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**THE
CHANGING PERCEPTIONS
OF
WATER RESOURCES
IN
NEW ZEALAND**

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“... This sleek, full-bodied animal, chasing and chuckling, gripping things with a gurgle and leaving them with a laugh ...”	
Kenneth Grahame, <i>Wind in the Willows</i>	
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I INTRODUCTION

This essay traces the legislative history of the management of water resources in New Zealand. Changes in management have occurred because of shifts in perception. The differing ways the government and the general public value a resource determines what management regime will apply. An examination of the shifting attitudes towards New Zealand's water resources involves looking from colonial settlement to the present sustainable management regime.

II GENERAL BACKGROUND

This essay moves through the different phases of management beginning with the early legislation. This early period encompassed the management of flooding and erosion. Specific aspects of management were introduced under the Soil Conservation and Rivers Control Act 1941, the Underground Water Act 1953, and Waters Pollution Act 1953.

The most significant development of water resources management was the Water and Soil Conservation Act 1967. This Act along with consequent amendments widened the management concept of water resources. A shift in perception occurred which demanded a concern for quality issues. Quantity and quality issues were the focus of co-ordinated management under this Act.

This essay uses the Whanganui River case to summarise and reflect the changes in valuation of water resources over thirty years. This case illustrates how recreation and amenity values became relevant considerations in management. The Town and Country Planning Act 1977 introduced the importance of foresight into the perception of management. The inclusion of Maori values in water resource management came into the public mindset under the recommendations of the Waitangi Tribunal. There now emerged a multi-cultural approach to management.

Reforms of water resource management continued in the late 1980s. Both domestic and international developments created a drive for the consolidation of this resource legislation. The Resource Management Act 1991 is the product of such reforms. Management of water resources under the RMA91 is an integration of previous

legislation. The RMA91 embodies the current perception of water resources. The perception now rests on the principle of sustainability. This sustainable management allows for differing perceptions under the Act because of various interpretations of the meaning of sustainable management. This essay illustrates how the management issues of quality and quantity of water resources are re-emerging under this latest regulatory legislation.

II GENERAL BACKGROUND

This essay only deals with one of many resources present within New Zealand. The search for an appropriate management system characterises all of these resources. The basis of this system is an understanding of the processes and interrelationships of resources. Issues surround any nation's water resource because of the compatibility between the capability of the land and its use. This essay will look at these issues by focusing on surface water and groundwater systems, mainly aquifer and river systems. As this is a vast resource the author will exclude coastal waters and geothermal waters.

Management of water resources in New Zealand has explored approaches involving a differing focus on land drainage, river control, erosion control, pollution control and planning preservation. The management concept has been redefined and refined over time according to what political, economic, social and cultural interests are prevalent. New Zealand as an agricultural nation has perceived water as an unlimited resource, to do with as we wish, with few if any restrictions. It was taken for granted that water would remain in a useable state. Awareness of the limitations on the capacity of this resource has crept into the legislative framework. A desire to prevent the mining of rivers and groundwater resources, due to extensive reliance on the entire resource, has emphasised the importance of management. This management reflects water is a renewable resource in the long term but local supplies may prove inadequate if managed inefficiently.

"The allocation of scarce resources between competing uses is a problem fundamental to resource management."¹ The introduction of legislation that deals with the key issues of quantity and quality in relation to water was a positive response to this problem. This legislation had a significant impact on improving management efficiency.

New Zealand is in a fortunate position because of its small population.² This position and luck have played a bigger role in protecting water resources than sound management. But the perception remains that New Zealand's water resource is still salvageable.

III DEFINING THE RESOURCE

A definition of a resource is "elements of the environment on which we confer utility."³ Any definition of a water resource must take into account that the resource is dynamic within the environment. How we perceive the resource will also change over time owing to economic, social and cultural interactions.⁴ Water is fundamental to everyday life. This implies considering water more broadly as an environmental resource rather than just offering utility.

All water in the hydrosphere is part of the hydrologic cycle⁵ and participates in geologic processes. Water is an essential ingredient to human activity and is one thing

¹C Cocklin, I Fraser and M Harte "The recreational value of in-stream flows. The upper Wanganui and Whakapapa rivers" (1994) 50(1) *New Zealand Geographer* 20, 28.

²A comment made in the Organisation for Economic Co-operation and Development *Environmental Policies in New Zealand: A Review by OECD and its Environment Committee at Request of New Zealand Government* (OECD, Paris, 1981) 57 was that New Zealand's small population and lack of large scale urbanisation and industrialisation have helped New Zealand avoid the man-made water pollution problems of the scale and magnitude comparable to other OECD countries.

³K O'Connor "Letting Nature Be" (February 1992) 13 *Terra Nova* 40.

⁴The title and essay uses the term "water resources" because humans have never just seen water. As long as people have existed water has been both necessary and useful. So water can be said not exist as water but as a resource. Consequently water as a resource is identified according to its use.

⁵The hydrologic cycle is the cycle through which all water in the hydrosphere moves and includes the processes of evaporation, precipitation, and surface groundwater runoff. Water which precipitates onto land can re-evaporate, infiltrate or run off. Temporarily portions of this water is diverted for human use but ultimately it all returns back into this natural cycle. Surface and groundwater are part of this system of transfer. The movement of water in a continuous pattern requires transportation through streams and

we all share. Water knows no frontiers and thus demands international co-operation.⁶ Such a demand highlights the inadequacy of New Zealand's past ad hoc legislative approach.

The water resource consists of water in all its physical forms, whether flowing or not and whether over or under the ground, including fresh, coastal and geothermal water.⁷ The hydrologic system is a renewable but limited resource due to heightened pressures on water use. This resource exists within the New Zealand environment. A dynamic environment where interactions between changing weather patterns, physical processes and human activity create a complex system. Complicated interactions characterise the relationships of processes and features in the environment. This complexity has led to different approaches over time towards this resource.

An estimate of New Zealand's total water resource is 300,000 million cubic metres per year, with uneven distribution throughout the country. Present consumption is around 2,000 million cubic metres per year.⁸ The estimated economic value of New Zealand's freshwater resource stands at \$2.3 billion per year.⁹

The evolution of environmental principles applicable to water resources introduces wide ranging issues. This creates a situation where the use of this water resource falls within the ambit of statutory authority. The legislative history of water is characterised by conflicting interests.

ivers, lakes and reservoirs. These are connected to groundwater which forms the cycle. From CW Montgomery *Environmental Geology* (3 ed, Wm. C. Brown Publishers, United States of America, 1992) 118. See Figure 1.1 in Appendix 1 for a diagram of the hydrologic cycle.

⁶R Keife "Water, air pollution and the public health" [October 1970] NZLJ 445, 448.

⁷Hawkes Bay Regional Council *Regional Policy Statement* (HBRC, Hawkes Bay, 1995) 161.

⁸This consumption consists of irrigation 1,100 million cubic metres per year, livestock 350 million cubic metres per year, industry 260 million cubic metres per year, and households 210 million cubic metres per year. These figures exclude the use of water for hydro-electric generation, which is over 100,000 million cubic metres per year. From David Zwarta (ed) *New Zealand Official Yearbook 1996* (99 ed, Statistics New Zealand, Publishing and Community Information Division, Wellington, 1996) 333.

⁹This 1988 estimate includes an economic value of water supply of \$450 million per year, waste disposal of \$450 million per year, recreation and amenity values of \$500 million per year and freshwater fisheries of \$100 million per year, and electricity generation of \$800 million per year. From Anonymous "Freshwater resource values at \$2.3 billion each year" (April 1994) 30(4) *New Zealand Local Government* 21.

IV EARLY LEGISLATION

Early legislation within New Zealand formed a collection of statutes that made passing references to water resources.¹⁰ These initial statutes lacked an integrated approach to the problem of rival interests. This piecemeal approach left a situation of confusion. Many different agencies and organisations had varied responsibilities.

A *The Soil Conservation and Rivers Control Act 1941*

One such organisation was the catchment boards constituted under s126(1) of the SCRCA41. This provision empowered catchment boards to find and implement soil conservation works and flood control projects along with land drainage.¹¹ Soil erosion and devastating flooding evident in the 1920s and 1930s led to this legislative initiative.¹² This was the first important statute concerning water resources. However this Act did not bind the Crown.

New Zealand is subject to a variety of natural hazards. Flooding is one such hazard¹³. Rivers flood as part of natural processes which have complicated the issue of access to water as an ingredient for settlement. This meant people were forced to settle in hazardous areas prone to flooding. In this way the water resource, typically rivers, was perceived as an 'enemy' to be controlled and tamed for interfering with people, their property and livelihood. The expansion and later intensification of agriculture was associated with this settlement. The economic importance to New Zealand of agriculture meant flooding was a national concern requiring positive action by the government to protect fertile farmland.

¹⁰Some of these early statutes included the River Boards Act 1908, Water Supply Act 1908, Land Drainage Act 1908, Fisheries Act 1908, Mining Act 1926, Police Offences Act 1927, Public Works Act 1928, and Stock Diseases Regulations 1937.

¹¹Professor D Bromley, Dr B Sharp, J Wilson, and D Bush-King (contributors) *The rights to use land, water, and minerals - Working Paper No 5* (Resource Management Law Reform Core Group, Ministry for the Environment, Wellington, 1988) 37.

¹²This is reflected in the long title which states it is "[a]n Act to make provision for the conservation of soil resources and for the prevention of damage by erosion, and to make better provision with respect to the protection of property from damage by floods".

¹³Flooding is a normal response to an increase in water inputs over a short period of time. It is a highly probable event with the potential for localised or regional flooding.

Consequently SCRCA41 addressed the strategies designed to control erosion as well as reduce flood damage.¹⁴ This enabling statute facilitated certain patterns of resource use. A management approach that incorporated flood protection work with better land use planning. This early perception was strictly limited to management involving control.¹⁵ It called for the direct regulation of the resource. Thus far legislation had neglected the character of the resource except in relation to flood hazards.

Understandably this one tracked focus tended to ignore the water resource as such because residents were simply demanding action on flood control. The emphasis on river control was to improve land without consideration of water as a resource. Recognition within legislation of water for its own sake came later to balance this initial predominate emphasis on soil erosion.

The control concept underpinning this Act conveys an exploitative world view manifested in the attitude that people can dominant the environment and change features until they no longer pose a threat or inconvenience. This initial statute supports the idea that management merely implies control. The perception of this resource was the cause of the problem which this preoccupation with control tended to ignore.

The control concept also reinforces the idea that management was about risk.¹⁶ Management meant keeping the potential of flooding within acceptable limits defined by the community. Many of these early attempts at flood control were unsuccessful. Some flood control techniques often did more harm than good by increasing the flood hazard elsewhere along the river. Consequently numerous amendments to this Act appeared indicating a fragmentary approach that lacked foresight. New problems were not anticipated. The adopted approach was merely to legislate a solution for

¹⁴Management can mitigate damage by implementing flood protection in the form of river control. This can include channelization, stopbanks, dams, or reducing the size of a flood flow. Flood protection can also include land use management through zoning, building codes and hazard mapping.

¹⁵Today's sustainable management of surface water works uses minimum flows and mitigates the damage of flooding through flood control.

¹⁶A definition of risk is the likelihood of an adverse event occurring during a given time period. From NJ Ericksen "Risk Management. Natural Hazards: Time for Co-ordination" (March 1992) 14 *Terra Nova* 14, 16.

problems when they did arise.¹⁷ This induced a cycle of reliance on relief and flood protection. However, this Act did recognise the basic interrelationship of soil, water and land use.¹⁸ Although the confines of management introduced were narrow, the Act did at least bring the water resource firmly into the political arena.

B *The Underground Water Act 1953*

The 1950s saw the basic perception change. People were aware of the multi-purpose nature of the resource but realised it was finite. The underground water systems were once treated as an unlimited resource.¹⁹ The enactment of the UWA53 fitted the trend emerging in legislative history. This trend was the introduction of a differing focus of management into statute as a result of realising another limit on the resource. The long title of the Act states that it is “[a]n Act to provide for the control of the tapping, use, and pollution of underground water.” The statute aimed to prevent the mining of the resource, by maximising recharge, by ensuring extraction was not excessive. Once again the statute focused on one specific aspect of the resource, that is the underground portion of the hydrologic cycle. But this was an important legislative initiative because groundwater systems supply the total water needs of 22 per cent of New Zealand’s population and the part needs of a further 15 per cent.²⁰

The Act addressed the issues of sustainable abstraction, contamination, and competition for the resource. Its dominant concern was the allocation of this resource to users accompanied by a concern for quality. The Act sought to determine sustainable amounts of extraction in the short and long term by striking a balance between the seasonal trend of flooding against a lack of water to meet irrigation

¹⁷ Variability in precipitation and consequently flows means areas can be subjected to large flood peaks in large flood events. Factors of catchment size, runoff and infiltration rates, storage, material transport and rainfall contribute to make each flood event different. This complicates the management required.

¹⁸ Evident in s10 which details the objects of Act as the: (a) promotion of soil conservation, (b) prevention and mitigation of soil erosion, (c) prevention of damage by floods, and (d) utilisation of lands in such a manner as will tend towards the attainment of the said objects.

¹⁹ Groundwater comprises 91 percent of liquid fresh water on earth. From G Thorpe “Groundwater - the hidden resource” in MP Mosley (ed) *Waters of New Zealand* (New Zealand Hydrological Society, Christchurch, 1992) 167.

²⁰ J Sheerin *Measuring Up - New Zealanders and the Environment* (Statistics New Zealand, Wellington, 1993) 73.

requirements.²¹ The perception was that a desirable management approach should prevent the need for artificial recharge caused by wide variations in rainfall and flows. The efficiency of management increases to counter these additional problems of the resource.²²

In addition to a concern over allocation this Act was material in addressing the potential contamination²³ from typical New Zealand land uses like pastoral farming and urban development. Subsequently land use is another issue tackled under the statute because surface activity can affect the water quality underneath. The inclusion of industry based dangers expanded on the concept of risk management introduced under the SCRCA41. Management involved maintaining this high quality groundwater through an understanding that contaminants from the land surface move very rapidly to the water table. Such contamination can threaten water supplies,²⁴ especially when large industrial areas cover aquifers that provide water supply.

C The Waters Pollution Act 1953

The concept of contamination was the subject of further legislation enacted at the same time under the WPA53. This Act covered more broadly water resources. The Act simply addressed the water quality issue but this issue interacts with the quantity

²¹This was possible through the Act which allowed for constitution of underground water areas under s5, and underground water authorities in s6. These Authorities could make by-laws to control groundwater under s8. It could grant permits to make a bore, or take, or use underground water in s11. The Authority could also make investigations as to what water is available under s24.

²²The management problems which this Act could address included the real threat of depletion of the aquifer which will never return to its original level. Subsidence due to aquitard compaction. Also reducing the risk of saltwater intrusion near the coast which acts as a major constraint on management. Ensuring that development does not go through the aquiclude or puncture it because of risk of the saltwater intrusion. The management of bores maintains minimum interference between wells and avoids drawdowns intercepting another persons well.

²³Potential contamination includes excessive abstraction reducing hydraulic pressure in the confined aquifer, landfills, septic tanks, discharges of industrial waste, feedlot waste which increases the salinity of surrounding groundwater, and nitrates leached from pasture and irrigation.

²⁴A confined aquifer is naturally protected from direct contamination from the land surface by high hydrostatic pressure. But indirect contamination is possible as groundwater flows from the unconfined to confined area. Therefore protection of the unconfined aquifer is important. See Figure 1.2 in Appendix 1. From D Dravid *Understanding the geology and groundwater hydrology of the Heretaunga Plains: Current knowledge and future direction of research*. (New Zealand Planning Institute Conference Proceedings, Napier, 8-10 April 1992) 6.

issue, so deals with quantity indirectly.²⁵ The statute emerged in response to evidence of pollution and potential hazards.²⁶ People can notice changes in quality at low levels so it is important to prevent the degradation of visual water quality. Maintaining quality also protects the life within the waterway. Localised incidents of pollution have been present all along but the first attempt to acknowledge the problem was under Part II of the Act which gives details for the prevention of water pollution.²⁷

This statute is an example of direct regulation to influence the water quality issue through control. Marine pollution by industry, trade and commercial groups seemed to be the main aim of this Act. People generally either ignored or accepted pollution as a part of economic activity. Because of the general perception of the nation at this time the Act was relatively ineffectual. With this view it is not surprising that there was a lack of genuine commitment to curb the pollution problem. This was shown to be evident when, for example, the Tasman Pulp and Paper Enabling Act 1954 allowed abstraction from the Tarawera River under s3 and permitted discharges into the river without prosecution under s12. The degradation of this river was an inevitable but accepted result in order to help this fledgling industry grow.

An attempt to alter this attitude came a decade later under the 1963 Waters Pollution Regulations when there was more political incentive to raising environmental standards. These regulations sought to increase the scope for acting on the pollution problem by strengthening the powers of the Pollution Advisory Council.²⁸ The regulations started a system of water classification along with standards for waste disposal adopted under the WSCA67. This system allowed discharges as long as it did not change the receiving waters beyond a defined limit of quality.

²⁵This is reflected in the long title which states it is "[a]n Act to provide for the constitution of a Pollution Advisory Council, to define its powers and functions, and to make provision with respect to the prevention or mitigation of pollution of waters".

²⁶This Act addressed the main types of pollution including mechanical pollution which involves disposing of solid matter in water eg mines, chemical pollution like the discharge of industrial wastes, organic pollution which affects the oxygen demand of receiving waters like sewage, or thermal pollution caused by adding heat to water. From RCW Hamilton *Administration for Pollution II*(2) (New Zealand Institute of Public Administration, Wellington, 1981) 6-7.

²⁷For example, s15 provides for the prohibition of pollution of waters. Regulations under s16 allow for the prescription of standards in relation to prevention, control, and mitigation of pollution..

²⁸For example, the ability to carry out investigations under reg 3(1).

D *The Health Act 1956*

This Act reinforced these pollution control attempts. Under ss60 - 63 it was an offence to directly or indirectly pollute any water supply so as to make water dangerous to health, or offensive, or unfit for domestic use. The necessity of making New Zealand's drinking water safe involved strengthening the standards for drinking water to keep pollution out of water supply systems.²⁹ This recognised the basic need of clean water supplies to maintain health and well-being.

V NEW ZEALAND CLEAN AND GREEN

Agriculture was the early economic backbone of New Zealand. This had a great impact on perceptions of water resources.³⁰ Modification of the environment by settlers is a well-known aspect of New Zealand's colonial history. Settlers displayed a colonial mentality that water resources were of abundance. Exploitation and abuse of water in every sense occurred during this phase in New Zealand's reckless youth. Conflicting uses between different industries and sectors of the community characterise this phase. There were abusive abstractions of water for gold-mining and equally destructive use of waterways, in a drain-like fashion, for discharges produced by local flax or sawmills. The prevalent attitude of 'water, water everywhere' coincided with a time of development and exploitation that resulted in the destruction of natural resources. This single purpose attitude, that water existed for use, created a landscape dotted with incidents of localised water pollution.

At this time the common law applied with respect to the allocation of water. The doctrine of riparian rights tied the water right to the land. Owners of land adjacent to

²⁹This continues to be an important issue as the presence of Giardia is nothing new in New Zealand waterways. The spread of Giardia in rivers and streams illustrates New Zealand is catching up to the rest of the world. In other countries people do not drink out of a river because they do not know what dead animal is up around the corner. From C Ryan "Giardia- One swallow could make your summer" (August 1991) 8 *Terra Nova* 37, 39.

³⁰The impact of agriculture has largely gone unrecognised. People perceive New Zealand as a country with a small population, which there is no denying but they fail to recognise that New Zealand's largest source of pollution is animal waste estimated to be the equivalent of sewage from 40 million people. From see above n 26, 7.

rivers and streams had the right to draw on water for domestic use and stock watering, without diminishing the natural flow either in quality or quantity. This doctrine stemmed from land ownership and the right to use natural water could not exist without such ownership.³¹ The doctrine of prior appropriation granted rights on a first-come-first-served basis.³² Rights were given by using the water in some beneficial manner. The riparian rights doctrine regarded water as an unowned resource. Ownership occurred by appropriating water into possession. The common law distinguished between underground and surface water by developing different doctrines for their use. Riparian rights existed for surface water³³ and the doctrine of capture applied to underground water.³⁴

Land use quickly diversified from dense native forest, wetland and high country tussock which dominated prior to European settlement. The rapid clearance of forest³⁵ impacted on water and soil systems by increasing erosion, sedimentation and flooding. There was a progression to agricultural and industrial developments. This intensified the conflicts that existed between growing industries like farming and mining for consumptive water use. Primary industries based on dairy factories, freezing works and the developing pulp and paper industry heightened the resource degradation.³⁶ Water pollution ranked alongside other important issues for agriculture like pests, weeds, disease, soil erosion, and chemicals in the food chain. Management to minimise these human impacts and problems was important because by world standards New Zealand has high quality fresh water. New Zealand rivers are of such a

³¹DAR Williams "The Water Resource: Some Current Problems of Law and Administration" [December 1980] NZLJ 499 .

³²M Roche *Land and Water - Water and soil conservation and central government in New Zealand 1941-1988* (Department of Internal Affairs, Historical Branch, Wellington, 1994) 16.

³³See Lord McNoughton's judgment in *McCartney v Londonderry Railway Company* [1904] AC 301.

³⁴This doctrine was introduced in the case *Acton v Blundell* (1843) 12 M & W 324, 152 ER 1223.

³⁵By the 1950s the area of native forest in New Zealand had declined to 5.7 million hectares, about 23 percent of the original forest cover. From BD Fahey and LK Remes "Land Use Impacts" in see above n 19, 265

³⁶All of these activities create discharges into natural waterways which have the potential to seriously pollute receiving waters. Such pollution is either from point source discharges of contaminants which come from a typically single and controllable source. For example, stormwater, pollution spills, mining or agricultural discharges, piggery wastes, and landfills. But these are complicated by the cumulative effect of many toxic substances. Alternatively, non-point sources of pollution are harder to control and include run-off from agricultural land and stormwater discharges. Further activities of abstraction, diversion, irrigation, and sedimentation also affect water bodies. This causes intense competition for use and protection of fresh water.

high chemical quality due to the river ecosystems. Thus management required predicting the effects which changes in flow regimes and land use have on river life.³⁷

The resurgence of market economics coincided with an increase in public demand for better environmental management.³⁸ The need for a multi-disciplinary approach with holistic catchment management represented this demand. Increases in urbanisation, manufacturing and agricultural industries all played an important role in intensifying the demands placed on water resources. The 1960s displayed this serious demand for protection. There was a widely accepted view that the existing legislation was deficient in the area of water management and required rationalisation. Further impetus provided for the imposition of regulation to prevent scarcity of the resource. Matching innovations in technology with the management of these different land use activities required central co-ordination. New challenges of environmental awareness and market demands needed a new Act.

VI THE WATER AND SOIL CONSERVATION ACT 1967 AND NATIONALISATION

A *The Principal Act*

This Act was a significant step forward in the management of water resources. It was evidence of a serious commitment for efficient management. Water resources started down the road to recovery under this Act. This statute was in some way a response to a wake-up call. Visual signs of a degraded resource and the emergence of new environmental issues highlighted the inadequacy of the previous bits and pieces legislative framework. New problems of pollution and allocation fell outside the scope of existing legislation. The WSCA67 was intended to remedy the public complacency, the fragmented, overlapping and obsolete legislation with ad hoc references to water, and inefficient administration³⁹ which plagued water resources.

³⁷MJ Duncan and BJB Briggs "One Hundred Rivers: Managing water quality and biology in New Zealand" (December 1990) 1 *Terra Nova* 52.

³⁸J Roberts "Slouching Beast" (May 1991) 5 *Terra Nova* 13.

³⁹See above n 32, 103.

The nationalisation of water resources followed other natural resources in accordance with the principle of public ownership. The Crown vested in itself sole right to use natural water under s21(1). The Crown had the sole right to divert or take natural water, to dam any stream or river or to use natural water with some exceptions and provisos, including some protection for lawful existing uses.⁴⁰ This also eliminated the common law rights for riparian owners to take natural water but gave them rights in a different way through exceptions for stock needs and domestic use.⁴¹ Section 21(2) provided for the protection of some older uses of natural water. This reinforces the utilitarian view underlying policy of the day that water is a national asset and is for the benefit of the country as a whole.⁴² Section 22 is a general authorisation and under s23 the Crown applies to the National Water and Soil Conservation Authority for water rights. It also gives rights of a kind and to people that the common law did not recognise. The procedure for obtaining water rights was given in s24.

Water is unowned as such. The Crown owns the development rights to water. It was a general consensus that the state should own all key resources under an expansive state. This was in step with the national tradition that the government made any big decisions. It would prove difficult with restructuring in later years to shift this public mindset.

The long title of the Act⁴³ introduces the management approach of a national soil and water policy which promoted a multiple use focus. The use of the term 'conservation'

⁴⁰Section 21 of the WSCA67 states:

Rights in respect of natural water - (1) Except as expressly authorised by or under this Act or as expressly authorised under the Mining Act 1926 by a mining privilege in respect of water granted after the ninth day of September, nineteen hundred and sixty-six, or as expressly authorised under any other Act by any right granted during the period commencing after the ninth day of September, nineteen hundred and sixty-six, and ending not later than the thirty-first day of December, nineteen hundred and sixty-eight, or as expressly authorised by any other Act (whether before or after the passing of this Act) in respect of any specified natural water, the sole right to dam any river or stream, or to divert or take natural water, or discharge natural water or waste into any natural water, or to use natural water, is hereby vested in the Crown subject to the provisions of this Act.

⁴¹"Common law rights are extinguished and statutory rights where appropriate are to take their place". Comment by Woodhouse J in *Glenmark Homestead Ltd v North Canterbury Catchment Board* [1978] 1 NZLR 407, 413.

⁴²Water and Soil Division, Ministry of Works "Water Quality Control Committee Report" *Water and Soil Miscellaneous Publication No 5* (National Water and Soil Organisation, Wellington, 1978) 5.

⁴³The long title states:

in the title of the Act indicates that flood control⁴⁴ was no longer the main purpose of legislative control on the resource but was still an essential management attribute. The natural behaviour of flooding is a significant feature of New Zealand river systems. This new Act continued to work alongside the SCRCA41 with its older concern of river control.

This Act balanced the SCRCA41 concern of soil, with a principal concern for water. Both Acts recognised the integral relationship between land and water. The WSCA67 provided for the water resource as an issue in its own right. The entire resource had status of deserving conservation not just certain parts of it. The breadth of the preamble indicates a holistic management approach that is in contrast to the narrow focus of the 1953 Acts. This showed management required a broad approach that addressed all aspects of the resource. It did not simply focus on the management of extreme events as under the SCRCA41. This latest legislative initiative filled in the holes left by previous legislation by redefining the approach towards water resources.⁴⁵

The perception of water resources had evolved to make a genuine attempt to resolve competing demands. Increasing demand on the resource resulted in competing uses of the resource. This Act created a framework to address environmental problems of the resource which resolved conflicts of users.⁴⁶ This framework governed the allocation, use, and quality of water. The framework had the underlying principle of sharing the

An Act to promote a national policy in respect of natural water, and to make better provision for the conservation, allocation, use, and quality of natural water, and for promoting soil conservation and preventing damage by flood and erosion, and for promoting and controlling multiple uses of natural water and the drainage of land, and for ensuring that adequate account is taken of the needs of primary and secondary industry, water supplies of local authorities, fisheries, wildlife habitats, and all recreational uses of water.

⁴⁴The statutory objective of river control was the prevention and mitigation of damage by bank erosion and flooding. A comprehensive approach involved viewing erosion and flooding problems in the context of the entire catchment. From the National Water and Soil Conservation Organisation *National Water Soil Conservation Organisation Manual 1* (NWSCO, Wellington, March 1982) 14.1.

⁴⁵Policy established by NWSCO authority emphasised a co-ordinated approach to managing soil and water. From see above n 44, 3.

⁴⁶The Act addresses the right to use water by nationalising the resource and providing for the granting of water rights. The Act also continued a classification system of water bodies and later amendments established water conservation orders. From J Allin *Analysis of Existing Statutes: Legal Analysis Working Paper No 7 Part III - Water and Soil Conservation Act 1967, Soil Conservation and River Control Act 1941* (Resource Management Law Reform Core Group, Ministry for the Environment, Wellington, July 1988) 2.

resource amongst users whenever possible. Such a balancing exercise proved hard to achieve when the uses were often exclusionary.

A multiple use approach implies that users return water of the same standard as that taken. This is similar to the common law doctrine of riparian rights. In the preamble the Act does not give priority to any specific objective. But in practice, quality issues were considered after quantity. Interrelated to quantity are quality issues, because a reduction in the quality of water bodies will reduce the quantity of water available for consumptive use. Under the Act these water rights dealt in bulk volume and correlated demand and supply to manage the resource.

The WSCA⁶⁷ set up an integrated and comprehensive system of administration and control. Creating a National Water and Soil Conservation Authority under which existed regional water bodies that controlled the resource. With the role of classifying water and hearing and adjudicating on applications for water rights.⁴⁷ Throughout the 1970-80s NWSCA worked with this Act. The Authority applied a benefit and detriment approach to the resource, developed in cases before the Planning Tribunal and Court of Appeal.⁴⁸ The Authority appreciated that exploitation of resources can occur through over allocation to users. NWSCA set about establishing a priority of uses and promoted the active encouragement of conservative water use. Through NWSCA, the Act achieved high water quality standards, by imposing minimum standards and through the public hearing process that considered a variety of values.⁴⁹

The Water decade is the name given to the 1970s because the management of water resources nationally and regionally received serious attention. Attempts to implement integrated soil and water plans also occurred. This era overlapped with the second half of the International Hydrological Decade that boosted hydrological research in

⁴⁷RP Boast "Geothermal Resources in New Zealand: A Legal History". (1995) 6(1) *Cant L. Rev.* 1, 20.

⁴⁸see the test established in *Keam v Minister of Works and Development* [1982] 1 NZLR 319, 322 . According to Cooke J the balancing test is that any proposed use of natural water should be a beneficial use, and that the loss which might follow from the taking of the water should be weighed against the benefit which will result from its use. In cases where some adverse effect may follow from the exercise of the right applied for, during the term of the grant, the kind of balancing envisaged by the Tribunal appears to be only a matter of common sense and thoroughly in accord with the purposes of the Act.

⁴⁹D Young "Better Results 'the New Zealand Way'" (April 1991) 4 *Terra Nova* 22.

New Zealand.⁵⁰ These new more stringent environmental regulations for water resources implemented at this time meant this era did not go without its controversies over water rights.

The 1970s illustrated that the original Act was deficient because there was continual degradation of water resources throughout the nation. Development options seemed to take precedence to provide for expansion and growth. This included both rural and urban developments that created increasing urbanisation and infrastructure, recreation, heritage, and services. Amendments to the principal Act remedied this apparent deficiency. Amendments gave the quality of water prominence over efficient use, by promoting the fundamental objective of clean water in order to prevent the situation many countries find themselves in today with a degraded water resource.⁵¹

B The Main Amendments

1 The 1971 amendment

The WSC Amendment Act 1971 incorporated mining provisions into the principal Act. A second amendment in 1971 repealed the Waters Pollution Act 1953 and incorporated its provisions within the principal Act under s24. This indicates the governmental policy of the time that attempted to bring all matters concerning water and soil under one statute.⁵² The Waters Pollution Regulations 1963 classifications were inserted as a scheme of classifications into the principal Act. s26C(1) declared minimum standards of quality for water to promote conservation and the best use in the public interest.

This attempt at a national water classification system attracted much criticism. The case *Water Resources Council v Southland Skindivers Club Inc* [1976] 1 NZLR 1

⁵⁰See above n 32, 121.

⁵¹For example, an American woman who ran a glass of water from her kitchen tap and then accidentally set fire to it. From C Conland "USTs - Staunching the trickle down effect" (April 1991) 4 *Terra Nova* 13.

⁵²(1970) 386 NZPD 1973, 3852.

illustrated the difficulties with the principles of classifying water under s 26H(1).⁵³ Cooke J interpreted a classification as a declaration of a minimum desired water quality to promote in the public interest both conservation and best use of the resource. The establishment of minimum standards was for the maintenance of quality.⁵⁴ The attempts at classification of water took into account wide domestic, environmental, microbiological and recreational uses of water.⁵⁵ It involved consideration of competing demands, other available water resources, cost and modes of waste treatment, the existing water quality and future uses of water.⁵⁶ Cooke J saw this as an ever-increasing concern for the conservation of the environment as Parliament only allowed a reduction in water quality if it was justifiable in the public interest.⁵⁷ By the 1980s it was only when a conflict of interest arose that the problems of this classification system were addressed.

2 *The 1973 amendment*

During the 1970s the inadequate treatment of industrial wastes received further recognition. There was a general perception that no stretch of water could be devoted to a single use. This view was strengthened by this enactment to prevent the use of waterways as drains for industrial wastes. The policy of consolidating water legislation continued with the WSC Amendment Act 1973 that repealed the separate UWA53 and incorporated it within the principal Act under s15(1). An upsurge in the use of groundwater for irrigation, especially for horticulture, coincided with this amendment.⁵⁸

Diversification of land use during the 1970s created changes dictated by climate and the economic forces of industry and market. Allocation of the resource was still the

⁵³The important issue in this case was whether the principles determined and applied in the classification of Southland waters were correct in law.

⁵⁴*Hastings City Council v Simons* [1984] 2 NZLR 502, 510.

⁵⁵See above n 54, 512.

⁵⁶From the judgment of Cooke J in *Water Resources Council v Southland Skindivers Club Inc* [1976] 1 NZLR 1, 7.

⁵⁷See above n 56, 10-11.

main management problem under the Act. Allocation seemed to follow a development-orientated direction. Water allocation plans were used to meet increasing demand and competing uses. The push for regional development at this time was behind the national attitude that water is to be used in the best possible way in the public interest.

The Town and Country Planning Appeal Board decision in *Royal Forest and Bird Protection Society of New Zealand Inc v Bay of Plenty Regional Water Board* (1978) 6 NZTPA 361 conveyed this attitude. This case decided between competing uses. The Board decided in favour of the damming or diversion of two rivers for hydro-electricity generation over preserving a trout-fishing stream and unique duck habitat. The Board based its decision on the principle of the greatest good for the greatest number but was reluctant to make such a value judgment without guidelines.⁵⁹

3 *The 1981 amendment*

The 1981 Organisation for Economic Co-operation and Development review of environmental policy in New Zealand highlighted this guideline deficiency. This introduces an international influence into the realm of national management of the resource. The review commented that there was no protection for wild and scenic rivers.⁶⁰ The insertion of s2, which states that the object of this Act is to recognise and sustain the amenity afforded by waters in their natural state, remedied this deficiency. This section made conservation the primary object of the Act.⁶¹ Stating

⁵⁸By 1984 groundwater was the source of supply for 40 percent of all water rights approved by regional councils and up to 60 percent in drought-prone East Coast areas. From L Brown "How to Husband your Aquifer" (August 1991) 8 *Terra Nova* 21, 24.

⁵⁹*Royal Forest and Bird Protection Society of New Zealand Inc v Bay of Plenty Regional Water Board* (1978) 6 NZTPA 361, 369.

⁶⁰The report also commented that the existing water classification system operated so that water quality deteriorated down to this minimum standard. It identified a lack of definitions of standards for waters receiving discharges, and an inability of this system to cope with diffuse as opposed to point source pollution, and the situation whereby once waters had been degraded to their minimum standard, new industries could only be permitted if they had no impact on receiving water quality. From see above n 2, 62-63. Many of these matters were remedied and the progress is evident in the latest reforms affecting water.

⁶¹*Ashburton Acclimatisation Society v Federated Farmers of New Zealand Ltd* [1988] 1 NZLR 78, 88.

the object of the WSC Amendment Act 1981 was within s2 rather than relying on the long title of the principal Act is a significant and relatively unusual provision.⁶²

The 1981 amendment was significant because it provided for in-stream users. The long title of the principal Act was amended by deleting the provision that one of the purposes of introducing the Act was for ensuring that "water supplies of local authorities, fisheries, wildlife habitats, and all recreational uses of natural water" were taken adequately into account and substituting the words "community water supplies, all forms of water-based recreation, fisheries, and wildlife habitats, and of the preservation and protection of the wildlife, scientific, and other natural characteristics of rivers, streams, and lakes".

It was the first enactment to secure long term protection specifically for the management of water resources, by creating a code and process for water conservation orders on rivers and lakes.⁶³ This provided statutory recognition for the amenity values of natural water. This had a significant impact on water conservation⁶⁴ by advocating a positive commitment for the preservation of water resources. By protecting the special values that make a waterway significant both regionally and nationally while moving away from consumptive uses of rivers. This amendment attempted to enhance and protect the environment by stopping intervention in favour of leaving nature alone.

The Wild and Scenic Rivers amendment had a dominant use focus set against a background of the principal act aimed at multiple use. This internalised a contrast in approach. This differs from previous enactment's which were a result of mainly government initiatives at perceived inadequacies of administration. This Amendment occurred because of the increasing public awareness and interest during the 1970s of aesthetic concerns.⁶⁵ This came about partly because of a push by environmentalists.

⁶²*New Zealand Paper Mills Ltd v Otago Acclimatisation Society* [1995] NZRMA 155, 161.

⁶³Through the insertion of ss 20A - 20I on the making of national water conservation orders.

⁶⁴"Nature conservation is, in a special kind of way, a use of land and water ecosystems, at the same time as it is a deliberate aversion from their consumptive use." See above n 3, 40-41.

⁶⁵This environmental awareness in the general public was undoubtedly stirred by the "Save Manapouri" campaign which ran through the 1960s and early 1970s. The Manapouri development plans to raise the lake level pricked the environmental conscience of a broad cross-section of New Zealanders. The

During this awakening to the environment period a lobby group the "wild and scenic rivers" lobby pushed for acknowledgement of the value of natural waterways. Their basic argument was that the common multiple-use philosophy that dominated management favoured development.⁶⁶ Legislation took into account recreational users for the first time. The water quality issue gained eminence as clarity becomes an important issue when the water body is important for recreational use.

Although conservation now had specific provisions under the Act these were construed narrowly. The case of *Auckland Acclimatisation Society Inc v Sutton Holdings Ltd* [1985] 2 NZLR 94 illustrated this. The Court of Appeal would not extend the protection of water conservation orders to a wetland. Indirect protection of a wetland could only occur through the protection of a stream that flows through a wetland.⁶⁷ Although the Act did not provide for the undisturbed preservation in perpetuity of any complete ecosystem, the Act did allow for a real degree of protection.⁶⁸ The court recognised that conservation and wise use of this national asset was a continuing theme in the legislation.⁶⁹ Reinforcing a balancing approach⁷⁰ meant there was no preference afforded to farming interests over conservation interests or vice versa. The granting of water rights depended on weighing up the particular facts as the statute failed to create any priorities.⁷¹ Conservationists disagreed with this. Demanding that protection had primacy when countered with the national interest, as the national interest is a high test to overcome.

This stance of non-preference was altered in the case of *Ashburton Acclimatisation Society v Federated Farmers of New Zealand Inc* [1988] 1 NZLR 78. This case

campaign gained prominence at a time when domestically and overseas concern was mounting over environmental crisis. "Save Manapouri" became a significant conservation slogan of this age. From N Peat *Manapouri Saved! New Zealand's First Great Conservation Success Story - Integrating nature conservation with hydro-electric development of Lakes Manapouri and Te Anau, Fiordland National Park* (Longacre Press, Dunedin, 1994) 5.

⁶⁶P Guest "Planning: A direct responsibility: Who values our waterways?" (Spring 1987) 23(3) *Soil & Water* 8.

⁶⁷From the judgment of Cooke J in *Auckland Acclimatisation Society Inc v Sutton Holdings Ltd* [1985] 2 NZLR 94, 97.

⁶⁸See above n 67.

⁶⁹See above n 67, 99.

⁷⁰See above n 48.

⁷¹See above n 67, 100.

illustrated the Court of Appeal applying the primacy of conservation under the Act.⁷² The case was described as a basic contest between farmers and conservationists. The farmers wished to abstract water for irrigation and the conservationists wanted to conserve the depth, flow and characteristics of the river for fishery, recreational and wildlife features.⁷³ This gave rise to a single goal in the legislation that interacts with the irrigation policy of the nation.

The Act facilitated irrigated agriculture by providing for the allocation of rights to use water.⁷⁴ The uneven distribution of water throughout the country caused comparable concern in times of drought to balance the management of extreme events, like flooding, which became a national concern early in New Zealand's history.⁷⁵

Substantial shortages of water occur almost annually. Water allocation was on a first come first served basis for irrigation. The ability of a soil profile to handle water was not a consideration in the allocation process emphasising the lack of knowledge as an issue in management.⁷⁶ A subsequent increase in the consumptive use of water for irrigation stemmed from the growth of horticulture and farming. It was pressing to clarify the uncertainty of water availability in order to provide protection for instream uses against development. This was a change in perception from a decade earlier. Although public interest remains the ultimate criterion, there now must be a clear and sufficient reason shown in order for other interests to outweigh the goal of conservation.⁷⁷ This was a presumption in favour of conservation recognising the interrelationships between parts of environmental management.

⁷²This case concerned the Planning Tribunal's report and recommendation to strengthen the provisions for preservation and protection of the Rakaia River system. Cooke P highlighted the difficulty in placing economic values on competing features since the value of conservation is largely immeasurable. This results in a value judgment. See above n 61, 89: See also *Re An Application by Amoco Minerals New Zealand Ltd under the Mining Act 1971* [1982] 8 NZTPA 449, 461 where the Planning Tribunal states that in some situations environmental values may be so high as to override the value of mineral deposits, whatever the value of the deposits. This is an earlier example of the Tribunal giving primacy to environmental values which was reinforced specifically for water resources under the later case.

⁷³See above n 61, 81.

⁷⁴See above n 11, 37.

⁷⁵Costs are considerable for both natural hazards. For example, Cyclone Bola in 1988 caused \$90 million in flood damage. While a drought in Canterbury during 1987-88 cost about \$360 million. Taken from CP Pearson "Analysis of floods and low flows" in see above n 19, 95.

⁷⁶R Beanland, D Dravid and J Watt "Irrigation Water Allocation - An issue for planners" (June 1994) 114 *Planning Quarterly* 6.

⁷⁷See above n 59 which refers to public interest being ultimate criterion.

These decisions illustrate a pendulum swing in the way the court decides which interest will prevail. The interests involved in a contest between conservation and the public interest. It is ironic that the public interest was automatically associated with development, agriculture or industry but not with conservation.

Later cases have established a rigorous test that before a feature or characteristic can qualify as outstanding in the granting of a water conservation order. The feature or characteristic needs to be quite out of the ordinary on a national basis.⁷⁸ This calls for an examination of the quality of the amenity afforded by waters in their natural state. They must stand out in comparison to other rivers. Water conservation orders involve valuing because different people see different things in a river. This illustrates that protection of a river should not separate the water body from the wider landscape. The river is inextricably linked to the beauty of a landscape.⁷⁹

4 *The 1983 amendment*

The WSC Amendment Act 1983 was a compromise to a chequered history of legislative reviews attempting to consolidate the 1941 and 1967 Acts into one statute⁸⁰. Pressure came from within administrative organisations to consolidate. But there was a lack of progress in introducing the Water and Soil Bill due to other internal resistance.

This amendment to the parent Act abolished the Water Resources Council. Also provision was made for NSWCA to be heard at Planning Tribunal hearings of draft water conservation orders. The amendment also addressed the concern that legislation

⁷⁸*Planning Tribunal Report on the Mohaka River Draft Water Conservation Order* Decision W20/92 49.

⁷⁹This is not the approach taken in granting water conservation orders. These orders still cannot give direct protection to land surrounding a water body. See *The Planning Tribunal Report and Recommendation of the Inquiry into the Water Conservation Order for Kawarau River 1996* Decision c33/96 22. The Tribunal held that water conservation orders are not for the protection of land. This followed the earlier view in the *Planning Tribunal Report of the Inquiry into the Draft Water Conservation Order for the Buller River* Decision c28/93 7. The making of water conservation orders did not authorise the making of orders that protect land form values.

⁸⁰Reviews were carried out by EG Dunford (1973), C McLeod (1983), JF Robertson (1983), AC Shailes (1984), and I Baumgart and J Kneebone (1984).

is only as good as its sanctions. The 1967 enactment failed in this respect. Penalties under s34 lacked the severity for deterrence. This amendment increased these penalties for breaches of the Act to more punitive levels. This reflected a change in perception that breaches of the Act could have severe consequences and needed a punishment that could reflect that.⁸¹

Management under the WSCA67 meant fitting demand to supply and providing alternatives to prevent the mining of rivers, as abstractions of water affects the ecological processes within. Management tools included setting minimum flow restrictions relating to surface water use, and draw off restrictions on water rights. The setting of minimum flows is important because they provide for the instream habitat values and hydrological characteristics of the river.

VII THE WHANGANUI RIVER CASE

A *The Background*

Ironically, this High Court decision concerning the WSCA67 came after the Act was repealed. This case⁸² spanned the three decades encompassing radical shifts in perception in valuing water resources. The decision illustrates the tremendous rethink of values on water resources that has occurred. This case summarises the clash between development and recreation. How the demand for hydro-electricity led recreationalists to highlight their concerns over quality issues of the river and destruction of its inherent character. The Whanganui River became a battle ground between market and non-market valuation of water uses. The case is a first for giving

⁸¹This trend has continued with enactment of the polluter pays principle under the Resource Management Act 1991 see *Machinery Movers Ltd v Auckland Regional Council* [1994] 1 NZLR 492, 499. The High Court found that the RMA91 places greater emphasis on environmental protection and introduces a more stringent regime of penalties and punishment under s339 than under the WSCA67. This is because the RMA is based on a wholly different environmental philosophy.

⁸²*Electricity Corporation of New Zealand v Manawatu-Wanganui Regional Council* Unreported, 3 June 1992, High Court, Wellington Registry, AP 302/90.

a substantive ruling on the purposes of the legislation in fixing minimum flows in rivers.⁸³

The length and breadth of the Planning Tribunal hearing indicated the difficulty of this allocation decision.⁸⁴ On one side, the recreational value of the river remains unpriced but substantial. On the other side there is the considerable monetary value that instream flows generate in terms of electricity production. The decision was an evaluation of trade-offs.⁸⁵ In which the wider recreational, spiritual, cultural, and ecological values outweighed electricity values.

The case involved weighing up the benefits in a conflict over values and demands. Complementary to a resource being valued for recreation is its value for conservation. Considering the concept of sharing the court gave recreational interests a lift over national and regional interests of electricity generation. By deciding against the predominance of water rights over consideration of other in-stream values.⁸⁶ Stressing the importance of minimum flows for providing for the instream habitat values and hydrological characteristics of the river.

This power saga and struggle over water spans the different phases of water resource perceptions. Beginning with preliminary studies for the Tongariro Power Development in the early 1950s. Electricorps water right was granted under a 1958 Order in Council.⁸⁷ The 1960s was a time of economic prosperity for New Zealand and development continued. Diversion from the headwaters of the Whanganui

⁸³R Howie "Electricorp reveals why Low Flow means High Court" (February 1991) 2 *Terra Nova* 26.

⁸⁴The Planning Tribunal hearing lasted for 84 days. The Tribunal heard evidence from over 100 witnesses contained in 38 volumes of transcript together with several volumes of exhibits. See above n 82, 42.

⁸⁵See above n 1, 21.

⁸⁶The case highlights that the theme and underlying policy of the WSCA67 was to recognise a broad scope of the value of natural water which includes purposes for which a water-right holder may make abstractions, but which also includes, and places no lower value on, fisheries, wildlife habitats, wild, scenic and other natural characteristics, recreation, and other in-stream values. The Tribunal found the meanings advanced for Electricorp, by giving preference to one class of relevant consideration over others, incomplete and unsatisfying. See above n 82, 24.

⁸⁷The Order contained the wording "also to raise or lower the level of all or any of the said rivers, and their tributary lakes, rivers, and streams, and impound or divert the waters thereof". Such orders made during the 1950s and 1960s excluded the public in decision making and had little consideration of environmental and recreational values. This has been changed within the last thirty years. From K

catchment commenced in 1971. In 1977 NWSCA was asked to fix minimum flows as a result of concern. NWSCA adopted the report of the Rangitikei-Wanganui Catchment Board for a flow regime that expired in October 1988. Electricorp had for 18 years had been diverting substantial quantities of water from the headwaters and tributaries of the Whanganui and Whakapapa Rivers for electricity generation in the Tongariro power scheme and in the Waikato hydro stations.⁸⁸

B The Issues

This case stemmed from three appeals of the Planning Tribunal.⁸⁹ Issues in this case were over the meaning of "minimum acceptable flow" in s 20J of WSCA67. To determine whether a s20J determination can modify existing water rights. Section 20J states:

Board may fix levels, flows, and standards - The Board may from time to time, after consultation with representatives of all interested bodies and persons known to the Board, fix maximum and minimum levels, and minimum standards of quality to be sought or permitted for the natural water in lakes, both natural and artificial, and the minimum acceptable flow and minimum standard of quality of the natural water of any river or stream, and, where desirable, fix the maximum range of flow and arrange for the retention or disposal of surplus natural water.

Electricorp argued the Planning Tribunal got the law wrong. Electricorp sought the minimum acceptable flow of the past 18 years be restored. The Whanganui River Maori Trust Board sought the natural flow be fixed as the minimum acceptable flow. The High Court upheld the Planning Tribunal decision.⁹⁰

Chapple "Whanganui River Flows Coalition - The Final Report" in K Ombler (ed) *Whanganui River Annual 1992* (Friends of the Whanganui River, Whanganui, 1992) 29.

⁸⁸The Board recommended the flow regimes apply from 1983 to 1988. The Board wrote its report in response to concerns raised by a local canoeing group. See above n 82, 2-7 for discussion of the background to the case.

⁸⁹The appeals were made by Electricorp, and by the Whanganui River Maori Trust Board pursuant to s25 of the Act. The Minister of Conservation also made an appeal.

⁹⁰See above n 82, 9-10. That the *meaning* of "minimum acceptable flow" is:

[t]he lowest desirable flow of the water in the river or stream, below which it would be desirable to restrict or suspend abstractions authorised by law, and which is fixed after balancing all of the factors that are *relevant to the public interest*, including the benefits derived from abstraction, the requirements of *conservation* and recreation, Maori spiritual and cultural values, and the practicality of implementing

Electricorp was arguing that the importance of water rights should not be interfered with on basis of water conservation.⁹¹ This argument was based on past attitudes to water resources. The judgment against them signifies the change in valuation.⁹²

Electricorps basic argument that there was no restraint placed on the use of water is in line with the 1958 environmental thinking, which the court was no longer willing to accept.⁹³ Three decades of emerging environmental awareness have outdated this unrestrained attitude. As early on as 1964 this attitude required adjustment with assurances given by the corporation that flows will be maintained at a level to protect fisheries. Additional constraints came in deed form prior to and after commencement of operation. Further concerns in 1977 lead to these proceedings.⁹⁴

Electricorp illustrates the conscience of business has lagged behind public perceptions on preserving water resources. During an era where Electricorp made claims upon rivers that required protection because they were committing the nation to consumption through marketing. Electricorp stresses the importance of such a river for electricity generation to meet consumption needs. This raises the wider issue

various flow regimes. (emphasis added) Public interest now included conservation. Compare to above n 59.

With the *purpose* of fixing minimum acceptable flow as:

[t]he natural water of a river is the *conservation* of resources of natural water so that they are *protected* against harm and waste, and are available to meet as many demands as possible, so that their benefits can be enjoyed and shared by all interest to the best advantage of the nation and of the region in which they exist in the course of nature. The essence of it is *the conservation of valuable resources*. The demands, benefits, and interests which are relevant will vary from one case to another; but they will generally include *instream values*, and the *cultural values* of the tangata whenua. (emphasis added).

⁹¹See above n 82, 30. Electricorp argued that to decide as the Planning Tribunal did undermines and “devalues one of the basic planks of the Act which is issuance of water rights and the security given by the water rights for investment.”

⁹²The High Court notes as significant that the wording of s20J was materially identical to that of s14(3)(o) in the WSCA67. See above n 82, 21-22:

To my mind those amendments are significant and seem to spell out a legislative intention to promote the function of fixing flows in the overall scheme of the Act. Fixing a minimum acceptable flow is to look at a big picture of a river or stream and is a very different exercise or function from that of granting extractive water rights on an application by an individual. The legislation amending the original Act of 1967 has had in common with the action of water an accretive capacity which has widened the scope for interpretation and argument.

⁹³“A document [the 1958 order in council] produced 34 years ago in an entirely different age in respect to environmental and conservation matters and which preceded by 9 years major legislation”. See above n 82, 34.

⁹⁴See above n 82, 20.

whether energy conservation and efficiency issues should become a part of the balancing process⁹⁵ in decisions on what values should prevail.⁹⁶

2 *The High Court approach*

Jeffries J. interpretation of minimum acceptable flow is:⁹⁷

[t]he flow below which the consequences are unacceptable. The consequences are the several factors or considerations which dictate the meaning to be given to the word acceptable. I think they are the standard of quality, benefits derived from abstraction, the requirements of recreation, Maori spiritual and cultural value, the practicality of implementing various flow regimes and instream values not covered by any other specifics mentioned. The list is taken from the definition of the Planning Tribunal except I have added standard of quality and instream values but maybe others could be added. It is a negative approach to definition in that it is presumed at a given benchmark of flow the consequences are acceptable but the word governing flow is minimum, which is a downwards movement in quantity of flow and therefore at a point the consequences of the downward movement of quantity, by judgment of the decision maker, become unacceptable.

The High Court reaffirmed that the ultimate criterion for any decision is the public interest.⁹⁸ Electricity undeniably has a social benefit but must be undertaken in an environmentally acceptable manner. Added to this social benefit perception is the recognition that degradation of resources will cause the resource to become a constraint on future development. This is reinforced by Previous Tribunal cases which coincided with an increasing awareness of the restrictions on this resource.

⁹⁵P Horsley "Wanganui Flow-ons" (February 1991) 2 *Terra Nova* 15.

⁹⁶The decision is far reaching considering the importance to the wider population than the interests represented in this case. This involves considering wider policy implications of the decision. Policy concerns of what role a high-energy future has for New Zealand. The possibility that imposing limits on hydroelectricity due to cultural and recreational values will create an increasing need for fossil-fuels in electricity generation. The case leaves the issue of how seriously does New Zealand need a conservation based management of electricity. Stressing the interrelationship between energy and water as environmental issues in which any choice will dictate the strategy adopted both for energy and the environment. See J Sheldon "Sustainable Energy Paths" (February 1991) 2 *Terra Nova* 16.

⁹⁷See above n 82, 26.

⁹⁸See above n 82, 28. Jeffries J recognised that "[f]or a very large user such as Electricorp the benefits of its water right to produce a large percentage of the nation's electricity generation was of great and widespread value to the public interest." See above n 82, 30.

The Planning Tribunal adopted the standard approach practised under the WSCA67 and underwent a balancing exercise in weighing up matters to consider. Significantly the court was incorporating scenic values as important in the balancing of competing considerations. The issues raised in this case have become common place with another example of the same conflict of in-stream values and existing use rights in the Waiwakaiho River in North Taranaki.⁹⁹

The Court could comment on the WSCA67 with the benefit of hindsight in view of the legislative history of the Act with consequent amendments the Court could comment on the WSCA67. It recognised the apparent need in the 1970s for amendments to the principal Act to remedy apparent deficiencies in the WSCA67.¹⁰⁰

The court commented that:¹⁰¹

[a]fter long investigation into the use of water (one of this country's most valuable environmental features) the Act was passed in 1967. The long title states it is to promote a national policy in respect of natural water and because of the breadth of the legislative undertaking on such a complex subject it had to be regarded as experimental and subject to change in the light of experience.

The High Court saw water as a scarce resource with a shift away from the development focus of the 1980s. Since 1941 the incremental approach to water conservation had increased in complexity. An increase in public awareness of the management issues countered this. A reappraisal of perceptions of the resource meant water is no longer strictly seen in terms of use or the money it generates, but is valued for its mere existence.

In an interesting move the Court steps away from giving conservation the primacy it apparently had under the 1981 amendment for the outstanding characteristics of rivers.

⁹⁹Where the Regional Council attempted to quantify these intangible values, the river is significant for recreation and local Maori, against quantifiable hydro costs. The issue arose because of a plan to divert the river flow into Lake Mangamahoe for water supply and hydroelectric power generation. Heavy demands were placed on this river by diverse uses including water and electricity supply for New Plymouth and nearby areas, agriculture and horticultural abstractions along with disposal of industrial waste. From Anonymous "Waiwakaiho River Recovery" (February 1991) 2 *Terra Nova* 7-8.

¹⁰⁰"It might be conceded that the legislation is deficient in not resolving a situation in which a water right conflicts with the fixing of minimum acceptable flows under s20J." See above n 81, 31.

¹⁰¹See above n 82, 22.

It does not extend this primary conservation ethic to water bodies in general.¹⁰² The decision on the Minister of Conservation appeal illustrated that the Tribunal did not give primacy to the conservation of instream values. The Court affirmed there is no bias in the benefit-detriment test towards conservation.¹⁰³ It is a genuine balancing exercise.¹⁰⁴

3 *Maori cultural and spiritual values*

This case illustrates the inclusion of cultural values in managing this resource. Maori spiritual and other values associated with the natural environment were especially important in this case. This is conveyed by the Planning Tribunal findings that:¹⁰⁵

[t]he attitude of the Whanganui Maori is that the diversion of some of the headwaters of the Whanganui River takes some of the life of an ancestor, demoralises them, breaks the sacred affinity of the Whanganui Maori with the river, reduces its value and significance, breaches its spiritual integrity, disrupts its mauri, desecrates its sacredness and affects its capacity for healing”.... “Restoration of natural flows of the Whanganui Catchment would revive the mauri of the river, enhance the river’s effectiveness for healing and spiritual sustenance and remove a source of grief to the Whanganui Maori”.

A change in perceptions also traces a change in the importance of cultural views. WSCA67 did not give specific consideration to Maori values. Incorporation of these values could only occur as public interest. This improved with specific legislative

¹⁰²This primacy of environmental protection was however limited to the area of wild and scenic river protection. Also see above n 81.

¹⁰³See above n 82, 47:

The Minister’s argument is to place s.20J in the position of a legislative lodestar for the Act which if correctly interpreted is the expressed parliamentary intention to give primacy to conservation values and in the context of the Water Act to instream values. The argument is at its heart a back to natural and the natural flow of the river or stream, For myself I do not believe that was the intention of parliament when the section was first enacted and then moved in its position in the Act.

¹⁰⁴See above n 82, 47-48. “Likewise I would agree that s.20J in permitting the fixing minimum acceptable flows has a greater affinity with conservation and instream values than say Electricorps submission on purpose but I still cannot spell out of that the primacy which this appeal seeks for it”.

¹⁰⁵See above n 82, 12. This is supported by many similar statements in affidavits. For example, the statement from an affidavit of Chairperson Archie Te Atawhai Taiaroa of the Whanganui River Maori Trust Board:

Wanganui iwi are the rangatira and kaitaki of the Wanganui River. The iwi have been vigilant in their role as rangatira and kaitaki from mythological times to modern times and will continue to protect and care for their River. It suffices to say the future of the River is a matter of very substantial concern to Maori in this region.

recognition¹⁰⁶ requiring consultation with tangata whenua, and taking into account of Maori spiritual, cultural and traditional relationships. The case applied in this case was *Huakina Development Trust v Waikato Valley Authority* [1987] 2 NZLR 188.¹⁰⁷ The Court held that the balancing exercise undertaken when issuing water rights must take into account the existence of spiritual, cultural and traditional relationships of Maori people and natural water.¹⁰⁸

VIII TOWN AND COUNTRY PLANNING ACT 1977

This Act illustrated that an integral part of management is planning.¹⁰⁹ The purpose of planning was the wise use and management of resources. Perceptions of this resource now displayed the importance of planning and assessing long term effects. Conveying that management responds to the increasing knowledge and understanding of a resource. The effectiveness of this management involved co-ordination of land use planning, water, and soil resource planning.

The principles and objectives of the 1967 and 1941 Acts were expressly tied to this Act through s4(3). Giving both Acts complementary parts in addressing the increasing pressure on resources. This specific reference to the WSCA67 gave new key words of "wise use" to influence the management of water resources under s3(a) and (b). This built on the acknowledgement of the interrelationships of land and water processes. It provided for the interaction of water with land use in planning to give consistency in management. Such a focus on planning gave the potential for more restraints to be placed on water resources over this time. Public pressure during the 1970s in response to the visual degradation of the environment demanded such

¹⁰⁶Because of the operation of the Treaty of Waitangi Act 1975, the Waitangi Tribunal interpretations of the Treaty, and the TCPA77.

¹⁰⁷In this case the Huakina Development Trust objected in the High Court to the discharge of dairy shed effluent into the Waikato River because it would prejudice a tribal resource which gives spiritual and physical sustenance.

¹⁰⁸This is a big change from the decision of *Minhinnick v Auckland Regional Water Board* Decision A116/81 16 December 1981 in which the Planning Tribunal held it could not take into account cultural, spiritual and metaphysical concerns of Maori in relation to waters. See *Huakina Development Trust v Waikato Valley Authority* [1987] 2 NZLR 188, 227.

restraints. But these restraints faced the obstacle of promoting both regional development and wise use.

Different situations arose after this enactment that showed the main constraint on planning is a lack of knowledge due to the short history of human occupation in New Zealand. A short record involves estimating where that record is likely to fit into long term patterns to predict impacts. It is hard to plan for what you have not experienced yet. The Roys Hill landfill is a lesson learnt about understanding the processes within the environment. The old landfill was an a major issue in the 1970s because it sits above a recharge zone for the Heretaunga Plains aquifer, and posed a significant planning problem.¹¹⁰ In the case *Hastings City Council v Simons* [1984] 2 NZLR 502 the Council was prosecuted because it had discharged waste, leachate, into natural water contrary to s34(1)(b) of the WSCA67. This case was indicative of the way the courts were approaching the quality of water issue by highlighting the importance given to maintaining quality. It emphasised the necessity of knowledge, the importance of planning and understanding how the resource works, along with the environment in which it exists.

The TCPA77 also involved people in policy and is important for moving from a monocultural view of management.¹¹¹ It gives recognition of Maori concerns both generally and specifically. Section 3(g) recognised the relationship of Maori people

¹⁰⁹The long title states “[a]n Act to consolidate and amend the law relating to the preparation, implementation, and administration of regional and district planning and to make provision for maritime planning”.

¹¹⁰The landfill was established over wasteland and excavated to a depth of eight metres which meant it could pollute the underground water system. During winter the water table came up into the rubbish and generated a large volume of leachate which returned below the surface in summer. Recognition of groundwater contamination prompted the landfill’s closure and legal action against the Hastings City Council. Today, the old landfill gives rise to issues like whether the problem is as bad as perceived, and whether the leachate may have a preferred path which is difficult to detect, or is the problem simply a sampling problem. The new landfill was constructed at Omarunui and is the only disposable site on the plains. After an eight year process, planning approval eventuated along with a properly engineered disposal site. The landfill now sits above a 600 mm thick permeable layer of clay. Any leachate moves into underlying drains and leakage can be detected. There is debate as to the effectiveness of this layer because the new landfill was used before site preparation had finished. The leachate pond is lined and 1500 cumecs/year is lost through evaporation. The sides of the landfill intercept rainfall while organic materials hold water before releasing it. Future management issues of the new landfill area include whether there are commercial quantities of methane and the planting trees to act as a carbon sink. The complicated need to control the amount of water in the landfill because of the problem of leachate and need for the presence of some water for processes to take place.

and their culture and tradition with their ancestral land, as a matter of national importance.

IX TREATY OF WAITANGI CLAIMS

Maori views on water resource management received a lot of attention largely because of the role of the Waitangi Tribunal in raising public awareness during the 1980s. The Tribunal made recommendations which implored water management agencies to consider Maori cultural and spiritual values. Claims to the Waitangi Tribunal questioned government management of the resource on the grounds of continual degradation of the resource. These claims illustrated the relevance of Maori rights and values. An example of this is the Kaituna claim which indicated the presence of a valuable yet largely ignored Maori perspective. The Ngati Pikiao tribe objected to the discharge from Rotorua Waste Water Treatment Plant as a result of a proposal to discharge sewage effluent into the Kaituna river. Objections were raised on medical, social, spiritual and cultural grounds. The Tribunal concluded that the whole water system should be seen as one complete entity. All parts deserve protection from contamination and deterioration, especially by sewerage effluent. The proposed discharge would contravene the spiritual and cultural values of the Ngati Pikiao, and have detrimental effects on fishing and plant resources in the area. The Tribunal found that ownership of the River was still with Ngati Pikiao. This ownership carried with it certain traditional rights as part of taonga to Maori, like fishing rights.¹¹²

The Tribunal found the WSCA67 failed to recognise the provisions of the Treaty of Waitangi. The WSCA67 should be interpreted as consistent with the TCPA77 which had such provisions referring to Maori cultural and spiritual concerns. The Kaituna claim brought Maori approaches to water management into the public mindset. It also indicated that where possible appropriate waste disposal methods more consistent

¹¹¹"Within the Planning Act there is, therefore, a significant degree of statutory material to preserve Maori values." From *Huakina v Waikato Valley Authority* see above n 108, 211.

¹¹²Resource Management Law Reform Core Group *Waitangi Tribunal Findings Analysis - Working Paper No9 Part I - Manukau Claim, Orakei Claim, Kaituna Claim, Te Atiawa Claim, Waiheke Claim, Te Reo Claim*. (Ministry for the Environment, Wellington, July 1988) 11.

with Maori methods of waste disposal should be utilised. This idea of waste disposal coincided with awareness during the 1980s of improving sewage treatment and disposal. This was an important shift from the 1950s 'out of site out of mind' attitude when sewage was simply discharged into waterways and oceans without treatment. In the Te Atiawa¹¹³ and Kaituna claims the Tribunal made findings directed primarily towards the restoration and protection of the environment.¹¹⁴

A historical classification system for water evolved according to the Maori perspective on water resource management. Customs based on values, beliefs and attitudes created this perspective.¹¹⁵ This system comes from the Maori world view in which:¹¹⁶

[t]he natural world of the Maori was not divided into seen and unseen parts, but the physical and spiritual dimensions formed an integral and indivisible entity. That perspective dominated from the beginning and provided the foundation for later environmental controls.

The monoculturalism and other inadequacies of the principal Act were the subject of statutory reviews throughout the 1970s and 1980s¹¹⁷. Later amendments reinforced the overall aim of bringing matters concerning water resources within the ambit of one statute. The result of attempts at legislative consolidation was the draft Water and Soil Bill 1986. This Bill included provisions for considering Maori values. It also included a list of valued water bodies as a schedule of protected waters to strengthen the commitment to conservation shown under the 1981 amendment. In addition the preparation of management plans received the statutory backing that was lacking under 1967 legislation. The preparation of plans, to anticipate conflicts and allow appropriate responses, were not a statutory process under the principal Act. These plans anticipate conflicts and allow appropriate responses. Accordingly parts of this

¹¹³Te Atiawa fought discharges from the Motonui synfuels plant in Taranaki because of pollution to off-shore fishery reefs.

¹¹⁴See above n 112, 3.

¹¹⁵This system begins with *Wairoa* which is the purest form of water. Water becomes *Waimaori* when it has lost its spiritual purity through contact with humans, and is for normal use. *Waikino*, taken in a spiritual sense is water which has been spoilt or polluted. *Waimate* is water which has completely lost its mauri, it is both physically and spiritually polluted, and can no longer sustain life. From Manatu Maori *Maori values and environmental management* (Ministry for the Environment, Wellington, 1991) 5.

¹¹⁶Waitangi Tribunal *Finding of the Waitangi Tribunal on the Manakau Claim* Wai 8 (Government printer, Wellington, 1985) 54-55.

¹¹⁷See above n 80.

draft Bill were incorporated in the RMA91.¹¹⁸ The Bill continued to link landuse planning and pollution control to water.¹¹⁹

Other legislative enactment's of the time reinforced the additions of a multi-cultural perspective made under the Bill. The Environment Act 1986 specifically recognised Maori values and intrinsic values. Section 4 of the Conservation Act 1987 took this a step further by requiring an affirmative obligation. In 1987 the government began to reorganise the public service which inevitably affected water resources.

A year later Sir Geoffrey Palmer's drive for a review of resource management legislation illustrated political support for sound environmental laws. This comprehensive review process resulted in the enactment of the most recent of reforms to managing water resources, the Resource Management Act 1991.¹²⁰ Another important development at this time was the promotion by the Bruntland Commission in its final report *Our Common Future* (1987) of the concept of sustainable development. Further international innovations like the Rio Declaration and Agenda 21 stressed that environmental problems transcend national boundaries. This incorporation of an international dimension into New Zealand's water resource management undeniably had a significant impact on the framing of the Resource Management Act 1991. The ultimate constraint in use of water resources has become future generations. The perception of water resources now includes the notion of intergenerational equity.

¹¹⁸The RMA91 specifically retained the classification scheme, recognition of Maori values introduced to this Bill, minimum flow schedules, and provisions for water conservation orders.

¹¹⁹Ministry for the Environment *People, Environment and Decision-making: The Government's proposals for resource management law reform* (MfE, Wellington, December 1988) 37.

¹²⁰The long title states the RMA91 is "[a]n Act to restate and reform the law relating to the use of land, air, and water."

X RESOURCE MANAGEMENT ACT 1991

A *Aspects of the Resource Management Act 1991*

The RMA91 is the latest step in the chain of centralised regulatory statutes controlling water resources. The RMA91 as a consolidation of previous environmental statutes introduces the underlying concept of sustainability. It created a complete code for water management. The exclusion of ownership issues from the RMA91 restricted the Act to addressing management. The object of this Act is to ensure “better environmental outcomes”.

1 *A new focus on effects*

The RMA91 is effects based legislation. This is a different focus from previous statutes based on zoning provisions of uses. This new approach in management prevents damage before it occurs instead of trying to remedy it later. Effects are an essential criteria, acknowledging that prevention is the best option, with adverse effects being avoided through careful planning. The Act ensures that users take responsibility since their use will affect others.

Management of the resource now incorporates the precautionary principle. Unlike classification standards of the WSCA67, the RMA91 puts this principle into operation by limiting the effects on receiving waters instead of allowing impacts up to a certain level. The RMA91 continues, with controlled activities, the controlled use concept of the TCPA77. Subsequently because the RMA91 is primarily effects orientated legislation it moves away from the “control and direction” under s4(1) of TCPA77.

2 *Administration*

For the administration of the Act, New Zealand was divided into water-shed defined regions as the political jurisdiction for water management decisions.¹²¹ Management based on any other boundary system would be inadequate for dealing with all the ecological issues which arise. The boundaries invented by legislation cannot disregard the fundamental aspect of an environment. This aspect is the interrelationship of the entire environment which is not divisible by boundaries. Water systems do not work or adhere to political or human boundaries. A catchment wide approach allows for holistic consideration of natural processes which define the environment. This approach attempts to understand a system for the safe use and adequate care of a system.

The other important administrative change under the Act was the creation of Regional Councils responsible for the management of water resources under s68. The councils took over the functions of catchment boards and regional water boards.

3 *Integration*

The theme of integrated management runs through the Act. An approach which illustrates a partnership based on co-operation and not domination manifests this notion of integration. This integrated approach is an intensification of the policy under the WSCA67 which aimed at a co-ordinated framework for management of soil and water.¹²² Sustainable management requires information and participation at all levels to integrate management practices. This information consists of statistics, modelling and details on practices to fulfil obligations under the RMA91.

¹²¹L. Burton and C. Cocklin "Water Resource Management and Environmental Policy Reform in New Zealand: Regionalism, Allocation, and Indigenous Relations Part II" (Summer 1996) 7(2) *Colo.J.Int'l Env'tl. L. Pol'y* 333, 367.

¹²²See above n 44, 18.2.

The extensive consultation processes within the Act recognise that development of natural resources is involving the government more deeply in the lives of people. This creates the need for public understanding and co-operation. Active participation implies a right to be heard on environmental issues. Thus consultation is central to the administration of the Act. The High Court decision in *Air New Zealand Ltd v Wellington International Airport Ltd* Unreported, High Court Wellington Registry, CP403/91, 6 January 1992 defines consultation. "Consulting involves the statement of a proposal not yet finally decided upon, listening to what others have to say, considering their responses and then deciding what will be done".¹²³

Inherent in the consent process established under the Act is the concept of consultation and respect for the resource and people involved. The RMA91 continues to strengthen the ethical and spiritual dimension of environmental issues through s8 which gives specific reference to the principles of the Treaty of Waitangi.¹²⁴ The recognition of Maori values already existed under previous legislation but the RMA91 continued to update this multi-cultural perception of management. The role of the Waitangi Tribunal as indicated earlier was instrumental to the genesis of the Resource Management Bill in this respect.

The case law developing under this Act is endeavouring to apply this multi-cultural perspective. In the case of *Managakahia Maori Komiti v Northland Regional Council* [1996] NZRMA 193 the court had to take into account and balance conflicting values. The court commented that the individual contents of Part II of the Act were not absolutes to be achieved at all costs. The provisions protecting the

¹²³Comments by McGechan, J. in *Air New Zealand Ltd v Wellington International Airport Ltd* Unreported, High Court Wellington Registry, CP403/91, 6 January 1992 7-8. Genuine consultation involves providing sufficient information to the consulted party, allowing sufficient time for participation and consideration of the information, and keeping an open mind when considering.

¹²⁴Also s6(e) recognises the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga as a matter of national importance. This is broader than s3(1)(g) of the TCPA77.

interests of tangata whenua must be considered against other provisions in judgments about which consideration will yield and to what extent.¹²⁵

Another recent decision *Te Runanga O Taumarere v Northland Regional Council* [1996] NZRMA 77 illustrates the importance of involving tangata whenua in resource consent process. This appeal focused on a proposed effluent discharge from a treatment plant into a catchment and natural wetland. The Court found that the principle of active protection under s8 was not met by the Council. This goes some way to reaffirming the significance given under Part II to Maori interests.¹²⁶ It gives foundation to the view that the RMA91 is a move away from an anthropocentric to an ecocentric system, more like what the Maori have always possessed. Achievement of this system is by recognising Maori spiritual heritage and incorporating the concept of stewardship. The inclusion of terms like "mauri" and "wairua" illustrate Maori as custodians to protect the life-force of water.¹²⁷ This strengthens the perspective of water resources is now multi-cultural.

5 *Relationship of the Resource Management Act 1991 to the Water and Soil Conservation Act 1967*

The RMA91 retained some features of the WSCA67 because they work to ensure efficient allocation for present and future generations. Sections 14 and 15 retain the conceptual structure of the WSCA67, replacing water rights with permits under s87(d). A prohibitive regime applies to water. Under s14(3) all activities are prohibited unless expressly allowed. Section 15 relates to water quality issues by

¹²⁵See *Managakahia Maori Komiti v Northland Regional Council* [1996] NZRMA 193, 217. Although this appears to be reinforcing the special place Maori values have in managing water. This decision could be taken to mean that the Planning Tribunal approved of the farmers right to irrigate pasture in order to enhance efficiency of dairying facilities rather than making a finding on the question of whether pasturage irrigation was an efficient use of a finite water resource. In this way the court dismissed Maori cultural views as deserving no special merit. This view was expressed in see above n 121, 368.

¹²⁶"That those matter deserve more than lip-service but are intended by Parliament to affect the outcome of resource management in appropriate cases is evident from the primacy given to Part II in the Act, and in the strong language of its contents". See *Te Runanga O Taumarere v Northland Regional Council* [1996] NZRMA 77, 95.

¹²⁷D Young "Spirit of Place" (December 1990) 1 *Terra Nova* 41-42.

providing strict provisions for discharges. The RMA91 retains and strengthens water conservation orders under ss199-217 but still does not give clear protection to the land surrounding a water body. But there is no longer any restriction on who can apply for these orders. Also the RMA91 expands the range of bodies covered by conservation orders, to include wetlands and aquifers. The RMA91 imposes fixed time limits to water permits of a maximum 35 years and phases out existing use rights. Water classification is also retained as a management tool.

The statutory definition of sustainable management in s5 acknowledges that management occurs in the context of people providing for their needs. Taking into account social, political and economic dimensions. Promoting sustainable management requires a positive and forward looking approach that takes on practical meaning through policies, plans and resource consents.¹²⁸ Regional policy statements and plans are vehicle for policies, objectives and rules. There exists a possibility, as yet unfulfilled, of making national environmental standards for this resource under s43(1)(a)(iii). There is a hierarchy of management documents¹²⁹ inviting construction of clear policy statements and plans encouraging a strong commitment to sustainability in the management of water resources. The RMA91 continues the effect of vesting rights to water in the Crown under s 354(1)(b). The Act also continues transferability of water rights to a limited degree under ss135-137. The provision in s17 implies a general duty to avoid, remedy, or mitigate adverse effects which raises standards by making polluters accountable. Accountability also occurs through the employment of the best practicable option to deal with pollution problems by assessing the benefits of other options, the cost to polluter, and the nature of the pollution.

The most significant divergence from the WSCA67 was the shift from a multiple purpose. The RMA91 has a single overriding purpose of sustainable management under s5. This is more in line with the 1981 amendment to the WSCA67 in that a

¹²⁸C Barton "Not just an add-on" (March 1993) 109 *Planning Quarterly* 18.

¹²⁹This hierarchy includes under s45 National Policy Statements, s56 New Zealand Coastal Policy Statement, s59 Regional Policy Statements, s63 Regional Plans, and s72 District Plans. These planning instruments must be consistent with one another in a descending fashion and must achieve the purpose of the Act.

clearer focus for management is meet by a single purpose. Sustainable management is an important objective for any region that has localised variations in hydrological characteristics. It is a long process that involves meeting diverse and competing demands for water. The future development of these relates directly to the supply of water. The two fundamental characteristics of water management, quality and quantity, dictate this in turn. Implying that environmental protection should be an essential part of the development process. But conflict is indicative of a feature of water management and the RMA91 will only minimise not eliminate this conflict.¹³⁰

B *Approaches to the Resource Management Act 1991*

The debate as to the meaning of sustainable management continues. Different approaches have emerged when resolving issues under the interpretation of s5. The Act itself is the best place to start for a definition of sustainable management and its implications for water issues within New Zealand.¹³¹

The first approach limits sustainable management to ecological matters. This approach is the perception that the Act provides a *new* process for the management of water. The Act is suppose to be based on minimalist intervention. Achieving sustainable management through the allocation of resources in public ownership and by limiting the adverse environmental effects of the use of natural and physical resources.¹³² The debate is over the meaning of the word "while" in s5(2). According to this view the matters in s5(2)(a), (b), and (c) must be secured regardless. This introduces the concept of environmental bottom lines¹³³ as the cornerstone of managing water resources.

¹³⁰T Robinson "Conflict: inevitable factor in use and protection" (April 1993) 29(4) *New Zealand Local Government* 14.

¹³¹Under the Environment 2010 Strategy sustainable management is a principle which means the use of natural resources should be carried out in a manner which sustains the resources and services that society values. From Ministry for the Environment: *Environment 2010 Strategy* (MfE, Wellington, 1994) 11.

¹³²(1991) 516 NZPD 3018.

¹³³Environmental bottom lines are the operational expression in biophysical terms of the principle of sustainable management. See above n 131, 8.

The second perception is that sustainable management requires a balancing approach in the face of increasing competition for a region's water resource.¹³⁴ This approach is most similar to the benefit-detriment era under the WSCA67. It is a continuation of past management approaches which also strove for a balance between consumptive and non-consumptive use. It balances ecological considerations with social, economic and cultural considerations. The final approach is a middle ground that gives priority to ecological factors but evaluates social, economic and cultural considerations if ecological requirements are satisfied.¹³⁵

First and foremost sustainable management of the water resource entails a sound understanding of the resource. Embodying the basic concepts and notions that sustainable management requires information of the resource, usage, constraints now and in the future, development options and an appropriate management system. An example of the importance of information in management is under s35 which requires that councils obtain adequate information. Sustainable management also recognises the close relationship between land and water use needs. An increase in population presents the issue of future demands and pressure. The RMA91 addresses this issue by bringing in the concept of future generations. A change aimed to actively encourage conservative water use.

In the case *New Zealand Rail Ltd v Marlborough District Council* [1994] NZRMA 70 Judge Treadwell wrote that the RMA91 did not define adverse effects. Although he accepted evidence that certain changes had occurred as a result of fast-ferry operation, these had now being stabilised. To stop the ferries, or even slow them in the Sounds, would be to set in train a new equilibrium. The significance of this legal conclusion, that there was not an adverse impact because it created a new equilibrium,¹³⁶ will be felt in water resource management. This sustainable management must now include the notion that the balancing exercise not only continues in an attempt to reach an

¹³⁴This approach appears to be adopted currently by the Environment Court. See the decision of *North Shore City Council v Auckland Regional Council* [1997] NZRMA 59, 94.

¹³⁵See B Pardy "Planning for Serfdom: Resource Management and the Rule of Law" [February 1997] NZLJ 69, 70.

¹³⁶Anonymous "Act of nature" (May 1997) 359 *Consumer* 11-15.

equilibrium between uses but also seeks to ensure an equilibrium within the environment.

The current interpretation adopted by the Environment Court of sustainable management provides for economic development as well as other considerations¹³⁷. It leaves unresolved the issue of what economic interests will outweigh other non-market interests. These unresolved issues involve an analysis similar to that under the WSCA67 benefit-detriment era.

Although uncertainty remains it is firmly established that sustainability involves giving nature some moral consideration with a shift from an exploitative world view. As the Whanganui River decision illustrated a purely economic approach will eliminate parts of the ecosystem that do not have a commercial value. So the recognition of intrinsic values means humans have to justify their intervention in the environment. That evokes an ethical obligation to nature. The provision for intrinsic values gives the environment a fair weighting in the balancing exercise.¹³⁸

XI TODAY'S ISSUES

All issues concerning the management of water resources return to the basic question of how do you value water. This is implicit in the continuing clash between market and non-market valuation of uses. A balancing of economic considerations with protection of resources continues under the RMA91. The question remains are we facing the problem?

There is increasing interest in the role of privatisation and economic instruments in managing water resources. This raises the issue of the success of divorcing management from ownership. Uncertainty remains over the role of the state as it

¹³⁷See above n 134.

¹³⁸"Intrinsic value recognition is the key component to introducing an ecocentric perspective where attention shifts from human and cultural affairs to the affairs of the planet Earth as a living system of interdependent species. This value shift, embedded in the sustainability debate, is crucial if we are to

increasingly withdraws as a key player under privatisation. This involves an evaluation of the power of the market to determine environmental management decisions. Economic instruments use pricing mechanisms to achieve an agreed resource management objective.¹³⁹ For example, using economic tools like tradable ownership rights and compensation payments to influence environmental outcomes. This promotes the idea of paying to avoid pollution and not been able to pay for the right to pollute. One example of an economic instrument is the metering of water. This is aimed at reducing consumption through making consumers aware of how much water they consume by making them pay for it. But these instruments must overcome a broad public perception that for every individual who favours the market there is an individual that finds the idea of selling the use of waterways appalling. With a middle ground emerging that New Zealand should use both economic instruments and regulation. Since the degradation of water resources has continued, because regulation alone has relied on balancing to prevent degradation.

This relates to the broader issue of water as a strategic resource. This creates the potential of exporting pure fresh water from New Zealand to countries with poor performing economies. These poor performing economies are not environmentally friendly which conveys the relationship between environment and economy.¹⁴⁰ Production techniques must be in harmony with natural systems to protect human health and the environment. New Zealand has gained a reputation of clean and green. There is an issue over how much value we place on this image and the marketing edge of clean and green. The glossy tourist brochures with pictures of clean, free-flowing rivers are icons of New Zealand's natural features. The search for a green economy creates these images. Images which can either be taken for granted or form a perception founded in reality.

There exists a pressing issue of controlling non-point sources of contamination that tarnish this clean and green image. This has implications for water quality issues facing New Zealand today. Quality issues involve the problems of leaching of

face a civilised future". From P Horsley "Intrinsic values, Ethics, and the Law" (April 1991) 4 *Terra Nova* 37, 38.

¹³⁹G Salmon "First Steps to a Green Economy" (September 1991) 9 *Terra Nova* 35, 37.

¹⁴⁰R Kerr "The need to start over" (December 1990) 1 *Terra Nova* 25.

fertilisers into waterways, and remnants of by-gone timber treatment sites and mining. A legacy of toxic waste from industry exists. A prominent example is the possible 600 pentachlorophenol contaminated sites around the country that need to be cleaned up and invoke the difficult issues of liability and funding.¹⁴¹ Another illustration of non-point source contamination is urban stormwater runoff, a product of the urban environment which degrades the quality of waterways. Highlighting the need for awareness amongst the general public that everyone is contributing to this problem. One example of this is the presence of lead pollution from heavy traffic in waterbodies such as the Tamaki estuary. The need for recognition that responsibility for water pollution lies with the entire nation not only the 'villains' of industry.

An associated issue is the power and role of positive public pressure on water quality issues. For example, Moa Point illustrating the increasing cost and complexity of treatment and disposal involved with upgrading sewage. Also, issues of water availability still exist which was evident by the 1994 water crisis in Auckland. This municipal consumption caused a water shortage that became a challenge to the RMA91 with the emergency proposal to construct a pipeline to transport water from the Waikato River to Auckland.

Many other issues still remain concerning the present perception of water resources and the consequent management of valuing use and attributes. Incompatibility and conflict result from quality and quantity issues re-emerging in the context of today's environment.¹⁴²

¹⁴¹M Szabo "New Zealand's poisoned paradise" (31 July 1993) 139 *New Scientist* 29-33

¹⁴²See Figure 1.3 in Appendix 1 for a diagram of the issues of sustainable management concerning water resources in New Zealand.

XII SUMMARY AND CONCLUSIONS

The evolving perception of water resources is a reflection of a change in the way we think, value and behave. As ultimately any damage to this resource stems from peoples' values and beliefs. Only time will determine whether the present legislative regulatory regime is enough to ensure successful management of the resource. The difference between what is within the legislation and what happens to the quality and quantity of the resource in practice, will be an important reason for future change.

Land and water are precious assets to New Zealand. Human modifications have caused irreversible changes to water systems through the positive and negative impacts of occupation. The different phases of regulation under legislation have been refining the concept of management as a response to valuing water resources. New Zealand legislation shows how a comprehensive management approach develops over time.

The different regimes of regulation are a centralised approach of government intervention. The shifting focus of management reflects a fundamental change in perception of the resource. The legislation has changed focus, simply summarised by the key words in titles of subsequent statutes. Management has moved from "control" to "conservation" into the current "management" phase. There has been a progression in determining what constitutes management of the resource. Control and conservation are specific attributes of the broader management concept. The perception and subsequent treatment of the water resource has gradually drawn together different aspects that make up management - control, planning, foresight, consideration, and sustainability. Legislation has also stressed the interrelationship between land, water and government.

Water resources have for a long time been taken for granted. Frequently people have underestimated the value of this part of New Zealand's heritage and the environment. Progress over time has been positive in recognising the magic inherent in water. The early legislation focused on the problem of dealing with extremes as a constraint on management. The dawning of a more comprehensive management system came with

the realisation that short term economic use of the resource acts as a constraint when considering the long term benefits. The WSCA67 dealt with deteriorating water quality from unsustainable land use practices and inadequate treatment or disposal of industrial and agricultural effluent and urban sewage. The RMA91 reinforces that inefficient use of water can reduce quality and quantity below environmental bottom lines.

The binding thread of balancing has filtered through each piece of legislative manoeuvring. Balancing conveys the idea that management is about compromise. The case law has developed into trade-offs between economics and the environment. Showing management as value judgements on competing uses, deciding whether development or conservation will prevail in each individual case. The courts have played a role in supporting environmental reforms to water resources based on political and public shifts in perceptions. The perception and consequent legislative initiatives respond to these contemporary influences.

It has taken New Zealand thirty years to arrive at an era of integrated management. The law governing water resources aims at sustainable management. This management involves balancing the inflows and outflows that will affect future policy and the patterns or rates of growth of different landuses. The general public recognises that the regional and national economy needs to utilise water resources to grow and for industry to continue. This perception incorporates the importance of protecting environmental qualities that will shape urban development. This introduces the interrelationship of how population and economic growth will affect the management of water resources.

Sustainable management involves the adoption of strategic planning - establishing a vision and long term direction of key issues of quality and quantity. Future management will use improved information to better allocate the resource. To effectively manage the water resource you must understand it and the landscape in which it exists. Only with this understanding can you create a management system to fit.

TABLE OF CASES

Management is a deceptively neutral term. It is illusory that resource decisions are value free. Human values change, they are short term in nature, which is the most significant difficulty in appraising a resource that is supposed to be long lasting in nature. The answer to salvaging New Zealand's water resource lies in remembering the fundamental basic values inherent in knowledge and foresight. Management must perceive that the water resource is not the only resource striving for attention, it is one part of a complex environment.

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APPENDIX ONE

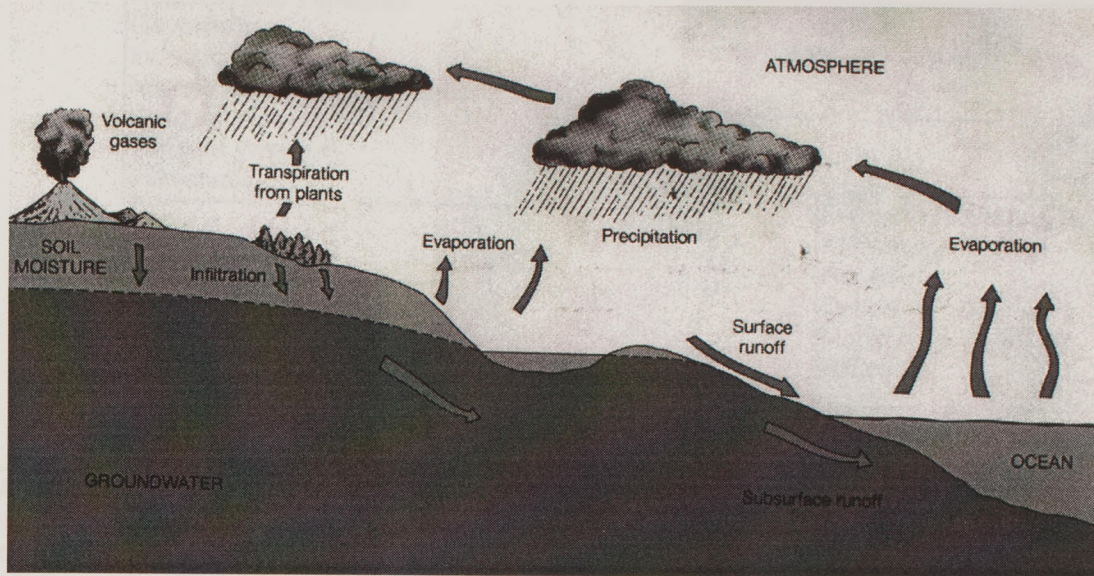


Figure 1.1 Principle processes and reservoirs of the hydrologic cycle.
(Source: CW Montgomery *Environmental Geology* (3ed, Wm.C.Brown Publishers, United States of America, 1992) 118.)

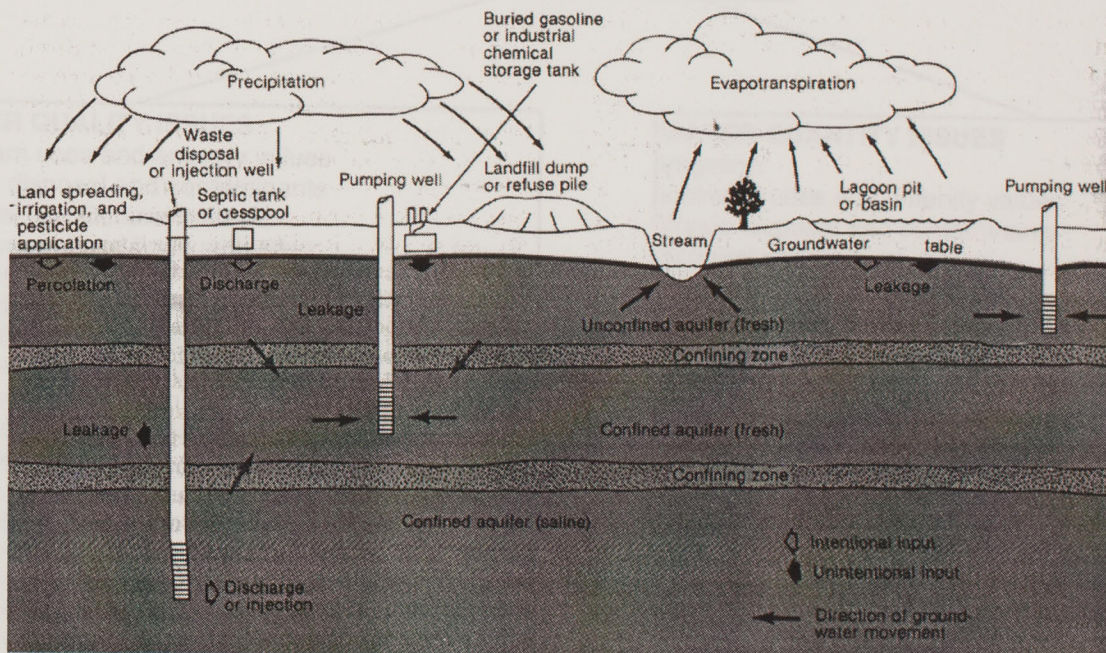


Figure 1.2 Sources of ground water contamination. Normal groundwater flow carries contaminants from surface sources such as landfills and subsurface sources such as septic tanks into aquifers.
(Source: F Press and R Siever *Earth* (4ed, W.H. Freeman and Company, New York, 1986) 170.)

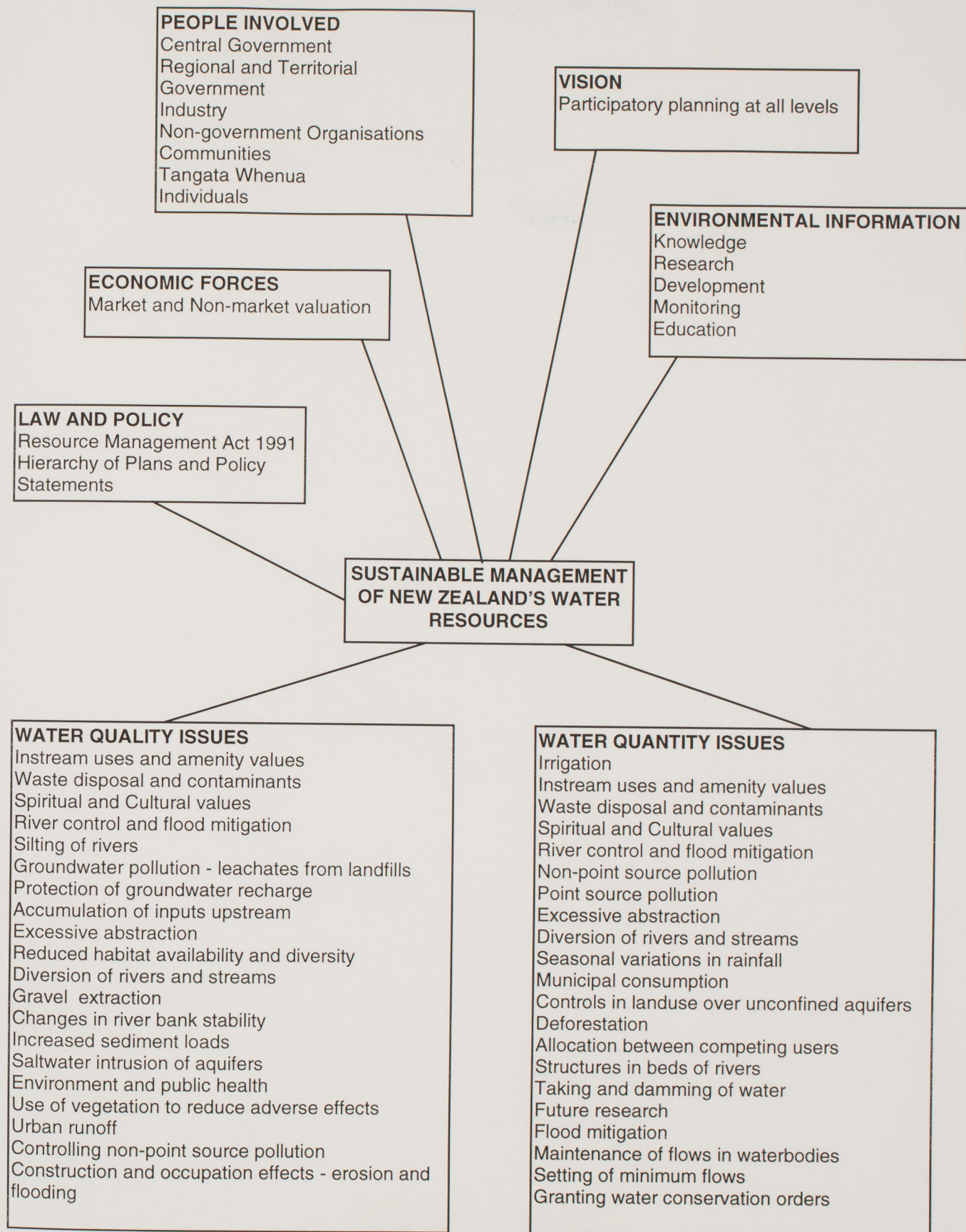


Figure 1.3 The aspects of sustainable management concerning water resources in New Zealand.

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