and reduced access to it, plus detrimental impacts on its quality, can violate cultural rights. Water is critical to the right to health and can either positively or negatively affect the right to work and the livelihood of the world's population. As Jacques Cousteau famously said, "we forget that the water cycle and the life cycle is one".

The New Zealand Human Rights Commission has produced this paper on human rights and water at a time of increased public debate about the human rights implications of water, who "owns" it, how it should be allocated and used, who should supply it, its cost and quality and how it should be regulated.

The paper was written when water is being described as the new oil and when there are heightened tensions around water globally. This prompted the United Nations to increase attention on water from the perspective of the human rights framework.⁵ The paper uses a human rights approach based on current United Nations guidance from the Independent Experts it appointed on human rights and water and on human rights and business.

In the New Zealand context human rights considerations are relevant to:

- ◆ the evolving debate, nationally and regionally, about water ownership, governance, management and administration
- ◆ fundamental issues related to access to water and the supply and quality of water, that impact on economic, social and cultural, and civil and political rights.



Dr Judy McGregor
Commissioner

Across the hill / the people of Featherston / are gathering this morning / to pray for rain

Sam Hunt, 'Across the Hill', from *The Penguin Poets, Approaches to Paremata* (Penguin, 1985)

The human rights approach

Human rights have transformed in modern times from moral or philosophical imperatives into rights that are legally recognised internationally and, increasingly, across nations. They have their modern origins in the Universal Declaration of Human Rights (UDHR). Two major covenants – the International Covenant on Civil and Political Rights (ICCPR) and the International Covenant on Economic, Social and Cultural Rights (IESCR) – give the standards in the universal declaration legal force. The two major covenants are supplemented by a series of instruments that apply to thematic issues such as discrimination against women and children and by a large number of resolutions, declarations, and general comments made by the United Nations and its agencies.

The United Nations also appoints special or independent experts with a specific mandate to address urgent and/or emerging human rights issues such as:

- ◆ human rights obligations relating to access to safe drinking water and sanitation
- ◆ human rights and business.

The experts provide a contemporary and evolving stream of information and good-practice guidance for State parties and other stakeholders such as business, civil society groups, communities and individuals on salient human rights issues.

In 2010, the Special Rapporteur on the issue of human rights obligations relating to access to safe drinking water and sanitation,⁶ Catarina de Albuquerque, reported to the UN Human Rights Council, specifically about the role of non-state providers and the right to water and sanitation.⁷ In 2008 she was asked, among other things, to clarify the content of human rights obligations relating to access to safe drinking water and sanitation and to provide good practices relating to access to safe drinking water and sanitation. To identify good practices she identified ten criteria against which to assess a practice from a human rights perspective and then she applied the same criteria to all practices under consideration. Some of these are particularly relevant to New Zealand, some are not.

The criteria are:

Availability

which refers to sufficient quantities, reliability and the continuity of supply.

Accessibility

which refers to water facilities being physically accessible for everyone within, or in the immediate vicinity of, each household, health or educational institution, public institution or workplace.

Affordability

which means access to water facilities and services must be accessible at a price that is affordable for all people.

Quality/safety

which means that water must be of such quality that it does not pose a threat to human health.

Acceptability

which refers to water and sanitation services being culturally and socially acceptable.

Non-discrimination

which is central to human rights and requires a focus on marginalised and vulnerable people.

Participation

which refers to the need for the planning, design, maintenance and monitoring of water services to be participatory and the need for transparency and access to information.

Accountability

refers to the fact that the State has the primary responsibility to guarantee human rights, but that numerous other actors in the water sector should also have accountability mechanisms. States should have accessible and effective judicial or other appropriate remedies at a national level.

Impact

which refers to the desirability of good practices which could include laws, policies, programmes, campaigns, demonstrating a positive and tangible impact.

Sustainability

which means that the human rights obligations relating to water have to be met in a sustainable manner. Water quality and availability have to be ensured in a sustainable manner by avoiding water contamination

A river is never silent. Even its / deepest pools thrive with dark /
or dreamy utterance. They shelter / more than we can say we know

Brian Turner, 'Listening to the River', from *Listening To The River* (John McIndoe, 1983)

and over-abstraction of water resources. Adaptability may be the key to ensure that policies, legislation and implementation withstand the impacts of climate change and changing water availability.⁸

In this paper the Human Rights Commission has adopted the criteria it considers to be relevant to the New Zealand context to discuss the human rights implications as they relate to water.

At much the same time that the United Nations has been considering human rights and water, there has been an evolving stream of work relating to human rights and business. The two clearly overlap and the processes have been described as making "important steps in international standard setting relating to human rights, water and sanitation and move global debates forward relating to the private sector."⁹

The UN Human Rights Council in 2008 unanimously endorsed the three-part policy framework entitled "Protect, Respect and Remedy" developed by the Special Representative of the Secretary-General (SRSG) on the issue of human rights and transnational corporations and other business enterprises, Professor John Ruggie. The framework consists of:¹⁰

- ◆ the State's obligations to protect against human rights abuses by third parties
- ◆ the responsibility of companies to respect human rights
- ◆ the need for access to effective remedies and grievance mechanisms to address alleged human rights violations.

National human rights institutions, including the New Zealand Human Rights Commission, recently provided feedback on guidelines produced by the SRSG to further operationalise the framework.

In her report on the role that non-State water service providers play in delivering water and sanitation, the Special Rapporteur on Water and Sanitation uses the three-part policy framework developed by John Ruggie. She described his work as "especially relevant" because it concerned States' obligations and business responsibilities.

In summary, a human rights approach to water is based

on international human rights law (outlined below) and modern expert analysis and interpretation by the special experts and the UN committees. The approach provides a specific human rights perspective that can be used to assess legislation, policy and practice and to help evaluate outcomes. The United Nations High Commissioner for Human Rights says there are two main rationales for a human rights-based approach: an intrinsic one (because it is the "right thing to do"), and an instrumental one (because it "leads to better and more sustainable human development outcomes," can help resolve conflict among stakeholders etc). In practice, the reason to pursue such an approach is usually a combination of both.¹¹

Applying the human rights approach

The New Zealand Human Rights Commission considers that six of the Special Rapporteur's criteria have particular salience and these are discussed below. They relate to:

- ◆ the availability of freshwater
- ◆ quality and safety
- ◆ affordability
- ◆ acceptability in relation to the Treaty of Waitangi / Te Tiriti o Waitangi and Māori values
- ◆ participation of citizens in water-related matters
- ◆ accountability.

Many of these overlap. For example, Treaty of Waitangi / Te Tiriti o Waitangi considerations relate to availability, quality, acceptability, participation and accountability. Current topical concerns about private sector participation, including privatisation, are discussed under the criteria of affordability, accountability and participation.

Before discussing the criteria in relation to New Zealand, the paper outlines international human rights law relating to water and looks at the question of whether New Zealand really has a problem.

Cataract flings its arrows on our path / For us the land is matrix and destroyer

James K Baxter, 'Poem in the Matukituki Valley', from *Collected Poems of James K Baxter* (Oxford University Press, Australia & New Zealand, 1980).

International human rights law relating to water

Access to safe water is a fundamental human need and, therefore, a basic human right.

Kofi Annan, former United Nations Secretary-General.

Prior to the UN General Assembly and the UN Human Rights Council in 2010, explicitly recognising access to clean water and sanitation as a human right, the right to water was seen as existing in a wide range of international treaties, declarations and other standards. The right to water was seen as being part of the rights to food and health set out in the International Covenant on Economic, Social and Cultural Rights (ICESCR). In 2002, the UN Committee on Economic, Social and Cultural Rights in a general comment stated that the description of the realisation of the right to an adequate standard of living "including adequate food, clothing and housing" meant that this catalogue of rights was not intended to be exhaustive. "The right to water clearly falls within the category of guarantees essential for securing an adequate standard of living, particularly since it is one of the most fundamental conditions for survival."¹²

The right to water is inextricably related to the right to attain the highest standard of health and the rights to adequate housing and adequate food. The right to water should also be read in conjunction with the rights outlined in the Universal Declaration of Human Rights such as Article 25: "Everyone has the right to a standard of living adequate for the health and wellbeing of himself and of his family."

The right to water is considered a human rights treaty obligation because it is included under the right to health and the right to food. The UN Committee on Economic, Social and Cultural Rights made this clear in its 2002 general comment on the right to water. The right to water is therefore legally binding on States that have ratified the ICESCR.¹³

The human rights to water and sanitation only include personal and domestic uses (drinking, personal sanitation, washing of clothes, food preparation, personal and household hygiene).¹⁴

Human rights requires the prioritization of water for basic personal and domestic uses before other uses, and this is particularly relevant in cases where water availability is low.¹⁵

On 23 September 2011 the UN Human Rights Council passed a comprehensive resolution calling on States to monitor and regularly review progress towards achieving the right to safe drinking water.¹⁶

The right to water is directly referred to in three human rights instruments – treaties relating to women, children and disabled people.

Article 14, Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW), 1979 says:

State parties shall take all appropriate measures to ensure...women the right...to enjoy adequate living conditions particularly in relation to housing, sanitation, electricity and water supply...

The Convention on the Rights of the Child (CRC), Article 24, refers to:

clean drinking water, taking into consideration the dangers and risks of environmental pollution.

Article 28, Convention on the Rights of Persons with Disabilities (CRPD), 2007 says:

State Parties recognize the right of persons with disabilities to social protection...including measures to ensure equal access by persons with disabilities to clean water services...

Water is referred to in Articles 25 and 32 of the Declaration on the Rights of Indigenous Peoples (DRIP). Article 25 refers to spiritual relationships and states:

Indigenous peoples have the right to maintain and strengthen their distinctive spiritual relationship with their traditionally owned or otherwise occupied and used lands, territories, waters and coastal seas and other resources and to uphold their responsibilities to future generations in this regard.

Article 32 of the DRIP refers to the utilisation of water resources and states:

States shall consult and cooperate in good faith with the indigenous peoples concerned through their own representative institutions in order to obtain their free and informed consent prior to the approval of any project affecting their lands or territories and other

So much water. Miles of it under you, washing through underwater caves, one shelf of water tipping over into another, vast secret lakes, a whole world of water beneath, prehistoric.

Kirsty Gunn, from *Rain*, (Faber and Faber Ltd, 1994)

resources, particularly in connection with the development, utilisation or exploitation of mineral, water or other resources.

Article 29 of the DRIP relating to the right of indigenous peoples to the conservation and protection of the environment and productive capacity of land, territory and resources, is also applicable.

Other human rights guidelines and principles with explicit reference to the provision of safe drinking water and sanitation include the Standard Minimum Rules for the Treatment of Prisoners; the United Nations Rules for the Protection of Juveniles Deprived of their Liberty; and the United Nations Principles for Older Persons.

Article 14 of the Universal Declaration on Bioethics and Human Rights is an affirmative principle of social responsibility and health. The principle creates a duty on government, shared by all sectors of society, to ensure access to adequate nutrition and water.¹⁷

In addition to human rights treaties, guidelines and principles there are wider United Nations environmental activities relating to water.

Agenda 21 is the only international instrument to provide a comprehensive action plan for the sustainable development of the world's freshwater. It was adopted by more than 178 governments, including New Zealand, at the United Nations Conference on Environment and Development held in Rio de Janeiro, Brazil, in 1992.¹⁸ Action is to be taken globally, nationally and locally by the organisations of the United Nations system, governments, and major groups in every area in which humans impact on the environment.

In 2016, the United Nations Commission on Sustainable Development will evaluate New Zealand's water allocation law and policy for compliance with Agenda 21.¹⁹

Outside the United Nations, nation states, the private sector, international organisations and some civil society groups attend meetings of the World Water Forum. Some countries, for instance South Africa, India, Argentina and Uruguay, identify access to water in their constitutions or other high level legislation.²⁰ Australia's Water Act 2007 does not amount to a constitutional guarantee, although it prioritises critical human needs.²¹

The relationship between water and climate change is also the subject of international discussion. The United Nations states that water has not been sufficiently considered in the climate change negotiations. This is despite the fact that water is a key medium through which climate change impacts on human populations, society and ecosystems, particularly due to predicted changes in its quality and quantity.²²

Is there a problem in New Zealand?

New Zealand is in a fortunate position in considering water and human rights because it is blessed by an abundance of freshwater resources. By international comparisons New Zealand has a very large quantity of freshwater in lakes, rivers, streams, wetlands, and ground water. Much of it remains a high-quality water resource. Abundant precipitation from rain and snow feeds over 70 major rivers and thousands of streams which run to 425,000 kilometres, 4000 lakes over one hectare in size, and numerous underground aquifers. Fiordland is one of the wettest places in the world, with over 12 metres of rainfall per annum in some parts.

New Zealand is ranked fourth out of 30 OECD countries for the size of its renewable freshwater resource on a per capita basis.²³ It is listed as ninth out of the top ten countries with the most freshwater resources per capita.²⁴ It also has some of the world's highest quality freshwater, again ranking in the top ten for cleanliness and abundance.²⁵ Commentators regularly describe New Zealand's freshwater as a significant national strategic advantage.²⁶

Not all of the renewable freshwater in New Zealand is available for use. The Ministry for the Environment states that much of it needs to be retained in rivers, lakes and aquifers to maintain the ecological, recreational or cultural values of the water bodies. The demand for freshwater is monitored through an indicator known as the consumptive water allocation, meaning the water is not returned to the source.²⁷

In 2010, there were 20,500 resource consents for taking water; the amount allocated was 27 billion cubic metres, almost half the volume of Lake Taupo. Almost

Waikato taniwha rau – he piko he taniwha Waikato of a hundred taniwha – every bend a taniwha.

Traditional Māori saying

half (46 per cent) was for irrigation and 41 per cent for hydro generation (the Manapouri hydro take in Fiordland) and the remainder is shared between public drinking water supply, industry and stock watering.²⁸ Hydro generation can be classified as a non-consumptive use of water; the other uses listed are consumptive. If water is used for hydro generation it is generally returned to the water body and can be used by another abstractor.²⁹

Only about 65 per cent of the maximum allocated water is used but there is considerable regional variation. Canterbury, Southland and Otago account for 86 per cent of the total weekly consumptive allocation in New Zealand – Southland for hydro and Canterbury and Otago for irrigation.³⁰

The Ministry for the Environment's analysis of trends shows that if hydro is excluded, national weekly water allocation has nearly doubled since 1999 and increased by 10 per cent in the last four years. Between 1999 and 2010 the largest growth was in Canterbury with a growth of 98.2 million cubic metres, a 65 per cent change.³¹ However, between 1999 and 2006 the eight regions which showed increases greater than 50 per cent were Bay of Plenty, Waikato, Southland, Gisborne, Greater Wellington, Manawatu-Wanganui and Tasman.³² Within New Zealand, allocated water comprises less than five per cent of its renewable freshwater resource. One commentator says that the available surface and groundwater is already over-allocated in some areas, such as Canterbury.³³

While New Zealand has abundant freshwater, shortages occur because the water is often in the wrong place at the wrong time. There is short-term variation of rainfall within years and long-term variations of two to four years from the El Nino Southern Oscillation and even longer term from the Interdecadal Pacific Oscillation. Changing weather patterns are responsible for droughts in some eastern areas. Climate change and the predicted increased number of extreme weather occurrences, is likely to increase this variability.

Against this background there is growing concern in New Zealand among water users, including farmers, the electricity industry, conservationists, iwi, recreational water users, central and local government and the

public about the quantity and quality of freshwater resources in New Zealand. The increasing pressures to meet demands and the tensions they pose for environmental standards are just part of the debate. Who "owns" the water, how it is to be managed, how to maintain its quality, how to allocate it to users, who supplies it and its regulation all have human rights implications affecting economic, social, cultural, and civil and political rights.

Recognition of the existence that water-use patterns were not sustainable in the longer term is not new. In 1959 the following editorial appeared in *New Zealand Farmer*:³⁴

We have a wealth of water resources but they aren't inexhaustible. As our economy expands, we won't have enough to satisfy all of our varied and increasing wants if we continue the present extravagant and wasteful use of our water resources. Are we therefore prepared to support a national policy designed to conserve and develop our water resources for the long term needs of the country? That's the challenge facing all of us now.

In 2010, the Minister for the Environment, Nick Smith, made a similar point: "New Zealand doesn't have a shortage of freshwater. It's just that we're managing it poorly."³⁵

In a 2011 report the Office of the Auditor-General commented:³⁶

Freshwater is vital to our economic, social, and cultural well-being, but our water management is getting increased scrutiny from:

- ◆ New Zealanders concerned at declining water quality;
- ◆ tourists, and the pressure to maintain our international image to support our tourism sector, which is also a major contributor to our economy; and
- ◆ overseas buyers of meat and dairy products driven by their customers' expectations that their suppliers follow good environmental practices.

It is timely that when the governance, management and regulation of freshwater resources are at the forefront of the political and policy agenda that human rights implications are identified, understood and considered.

gravity alone provides the force, flood- / gates trip fresh running water / an open source / deposits choke systems / clouds drip-feed lakes / reservoirs hold on

Sam Sampson, 'Header Tank', from *Everything Talks* (Auckland University Press, 2008)

From here the paper considers in more depth the six of the Special Rapporteur's criteria that have particular relevance in the New Zealand context. They relate to:

- ◆ the availability of freshwater
- ◆ quality and safety
- ◆ affordability
- ◆ acceptability in relation to the Treaty of Waitangi / Te Tiriti o Waitangi and Māori values
- ◆ participation of citizens in water-related matters
- ◆ accountability.

Availability

The human rights dimension of availability of freshwater refers to having sufficient quantities, reliability and continuity of supply.

New Zealand is well endowed with a large supply of freshwater. There is relatively high and reliable rainfall and rivers flow throughout the year. Only around five per cent of the water that falls in New Zealand is currently being used, compared with around 50 per cent in most countries.³⁷ The worth of this measure is disputed by Professor David Hamilton, Professor of Biological Sciences, University of Waikato, as it ignores the process by which water is transferred to the atmosphere via evaporation; it implies humans should use the majority of water for their own use; and ignores the problems associated with water capture.³⁸

The amount of water being used compared to water availability varies widely by region. In September 2010, the New Zealand Institute published an update of its report card on how it assesses the country's social, economic, and environmental wellbeing. The report card has a water stress ratio for each region comparing 1999 to 2006 which indicates that the Canterbury and Otago regions are most affected. The Land and Water Forum has noted that: "water scarcity is becoming a serious issue in many places depending on seasonal and climatic variations with many catchments over-allocated and others fully allocated or approaching full allocation."³⁹ While water stress levels are increasing rapidly in some regions, they remain low in New Zealand compared with other countries.⁴⁰

Water for domestic purposes

The water supply for each person must be sufficient for personal and domestic uses. In determining what is sufficient, a human rights perspective goes beyond minimum targets such as 20 litres of water per person per day as referred to in the guidance in the UN Millennium Development Goal indicators, which is considered by the World Health Organization to be insufficient to ensure health and hygiene.⁴¹

Water must be continuously available in a sufficient quantity for meeting personal and domestic requirements of drinking and personal hygiene as well as further personal and domestic uses such as cooking and food preparation, dish and laundry washing and cleaning. Individual requirements for water consumption vary, for instance due to the level of activity, personal and health conditions or climatic and geographic conditions.⁴²

The supply of water has to be continuous enough to allow for the collection of sufficient amounts to satisfy all needs, without compromising the quality of the water.⁴³

Legally, there is no barrier for an individual to take water for personal domestic purposes – it is a permitted activity under the Resource Management Act. The Commission was told by a planning manager during consultation that a RMA permit to take water could be seen as being a long-term right.⁴⁴

When granting water permits under the Resource Management Act (RMA) there is often a debate about rights and entitlements. Traditionally the right to take water has been regarded by water managers as a 'privilege,' the resource itself being a public resource. Interestingly what were called 'water rights' under the previous Water and Soil Conservation Act were recast as 'water permits' under the RMA. However, given much of the investment is involved in putting down bores or installing pumps and building dams, a lot of water users now seem to regard a water permit as something that should be granted in perpetuity notwithstanding the 35 year time limit under the RMA. Indeed recent changes to the RMA now make it easier for existing permit holders under section 124 of the RMA to obtain new consents at the expiry of the original consent. This has been seen by some to be a privatisation of the resource to those holding consents.

This is a country of water, surrounded by ocean, punctuated by lakes, waterfalls and rivers. This country is rocked by the latent violence of water.

Kapka Kassabova, from *Reconnaissance*, (Penguin Books (NZ) Ltd, 1999)

In practical terms, however, most households are dependent on the local council providing the infrastructure necessary to supply their domestic needs. A municipal take will not necessarily be a permitted activity under the Resource Management Act. The quality of the service provided by councils varies depending on numerous factors. Failure to protect water bodies from degradation to the point where they are not suitable for domestic use means that both the availability and the quality criteria have not been met.⁴⁵

Water for non-domestic purposes

There is an inextricable link between the use of water for domestic or non-domestic purposes.

Despite an abundance of water, its management and use are creating tensions in most parts of New Zealand and particularly in regions such as Canterbury, the Waikato and the Manawatu.

The Chief Executive of the Ministry for the Environment has noted that:⁴⁶

In the case of water, New Zealand has large stocks but not always in the right place at the right time or in the right amount. In some areas (Canterbury is not the only trouble spot) limits are being reached and exceeded. This is particularly evident where irrigation and run-off from farming is putting pressure on our freshwater resources.

For example, in the Waikato, water allocation (the method by which surface and ground water is allocated in the region) has come under increasing scrutiny and sometimes criticism from both political and technical perspectives.⁴⁷ Demand for surface and ground water has grown substantially, to the point where every day the region consumes about two million cubic metres of surface water – 10 times more than 20 years ago. In line with central government wishes, the proposed new rules give water use priority to electricity generation over other non-domestic or municipal users, such as agriculture.⁴⁸

One of the issues relating to availability is the measurement of how much is being taken. In 2010, it was estimated that there were over 20,000 consents allowing for the taking of water in New Zealand. About

three-quarters are for irrigation – most of the other consents are for community water supplies and industry. About one-third of all consented takes (and about one-third of the total volume allocated by consent) is currently measured.⁴⁹

In 2010, the Government introduced mandatory metering for allocations of water where more than five litres per second is permitted to be taken. When the regulations came into effect the Environment Minister, Nick Smith, said: “over the past decade we have doubled the amount of water that can be legally taken from our rivers, lakes and aquifers to 450 million cubic metres per week... We also know we are reaching resource limits in significant areas. We need to know how much water is actually taken and when if we are to properly manage New Zealand’s hugely valuable freshwater resource.” The Minister noted that prior to the new regulations only 31 per cent of allocated water was measured, by 2016 that will rise to 98 per cent.⁵⁰

Hydro electricity / Irrigation

Nowhere have competing rights over the right to water been more profound in New Zealand history than in the development of hydro electricity. The Save the Manapouri Campaign was one of the starting points of New Zealand environmentalism. In 1970, the petition against raising the levels of the lakes attracted 264,907 signatures. In 1991 the Save the Manapouri campaign was revived to oppose sale of the power station to Comalco and the possible raising of Lake Manapouri’s waters.

Several of New Zealand’s iconic wild rivers, such as the Mokihinui River, north of Westport, are the subject of development versus environment battles. Meridian Energy was granted consents to construct a dam, power station and substation subject to some 200 conditions. The decision to grant resource consent has now been appealed by the Department of Conservation, Forest & Bird, and other NGOs. The court has scheduled the exchange of evidence to take place in the latter part of 2011 and the hearing to commence in April 2012.⁵¹

Meridian Energy states that without Mohikinui, the West Coast would have an inadequate and unreliable energy supply. Conservationists are concerned about ecological damage through erosion, possible adverse effects on rare

It has a language all its own, running water, / some of us can speak it well

Brian Turner, from 'Water', *Into the Wider World*, (Random House, 2008.)

species and the impact on conservation land.

Other dam battles are looming. Contact Energy is revisiting plans to build another hydro dam on the Clutha River. A decision on a preferred development option favoured by Contact Energy is expected to be made this year. That decision will not represent any commitment to proceed with a development but, rather, will allow a more focused discussion to occur around a clearly defined proposal.⁵²

A dry winter in New Zealand's South Island in particular could lead to electricity rationing, given New Zealand's reliance on hydro electricity. In the winters of 2001 and 2003, electricity users were urged to reduce consumption to avoid forced reductions in supply. In 2001, some industrial firms cut back on production. Any rationing of electricity affects employment, school attendance, health and welfare. There are both upstream and downstream consequences of human rights and water.

At a more general level, the human rights implications involve property rights to water and participation in decision-making. As more commercial water users secure property rights to water which the wider community regards as "free", that community has little prospect of any direct returns from the freshwater resources that are being used to generate commercial gain. An irrigator's collective submitted to the Commission that:⁵³

Research has shown that are a number of social improvements that occur in communities due to irrigation development (and its associated land-use changes). These include:

- ◆ population growth
- ◆ an increase in the proportion of young and working-age people in communities
- ◆ an increase in the proportion of residents with a tertiary qualification
- ◆ maintenance of the proportion of residents employed inside the primary sector
- ◆ an increased proportion of residents with higher status occupations
- ◆ an increased proportion of residents with full-time jobs
- ◆ an improvement in median household income.

Therefore, the benefits which the use of water for irrigation purposes bring are in line with some of the rights outlined in the International Convention on Economic, Social and Cultural Rights (ICESCR). Irrigation, of course, also allows for increased, and better, food production. Article 11 of the ICESCR contemplates state parties improve food production in order to ensure people are able to exercise their right to food. Whilst some commercial uses may restrict a community's ability to derive benefits from freshwater resources, it should be noted that irrigation development can provide returns to local communities whilst also generating commercial gains.

Irrigation schemes can also provide a vehicle by which communities can access clean water for domestic purposes. For example, [Our] irrigation company provides a large proportion of the supply of water to [a major town] for domestic (and commercial) purposes.

Whilst it is true that nothing is paid for the commercial use of water per se, the costs associated with gaining resource consents to use freshwater can be significant. The costs of obtaining resource consent can easily amount to tens of thousands of dollars in local authority fees alone, not including fees associated with funding investigations, legal counsel, technical reports and so on. Local authorities are also seeking to pass annual charges on to consent holders in the form of state of the environment monitoring or water science charges. Using freshwater resources is not something which could be considered "free" when these sorts of costs are considered.

While the Resource Management Act allows water to be taken and used for up to 35 years, nothing is paid for the commercial use of the water resource. This has Treaty of Waitangi / Te Tiriti o Waitangi implications and affects economic, cultural and social rights, among others.

skin of our days, / Sucking our need of water / from private tanks, tapping / The secret strata

Allen Curnow, 'In Summer Sheeted Under', from *Early Days Yet: New and Collected Poems 1941–1997* (Auckland University Press, 1997)

Quality and safety

The human rights dimension of the quality and safety of freshwater means that water must be of such quality that it does not pose a threat to human health.

A number of indicators can be used to measure water quality, including clarity, level of bacteria, taste or smell or the level of nitrate in water.⁵⁴ The nitrate level in water is a good indicator of the health or degradation of freshwater.⁵⁵ However, the absence of national standards and regional differences in the regulation and monitoring of water quality among local authorities have led to variability in reconciling economic and environmental objectives.

The 2010 Environmental Performance Index ranked the water quality in 163 countries; New Zealand was ranked second highest, Iceland was ranked first.⁵⁶ The accuracy of the ranking is disputed by David Hamilton, Professor of Biological Sciences, University of Waikato, who contends that the information is badly out-of-date, taken out of context and includes a strong bias towards unimpacted sites in New Zealand.⁵⁷

In the New Zealand Institute's 2011 report card on the country's social, economic, and environmental well-being, the grade given to New Zealand's water quality was C, with the trend seen as deteriorating. The rationale for the grade was:⁵⁸

New Zealand has a very large fresh water resource and much of it remains high quality. There has been some progress made in addressing point source discharge, and some rivers, lakes and groundwater sources are improving. However, deterioration of the quality of the worst-affected rivers is continuing so the interventions to reduce pollution are not yet working. The quality of the resource is a B reflecting New Zealand's abundance of high quality water but the grade is a C because of the increasing nitrate pollution per litre of water. Implementing policy that is judged strong enough to reverse the adverse trend would improve the grade to a B.

Point source discharge refers to discharge of pollutants from a single facility at a known location. Non-point-source pollutants do not have a single point of origin (for example, they may include pollutants that have run off wide areas of disturbed or developed land after rainfall). In some areas, the effects of non-point-sources of

pollution on streams, rivers and lakes have been identified as the most serious freshwater management challenge in New Zealand today.⁵⁹

The Parliamentary Commissioner for the Environment is doing work on how to understand the science of water quality, how to report the state of water quality, and how to protect high-value water bodies.⁶⁰

The Auditor-General has noted that there is no single set of freshwater quality variables or monitoring methods that regional councils use to measure freshwater quality, and no nationally agreed guidelines, standards, or methodology for analysing and reporting regional freshwater quality data at the national level. The Ministry for the Environment and regional council representatives are working together to get better national data on freshwater quality. As well as no standard set of variables or methods, there is no nationally consistent set of guidelines or standards that regional councils, the Ministry for the Environment, and the National Institute of Water and Atmospheric Research use to assess whether water quality is within acceptable limits. Instead, agencies that report on freshwater quality use various guidelines or targets.⁶¹

Different measures of water quality are used and produce what can appear to the general public to be confusing and contradictory results. Care needs to be taken in interpreting and understanding the different measures.

In early 2011 the Ministry for the Environment commissioned work to develop Single Environmental Indicators for river, lake and recreational water quality that could be reported at a national level, and a scientifically sound and consistent national scale State of the Environment freshwater monitoring programme. Since then the government has released a discussion document, *Measuring Up*, which sought public submissions by mid-October 2011 on a proposal to make the Parliamentary Commissioner for the Environment responsible for reporting every five years on the State of the Environment. This would include water quality reporting and ranking lakes and rivers from the cleanest to the dirtiest, along with identifying which are improving and deteriorating.⁶²

In the Foreword to *Measuring Up* Nick Smith, Environment Minister, wrote:⁶³

See how the water flits over stone / and all the colours of darkness suddenly / speaking

Riemke Ensing, 'Waitakere River Valley', from *Waitakere Ranges Nature : History : Culture* (Waitakere Ranges Protection Society Inc., 2006)

The problem is that we are in a poor position to provide hard evidence that our clean, green brand is justified. New Zealand is one of only a few OECD countries without a legislative basis for national state of the environment reporting. In Australia, Canada and many other countries, regular national state of the environment reporting is required by law.

This difficulty hampers our capacity to address important environmental issues like freshwater quality. There is a lack of national consistency in what is measured, how and when. Some regional councils monitor problem areas, others do so on the basis of recreational usage and others on a representative basis. This inconsistency enables some to minimise the problems and others to exaggerate them. Too much energy is wasted in the debate over data rather than focusing on addressing the problem. Clear authoritative reports on what lakes and rivers are polluted, how badly and which ones are getting better or worse was an important recommendation of the Fresh Start for Freshwater report from the Land and Water Forum.

A 2009 survey on freshwater monitoring commissioned by the Ministry for the Environment found the 16 regional councils and unitary authorities differ in what they measure to assess water quality.⁶⁴

Domestic freshwater

In a report on urban water system issues the Parliamentary Commissioner for the Environment said that the supply of adequate drinking water and the removal of polluted waters were the two most fundamental needs of towns and cities, and without these services, cities rapidly become uninhabitable.⁶⁵

In 2007, the Health Act was amended to include a provision to require each water supply serving more than 500 people to be covered by a quality-assurance programme in the form of a public health risk-management plan, but this has been delayed until 2016 or the date on which the standards are amended to include them, whichever is the later.⁶⁶

The Ministry of Health's annual review of drinking-water quality in New Zealand for 2009–2010 found that 15 per cent of New Zealanders were drinking water that is either unsafe (six per cent) or comes from an unregistered supply, e.g. a bore or tank water (nine per cent). Three per cent of people received a water supply

that did not comply with bacteriological standards because the frequency of sampling during the year was insufficient to demonstrate compliance.⁶⁷

Local authorities are responsible for supplying drinking water to about 87 per cent of the population. The Auditor-General reported on how well local government authorities are prepared to meet the future demand for drinking water. The Auditor-General noted that some local authorities face more challenges than others, depending on a variety of environmental, economic and social factors. Three of the eight local authorities surveyed were managing their drinking water supplies effectively to meet forecast demand for drinking water, three could be doing better, and two were managing poorly. The Auditor-General reported that feedback from the local government sector indicates that the variable performance found in the sample fairly reflects what is happening within other local authorities.⁶⁸

Natural disasters, such as the Christchurch earthquakes, can pose significant short-term challenges to ensuring the quality of drinking water. A study conducted by Environment Canterbury showed that the quality of water sourced from Christchurch's drinking water aquifers which lie under and around the city was not significantly affected by the September 2010 or February 2011 earthquakes and aftershocks.⁶⁹

Non-domestic freshwater

There is rising industry, agency and public concern about the deterioration of the worst-affected waterways and increased nitrate pollution levels per litre of water.

Lincoln University's research over a decade reveals the state of the environment is generally perceived as very good by New Zealanders, although freshwater, of all the resources considered, rates the lowest. There is a higher level of concern, and some negativity, about the state of local lowland streams. An increasing amount of blame is being placed on farming for damage to freshwaters.⁷⁰

Worsening pollution is evident in the latest report on the Dairying and Clean Streams Accord. It shows that full compliance rates with effluent disposal requirements is at 65 per cent and the level of "significant non-compliance" nationally is up to 16 per cent.⁷¹ Increases in significant non-compliance occurred in the Waikato,

the cacophonous river tossing / white-splintered mane to the / mist's swirl... /
Nowhere is there greater fuss / to tear out the river's tongue

Hone Tuwhare, 'The sea, to the mountains, to the river', from *Deep River Talk*, (Uni Hawaii Press, 1994)

Tasman and Marlborough regions, while Northland remains high.

The Accord is a ten-year voluntary agreement between the Ministry of Agriculture and Forestry, the Ministry of the Environment, Fonterra and Local Government New Zealand that aims to achieve clean healthy water in dairying areas. It sets five targets, including the compliance of dairy farm effluent discharge, stock access to waterways, nutrient management and fencing of regionally significant wetlands. The 2009–2010 annual progress reports show considerable regional variation in compliance. In relation to effluent disposal requirements, full compliance was 39 per cent in Southland and 96 per cent in Taranaki. Nine of 13 regional councils have defined and identified their regionally significant wetlands.

Fonterra said the slight increase in significant non-compliance with regional council dairy effluent rules was unacceptable but good progress was being made on other Accord targets.⁷² The Agriculture Minister, David Carter, said that dairy farmers are slowly taking heed of his challenge to lift their game when it comes to pollution.⁷³ On the other hand, Fish and Game said it was time to look past the Accord, which was failing to deliver on environmental expectations. A mandatory requirement covering all the known adverse environmental effects of dairy farming needed to be introduced.⁷⁴

In June 2011 Fonterra announced it had completed its "Every Farm Every Year" check of compliance by its 10,500 suppliers with councils' effluent discharge rules. There were 2800 referrals to Fonterra's Sustainable Dairying Advisors. The referrals are a combination of compliance issues or risk of them or pro-active self-referrals by farmers seeking advice.⁷⁵

The critical importance to the dairy industry of making the right decisions about the ownership, allocation, management, quality and storage of freshwater has been emphasised by Federated Farmers:⁷⁶

Water is critical. Its ownership, allocation, management, quality and storage are in play right now. Indeed the decisions that are made in the next one to two years will be felt for the next fifty years...

In June 2011 the government announced that it was funding \$9.3m in two research projects on freshwater.

One of the projects is for Aqualinc Research Ltd to develop a framework in the form of a visual tool and a process that allows water users to individually and collectively understand how their decisions affect water quality and quantity.⁷⁷

New Zealand's lakes and rivers

The National River Quality Network operated by the National Institute of Water and Atmospheric Research (NIWA) measures 35 rivers around New Zealand at 77 sites which drain about half of the country's land. The information gathered relates to parts of the river and not the whole river and several variables are measured, including nitrate, pH, and dissolved oxygen levels. Peak nitrate levels increased from 1990 to 2007. The Ministry for the Environment states that "deteriorating water quality is mainly attributable to expansion and intensification of pastoral agriculture".⁷⁸ No set standards for nitrate levels exist in New Zealand.

In November 2010, the Ministry for the Environment released a research report conducted by NIWA on lake water quality in New Zealand. Lake water quality was assessed for 112 lakes over the period 2005 to 2009. The key findings of the report were:⁷⁹

Of the 4000 lakes in New Zealand over one hectare in size, 43 per cent are likely to have very good or excellent water quality (very low levels of nutrients), and 32 per cent are likely to have poor or very poor water quality (are nutrient enriched).

The lakes with the poorest water quality and ecological condition tend to be surrounded by pastoral land cover.

The report prompted Water New Zealand to say:⁸⁰

Declining water quality in some lakes confirms what has been known for years, namely that with intensification of land use water quality will deteriorate in the absence of any useful policies, standards and rules. Because we're water rich we've been able to take the resource for granted for too long... If there is one real culprit in our failure to address water quality it has been a lack of central leadership and direction at a time when we have intensified land use both in rural and built environments...

River pollution is also of concern; as early as 1890 the *Manawatu Herald* reported local body alarm at a Palmerston North Borough Council's decision to

Rivers lunged with pack mentality, / zigzagging through Horowhenua, / postcard country chewed to cardboard cud

David Eggleton, 'The Weather Bomb', from *Fast Talker* (Auckland University Press, 2006)

discharge sewage into the Manawatu River. Since then, there has been over a 100 years of naming, shaming, high emotion and citizens' protests about the waterways.

Federated Farmers challenged scientists who had called the Manawatu one of the "worst polluted rivers in the world", using research carried out by Nelson's Cawthron Institute. Later, the description was amended to "least healthy in New Zealand". While the level of oxygen change has been criticised by some as an inappropriate measure, NIWA indicates the Manawatu is one of the most nutrient-enriched of the 77 rivers it monitors.

Federated Farmers complained to TV One about a news broadcast that stated that the Manawatu was "rated among the most polluted in the western world". The Broadcasting Standards Authority declined to uphold the complaint and said:⁸¹

...the overriding message of the item – that the Manawatu River was heavily polluted and had some of the highest indicator levels of poor ecosystem health of the countries studied in the Institute's research – was correct... Accordingly, we do not consider that the lack of preciseness in the statements resulted in the item being inaccurate for the purposes of the standard or that it would have misled viewers.

The Manawatu Rivers Leaders' Accord was signed in 2010 by 27 parties, including district and regional councils, iwi and hapū, Fonterra, DB Breweries, and Silver Fern Farms Ltd representing sectors and groups that have an impact on, or interest in the river.⁸² Signatories will devise a plan to improve the state of the river. The mauri (life force) of its catchment will be improved so that it sustains fish and is suitable for contact recreation (e.g. swimming), in balance with the social, cultural and economic activities of the catchment community.⁸³ Initially, at the eleventh hour, Federated Farmers opted not to sign the Accord because it did not like a sentence that said everyone agreed that the river was in a poor state. However, several months later, in May 2011, *The Dominion Post* reported that Tararua Federated Farmers had "broken national ranks" and would sign the high profile commitment to clean up the polluted Manawatu River.⁸⁴

Affordability

Water facilities and services must be accessible at a price that is affordable for all people.

Because New Zealand has enjoyed such an abundance of free freshwater, affordability issues have only recently begun to be discussed. This discussion has been around issues such as privatisation and its implications, and water metering in particular. More recently market mechanisms and the Australian experience in water trading have been debated.⁸⁵

This paper looks at human rights relating to privatisation and water metering.

The human rights position relating to water affordability has been clearly spelt out.

The price of water has prompted an unequivocal statement from the Office of the High Commissioner for Human Rights:⁸⁶

Affordable water requires that direct and indirect costs (including both connection and delivery costs) related to water should not prevent a person from accessing safe drinking water and sanitation and should not compromise access to other basic services, including food, health and education.

However, a human rights perspective does not precisely answer the question of what is affordable or how communities set prices.

The UN's Special Rapporteur on the human right to safe drinking water and sanitation says that since she took up her mandate there has been a "constant interest and curiosity in a human rights analysis of private sector participation".⁸⁷ Part of the polarisation internationally about private sector participation in service provision has related to cost and affordability. Some argue that water is a public good and such a unique resource essential for life and livelihood that it should remain in the public domain. Others argue that the private sector can lower the price of service delivery, make economic, technological and human capital investments in the sector, increase service quality and efficiency and extend coverage.

The "constant interest" referred to by the Special Rapporteur is apparent in New Zealand. The restructure of Auckland's local government and the Local Government Act permit private ownership of water

I want to come back as a wave / So always near, so out of reach

Sam Hunt, 'Wavesong', from *The Penguin Poets, Approaches to Paremata* (Penguin, 1985)

infrastructure for up to 35 years. In its submission to the Local Government and Environment Select Committee on the proposed legislation, the Commission accepted that local authorities would not be able to sell or privatise water services, or enter into legal agreements that would transfer the responsibility for delivering water services. The Commission noted that the literature refers to "privatisation" as broadly encompassing all forms of assets and/or operations transferred from the public sector to the private sector.⁸⁸

The legislation was seen in some quarters as allowing for water privatisation. The Labour Party, for example, insisted that water privatisation was on the agenda and said it opposed the privatisation of water. "It is a natural monopoly. It makes no economic sense to hand it over to the private sector. What's more, New Zealanders believe water is a human right and its supply should not be driven by the profit motive".⁸⁹ The Prime Minister, John Key, on the other hand, insisted in parliamentary debate on the legislation that "there is no privatisation agenda".⁹⁰

Human rights law does not support or oppose the privatisation *per se* of the management of the supply of water and associated services. Instead, the application of a human rights perspective in how water is supplied emphasises the minimum obligations of government and private suppliers in the context of privatisation.⁹¹

While human rights law relating to water is still evolving, the Special Rapporteur has clarified issues relating to private service provision. She states that human rights are neutral as to economic models in general. She refers to the report of the United Nations High Commissioner for Human Rights that the:⁹²

approach of United Nations treaty bodies and special procedures has been to stress that the human rights framework does not dictate a particular form of service delivery and leaves it to States to determine the best ways to implement their human rights obligations.

This does not imply that human rights are irrelevant, says the Special Rapporteur:⁹³

The delegation of water and sanitation service delivery does not exempt the State from its human rights obligations. Traditionally, human rights are concerned with the relationship between the State and the individual. They impose obligations on States and

endow individuals with rights. When a third party comes in, it has to be accommodated within that bilateral relationship, as the State retains its obligations to realise human rights, while the type of actions necessary to meet these obligations changes.

In the case of direct management, the State is directly accountable for the provision of services, but accountability is more complex when third parties are involved. In these cases, the State must adopt specific measures which take account of non-State actor involvement to ensure that rights to water and sanitation are not compromised.⁹⁴

The UN Committee on Economic, Social and Cultural Rights Committee has referred to States' obligations and said:⁹⁵

Where water services... are operated or controlled by third parties, States parties must prevent them from compromising equal, affordable and physical access to sufficient, safe and acceptable water. To prevent such abuses an effective regulatory system must be established, in conformity with the Covenant... which includes independent monitoring and genuine public participation...

The Special Rapporteur has called for less polarisation between opponents and supporters of private service provision and a more "nuanced approach" in the debate.⁹⁶

The intensity of the debate... which is sometimes ideological and emotional may have partially obscured the actual extent of private sector participation. While such participation is very common in some countries, on a global scale, other forms of service provision predominate.

In its submission on Auckland's local government restructure the Commission stated it was essential that government retains sufficient control to ensure that human rights commitments are observed by third party providers. Local government and private providers also have to be aware of human rights obligations such as the principles of non-discrimination and public participation specifically in relation to contracts for the supply of water.⁹⁷

The Local Government (Auckland Council) Act obliges Watercare, the organization responsible for providing water and wastewater services throughout the Auckland region, to manage its operations efficiently with a view

...if I / should not hear / smell or feel or see / you / you would still / define me /
disperse me / wash over me / rain

Hone Tuwhare, 'Rain', from *Deep River Talk*, (Uni Hawaii Press, 1994)

to keeping the overall costs of water supply and wastewater services to the minimum level needed to effectively maintain the long-term integrity of its assets.⁹⁸

The Human Rights Commission has provided the Special Rapporteur's advice on privatisation to relevant select committees and will continue to promote that advice.

The affordability of water and a widespread view that it should be freely available as of right has prompted calls for the better measurement of what is used. In New Zealand the domestic water supply is currently largely unmetered. A call by the Institute of Professional Engineers of New Zealand in 2008 for mandatory universal water meters to limit use was accompanied by estimates that metered consumers used 40 per cent less water.⁹⁹

Water New Zealand notes regional variations as a result of metering.¹⁰⁰

In Tauranga and Nelson, for example, where residents are metered, domestic consumption is below 200 litres per person per day. In the unmetered Kapiti Coast the figure is between 400 and 700 litres per person per day, in Christchurch 435, and in one unnamed Central Otago town up to 1169 litres.

The introduction of water meters was an issue in the 2010 local government elections. Kapiti Coast's Mayor, Jenny Rowan, commented that meters would provide information about water losses in her district. The council estimates that 5200 tonnes of water a day is being lost. It is expected that installing meters would reduce peak residential consumption by 25 per cent.¹⁰¹

In June 2011 the Auckland Council voted in favour of restricting the flow of water to those who would not pay their water bills after a series of reminders.¹⁰²

The Commission received a number of submissions about charging for water and water meters. Comments from a group of staff of a major provincial council noted:

There was a public expectation that good quality and plentiful water will be available in abundance. This has an impact on cost. The discussion paper does not raise the issue of growing conurbations and the demand it places on water supply. If cities spread too wide geographically the cost of providing drinking water and wastewater increases exponentially. In addition, more pipes mean more leakage, no matter how good the infrastructure. On the other hand planning for

compact cities makes availability of quality water much more affordable.

Domestic water meters are not being considered, as the costs outweigh the benefits of installation, compared to the plentiful supply. We agree that universal metering is an important tool or option, but it is only one option which may fit the circumstances of one council but may not be efficacious in another council. We think there is a series of questions or a decision tree of questions that should be considered when considering the charging method for any particular community such as:¹⁰³

- ◆ has demand forecasting been soundly carried out?
- ◆ what are all the relevant demand management techniques?
- ◆ what are the pros and cons of each technique?
- ◆ are there perceptible gains environmentally from metering?
- ◆ are there net gains when looking at economic/environmental trade-offs?
- ◆ are there other issues with water e.g. quality that need more attention?

A planning manager commented:¹⁰⁴

[Provision of a reticulated public water supply] does not come free and there are capital and operating costs that someone has to pay for. One of the challenges that your analysis has to address is that the right to access water must carry with it a responsibility to meet a fair and equal share of the costs involved in providing that water. I readily accept that under such a 'user pays' regime some people will find the servicing costs more affordable than others. It then becomes a question as to what extent the community as a whole should subsidise the provision of water to those who are perhaps less able to pay. That seems to me to be a very slippery slope but I would expect the Commission to fairly address how this might happen.

What have you done with my forests? / What have you done to your rivers / Too late.

Mary Ursula Bethell, 'By the River Ashley', from *Collected Poems: Ursula Bethell* (Oxford University Press, Auckland, 1985)

Te Tiriti o Waitangi and Māori values

*Tuatahi ko te wai, tuarua whanau mai te tamaiti,
ka puta ko te whenua*

*When a child is born, the water comes first,
then the child, followed by the afterbirth*

The human rights dimension of acceptability refers to water and sanitation services being culturally and socially acceptable. Non-discrimination is central to the realisation of human rights and encompasses the rights of indigenous peoples and other vulnerable groups. Water is a taonga for Māori and it has been traditionally, and remains, an integral political, economic and spiritual resource.¹⁰⁵

The cultural perspective was described by participants in the Wai Ora: Water Programme of Action Consultation Hui as one which is still influenced by the traditional Māori worldview:¹⁰⁶

Water was described as the essence of life and the lifeblood of Papatuanuku, often reflected in the use of the word 'mauri' or life force. The significance of the tapu and wairua of water was also discussed. Participants recounted how freshwater is integral to their cultural and personal identity and wellbeing – rivers and lakes carry ancestral connections, identity and wairua for whanau, hapū and iwi, as reflected in all tribal pepeha and personal mihi.

The value of freshwater as a resource promoting social wellbeing to provide food, resources and opportunities to maintain traditional connections and practices such as manaakitanga were affirmed. The value of access to freshwater for economic Māori development and for employment opportunities was also discussed.

Traditional water management practices rooted in the principles of kaitiakitanga and care for Papatuanuku recognise the various stages of water, including wai ora, the purest form of freshwater that gives and sustains life through to waimate, dead water with no regenerative capacity in which mauri is lost.¹⁰⁷

The Waitangi Tribunal's Mohaka River Report (1992), which described the river as a taonga, illustrates the many benefits that freshwater provides Māori. Ngati Pahauwera claimed the Mohaka was central to the iwi's identity. It was an important source of mahinga kai

(food), there was significance in the collection of hangi stones from the river, there were considerable spiritual and healing properties of the river's waters, archaeological sites along the river included wahi tapu, pa, urupa and papakainga, and the river provided an important traditional means of communication and transport.

To Māori then, water is everything – an ancestor, a life force, the provider of food and a meeting place full of history.¹⁰⁸

The significance of freshwater to all New Zealanders is noted in various high-level policy documents.

The preamble to the National Policy Statement for Freshwater Management states:¹⁰⁹

Fresh water is essential to New Zealand's economic, environmental, cultural and social well-being... Fresh water has deep cultural meaning to all New Zealanders.

The preamble links the management of freshwater resources to the relationship between Māori and the Crown:¹¹⁰

The Treaty of Waitangi (Te Tiriti o Waitangi) is the underlying foundation of the Crown–Māori relationship with regard to freshwater resources. Addressing tangata whenua values and interests across all of the well-beings, and including the involvement of iwi and hapū in the overall management of fresh water, are key to meeting obligations under the Treaty of Waitangi.

The Land and Water Forum undertook a collaborative review into how water is managed in New Zealand in 2009 and provided recommendations on reforming New Zealand's freshwater management. In its 2010 report, the Forum noted the living relationship Māori have with freshwater, the significance of water to Māori and the basis for Māori rights in it:¹¹¹

Iwi assert foundation rights to freshwater based on the Treaty, customary, and aboriginal rights and that these rights continue to hold relevance in the wider legal framework of water management. Iwi are keen to see resolutions emerge from their conversations with the Crown that improve the clarity and certainty of iwi rights to freshwater. A robust system recognising iwi in its design is needed.

In welcoming the recommendations, the Chief Executive of Water New Zealand, Murray Gibb, pointed to the acceptability of policies concerning the management of freshwater:¹¹²

The Taieri River stinks from effluent, / is soured by pesticides and fertilisers

Brian Turner, from 'Lament for the Taieri River', from *Into the Wider World*, (Random House, 2008)

A coherent governance system for water could not be achieved until iwi claims in regard to the Crown's legal obligations under the Treaty of Waitangi were properly addressed. Establishing a co-governance arrangement with iwi sitting on the National Land and Water Commission will go some way towards achieving that end.

A Cabinet Paper of June 2009 noted that:¹¹³

The rights and interests of Māori in New Zealand's freshwater resources remain undefined and unresolved, which is both a challenge and an opportunity in developing new water management and allocation models.

Jacinta Ruru¹¹⁴ states that Māori have two central concerns (over and above the degradation issues) which are: who owns freshwater, and should Māori be a partner or merely a stakeholder in the recognition of rights to govern freshwater.¹¹⁵ On possible Māori ownership of freshwater she comments:¹¹⁶

Many have recognised that it is unclear in law who owns water – the Crown or Māori – and many Māori in particular stress that this issue 'must be addressed before any major changes to water management can be considered'... The uncertainty arises in part because the common law relating to flowing water does not recognise ownership possibilities, but the common law doctrine of native title potentially does along with the guarantees made to Māori in the Treaty of Waitangi. Moreover, New Zealand's legislation (other than the iwi-specific settlement statutes) is silent on the ownership of freshwater.

The ownership of water was also raised in submissions.¹¹⁷

Your draft report touches on the concept of 'ownership' of water without stating a definitive position. Water is not owned – see s. 354 of the Resource Management Act. The Crown has only reserved unto itself the right to grant access to water.

The Commission's position on the ownership of water is that set out in section 354 of the Resource Management Act i.e. the Crown has reserved the right to grant access to water.

The Treaty claim concerning the Waikato River addressed the issue of whether the Waikato-Tainui iwi were partners with the Crown or stakeholders. The revised deed of settlement of 2009 includes a unique co-governance body, the Waikato River Authority; provides for a co-management model; and retained a

clean-up fund of \$210 million agreed to in the 2008 settlement.¹¹⁸

The Authority is made up of equal numbers of Crown and iwi appointed members, including other iwi with interests along the river Raukawa, Te Pumautanga o Te Arawa, Ngāti Maniapoto and Ngāti Tuwharetoa.¹¹⁹

The Authority is responsible for monitoring the implementation of a direction setting document, the vision and strategy, *Te Ture Whaimana* which will be given effect through the plans administered by regional and territorial authorities along the river. The settlement also provides for joint management agreements between Waikato-Tainui and the local authorities; participation in river-related resource consent decision-making; recognition of a Waikato-Tainui environmental plan; provision for regulations relating to fisheries and other matters managed under conservation legislation and an integrated river management plan.¹²⁰ It also provides for recognition of customary activities and cultural harvests.

Tukoroirangi Morgan, Chair of Te Arataura, the Waikato-Tainui governance board, has said that the assertion of co-management will require a real shift in power relations. Among the challenges he identified were coping with multiple layers of key relationships within central and local government processes; and that the settlement is not a template for other Treaty settlements.¹²¹

Other iwi are seeking to attain similar co-governance models – e.g. see the Nga Wai o Maniapoto (Waipa River) Bill 2010 – but it is still uncertain how far it will be replicated in other parts of the country. Some iwi dispute whether the Waikato River model is appropriate for replication in other parts of the country.¹²²

A recent Cabinet paper observed that: "Iwi dissatisfaction with the operation of the [current water management] framework can be seen in an increasing focus on contemporary water issues as part of historical Treaty settlement negotiations."¹²³

A new era of co-governance and co-management provides a way to give full recognition of the relationship between Māori and water, which is founded in whakapapa. Freshwater is a taonga of paramount importance to iwi.

The lake breathing tries to pass some word / A fisherman's right arm swings out again / his left hand draws a thread to darkness' heart

Kendrick Smithyman, 'Trout Quintet', from *Kendrick Smithyman: Selected Poems* (Auckland University Press, 1989)

Participation of citizens

Participation, as an element in a human rights perspective, refers to the need for the planning, design, maintenance and monitoring of water services to be participatory and the need for transparency and access to information. How is this to be achieved? What are the implications in New Zealand?

Human rights understands participation as meaning genuine empowerment, rather than mere consultation and provision of information. If community ownership is achieved, more sustainable interventions will be realised.¹²⁴ Access to participation is the opportunity for citizens to provide informed, timely and meaningful input and to influence decisions at various levels.^{125 126} To allow for participation, transparency and access to information is essential.

Access to information is assessed by the ability of citizens to obtain water-related information in the possession of public authorities. Globally, the United Nations states that data on almost every subject related to water issues is usually lacking, unreliable, incomplete or inconsistent. In 2003 the first UN water report listed more than 160 indicators ranging from the global quantum of water available and withdrawals for human use to compliance with water quality standards for key pollutants and governance mechanisms to support water management. The 2006 report listed 62 indicators and in the 2009 report 30 indicators were reported on.¹²⁷

While there are increasing difficulties with international data collection about water, how is New Zealand faring more generally in terms of participation relating to water issues? There are recent pluses and minuses, if participation is regarded as genuine empowerment. On the plus side, the Land and Water Forum uniquely engaged 58 stakeholders with each other and subsequently held 18 public meetings involving more than 1200 people to discuss its recommendations.¹²⁸ On the minus side is the suspension of local democracy for Canterbury regional council voters until 2013 over concerns about freshwater management.

Land and Water Forum

In 2009, the Ministers for the Environment and for Agriculture and Forestry asked the Land and Water Forum to undertake a collaborative review into how water is managed in New Zealand and to provide recommendations on reforming New Zealand's freshwater management.

A group of 21 major stakeholders representing primary industry, electricity generation, tourism, environmental and recreational interest groups and iwi, put their names to a consensus report.¹²⁹ Environment Minister, Nick Smith, described the 53 recommendations in the Forum report as an "extraordinary achievement" that broke the pattern of lengthy litigation and delay. The Land and Water Forum validated the collaborative approach to dealing with complex environmental problems facing New Zealand that is favoured by the Government.¹³⁰

Collaboration receives considerable emphasis in the Land and Water Forum Report because it "helps people work towards resolutions, identify innovative solutions, or agree compromises together". It is also cheaper, quicker and produces a more inclusive outcome. The Forum identified a number of pre-requisites to a collaborative approach: leadership and facilitation; open-mindedness by participants; a final decision-maker for regulatory processes; a set time frame; capacity and resource; and inclusiveness. The Forum report said that collaboration would not be a panacea to all water management issues but there was ample opportunity in the Resource Management Act for participation through collaborative approaches, which could also occur at community level.

The Chief Executive of the Ministry for the Environment describes one of the benefits of the collaborative process as its creation of a "receiving" environment. That is, people were prepared to listen to each other and work towards a common view, offering the potential for a way forward.¹³¹

Perhaps most importantly from a human rights perspective given that vulnerable groups may not be sitting at the table as stakeholders, the Forum acknowledges that collaboration requires transparency so that people who have not been directly involved understand the thoughts and processes which have led

From the road, you can still see the loops and bends of the old river bed, now green with pasture. The river, for me, is like that river which once flowed through Eden. And this place, Waituhi, is my Eden.

Witi Ihimaera, from *Tangi*, (Reed Publishing (NZ) Ltd, 1972)

to outcomes. Collaboration can be used across the processes of water management.¹³²

The composition of the Land and Water Forum provoked comment in submissions to the Commission:¹³³

The Land and Water Forum may have uniquely engaged 58 stakeholders but the forum sidestepped having real input by the local authorities that are charged with managing people's water. By ignoring local authorities the Forum has ignored local representation. The discussion paper rightly asserts that groups were not sitting at the Forum table as stakeholders and that if government had applied a human rights perspective to the work of the Forum it would have involved many more people, not just self-interest groups.

Environment Canterbury

The Government sacked the Environment Canterbury (ECan) council, cancelled the 2010 elections suspending the right to vote for ECan until 2013, and appointed a commission charged with "fixing" Canterbury's water problems. The legislation, was introduced into Parliament under urgency, had all three readings in one sitting, and was not subject to select committee scrutiny.

Environment Minister, Nick Smith, when introducing the legislation said:¹³⁴

New Zealand's most important strategic natural resource is its freshwater. At nearly 80,000 cubic metres per person, we are to water what the Saudis are to oil. Better still, if wisely managed our natural freshwater sources are infinitely renewable. The problem is that water has been so plentiful that we have not had to be too sophisticated historically in terms of how we have allocated or managed that resource.

Nowhere is this debate as hot as it has been in Canterbury, where over 50 percent of New Zealand's irrigation and 50 percent of our electricity storage water exists. People are flexing their muscles over water while the weakened referee – Environment Canterbury – is struggling to maintain order. Allocation decisions are ad hoc, water quality is deteriorating, and storage opportunities are being lost in the muddle.

Advice prepared by the Ministry of Justice for the Attorney-General concluded that the legislation was

consistent with the rights and freedoms affirmed in the New Zealand Bill of Rights Act 1990 (BoRA). The BoRA protects the right to vote in elections for the members of the House of Representatives; it is silent on local government.¹³⁵

Article 25 of the International Covenant on Civil and Political Rights (ICCPR), to which New Zealand is a signatory, has implications for the suspension of electoral rights for those living in Canterbury and eligible to vote in the 2010 local body elections. Article 25 states:

Every citizen shall have the right and the opportunity... without unreasonable restrictions: (a) to take part in the conduct of public affairs, directly or through freely chosen representatives; (b) to vote and to be elected at genuine periodic elections which shall be by universal and equal suffrage and shall be held by secret ballot, guaranteeing the free expression of the will of the electors.

The Ministry for the Environment in its Regulatory Impact Statement on the review of Environment Canterbury said it was "convinced of the need for government intervention to address ECan related issues". However, it stated "there are significant risks" in the temporary suspension of planned triennial elections for regional councillors (scheduled for October 2010) and the transfer of functions and responsibilities of ECan elected councillors to government-appointed commissioners until elections in 2013 at the latest. "Elections are a right and a privilege of any citizen in New Zealand. The suspension of such a right should only be considered in exceptional circumstances. Such a decision is correct to sit with Parliament."¹³⁶

The Regulatory Impact Statement also criticised the absence of consultation and the short time frame for legislation which "has not allowed for a comprehensive assessment of risks and alternatives" and the extra powers given to the commission replacing the elected council. The extra powers included proposals to limit appeal rights on decision and recommendations made by commissioners on Canterbury's Natural Resources Regional Plan and on water conservation orders in the region that "potentially alienates Canterbury rate payers and the general public from decisions made on natural resources in the Canterbury region. This raises equity and access to justice issues."

The cloud turns to snow or mist, / The mist to the stream, /
The stream seeks out the ocean / All in a geographer's dream

Denis Glover, from 'Arawata Bill', *An Anthology of 20th Century Poetry*, Selected by Vincent O'Sullivan, (Oxford Paperbacks, 1970)

Cabinet papers released after the ECan decision show the Ministry of Justice and the Department of Conservation opposed the ECan sackings. The Justice Ministry said the changes were not consistent with government policy requiring a "particularly strong case (to be) made for any regulatory proposals that are likely to override fundamental common law principles".

Under section 31 of the Environment Canterbury (Temporary Commissioners and Improved Water Management) Act, the Environment Minister can suspend the Resource Management Act for water moratoriums and water conservation orders. The Fish and Game Council is just one of the many opponents to what it called the "very broad, seemingly unfettered power" given to the Minister. "Passing this sort of Act under urgency is not conducive to making good law."¹³⁷

The legislation has been described as a constitutional affront by Professor Philip Joseph. It raised rule of law issues as the provisions of the Act were applied retrospectively to the detriment of affected individuals and organisations. It also denied individuals and organisations the right of access to the Environment Court for protection of their rights or interests, and authorised statutory regulations that suspended sections of the Resource Management Act that regulated activities of regional councils.

Professor Joseph said "rushed legislation invariably unravels around the margins" and referred to democratic decision-making in local government as:¹³⁸

...ingrained in the national psyche and a legitimate expectation of the citizenry. Its suspension in Canterbury for a period in excess of three and a half years is itself, a rule-of-law issue. Representative democracy and independent courts are the twin pillars of the legal system. The abrogation or suspension of the former, even at local government level, has menacing implications.

The Government's policy has led to a significant reduction in the rights of public participation in respect of water management in Canterbury.¹³⁹

In commenting on a draft of this paper, Environment Minister, Nick Smith, said:¹⁴⁰

The [draft] paper does not recognize or acknowledge the results of the *Investigation of the Performance of Environment Canterbury under the Resource*

Management Act and Local Government Act (the Review), which identified significant weaknesses in Environment Canterbury's management of water in its region. Measured against the criteria in the report I consider there could have been human rights implications if the Government had failed to address these issues.

The weaknesses identified by the Review included that that ECan lacked the capability to adequately manage freshwater, and that its performance on water policy, planning and management issues were "well short of what is essential." The Review recommended that ECan be replaced by a temporary Commission as soon as practicable under special legislation. The Government adopted the recommendations on temporary measures to allow the problems identified to be resolved promptly.

The Government's intervention in ECan has had a number of outcomes beneficial to the community. It has facilitated good environmental outcomes, such as the cleanup plan for Te Waihora/Lake Ellesmere. It has also resolved the flaws in planning and decision making:

- ◆ the Natural Regional Resource Plan has become operative, which sets out how ECan will sustainably manage natural resources, including water availability and quality
- ◆ the relationship with Ngai Tahu has improved, enabling better involvement in decision making processes
- ◆ implementation of the Canterbury Water Management Strategy has given citizens the opportunity for genuine participation in fresh water management.

The Council's compliance with the timelines for processing resource consents under the Resource Management Act has also significantly improved. The Review identified a 29 per cent compliance rate in 2007/2008; the Commissioners' quarterly reports say this is now over 90 per cent.

In September 2011 Environment Minister, Nick Smith, noted that an important decision needed to be made about the future of ECan: "The Government is committed to consulting with the people of Canterbury about a number of options that are available to us... Dr Smith said the prospect of a specially created Canterbury water authority, as suggested in the report by former Deputy Prime Minister, Wyatt Creech, or a board with a "mixture of appointed and elected people",

were two of the possibilities. Should National be re-elected, I would want to see serious work done on the issue in time for the 2013 local government elections," he said...Dr Smith said he needed to discuss the options further with the commissioners before taking various options to the public.¹⁴¹

Accountability

Accountability refers to the fact that the State has the primary responsibility to guarantee human rights, but the numerous other actors in the water sector should also have accountability mechanisms. States should have accessible and effective judicial or other appropriate remedies at a national level.

States cannot legitimately derogate from their human rights responsibilities, for example because they have devolved the delivery of certain services to private actors. When water services are privatised, it needs to be recognised that companies should:¹⁴²

- ◆ guarantee transparent and democratic decision-making
- ◆ address power asymmetries in bidding and negotiation processes
- ◆ provide essential services to groups of people who are poor and marginalised
- ◆ ensure their services are affordable
- ◆ avoid disconnection when users are unable to pay
- ◆ ensure the quality of services
- ◆ put in place a sound regulatory capacity and ensure its enforcement
- ◆ monitor performance and follow-up monitoring
- ◆ establish effective complaint mechanisms
- ◆ address corruption.

International

The Government has the primary responsibility for ensuring the right to water is achieved, although other stakeholders are clearly involved in its fulfilment. The United Nations Development Programme's report on the global water crisis notes that one of the reasons that governments needed to act was because:¹⁴³

There is no effective global partnership for water and sanitation, and successive high-level conferences have failed to create the momentum needed to push water and sanitation in the international agenda.

New Zealand has ratified all of the major human rights instruments that relate to the right to water, including IESCR, CEDAW, CRC and CRPD. The Government must take the steps necessary to ensure that everyone can enjoy safe, sufficient, acceptable, accessible and affordable water, without discrimination. This duty can be divided into the obligations to respect, protect and fulfil. There is also a closely related responsibility which is the duty of non-retrogression, or not going backwards.

For example, the duty to *respect* requires the Government to ensure its own activities and those of its agencies and representatives do not interfere with a person's access to water. The duty to *protect* requires the Government to take all necessarily steps to prevent third parties from interfering with the right to water. The duty to *fulfil* requires that the Government take active steps to ensure that everyone can enjoy the right to water as soon as possible. This has been described as "taking steps that accord sufficient recognition of the right within the national political and legal systems".¹⁴⁴

The New Zealand Human Rights Commission has an important role in monitoring international human rights treaties ratified by New Zealand. The human rights implications relating to water are emerging as issues that the Commission is increasingly likely to be asked for advice on in relation to legislation, policy and practice. In 2010, members of the Local Government Select Committee when considering submissions about amending the Local Government Act asked for information and guidance on human rights and water privatisation.

Domestic

The need for a coherent, integrated national policy on freshwater management and new governance arrangements is almost universally accepted and has existed for a long time. Accountability about freshwater management in New Zealand remains elusive. The foundation legislation is not necessarily the problem. The Environment Minister, Nick Smith, says:¹⁴⁵

The problem with the current water management system does not principally lie with the fundamentals of the resource management framework – but instead with processes and practices developed around it... A key deficiency has been central and local government is not making full use of the instruments available under this framework.

Adding to this complexity is that no one agency is in charge of the regulation of water, with nine government departments, 12 regional bodies and 73 local bodies involved.¹⁴⁶

A central difficulty in managing water in New Zealand is that it has been hard to set or to manage limits. The Land and Water Forum stated:¹⁴⁷

There are a number of reasons why limits have been difficult to set. Central government has not used national instruments to provide direction though two are now in preparation. Few regional councils have had the consistent and coherent policy and planning frameworks to put the necessary management regimes in place. In the nature of things, it is difficult to get agreements about what limits should be, how quickly they should be achieved and who should bear the cost – but stakeholders and iwi have not always been fruitfully engaged, either at the national or the regional levels. Monitoring and enforcement of rules, consents and their conditions is also variable... There has been an absence of strategic process at a national level to make the link between water management and the variety of other questions which bear on it, including agriculture, tourism, energy, biodiversity, landscape and land use.

The pre-requisites for national guidance for freshwater management have been promoted as:¹⁴⁸

- ◆ identifying those matters of national priority that extend beyond individual ecosystems or catchment boundaries
- ◆ setting clear objectives, processes, limits, standards and targets

- ◆ providing guidance on decisions that involve value judgements
- ◆ using clear, concise language that avoids ambiguity.

Guidance on freshwater management exists in the Environmental Protection Authority Act and the National Policy Statement on Freshwater Management (NPS) released in May 2011.¹⁴⁹

Guidance also exists in the proposed national policy statements or national environmental standards on renewable electricity generation,¹⁵⁰ indigenous biodiversity,¹⁵¹ ecological flows and water levels.¹⁵²

There are numerous other Acts of Parliament that significantly regulate access to water, its management and quality; the Acts are listed in Annex 1 to this paper.

The aim of the NPS is to improve the management of freshwater. The statement guides and directs local authorities on their management of freshwater.

The Resource Management Act required that such a NPS be referred to a Board of Inquiry for review and consultation with interested parties. A Board of Inquiry was established in 2008 and it reported back to the Minister in 2010. The Minister forwarded the report to the Land and Water Forum as well as to the Iwi Leaders Group for their consideration.¹⁵³

In September 2010 the Land and Water Forum identified a set of outcomes and goals for the management of freshwater in New Zealand. The forum members agreed the way water is managed needs to change. Fifty-three recommendations emerged, with areas of major change identified:¹⁵⁴

- ◆ changing governance arrangements; establishing a non-statutory National Land and Water Commission on a co-governance basis with iwi, along with changes at the regional council level
- ◆ quickly promulgating a National Policy Statement for freshwater
- ◆ setting national objectives and establishing standards, limits and targets for both water quality and quantity in accord with these
- ◆ employing a range of instruments to ensure targets and limits are achieved

- ◆ improving water allocation and providing greater flexibility in transferring water permits
- ◆ addressing irrigation, storage, hydro projects, and urban water services issues
- ◆ ensuring the science and knowledge required for water management is improved
- ◆ dealing with issues by collaborative processes that deliver better stakeholder engagement and outcomes.

The NPS on Freshwater Management which took effect on July 1, 2011, is part of a government package comprising the nationwide regulatory framework for setting water quality and water quality limits along with:

- ◆ an Irrigation Acceleration Fund of \$35 million over five years for irrigation infrastructure
- ◆ a Fresh Start for Fresh Water Clean Up Fund to assist councils with historic pollution problems
- ◆ a proposal for up to \$400m of Crown investment in water infrastructure schemes
- ◆ a further work programme for decisions in 2012 and beyond.

The Government expects its freshwater policy reforms to lead to a number of changes in the way freshwater and land use is managed in New Zealand. As a result of the reforms, the Government expects to see:¹⁵⁵

- ◆ economic growth as a result of efficiency gains and innovation in the ways land and fresh water is managed
- ◆ improvements in overall water quality, focusing particularly on those areas where water quality has become degraded
- ◆ prevention of over-allocation of water
- ◆ greater collaboration on fresh water and land use management, ensuring all values relating to land and water uses are better reflected in decisions
- ◆ reduced planning costs, especially through fewer court battles
- ◆ improved decision-making processes, with greater iwi involvement.

Environment Minister, Nick Smith, said the NPS was

about “Government giving clear direction to councils on the importance of improving New Zealand’s fresh water management. It requires councils to set limits on fresh water quality and the amount of water that can be abstracted from our rivers, lakes and aquifers.”¹⁵⁶ It includes a progressive implementation plan so that councils implement the policy “as promptly as is reasonable in the circumstances, and so it is fully completed no later than 31 December 2030.”¹⁵⁷

The NPS’s objectives relating to water quality include protecting the quality of outstanding freshwater bodies and the significant values of wetlands; and improving the quality of water in water bodies that have been degraded to the point of being over-allocated.

In a significant difference from the recommendation of the Board of Inquiry the NPS refers to safeguarding the capacity and processes of freshwater systems generally. The Board of Inquiry would have required this for each freshwater body. The NPS approach is to maintain or improve the overall quality of freshwater within a region.¹⁵⁸

Over-allocation is defined in terms of water quality and water quantity. Every regional council making or changing regional plans has to establish freshwater objectives and set freshwater quality limits and have regard to climate change, the connection between water bodies and establish methods, including rules, to avoid over-allocation.

However, the NPS does not provide direction to local authorities as to the specific outcomes to be achieved for water quality, water quantity and the appropriate method of allocation. This prompted comment that:¹⁵⁹

The method of allocating water is a policy decision that should be made at the national level. The current position is first-in, first-served, although the Supreme Court has signalled an interest in revisiting the issue as to whether priority should be determined by a rule or through the exercise of discretion by local authorities. It is preferable that such an important policy decision be made by Government not the court.

The NPS uses language that is similar to that used in the evolving human rights and business agenda of “protect, respect and remedy”. Under Integrated Management the NPS states that the improved integrated management of

freshwater and the use and development of land in catchments will be undertaken by regional councils managing in a sustainable way “so as to avoid, remedy or mitigate adverse effects, including cumulative effects.”¹⁶⁰ Examples of mitigation in New Zealand are few, while remedy of degraded water bodies has come at huge cost, says the President of the New Zealand Freshwater Sciences Society, Professor David Hamilton. The society wanted the NPS implemented in a way that avoided further degradation of selected water bodies.¹⁶¹

New Zealanders are already bearing a substantial cost for the protection of Lake Taupo and the restoration of the Rotorua lakes and the Waikato River. There is some acceptance that this cost will be spread across the community given that there was limited knowledge of the implications of past land use changes on water quality and quantity, but this is no longer the case and we cannot continue to externalise the costs to communities and the New Zealand taxpayer of pollution by private industries. The irrigation fund was an example of externalising the costs of greater water efficiency and expanding the irrigation infrastructure while the clean-up fund provided only \$15 million additional funding over two years to help clean up historical pollution.

Regional councils are backing the package with Regional Sector Group spokeswoman Fran Wilde saying the package was a vote of confidence in regional and unitary councils as custodians of land and water.¹⁶² Government had accepted that each of them had specific water management issues that needed to be individually addressed. Federated Farmers said it hoped the NPS process will take a whole of community approach. “Farmers are open to this because we are a full part of the community. After all, farmers fish, swim and use the water resource just like any other member of the community.”¹⁶³

Federated Farmers is enthusiastic about the government’s irrigation acceleration fund and the potential Crown equity investment for water infrastructure schemes.¹⁶⁴

A number of elements of the NPS have attracted criticism and some commentators suggest that a national framework would prevent the cost and time of litigating the appropriate standards, and limits in every region of New Zealand. While Forest and Bird welcomed the Government’s announcement, its Advocacy Manager, Kevin Hackwell, said unfortunately the opportunity to

set clear national objectives for water quality had been missed and would mean different standards in regions around the country. As a trustee of the Land and Water Forum he said the feedback the forum received from its public meetings was that “the public wants action to introduce consistent national standards.”¹⁶⁵ Radio New Zealand reported the Environment Minister stating that a national water standard would not work because of regional disparities.¹⁶⁶ Gary Taylor of the Environmental Defence Society said differences in regional circumstances and starting points could be addressed by varying the timeframes for reaching compliance with the limits set.¹⁶⁷

Labour’s water spokesman, (at that time) Brendon Burns, said although councils were due to implement the NPS over the next three and a half years, Cabinet papers showed there was an “out clause” which in some circumstances means councils could have until 2030 to meet their obligations.¹⁶⁸ His concern was echoed by Professor Hamilton, who said his group had major concerns about the pace that the NPS would be adopted in regional policy statements and regional and district plans. “Councils can request to be given to 2030 to achieve implementation. One hesitates to guess what sort of state some waterways may be in by that time based on current trends provided by scientists in the Society.” Currently, only four out of 17 regional councils have a set of operative or proposed limits for water flow and quality.¹⁶⁹

Green Party Co-leader Russel Norman said that the Government had removed the provision from the draft NPS which required a resource consent as a discretionary activity for land use intensification. The parts that would have made the most progress towards cleaning up rivers and lakes had been removed from a sound draft policy. These were the provisions that would force regional councils to regulate land use intensification. “It has disregarded the recommendations of the Land and Water Forum which comprises 58 diverse stakeholder groups. The Forum recommended that the draft NPS be adopted quickly, and with only minor changes, that would not undermine its strength.”¹⁷⁰

Tangata whenua roles and interests are addressed in the NPS and local authorities are instructed to take reasonable steps to:¹⁷¹

- ◆ involve iwi and hapū in the management of freshwater and freshwater ecosystems in the region
- ◆ work with iwi and hapū to identify tangata whenua values and interests in fresh water and freshwater ecosystems in the region and
- ◆ reflect tangata whenua values and interests in the management of, and decision-making regarding, fresh water and freshwater ecosystems in the region.

There has been a mixed reaction to the NPS in Māoridom as well. The Māori Party welcomed the NPS as acknowledging the significant relationship between iwi and fresh water.¹⁷² Ngai Tahu leader Mark Solomon said the NPS looked good from his iwi's perspective and will meet the South Island tribe's commercial and environmental needs. "We think what they've come out with does lead towards kaitiakitanga. It does put timeframes in. It does put responsibility on the territorial local authorities to introduce process so it looks good on paper," he said. Mr Solomon said a national discussion still needs to be held on rights and ownership.¹⁷³

New Zealand Māori Council member Maanu Paul says the NPS allowed regulatory authorities to sideline Māori. "What if the regional council decides, 'we've spoken to one Māori that will do us'. They meet the criteria of the statement but there's no compliance..."¹⁷⁴

The NPS will be reviewed in five years' time.¹⁷⁵

The Cawthron Institute has noted the length of time associated with the introduction of the NPS. It identified that the NPS's effectiveness is critically dependent on how, and how quickly, regional councils and stakeholders respond. As no national minimum standards have been set for all water bodies and there is a long period for regional councils to set these and implement methods to achieve them, the Institute suggests it is likely that water quality will decline for several more years. Contentious plan changes take three to five years to develop and finalise, and the NPS allows councils to take up to 2030 for all the changes required, including addressing the effects of diffuse discharges such as those from animal farming.¹⁷⁶

One submitter raised the issue of the accountability of local government bodies:¹⁷⁷

Under the Resource Management Act regional councils are given the responsibility to undertake these monitoring and allocation functions [allocating

water for consumptive and non-consumptive use e.g. environmental and cultural aspirations, the health and well-being of the particular water body] within the over-riding framework set by central government. Regional councils are a subordinate level of government and must act in the wider public interest. I would be interested in seeing from the Commission your expectations of regional government as an extension of 'the State'.

These comments were echoed to some extent in comments received from the staff of a major city council.¹⁷⁸

While the paper cites the general purpose to promote the human rights implications of water, there is very little context or explanation as to how the findings or comments within the paper will emanate into central, regional and local government functions, statutory documents or processes. As a territorial authority currently meeting its obligations under the Resource Management Act, Local Government Act, Drinking Water Standards for New Zealand and Public Health Risk Management Plans, it is unclear how the ideas within the draft document will be applied and whether council decisions will be affected. Further guidance on this should be provided...

In brief, the Commission expects that as regional and local government councils and agencies are part of the State they will ensure that in discharging their responsibilities in relation to freshwater they will apply the human rights principles set out in this paper.

In December 2011 the New Zealand Conservation Authority released a report on the protection of rivers. It proposed a number of measures for improving river protection. Its key conclusions were:¹⁷⁹

- ◆ a single government agency should be given the responsibility to protect rivers
- ◆ the need for a system to permanently protect the best rivers
- ◆ rivers are under increasing pressure from development and intensive agriculture
- ◆ the balance between use, development and protection of rivers needs correcting by increasing the emphasis upon protection
- ◆ if steps are not taken to protect the best rivers they will be lost.

Future work by the Land and Water Forum

The Land and Water Forum has been asked by the government to report by May 2012 on methods, tools and governance arrangements for setting limits for water quality and quantity. It has to report by November 2012 on methods and tools on allocation.¹⁸⁰

In May 2012, the Land and Water Forum will make recommendations on:

- ◆ what is needed to put in place the limit-setting aspects of the NPS, including what central government needs to do versus what local government needs to do, the roles and responsibilities of water users, and the nature and scope of limit-setting tools
- ◆ better processes for making decisions on limits, especially for involving iwi and other interest groups.

In November 2012, the Land and Forum will develop recommendations on how to manage within limits, including:¹⁸¹

- ◆ what tools could be used to manage within limits, including managing the effects of land use on water
- ◆ methods for allocating rights to discharge into water once limits are set
- ◆ methods for the initial allocation of the right to take water once limits are set
- ◆ transfer systems that allow these rights to take and discharge water to be moved to higher value uses
- ◆ instruments that encourage efficient use of water in rural and urban areas
- ◆ compliance and enforcement issues
- ◆ transition issues.

The Land and Water Forum will also provide advice to Ministers on the need for and elements of a possible National Land and Water Strategy. It may also be asked to look at whether further advice is needed on:

- ◆ the Land and Water Forum's recommendations on rural water infrastructure
- ◆ urban water services management.

Conclusion

The balancing of rights and responsibilities in relation to water involves a consideration of the elements outlined by the United Nations such as; availability, quality and safety, affordability, acceptability in relation to the Treaty of Waitangi and Māori values, participation of citizens in water-related matters and the State's accountability. Newer human rights business principles such as "do no harm" and mitigating damage will also continue to influence the debate about the right to water as the pressure on freshwater resources increase, even in a country as lucky as New Zealand.

Despite the current abundance and relative good quality of our water there is rising concern over access to water, drinking-water quality, the water footprint of agricultural products, loss of wetlands and increased irrigation in pristine areas, Treaty of Waitangi / Te Tiriti o Waitangi, and cultural considerations.

There is increasing recognition that guardianship of the quantity and quality of water cannot be taken for granted in New Zealand. This has been reinforced by the Christchurch earthquakes, a natural and unforeseen disaster that immediately impacted on the water and sanitation needs of 400,000 people and has continuing consequences.

How our guardianship of freshwater should be exercised against competing political, civil, economic, social and cultural interests has yet to be fully agreed. Whatever form it takes in New Zealand, the human rights perspective has a significant role. This paper aims to promote human rights as a central consideration in the evolving debate about freshwater – its availability, its quality and safety, its affordability, its use and the relationship with the Treaty of Waitangi, the degree to which citizens participate in decision-making about it, and the accountability that is linked to national guidance and standard-setting.

Annex 1

Acts of parliament that significantly regulate access to water, its management and quality

Biosecurity Act

Building Act

Conservation Act

Crimes Act

Environment Act

Environment Canterbury (Temporary Commissioners and Improved Water Management) Act

Environmental Protection Authority Act

Hazardous Substances and New Organisms Act

Health Act

Land Act

Local Government Act (including the various Acts to establish the new Auckland Council)

Public Works Act

Reserves Act

Resource Management Act

Soil Conservation and Rivers Control Act

Treaty of Waitangi / Te Tiriti o Waitangi Claims Settlement Acts

Endnotes

1. Ministry of Foreign Affairs and Trade. Comments to the Human Rights Commission. August 2011.

2. Independent Expert on the Issue of Human Rights Obligations Related to Access to Safe Drinking Water and Sanitation (2010) *The human right to water and sanitation: frequently asked questions* <http://www2.ohchr.org/english/issues/water/ieexpert/docs/watersant.pdf> Accessed 20 January 2011.

3. Independent Expert on the Issue of Human Rights Obligations Related to Access to Safe Drinking Water and Sanitation (2010) *Introduction* <http://www2.ohchr.org/english/issues/water/ieexpert/introduction.htm> Accessed 20 January 2011.

4. UNESCO (2009) The United Nations World Water Development Report 3: *Water in a Changing World*, page v. http://www.unesco.org/water/wwap/wwdr/wwdr3/pdf/WWDR3_Water_in_a_Changing_World.pdf Accessed 17 May 2011.

5. Institute for Human Rights and Business (2009) *Draft, Business, Human Rights and the Right to Water: Challenges, Dilemmas and Opportunities. Roundtable Consultative Report*, http://www.institutehrb.org/pdf/Draft_Report-Business_Human_Rights_and_Water.pdf Accessed 16 May 2011.

6. In March 2011 the UN Human Rights Council changed the title of the mandate from being an Independent Expert to that of the Special Rapporteur on the human right to safe drinking water and sanitation.

7. United Nations General Assembly *Report of the Independent Expert on the Issue of Human Rights Obligations Related to Safe Drinking Water and Sanitation, Catarina de Albuquerque*. A/HRC/15/31, 29 June 2010 <http://www2.ohchr.org/english/issues/water/ieexpert/docs/A-HRC-15-31-AEV.pdf> Accessed 16 May 2011.

8. Independent Expert on the Issue of Human Rights Obligations Related to Access to Safe Drinking Water and Sanitation (2010) *The Good Practices Questionnaire* http://www2.ohchr.org/english/issues/water/ieexpert/good_practices.htm Accessed 16 May 2011.

9. Institute for Human Rights and Business (2011) *The Human Rights Responsibilities of Business in Relation to Water: A Position Paper. Draft – January 2011* http://www.institutehrb.org/pdf/IHRB_Position_Paper-Human_Rights_Responsibilities_of_Business_in_relation_to_water-DRAFT_Jan_2011.pdf Accessed 16 May 2011.

10. In commenting on a draft of this paper Capacity Infrastructure Services Limited suggested that the Ruggie framework could be adopted to sit alongside the four well-beings set out in section 3(d) of the Local Government Act:

The purpose of this Act is to provide for democratic and effective local government that recognises the diversity of New Zealand communities; and to that end this Act – provides for local authorities to play a broad role in promoting the social, economic, environmental, and cultural well-being of their communities taking a sustainable development approach.

Adoption of the Ruggie framework into the Local Government Act would mean a rights-derived framework could be applied across all local government activities.

Capacity Infrastructure Services Limited. Comments to the Human Rights Commission. August 2011.

A related comment was made by a citizen from Foxton Beach that the Resource Management Act should be amended to ensure that human rights were adequately addressed.

Citizen from Foxton Beach. Comments to the Human Rights Commission. August 2011.

11. United Nations Office of the High Commissioner for Human Rights (2006), *Frequently Asked Questions on a Human Rights-Based Approach to Development Co-operation*, pp. 16 & 19 <http://www.ohchr.org/Documents/Publications/FAQen.pdf> Accessed 16 May 2011.

12. Institute for Human Rights and Business (2011) *More Than a Resource: Water, Business and Human Rights* http://www.ihrb.org/pdf/More_than_a_resource_Water_business_and_human_rights.pdf Accessed 9 November 2011.

13. Committee on Economic, Social and Cultural Rights (2002) General Comment No 15, *The Right to Water*. E/C.12/2002/11 20 January 2003 [http://www.unhcr.ch/tbs/doc.nsf/0/a5458d1d1bbd713fc1256cc400389e94/\\$FILE/G0340229.pdf](http://www.unhcr.ch/tbs/doc.nsf/0/a5458d1d1bbd713fc1256cc400389e94/$FILE/G0340229.pdf) Accessed 16 May 2011.

14. Special Rapporteur on the right to access safe drinking water and sanitation. *Written responses to governments* September, 2011.

15. Special Rapporteur on the right to access safe drinking water and sanitation. *Written responses to governments* September, 2011.

16. United Nations Human Rights Council. *The human right to safe drinking water and sanitation*. A/HRC/18/L.1 <http://daccess-dds-ny.un.org/doc/RESOLUTION/LTD/G11/162/55/PDF/G1116255.pdf?OpenElement> Accessed 10 November 2011

17. Kirby, Michael (2010) *Health Care and Global Justice*. Speech to the Tenth World Congress on Bioethics, Singapore, July 2010. p 12. http://www.michaelkirby.com.au/images/stories/speeches/2000s/2010_Speeches/2472-BIOETHICS-CONFERENCE-SINGAPORE-JULY-2010.pdf Accessed 24 January 2011.

18. UN Department of Economic and Social Affairs Division for Sustainable Development *Agenda 21* <http://www.un.org/esa/dsd/agenda21/> Accessed 2 February 2011.

19. For a summary of the application of the Agenda 21 principles to New Zealand see Moynihan, R. Resource Management Journal November 2009. *International Law and Policy on Water Allocation: Does New Zealand comply?* http://www.rmla.org.nz/upload/documents/RMJ_Nov_09_FINAL_1.pdf Accessed 2 February 2011.

20. UNESCO (2009) The United Nations World Water Development Report 3: *Water in a Changing World*, p. 248 http://www.unesco.org/water/wwap/wwdr/wwdr3/pdf/WWDR3_Water_in_a_Changing_World.pdf Accessed 16 May 2011.

21. Rochford, F. (2011) *Limits on the human right to water – the politics of social displacement*. Australian Journal of Human Rights. Vol 16(2). Pp.109-133 at p.110.

22. United Nations, Office of the United Nations High Commissioner for Human Rights, Special Procedures of the Human Rights Council. Position Paper (2009). *Climate change and the Human Rights to Water and Sanitation*. http://www2.ohchr.org/english/issues/water/ieexpert/docs/ClimateChange_HRtWS.pdf Accessed 16 May 2011.

23. Ministry for the Environment. *Freshwater demand (allocation)* <http://www.mfe.govt.nz/environmental-reporting/freshwater/demand> Accessed 11 January 2011.

24. Newsweek, October 18, 2010. p. 41 *The New Oil* <http://www.newsweek.com/2010/10/08/the-race-to-buy-up-the-world-s-water.html> Accessed 16 May 2011.

25. United Nations/World Water Assessment Programme (2003): UN World Water Development Report – *Water for People, Water for Life*. Paris, New York and Oxford. UNESCO (United Nations Educational, Scientific and Cultural Organisation) and Berghahn Books. http://www.unesco.org/water/wwap/wwdr/wwdr1/table_contents/index.shtml Accessed 16 May 2011.

26. Whitehouse, P. (2010) Presentation to the New Zealand Freshwater Management Forum, 15 and 16 February, Wellington.
27. Ministry for the Environment. *Freshwater demand (allocation)* <http://www.mfe.govt.nz/environmental-reporting/freshwater/demand> Accessed 11 January 2011.
28. Ministry for the Environment. *Freshwater demand (allocation)* <http://www.mfe.govt.nz/environmental-reporting/freshwater/demand> Accessed 11 January 2011.
29. Maree Baker, partner, Anderson Lloyd Lawyers. Comments provided to the Human Rights Commission. 5 May 2011.
30. Ministry for the Environment. *Freshwater demand (allocation)* <http://www.mfe.govt.nz/environmental-reporting/freshwater/demand> Accessed 11 January 2011.
31. Ministry for the Environment. *Freshwater demand (allocation)* <http://www.mfe.govt.nz/environmental-reporting/freshwater/demand> Accessed 11 January 2011.
32. New Zealand Business Council for Sustainable Development (2008) *Sustainable Freshwater Management- Towards an Improved New Zealand Approach*. Aqualinc Research Limited, Report No HO7004/1. http://www.nzbcscd.org.nz/water/NZBCSD_Best_Use_Solution_Full_Report_27Aug08.pdf Accessed 17 May 2011.
33. Whitehouse, P. (2010) Presentation to the New Zealand Freshwater Management Forum, 15 and 16 February, Wellington.
34. New Zealand Farmer (1959) Editorial by Cornwell, J quoted in New Zealand Herald *Liquid Assets*, Smith, N 26 November 2010. http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=10690032 Accessed 24 January 2011.
35. New Zealand Herald *Liquid Assets* http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=10690032 Accessed 24 January 2011.
36. Office of the Auditor-General *Managing freshwater quality: Challenges for regional councils*, September 2011. <http://www.oag.govt.nz/2011/freshwater/docs/managing-freshwater-quality.pdf> Accessed 10 November 2011.
37. The New Zealand Institute (2010) *NZahead* p. 80. <http://www.nzinstitute.org/Images/uploads/nzahead-pdfs/NZahead%20update%20-%20Full%20report%20-%20September%202010.pdf> Accessed 19 January 2011.
38. Professor David Hamilton. Comments to the Human Rights Commission. August 2011.
39. Land and Water Forum (2010). *Report of the Land and Water Forum: A Fresh Start for Freshwater*, p16. http://www.landandwater.org.nz/land_and_water_forum_report.pdf Accessed 16 March 2011.
40. The New Zealand Institute (2010) *NZahead* p. 80. <http://www.nzinstitute.org/Images/uploads/nzahead-pdfs/NZahead%20update%20-%20Full%20report%20-%20September%202010.pdf> Accessed 19 January 2011.
41. UN General Assembly (2010) *Report of the Independent Expert on the Issue of Human Rights Obligations Related to Safe Drinking Water and Sanitation on the Millennium Development Goals*. para 24 A/65/254 6 August 2010. <http://www2.ohchr.org/english/issues/water/lexpert/docs/MDGReportA6524.pdf> Accessed 20 January 2011.
42. Independent Expert on the issue of human rights obligations related to access to safe drinking water and sanitation (2010) *Good Practices Questionnaire* <http://www2.ohchr.org/english/issues/water/lexpert/index.htm> Accessed 20 January 2011.
43. UN General Assembly (2010) *Progress report of the Independent Expert on the Issue of Human Rights Obligations Related to Safe Drinking Water and Sanitation Progress on the compilation of good practices*, para 19. A/HRC/15/31/Add.1. 1 July 2010. http://www2.ohchr.org/english/bodies/hrcouncil/docs/15session/A.HRC.15.31.Add.1_en.pdf Accessed 17 May 2011.
44. Planning manager. Comments to the Human Rights Commission. August 2011.
45. Maree Baker, partner, Anderson Lloyd Lawyers. Comments provided to the Human Rights Commission. 5 May 2011.
46. Dr Paul Reynolds *Biophysical Limits and their Policy Implications* Policy Quarterly, Volume 7, Issue 3 August 2011. <http://ips.ac.nz/publications/files/c3161de95bb.pdf> Accessed 10 November 2011.
47. Environment Waikato *Water Allocation Variation* <http://www.ew.govt.nz/policy-and-plans/Water-allocation-variation/> Accessed 24 January 2011.
48. Environment Waikato *Council agrees to implement Variation 6* <http://www.infonews.co.nz/news.cfm?id=30047> Accessed 24 January 2011.
49. Ministry for the Environment *Measuring and reporting water takes*. October 2010 Publication number: INFO 544 <http://www.mfe.govt.nz/publications/water/measuring-and-reporting-water-takes/measuring-and-reporting-water-takes.pdf> Accessed 16 May 2011.
50. Minister for the Environment (2010). *Govt requires metering to improve water management* <http://feeds.beehive.govt.nz/release/govt-requires-metering-improve-water-management> Accessed 24 January 2011.
51. Meridian Energy Limited *The Mokihinui Hydro Project* <http://www.meridianenergy.co.nz/OurProjects/Mokihinuihydroproposal/> Accessed 2 February 2011.
52. Contact Energy Limited *Clutha hydro questions and answers* <http://www.contactenergy.co.nz/web/ourprojects/cluthahydro-questions-five?vert=ch> Accessed 2 February 2011.
53. An irrigators' collective. Comment to the Human Rights Commission. August 2011.
54. The New Zealand Institute (2010) *NZahead* p. 79. <http://www.nzinstitute.org/Images/uploads/nzahead-pdfs/NZahead%20update%20-%20Full%20report%20-%20September%202010.pdf> Accessed 19 January 2011.
55. The New Zealand Institute (2011) *NZahead* p. 81. http://www.nzinstitute.org/Images/uploads/nzahead-pdfs/NZahead_Full_Report_PDF.pdf Accessed 10 November 2011.
56. Yale Center for Environmental Law and Policy, Yale University. Center for International Earth Science Information Network, Columbia University *2010 Environmental Performance Index*. Indicator metadata pp. 19-21. http://epi.yale.edu/file_columns/0000/0051/2010epi_metadata.pdf Accessed 11 February 2011.
57. The accuracy of the ranking is disputed by David Hamilton, Professor of Biological Sciences, University of Waikato, who contends that the information is badly out-of-date, taken out of context and includes a strong bias towards unimpacted sites in New Zealand.
58. The New Zealand Institute (2011) *NZahead* pp. 84-85. http://www.nzinstitute.org/Images/uploads/nzahead-pdfs/NZahead_Full_Report_PDF.pdf Accessed 10 November 2011.
59. Ministry for the Environment. *Sources of Pollution*. <http://www.mfe.govt.nz/environmental-reporting/freshwater/river/nutrients/sources.html> Accessed 14 November 2011.
60. Parliamentary Commissioner for the Environment. Comments to the Human Rights Commission. August 2011.

61. Controller and Auditor-General Sept, 2011. *Managing freshwater quality: challenges for regional councils*. Paras 3.2, 303, & 3.16. <http://www.oag.govt.nz/2011/freshwater/docs/managing-freshwater-quality.pdf> Accessed 14 November 2011.
62. The New Zealand Institute (2011) *NZahead* p. 84. http://nzinstitute.org/Images/uploads/nzahead-pdfs/NZahead_Full_Report_PDF.pdf Accessed 14 November 2011.
63. Ministry for the Environment. 2011. *Measuring Up: Environmental Reporting – A Discussion Document*. Wellington: Ministry for the Environment. p 1. <http://www.mfe.govt.nz/publications/ser/measuring-up-environmental-reporting/measuring-up-environmental-reporting.pdf> Accessed 16 November 2011.
64. Ministry for the Environment. 2011. *Measuring Up: Environmental Reporting – A Discussion Document*. Wellington: Ministry for the Environment. p 14. <http://www.mfe.govt.nz/publications/ser/measuring-up-environmental-reporting/measuring-up-environmental-reporting.pdf> Accessed 16 November 2011.
65. Parliamentary Commissioner for the Environment (2001). *Beyond Ageing Pipes: Urban water Systems for the 21st Century*. http://www.pce.parliament.nz/assets/Uploads/Reports/pdf/beyond_ageing_pipes_1.pdf Accessed 16 May 2011.
66. Minister for Health, Tony Ryall and Local Government Minister, Rodney Hide. *Govt Gives Councils More Time for Water Supply Compliance* <http://beehive.govt.nz/release/govt-gives-councils-more-time-water-supply-compliance>. Accessed 18 January 2012.
67. Ministry of Health (2011). *Annual Review of Drinking-Water Quality in New Zealand 2009-2010*. Wellington: Ministry of Health. <http://www.moh.govt.nz/publication/annual-review-drinking-water-quality-New-Zealand-2009-2010>. Accessed 12 January 2012.
68. Controller and Auditor-General. *Local authorities: Planning to meet the forecast demand for drinking water*. February 2010 <http://www.oag.govt.nz/2010/water/docs/oag-water.pdf> Accessed 17 May 2011.
69. Environment Canterbury *Christchurch Groundwater Quality Post-Earthquake* 13 May 2011 <http://ecan.govt.nz/news-and-notice/news/pages/christchurch-groundwater-post-earthquake-130511.aspx> Accessed 17 May 2011.
70. The New Zealand Institute (2011) *NZahead* p. 81. http://nzinstitute.org/Images/uploads/nzahead-pdfs/NZahead_Full_Report_PDF.pdf Accessed 14 November 2011.
71. Ministry of Agriculture and Forestry (2011) *The Dairying and Clean Streams Accord: Snapshot of Progress 2009/2010*. <http://media.nzherald.co.nz/webcontent/document/pdf/201112/Dairy-clean-streams-2010-FINAL.pdf> Accessed 18 March 2011.
72. *Fonterra targeting year-round compliance* <http://www.voxy.co.nz/business/fonterra-targeting-year-round-compliance/5/85693> Accessed 22 March 2011.
73. Minister for Agriculture, David Carter. *Dairy farmers beginning to get the message on pollution* <http://www.beehive.govt.nz/release/dairy-farmers-beginning-get-message-pollution> Accessed 17 May 2011.
74. Fish and Game (17 March 2011) *Clean Streams Accord past its use-by date*. Scoop News <http://www.scoop.co.nz/stories/AK1103/S00702/clean-streams-accord-past-its-use-by-date>. Accessed 18 March 2011.
75. Voxy.co.nz 22 June 2011 *Every Farm Every Year Focusing Fonterra's Compliance Help*. <http://www.voxy.co.nz/business/every-farm-every-year-focusing-fonterra-compliance-help/5/92826> Accessed 15 November 2011.
76. English, C. (2010) *What Will Be the Issues for Dairy Farmers In 20 years Time?* Speech by Conor English, Federated Farmers Chief Executive to the New Zealand Institute of Agriculture and Horticultural Science, September 2010. <http://www.scoop.co.nz/stories/print.html?path=BU1009/S00129/issues-for-dairy-farmers-in-20-years-time.htm> Accessed 24 January 2011.
77. Environment Minister, Nick Smith, and Minister for Science and Innovation, Wayne Mapp. 1 June 2011. *Govt backs fresh water research projects*. <http://www.beehive.govt.nz/release/govt-backs-fresh-water-research-projects> Accessed 15 November 2011.
78. Ministry of the Environment (2009) *Water quality trends at National River Quality Network sites for 1989-2007*. <http://www.mfe.govt.nz/environmental-reporting/freshwater/river/league-table/clarity>. Accessed 10 September 2010.
79. National Institute of Water & Atmospheric Research Ltd (2010) *Lake water quality in New Zealand 2010: Status and trends*. <http://www.mfe.govt.nz/publications/ser/lake-water-quality-in-nz-2010/lake-water-quality-in-nz-2010.pdf> Accessed 24 January 2011.
80. Water New Zealand is a non-profit technical and educational organization created in 1958; its members come from central and local government, industry, academic and research communities, consultants, and service/equipment supply organisations. *Water New Zealand Declining lake water quality demonstrates public policy failure* http://www.waternz.org.nz/documents/comment_and_submissions/101123_mediarelease_lakewater_quality.pdf Accessed 17 May 2011.
81. Broadcasting Standards Authority (2010). *Federated Farmers New Zealand and Television New Zealand Ltd – 2010-138*. <http://www.bsa.govt.nz/decisions/show/4094> Accessed 25 January 2011.
82. Horowhenua District Council (2010) *The Manawatu River Leaders' Accord* <http://www.horowhenua.govt.nz/News--Views/Latest-News/The-Manawatu-River-Leaders-Accord/> Accessed 25 January 2011.
83. Horizons Regional Council (2010) *Manawatu River Leaders' Forum Leaders' Accord* http://www.horizons.govt.nz/assets/Uploads/Events/Regional_Council_Meeting/2010-07-20_100000/10-114-Annex-A-Manawatu-River-Leaders-Forum-Leaders-Accord.pdf Accessed 25 January 2011.
84. Forbes, M (21/05/2011) *Farmers break ranks over polluted river accord*. The Dominion Post. <http://www.stuff.co.nz/dominion-post/news/5034871/Farmers-break-ranks-over-polluted-river-accord>. Accessed 23 May 2011.
85. Mike Young (2011) *Lessons about water trading from across the ditch and elsewhere*, The Environment Institute, University of Adelaide. Presentation to the Fresh Water Management Forum, February, Wellington.
86. United Nations General Assembly. *Report of the United Nations High Commissioner for Human Rights on the scope and content of the relevant human rights obligations related to equitable access to safe drinking water and sanitation under international human rights instruments A/HRC/6/3* 16 August 2007, para. 28 <http://daccess-dds-ny.un.org/doc/UNDOC/GEN/G07/136/55/PDF/G0713655.pdf?OpenElement> Accessed 17 May 2011.
87. United Nations General Assembly *Report of the Independent Expert on the Issue of Human Rights Obligations Related to Access to Safe Drinking Water and Sanitation*, Catarina de Albuquerque A/HRC/15/31. 29 June 2010. para. 2 <http://www2.ohchr.org/english/issues/water/lexpert/docs/A-HRC-15-31-AEV.pdf> Accessed 17 May 2011.
88. Fauconnier, I. *The Privatisation of Residential Water Supply and Sanitation Services: Social Equity Issues in the California and International Contexts*, Berkeley Planning Journal 13 (1999): 37-73 at p. 43. <http://www.ced.berkeley.edu/pubs/bpj/pdf/bid1305.pdf> Accessed 17 May 2011.
89. Twyford, P (June 7, 2010) *Red Alert*. <http://blog.labour.org.nz/index.php/tag/local-government-act-2002-amendment-bill/> Accessed 17 May 2011.

90. Parliamentary Debates (Hansard), 27 April 2010. http://www.parliament.nz/en-NZ/PB/Debates/Debates/4/1/2/49HansD_20100427_00000055-Questions-for-Oral-Answer-Questions-to-Ministers.htm Accessed 16 March 2011.
91. See comments by the Office of the High Commissioner for Human Rights, *Background paper: Human Rights, Poverty Reduction and Sustainable Development: Health, Food and Water*; 12 World Summit on Sustainable Development, South Africa (2002); ILO, *Report of Tripartite Meeting on Managing the Privatisation and Restructuring of Public Utilities* (1999) Geneva; and Fauconnier, I. *The Privatisation of Residential Water Supply and Sanitation Services: Social Equity Issues in the California and International Contexts*, Berkeley Planning Journal 13 (1999): 37-73.
92. Human Rights Council (2010) *Report of the Independent Expert on the Issue of Human Rights Obligations Related to Safe Drinking Water and Sanitation*, Catarina de Albuquerque. A/HRC/15/31, 29 June 2010. Para 15. <http://www2.ohchr.org/english/issues/water/ixpert/docs/A-HRC-15-31-AEV.pdf> Accessed 16 March 2011.
93. Human Rights Council (2010) *Report of the Independent Expert on the Issue of Human Rights Obligations Related to Safe Drinking Water and Sanitation*, Catarina de Albuquerque. A/HRC/15/31, 29 June 2010. Para 16. <http://www2.ohchr.org/english/issues/water/ixpert/docs/A-HRC-15-31-AEV.pdf> Accessed 16 March 2011.
94. Human Rights Council (2010) *Report of the Independent Expert on the Issue of Human Rights Obligations Related to Safe Drinking Water and Sanitation*, Catarina de Albuquerque. A/HRC/15/31, 29 June 2010. Para 16. <http://www2.ohchr.org/english/issues/water/ixpert/docs/A-HRC-15-31-AEV.pdf> Accessed 16 March 2011.
95. United Nations Committee on Economic, Social and Cultural Rights (2002) General Comment No 15 (2002), *The Right to Water*. E/C.12/2002/11 20 January 2003 para 24. [http://www.unhcr.ch/tbs/doc.nsf/0/a5458d1d1bbd713fc1256cc400389e94/\\$FILE/G0340229.pdf](http://www.unhcr.ch/tbs/doc.nsf/0/a5458d1d1bbd713fc1256cc400389e94/$FILE/G0340229.pdf) Accessed 16 May 2011.
96. Human Rights Council (2010) *Report of the Independent Expert on the Issue of Human Rights Obligations Related to Safe Drinking Water and Sanitation*, Catarina de Albuquerque. A/HRC/15/31, 29 June 2010. Paras 8 & 13. <http://www2.ohchr.org/english/issues/water/ixpert/docs/A-HRC-15-31-AEV.pdf> Accessed 16 March 2011.
97. Human Rights Commission, 18 June 2010, *Submission on the Local Government Act 2002 Amendment Bill to the Local Government and Environment Committee*.
98. Local Government (Auckland Council) Act 2010. Section 57(1).
99. Gregory, A. *Call for mandatory use of water meters*. New Zealand Herald http://www.nzherald.co.nz/water/news/article.cfm?c_id=362&objectid=10536348 Accessed 17 May 2011.
100. Water New Zealand (2010) *Water dirt cheap in New Zealand* http://www.waternz.org.nz/documents/comment_and_submissions/101018_mediarelease_water_dirt_cheap.pdf Accessed 17 May 2011.
101. The Dominion Post *Metered water for Kapiti proposed* 9 March 2011 <http://www.stuff.co.nz/dominion-post/news/4745810/Metered-water-for-Kapiti-proposed> Accessed 18 March 2011.
102. New Zealand Herald, 24 June 2001. *Pay up or it'll take longer to flush loo*. http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=10734123 Accessed 15 November 2011.
103. A group of staff of a major provincial council. Comment to the Human Rights Commission. August 2011.
104. A planning manager. Comments to the Human Rights Commission. August 2011.
105. Bargh, M (2006) *Fresh Water: Issues for Māori* Briefing Paper based on a presentation at the New Zealand Political Science Association Conference, University of Canterbury, 28 August 2006. <http://www2.ohchr.org/english/bodies/cerd/docs/ngos/pma2.pdf> Accessed 17 May 2011.
106. Ministry for the Environment. *Wai Ora: Report of the Sustainable Water Programme of Action Consultation Hui – Key Issues Emerging from Consultation*. <http://www.mfe.govt.nz/publications/water/wpoa-hui-report-jul05/html/page5.html> Accessed 23 February 2011.
107. Ministry for the Environment. *Wai Ora: Report of the Sustainable Water Programme of Action Consultation Hui – Key Issues Emerging from Consultation*. <http://www.mfe.govt.nz/publications/water/wpoa-hui-report-jul05/html/page5.html> Accessed 17 May 2011.
108. Ruru, J (2010). *Undefined and unresolved: exploring indigenous rights in Aotearoa New Zealand's freshwater legal regime* (2010) 5 Journal of Water Law 236, 242. http://www.otago.ac.nz/law/nrl/water/journal/236-242_final.pdf Accessed 7 February 2011.
109. Ministry for the Environment *National Policy Statement Freshwater Management 2011* p. 3. <http://www.mfe.govt.nz/publications/rma/nps-freshwater-management-2011/docs/nps-freshwater-mgmt-2011.pdf> Accessed 17 May 2011
110. Ministry for the Environment *National Policy Statement Freshwater Management 2011* p. 11. <http://www.mfe.govt.nz/publications/rma/nps-freshwater-management-2011/docs/nps-freshwater-mgmt-2011.pdf> Accessed 17 May 2011.
111. Land and Water Forum (2010). *Report of the Land and Water Forum: A Fresh Start for Fresh Water*, p 9. http://www.landandwater.org.nz/land_and_water_forum_report.pdf Accessed 16 March 2011.
112. Water New Zealand (2010) *National Water Organisation Welcomes Report 22 September 2010* http://www.waternz.org.nz/documents/comment_and_submissions/100922_mediarelease_forum_report.pdf Accessed 25 January 2011.
113. Office of the Minister for the Environment, Office of the Minister of Agriculture, 2009 *New Start for Fresh Water* <http://www.mfe.govt.nz/issues/water/freshwater/new-start-for-fresh-water-paper.pdf> Accessed 3 February 2011.
114. Senior lecturer in law at the University of Otago.
115. Ruru, J (2009) *The Legal Voice of Māori in Freshwater Governance: A Literature Review*. Landcare Research: Manaaki Whenua. p. 7 http://www.landcareresearch.co.nz/publications/researchpubs/OPNS_Legal_Voice_of_Maori.pdf Accessed 17 May 2011.
116. Ruru, J. *Resource Management Journal November 2009 Indigenous Peoples and freshwater: rights to govern?* http://www.rmla.org.nz/upload/documents/RMJ_Nov_09_FINAL_1.pdf Accessed 2 February 2011.
117. A planning manager. Comments to the Human Rights Commission. August 2011.
118. Treaty of Waitangi Negotiations Minister, Christopher Finlayson 2009. *Waikato River deed of settlement signed with Waikato-Tainui* <http://www.beehive.govt.nz/release/waikato-river-deed-settlement-signed-waikato-tainui> Accessed 4 February 2011.
119. Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010. Ngati Tuwharetoa, Raukawa, and Te Arawa River Iwi Waikato River Act 2010.
120. Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010. Ngati Tuwharetoa, Raukawa, and Te Arawa River Iwi Waikato River Act 2010. Treaty of Waitangi Negotiations Minister, Christopher Finlayson 2009. *Waikato River deed of settlement signed with Waikato-Tainui* <http://www.beehive.govt.nz/release/waikato-river-deed-settlement-signed-waikato-tainui> Accessed 4 February 2011.

121. Tukoroirangi Morgan (2011). Presentation at the 2nd Annual Fresh Water Management Forum. Wellington. February 2011
122. Jacinta Ruru. Comments to the Human Rights Commission May 2011.
123. Office of the Minister for the Environment, Office of the Minister of Agriculture (4 May 2011). *Fresh Start for Fresh Water – forward work programme*. para. 19. <http://www.mfe.govt.nz/cabinet-papers/fresh-start-fresh-water-forward-work.pdf> Accessed 8 June 2011.
124. Independent Expert on the Issue of Human Rights Obligations Related to Access to Safe Drinking Water and Sanitation 2010 *The Human Rights to Water and Sanitation, Legal Obligations with Tangible Benefits*. http://www2.ohchr.org/english/issues/water/ieexpert/docs/IE_Water_Tangible_benefits.pdf Accessed 16 March 2011.
125. World Water Assessment Programme (2006). The United Nations World Water Development Report 2: *Water a shared responsibility* Paris: UNESCO, and New York Berghahn Books. Pages 77-80. <http://unesdoc.unesco.org/images/0014/001454/145405E.pdf> Accessed 17 March 2011.
126. World Water Assessment Programme (2009). The United Nations World Water Development Report 3: *Water in a Changing World*. Paris: UNESCO, and London: Earthscan, Appendix 1 Table A1.1. p.299. <http://unesdoc.unesco.org/images/0018/001819/181993e.pdf> Accessed 16 March 2011.
127. World Water Assessment Programme (2009). The United Nations World Water Development Report 3: *Water in a Changing World*. Paris: UNESCO, and London: Earthscan. Appendix 1 p. 298. <http://unesdoc.unesco.org/images/0018/001819/181993e.pdf> Accessed 16 March 2011.
128. Environment Minister, Nick Smith, (8 April 2011). *Freshwater Reform Report Released*. <http://www.beehive.govt.nz/release/freshwater-reform-report-released> Accessed 17 May 2011.
129. Land and Water Forum (2010). *Report of the Land and Water Forum: A Fresh Start for Freshwater* http://www.landandwater.org.nz/land_and_water_forum_report.pdf Accessed 16 March 2011.
130. Smith (2011) *Speech to Second Annual Fresh Water Management Forum, Amora Hotel, Wellington* <http://www.beehive.govt.nz/speech/speech-second-annual-fresh-water-management-forum-amora-hotel-wellington> Accessed 8 March 2011.
131. Dr Paul Reynolds *Biophysical Limits and their Policy Implications* Policy Quarterly, Volume 7, Issue 3 August 2011. <http://ips.ac.nz/publications/files/c3161de95bb.pdf> Accessed 10 November 2011.
132. Land and Water Forum (2010). *Report of the Land and Water Forum: A Fresh Start for Freshwater*, pages 48-49. http://www.landandwater.org.nz/land_and_water_forum_report.pdf Accessed 16 March 2011.
133. A group of staff of a major provincial council. Comment to the Human Rights Commission. August 2011.
134. Parliamentary Debates (Hansard), First Session, 49th Parliament 2008-10. Tuesday 30 March 2010, Week 38, Volume 661, p. 9927.
135. Ministry of Justice, *Canterbury Regional Council (ECan) Temporary Commissioners and Other Matters Bill* 26 March 2010 <http://www.justice.govt.nz/policy/constitutional-law-and-human-rights/human-rights/bill-of-rights/canterbury-regional-council-ecan-temporary-commissioners-and-other-matters-bill> Accessed on 17 May 2011.
136. Ministry for the Environment, 22 March 2010, *Regulatory Impact Statement – Response to the review of Environment Canterbury – Agency Disclosure Statement*. <http://www.mfe.govt.nz/laws/ris/ris-ecan.html> Accessed 17 May 2011.
137. The Dominion Post, Saturday April 24, 2010, A2. *Justice chiefs opposed ECan sackings*
138. Joseph, P (June 2010) *Environment Canterbury legislation* New Zealand Law Journal, June 2010 pp. 193-196.
139. Maree Baker, Partner, Anderson Lloyd Lawyers Resource Management Journal August 2010 *A watershed moment in Canterbury for water management in New Zealand*. p. 20. http://www.rmla.org.nz/upload/documents/August_v5.pdf Accessed 9 May 2011.
140. Environment Minister, Nick Smith. 12 September 2011. Comments to the Human Rights Commission.
141. The Timaru Herald, 14 September 2011. *ECan progress pleases Smith*. <http://www.stuff.co.nz/timaru-herald/news/5619589/ECan-progress-pleases-Smith> Accessed 15 November 2011.
142. Institute for Human Rights and Business (2011) *More Than a Resource: Water, Business and Human Rights*. pp 31 & 32. http://www.ihrb.org/pdf/More_than_a_resource_Water_business_and_human_rights.pdf Accessed 9 November 2011.
143. UNDP Human Development Report 2006: *Beyond Scarcity: Power, Poverty and the Global Water Crisis*. United Nations Development Programme, New York, p. 24. <http://hdr.undp.org/en/media/HDR06-complete.pdf> Accessed 17 March 2011.
144. World Health Organization (2003). *The Right to Water* p. 30. http://www.who.int/docstore/water_sanitation_health/Documents/righttowater/righttowater.pdf Accessed 17 March 2011.
145. Environment Minister, Nick Smith, (2011) *Speech to Second Annual Fresh Water Management Forum, Amora Hotel, Wellington* <http://www.beehive.govt.nz/speech/speech-second-annual-fresh-water-management-forum-amora-hotel-wellington> Accessed 8 March 2011.
146. Water New Zealand (2010) *National Water Organisation Welcomes Report* 22 September 2010 http://www.waternz.org.nz/documents/comment_and_submissions/100922_mediarelease_forum_report.pdf Accessed 17 May 2011.
147. Land and Water Forum (2010). *Report of the Land and Water Forum: A Fresh Start for Freshwater*, page viii. http://www.landandwater.org.nz/land_and_water_forum_report.pdf Accessed 16 March 2011.
148. Maree Baker, partner, Anderson Lloyd Lawyers. Presentation at the 2nd Annual Fresh Water Management Forum. Wellington February 2011.
149. Ministry for the Environment *National Policy Statement Freshwater Management 2011* p. 11 <http://www.mfe.govt.nz/publications/rma/nps-fresh-water-management-2011/docs/nps-freshwater-mgmt-2011.pdf> Accessed 17 May 2011.
150. Ministry for the Environment. *Proposed National Policy Statement for Renewable Electricity Generation* <http://www.mfe.govt.nz/publications/rma/nps-renewable-electricity-generation/nps-for-renewable-electricity-generation.html> Accessed 24 March 2011.
151. Ministry for the Environment. *Proposed National Policy Statement on Indigenous Biodiversity*. <http://www.mfe.govt.nz/publications/biodiversity/indigenous-biodiversity/index.html> Accessed on 24 March 2011.
152. Ministry for the Environment. *Proposed National Environmental Standard on Ecological Flows and Water Levels*. <http://www.mfe.govt.nz/laws/standards/ecological-flows-water-levels/index.html> Accessed 24 March 2011.

153. Ministry for the Environment (2010). *Proposed national policy statement for freshwater management*. <http://www.mfe.govt.nz/rma/central/nps/freshwater-management.html> Accessed 11 February 2011.
154. The New Zealand Institute (2010) *NZahead* p.81. <http://www.nzinstitute.org/Images/uploads/nzahead-pdfs/NZahead%20update%20-%20Full%20report%20-%20September%202010.pdf> Accessed 19 January 2011.
155. Ministry for the Environment (2011). *Questions and Answers* <http://www.mfe.govt.nz/issues/water/freshwater/fresh-start-for-fresh-water/lawf-questions-answers.html> Accessed 15 November 2011.
156. Environment Minister, Nick Smith (2011) *Govt issues NPS for fresh water management*. [Beehive.govt.nz http://www.beehive.govt.nz/release/govt-issues-nps-fresh-water-management](http://www.beehive.govt.nz/release/govt-issues-nps-fresh-water-management) Accessed 10 May 2011.
157. Ministry for the Environment *National Policy Statement Freshwater Management 2011* p. 11. <http://www.mfe.govt.nz/publications/rma/nps-freshwater-management-2011/docs/nps-freshwater-mgnt-2011.pdf> Accessed 17 May 2011.
158. Cawthron Institute. *Implications of the National Policy Statement on Freshwater Management* (Prepared for Fish and Game New Zealand). Report No. 1965. June 2011. p 1. http://www.taiaoraukawa.co.nz/documents/Cawthron_Report_on_NPS.pdf Accessed 15 November
159. Beatson, A. and Garvan, N. (9 May, 2011) *National Policy Statement for Freshwater Management – a New Direction?* <http://www.bellgully.com/resources/resource.02231.asp> Accessed 10 May 2011.
160. Ministry for the Environment *National Policy Statement Freshwater Management 2011* p. 10. <http://www.mfe.govt.nz/publications/rma/nps-freshwater-management-2011/docs/nps-freshwater-mgnt-2011.pdf> Accessed 17 May 2011.
161. New Zealand Freshwater Sciences Society (10 May, 2011) *Science Society concerned about freshwater NPS*. <http://www.scoop.co.nz/stories/PO1105/S00138/science-society-concerned-about-freshwater-nps.htm> Accessed 13 May 2011.
162. NZPA (11 May 2011) *Councils welcome water management plan, Labour doesn't*. <http://www.hawkesbaytoday.co.nz/rural/news/councils-welcome-water-management-plan-labour-does/3951296/> Accessed 13 May 2011.
163. Federated Farmers, (10 May 2011). *Farmers express hopes for NPS on freshwater management*. [http://www.scoop.co.nz/stories/PO1105/S\)129/farmers-express-hopes-for-NPS-on-freshwater-management](http://www.scoop.co.nz/stories/PO1105/S)129/farmers-express-hopes-for-NPS-on-freshwater-management). Accessed 13 May 2011.
164. The New Zealand Institute (2011) *NZahead* p. 84. http://nzinstitute.org/Images/uploads/nzahead-pdfs/NZahead_Full_Report_PDF.pdf Accessed 14 November 2011.
165. Forest and Bird (May 9 2011) *Freshwater policy won't stop pollution*. <http://www.forestandbird.org.nz/what-we-do/publications/media-releases/freshwater>. Accessed 10 May 2011.
166. Radio New Zealand (2011). *Government lays down new freshwater policy* <http://www.radionz.co.nz/news/politics/74744/government-lays-down-the-new-freshwater-policy>. Accessed 10 May 2011.
167. Fallows, B. (May 12, 2011) *Government's water plan making waves* http://www.nzherald.co.nz/business/news/article.cfm?c_id=3&objectid=10724961 Accessed 13 May 2011.
168. NZPA (11 May 2011) *Councils welcome water management plan, Labour doesn't*. <http://www.hawkesbaytoday.co.nz/have-your-say/news/councils-welcome-water-management-plan-labour-doesn't>. Accessed 13 May 2011
169. New Zealand Freshwater Sciences Society (10 May, 2011) *Science Society concerned about freshwater NPS*. <http://www.scoop.co.nz/stories/PO1105/S00138/science-society-concerned-about-freshwater-nps.htm> Accessed 13 May 2011.
170. Green Party (10 May 2011) *Minister pulls teeth from clean water rules* <http://www.greens.org.nz/press-releases/minister-pulls-teeth-clean-water-rules> Accessed 10 May 2011.
171. Ministry for the Environment *National Policy Statement Freshwater Management 2011* p. 10. <http://www.mfe.govt.nz/publications/rma/nps-freshwater-management-2011/docs/nps-freshwater-mgnt-2011.pdf> Accessed 17 May 2011.
172. Waatea News Update (May 11, 2011) *Freshwater policy will sideline Māori* <http://waatea.blogspot.com/> Accessed 11 May 2011.
173. Waatea News Update (May 24, 2011) *Ngai Tahu endorses water policy statement* <http://www.waatea603am.co.nz/News/2011/May/Ngai-Tahu-endorses-water-policy-statement>. Accessed 24 May 2011.
174. Waatea News Update (May 11, 2011) *Freshwater policy will sideline Māori* <http://waatea.blogspot.com/> Accessed 11 May 2011.
175. Ministry for the Environment *National Policy Statement Freshwater Management 2011* p. 5. <http://www.mfe.govt.nz/publications/rma/nps-freshwater-management-2011/docs/nps-freshwater-mgnt-2011.pdf> Accessed 17 May 2011.
176. The New Zealand Institute (2011) *NZahead* p. 84. http://nzinstitute.org/Images/uploads/nzahead-pdfs/NZahead_Full_Report_PDF.pdf Accessed 14 November 2011.
177. A planning manager. Comments to the Human Rights Commission. August 2011.
178. A group of staff of a major city council. Comment to the Human Rights Commission. August 2011.
179. New Zealand Conservation Authority. 2011: *Protecting New Zealand's Rivers*. New Zealand Conservation Authority, Wellington. <http://www.doc.govt.nz/upload/documents/getting-involved/nz-conservation-authority-and-boards/nz-conservation-authority/protecting-new-zealands-rivers.pdf> Accessed 8 December 2011.
180. The New Zealand Institute (2011) *NZahead* p. 84. http://nzinstitute.org/Images/uploads/nzahead-pdfs/NZahead_Full_Report_PDF.pdf Accessed 14 November 2011.
181. Ministry for the Environment. 2011. *Freshwater reform: Fresh Start for Fresh Water.* <http://www.mfe.govt.nz/issues/water/freshwater/fresh-start-for-fresh-water/> Accessed 15 November 2011.