

**NIPIY WASEKIMEW / CLEAR WATER:
THE MEANING OF WATER,
FROM THE WORDS OF THE ELDERS**

**THE INTERCONNECTIONS OF HEALTH, EDUCATION,
LAW AND THE ENVIRONMENT**

**by
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**THESIS SUBMITTED IN PARTIAL FULFILMENT
OF THE REQUIREMENTS FOR THE DEGREE OF**

DOCTOR OF PHILOSOPHY

**Under Special Arrangements
Faculty of Education**

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SIMON FRASER UNIVERSITY
Summer 2008**

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ABSTRACT

The meaning of water is the theme of this doctoral research from an Indigenous perspective. The study gathered traditional knowledge from the perspectives of three Elders from three different nations, the Cree, Nuu-Chah-Nulth, and Maori. The Elders' knowledge and teachings were compared and contrasted and then correlated with scholarly literature. The purpose of the research is to find ways to protect water, encourage the sharing of traditional knowledge when appropriate, enhance community education and assist in policy development.

Water is essential to life on Earth. This thesis is about listening to Elders' teachings about water. It is about hearing from Elders who have an understanding of relationships between the elements and the relationship of humanity to all other life forms. Maori *kaumatua* (Elder) Huirangi Waikerepuru and the author developed an Indigenous model showing how health, education, traditional law and the environment are interconnected by water. Water is understood to be the physical manifestation of spirituality (Waikerepuru, 2001). In this doctoral study, Indigenous Elders were interviewed. Audiotapes of the interviews were then transcribed. A qualitative content analysis identified Indigenous principles about water and highlighted similarities and differences in the meaning of water between three Elders from the three nations. Meanings were drawn from words of Elders; the Elders' interviews were compared to find similarities and differences. After identifying the meanings and priorities from the Elders, a selection of Indigenous and western scholarship was surveyed. Comparisons were drawn between the scholarly literature selected and the specific interviews. After the content analysis, a curriculum for community workshops and schools was developed to consider the application of emergent themes. Community based water policy development, and recommendations for improvements in the delivery of health, education, specific environmental legislation and policy recommendations resulted from the workshops. The outcomes of the research are described in the education model developed and the formation of a non-government organization that links traditional Elders and their communities with clean energy technologies.

DEDICATION

This thesis is dedicated with love to the children of the world and to future generations.

It is also dedicated with love and gratitude to the Elders: late Elder Sandy Beardy, Te Huirangi Waikerepuru, and Chief Simon Lucas and their families, for their generosity, caring and sharing, and with a deep appreciation to all of the people who walked before them.

To all of the plants and animals: a wish for our collective survival, in honour of our uniqueness and diversity.

To my mother and father, for their unfailing love and support, and to my children, Peter and Amy, for their understanding, encouragement and love.

ACKNOWLEDGEMENTS

Thank you to the Creator, who gives us water, who gives us life.

Thank you, to all the Elders and chiefs:

To the late Sandy Beardy, thank you for your words of wisdom and encouragement. I love the stand that you have taken. Thanks to the late Peter O'Chiesse, who was such an inspiration and an example by how he lives. Thanks also to Peter's wife Jean, whose wisdom and knowledge about tradition is a source of strength, whose friendship I treasure. A special thanks for the support and encouragement of Grand Chief Sydney Garriock, and to the special contributions of Elder Gideon MacKay.

With thanks to Chief Simon Lucas, in acknowledgement of your commitment to your people and for all the work that you have done over the years to protect the ocean. To Chief Hudson and his wife Janet Webster, my thanks for your steadfast friendship.

To Te Huirangi Waikerepuru, thank you for the blessing of your friendship. Arohanui! Thanks to you and all of your whanau! Thanks to all of your mokopuna, and to Te Ha Mahana. This work would not have been possible without your encouragement and support.

With love, appreciation and admiration to Motarilavao Hilda Lini and Chief Viraleo Boborenvanua, for your inspiration, in your sharing of culture and spirituality.

To Te Tika Mataiapo and Te Aturangi Nepia Clamp, my sister and brother in spirit, my love and thanks.

Thank-you to my wonderful academic supervisors who have given so much of their knowledge and experience:

To Dr. Margaret Jackson and Dr. Dara Culhane, my academic supervisors, my thanks for your guidance and input to this research. I want to acknowledge your diligent work toward justice and in solidarity with Indigenous peoples.

Dr. Carolyn Kenny, words cannot express the gratitude I feel for your many hours of dedication, your guidance of my journey in my education, and your encouragement. You hosted me at your beautiful home and fed me with good food and hospitality!

I feel grateful for all that Vivian Blaker, assistant to the Dean of Graduate Studies has done; and for the assistance of Dr. Jonathan Driver, Dean of Graduate Studies, Simon Fraser University.

My deep gratitude goes to Dr. Irene Gempton and Joanie Wolfe, for their many hours of effort and kind assistance in editing and formatting this thesis.

If it were not for the constant friendship, generous support and encouragement from Helen and Hugh Mogensen, this work would not have been possible.

I am also grateful to Mike Mawdsley and his parents and my dear friends, Jim and Beth, for being the special people that they are, and all of their support and encouragement.

I am deeply grateful for the assistance given to me by my dear friends and neighbours, Sue and Charlie Johnson. They have made invaluable contributions to my life and education. My thanks go to Neville Grigg for his encouragement and all of his help with the formatting of this thesis.

Both the Minerva Foundation and the P.E.O. have given me the financial assistance that made the completion of this work a reality. Many thanks!

Most of all, thank you to my mother and father, Doreen and Michael, who give me unfailing love and support; and to my sisters, Elaine and Jen, their spouses, and my brother, Kevin. Thank you, to my children, Peter and Amy.

All my relations.

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CREE PRAYER

How kihci-mina kanaci ocihiwew
 Nikiskēyimanan pisim, tipiskawipisim
 ahcacosak.
 nōtin ka nēnētotamahk
 nip ī kasī tonikoyahk
 nikaw īnan askī ka yasamīkōyahk.
 mina kakiyaw nitāniskē wakōmahaninak
 nipakosēyimōnan kitta minikow ī siyahk kakiyaw
 pēyakohitowinihk kita ayayāhk
 mina kitta kiskēyimisōyahk mina niwako makaninanak.
 nipakoseyimonan kitta minikowisiyahk kistēyimitowin
 nipakosēyimōnan kitta mīnikowisiyahk kītimakē yimitowin
 nipakosēyimōnan kitta mīnikōwisiyahk aspēyimōwin
 nipakosēyimōnan kitta mīnikōwisiyahk miyo wicētowin
 nipakosēyimōnan kitta minikōwisiyahk tapwēwi
 pimatisēwin
 nipakosēyimōnanan kitta minikōwisiyahk sakihitowin.
 niyanan ohci mina kakiyaw ē-itasiyahk
 nipakosēyimōnan kakiyaw miyo pimatisiwin-ota askihk,
 nimawimocikanan pēytakēyimon kitta minikowisiyahk.
 ni kawi pimotanan miyo-nakosiwinihk kinanaskō mitinan
 kici ocihiwew kikipaw

Great Creator
 We thank you for this day.
 We acknowledge the Sun, the Moon,
 the stars in the sky,
 the air that we breathe
 the water that sustains us
 Mother Earth that nourishes us,
 All of our ancestors.
 We pray for unity
 We pray for understanding of ourselves and
 all of our relationships
 We pray for respect
 We pray for compassion
 We pray for trust
 We pray for harmony
 We pray for honesty
 We pray for love for ourselves,
 love for each other and love for all life on Earth
 We pray for Peace
 May we walk in beauty

Thank you. kakwī ohci.

Translation,
 the Late Elder Ahab Spence,
 Swampy Cree 2000

© Darlene Sanderson 2000

CREATION STORY: A CREE STORY OF THE FLOOD AND ORIGIN OF THE EARTH¹

The Cree have lived on the land “from the Beginning”, since time immemorial. They have lived through major floods that destroyed the rest of the earth.

After the flood, according to the legend, the Cree trickster-hero, Wesakachak, found himself floating helplessly along with Otter, Beaver and Muskrat. The Creator gave Wesakachak the power, not to create, but to remake the world if only Wesakachak could bring up some earth from underneath the floodwaters. Wesakachak turned to his companions for help. First, he



Used with permission, Aurora Borealis

called on Otter to dive down and bring up a piece of the earth, Otter failed. Wesakachak then asked Beaver to do the same, but Beaver also failed. Finally, in desperation, Wesakachak turned to Muskrat. Small as he was, Muskrat had a strong heart and he tried very hard. Twice, he dove, and twice he failed. On the third attempt, he dove so deep, that he almost drowned, but when he came up, against his breast in his forepaws, he held a piece of the old earth....

¹ Traditional. There are many variations of this popular legend; this one is from the Moose Factory area of western James Bay (Mushkegowuk region). In some Nushkego (West Main) Cree legends, Wesakachak is the first human in the world. In others, he is the creator of all things. He is a teacher, but also a fool who finally puts a barrier between all the earth's creatures so that they can no longer talk to one another. The older Chisasibi Cree hunters still refer to the ancient “time when humans and animals talked to one another” (Berkes, 1999).

CHAPTER 1 INTRODUCTION

As spirituality is of central importance to me and as some Elders have described water as the physical manifestation of the spirit, I began this thesis with a Cree prayer to guide my journey. The prayer is in the Cree language to recognize the core importance of my identity and spirituality and to acknowledge the role of original languages as a transmitter of that relationship with our Creator. I have also prefaced this thesis with our creation story, to demonstrate how our beginnings provide the foundation for our traditional teachings.

Water and Identity: From Whose Descending Waters Do You Flow?

My name is Darlene Sanderson and I am from Manitoba, Canada (Cree), Ireland and Scotland on my mother's side and from Russia (Mount Ararat) on my father's side. I have been given a Coast Salish traditional name, Likwal, which means 'calm'. I have been told by Cree Elders that our people are water people and that Cree women have a special responsibility to protect water.

As a child, many hours were spent playing beside small streams in the Rocky Mountains of Canada. We swam and drank from the icy cool waters. We knew they were clean and good for our bodies. Knowing where we come from, the place(s) of our origin, and knowing our genealogy is central to understanding our relationship with the land and with the water.

Water, like spirituality, needs to be experienced to be described. We all have had personal experiences with water in our lifetime. For each of us, that experience will be different. This thesis will bring together the experience of hearing the words of three Indigenous Elders, and what their teachings have meant to me. The Elders' words were

the focus, important principles were identified, and I then discussed how these principles transform into action. In this case, the outcome of the Elders' words for me has become the development of a water education curriculum and the creation of a proposal for a non-government organization that collaborates to protect water.

I will next share a story about Teanook Lake (Illustration 1), Coast Salish territory, (near Victoria, BC, Canada) where I live. I am telling this story to demonstrate holistic sensory learning and that our personal experience and meaning of water contributes to how we can learn from the Elders. As this thesis is being read, I would like to ask the reader to reflect on your own memories of water and about what water means to you.

When I rise in the morning and swim in the little lake that I live beside, I hear the birds and see the evaporation rise. As the blue dragonflies whirr past me, I wonder at the beauty of the morning mist that rises before my eyes. I feel the sound of beating wings close to the water as three Canada geese come to rest. I hear the splash of the otters' tails as a pair cavorts in the water lilies. The woodpecker, with his little red head, pauses in his persistent tap-tap-tapping on the cedar tree. The warm sun sparkles on the water, like a million diamonds, radiating warmth on my face.

Illustration 1. Teanook Lake



Note. Photo Amy Mawdsley, used with permission.

The Need for this Research

Many Indigenous peoples regard water as the primal substance that is part of the creation stories (Bullchild, 1998, Galeano, 1985); it is the centre of the web of the interconnections of life (Blackstock, 2002). The link to spirituality, healing and cleansing is fundamental in the cultural practices that have been passed down from generation to generation (Blackstock, 2002). Walkem (2005) identifies the need for developing an understanding of the Indigenous relationship with water and the need to recognize that Indigenous peoples' laws can protect water for all life, now and in future generations.

The future of water, of nature and all of humanity now depends on a crucial and delicate balance in our decisions...water in the 1990's has been witness to a pronounced globalization of consciousness, and somewhat limited and widely varied local action. (Raina, 2000, pp. 73)

There is a gap in the knowledge and understanding of the importance of traditional teachings about water, and the application of that knowledge (Roberts et al., 1995). In the local and international forums on water, there is limited participation of aboriginal voices (World Water Commission, 2000). Science can provide some solutions for water sustainability. Human rights activists and scholars are raising important questions about globalization (Kelsey, 1999) and its impact on the waters of the world (Barlow, 2000). Indigenous scholars are actively participating in a discourse about the impact of globalization on Indigenous Peoples and the alternatives that Indigenous peoples can offer (Goldtooth, 2004, Harawira, 2000, Loomis, 1999, 2000).

Very little data regarding the traditional knowledge of water are recorded in the western body of knowledge mainly because Indigenous Peoples come from oral traditions. However, Elders like Huirangi Waikerepuru (personal communication, 2004) tell us that it is time to share these teachings, because these teachings need to be applied in today's world, at this critical time in history. Collectively, humankind must apply this knowledge wisely.

Today, there is a growing recognition of the need to develop protective water policies. Although the United Nations Convention on the Law of the Sea (UNCLOS) has been ratified by 160 countries (1982), many articles that protect water are not implemented. It

appears that many people, including lawyers, do not realize that the UNCLOS contains many articles that protect inland waters as well as the ocean. In particular, Article 114 (UNCLOS, 1982) states that all pre-existing covenants about water shall be honoured. This would include the covenants Indigenous peoples share with the Creator. Therefore, there should be an understanding and recognition by state signatories that Indigenous peoples' covenants predate the UNCLOS.

International conventions have been developed with minimal participation of Indigenous peoples. Much of the Arctic is composed of water. Many countries are developing laws related to their waterways, and some, like New Zealand, are laying claim to the seabed, to the detriment of Indigenous Peoples' rights to food security and cultural rights. To protect the waters, there is a real need for governments to recognize Indigenous laws, and apply traditional Indigenous teachings and values (Roberts et al., 1995).

Developers, industry and other economic interests determine how waterways are developed. The word, 'sustainability' is used by many people who do not know about the depth of Indigenous Peoples' knowledge about sustainable practices, in our relationship with the natural world. By not including an Indigenous voice, there is inequality in decision-making about water issues.

Having cared for the waterways of the human body (the heart and blood vessels) as a former cardiac nurse, I have an appreciation for the value of science and its contribution to health. Science does not provide all the solutions. If a person has a healthy lifestyle, his or her body will reflect those practices. In the same way, if Mother Earth is treated with respect, and she is cared for in a traditional manner, she will regain her health. If the body is filled with chemicals, he or she will become unwell. Many times, a person's spiritual strength is the element that decides between life and death. Similarly, it is the spiritual relationship that Indigenous Peoples share with the Earth that may determine the eventual life or death of our planet. One problem is seeking solutions for an ailing Earth and polluted waterways from a scientific and Euro centric base.

The next section identifies the main research question, the purpose of the research, the process (which will be discussed more fully in Chapter 3), the research goals and

objectives. Following this, I will discuss the problem to be addressed and the domain of inquiry.

Research Question

I identified that the main question to be addressed by this research is: "How can the teachings about water of the three Indigenous Elders, with whom I collaborated, shape policies in education so that the policies can be in harmony with their teachings about traditional laws about water?" This question deals with: how the three Elders' teachings and selected scholarly and political publications I have drawn upon represent some Indigenous theories about water, and the relationships between Indigenous and western beliefs and practices in relation to water in contemporary contexts of environmental activism. It is about knowledge translation, from traditional oral teachings, to the practical application of those teachings. It is also about how these teachings about water can be applied to shape more effective water policies.

Purpose

The main purpose of this research is to find ways to protect water and to help address issues of pollution. This study is a responsibility that I have been given by the Elders and I wish to do my best to fulfill my obligations. I embarked on this study because we have a collective responsibility to care for our waters. Additional purposes of the research are to encourage the sharing of traditional knowledge about water when appropriate. This builds in community capacity and relationship building, so that the wider community can hear about the relevance of Elders' teachings. This will serve the purpose of this research enhancing community education. When Indigenous communities, dominant governments, and policy-makers can see the value of the application of traditional Indigenous laws about water, this will assist in policy development. It will also assist to address the gap between the western and Indigenous worldviews, by providing forums for dialogue that fosters respect between different nations. This will fulfill the purpose of transforming Elders' knowledge to practical application.

The research methodology used was an Indigenous research methodology: As an Indigenous scholar, I was able to pursue an education with guidance from both an academic committee and a traditional council of elders. From discussion with Maori *kaumatua* (Elder) Te Huirangi Waikerepuru revealed a model showing how health, education, traditional law and the environment are all interconnected by water. The Elders and the academic advisors guided the research process.

Process and the Selection of Literature

My research process was shaped by my experience in conducting community-based research for my master's degree in Vanuatu. I went to Vanuatu with the intent of studying malaria. I was informed by the local people that their current concern was with the frequency of young children's mortality rate from upper airway infectious disease. I realized then, that in community-based or Elder-driven research, the community or Elders concerned should choose the research topic. In my doctoral research, I wanted the topics to be researched to be responsive to the issues/needs identified by the Elders. Thus, my process involved listening to the Elders, and addressing issues in the realms of health, education, law and the environment, in accordance to the model developed with *kaumatua* (Elder) Huirangi Waikerepuru.

The literature selected was from the following areas, with the coursework done:

- Indigenous peoples, water and education;
- Indigenous peoples, water and health;
- Indigenous peoples, water and the environment
- Indigenous peoples, water and law.

Because of the scope of the study, and the holistic approach taken, the literature selected was never meant to be exhaustive. My coursework involved both Elder's guidance and academic research in the above realms (please see Appendix B). Initially, the literature reviewed was responsive to the Elders' words. This was part of the original proposal.

Later, with the input of other academic advisors, more literature was included that is extant to the field of study. The literature later included more readings on comparatives of American Indian thought with European philosophies, and the political economy of water. There was an evolution of process, which included the selection of literature. This study may be likened to a weaving: bringing together the oral traditions of Indigenous Elders with the discourses of western thinking to be able to make recommendations for future action.

Information regarding the research question was gathered from the Elders and the scholarly literature. The library and Internet were the sources of books and journals on the topic of Indigenous Peoples' water rights and responsibilities. Grey literature (collective papers and declarations from international gatherings on water) was also sought from Indigenous Peoples' organizations. Traditional knowledge from the perspectives of three Elders from three different nations, the Cree, Nuu-Chah-Nulth, and Maori, was gathered and then compared. The Elders' knowledge and teachings were then compared with selected scholarly literature. After interviewing the Elders, I reflected on emergent themes, identifying teachings I learned from the Elders. Then, the teachings were grouped into 3 distinct themes: the meanings of water, how these meanings are conveyed, and specific strategies for action.

Research Goals and Objectives

Goal # 1

The first goal is to gather traditional knowledge about the meaning of water from three Elders from three different nations. The traditional knowledge is shared orally, in the form of stories, both traditional and contemporary. I wanted to hear what Elders have to say about water and to identify what I learned from their sharing. I wanted to hear what they think is important regarding water and to identify both what my personal responsibilities are and what humanity's collective responsibilities are.

Goal # 2

The second goal is to apply my personal responsibilities to protect water. Two of my responsibilities to protect water have been defined: the first is to produce an education curriculum about traditional Indigenous perspectives on water; and secondly, to develop an advocacy foundation that links traditional wisdom to clean energy technologies.

The Problem

Today, over one half of the lakes and rivers of the Earth are polluted (deVilliers, 1999). Somewhere in the world, every 8 minutes, a child dies of waterborne disease (UNICEF, 2006a). Every day, 3900 children die due to a lack of access to safe drinking water and adequate sanitation (UNICEF, 2006a). Twenty percent of the world's population is without access to safe and affordable drinking water supplies and half the world's population do not have access to adequate water supplies (World Water Council, 2003). Each year, 3 – 4 million people die of waterborne diseases, including more than 2 million young children who die of diarrhoea.

Many pollutants have been found in water; many pollutants have not been identified. Arsenic is found in nature and affects rural and urban settings; arsenic may also be sourced from mining, fertilizers, insecticides, herbicides and industrial wastes, including atmospheric deposition (O'Neill, 1990). Different species of arsenic have been linked to several diseases such as diabetes mellitus (non-insulin dependent and associated vascular diseases), and positively correlated with heightened risks for a variety of cancers (i.e., lung, bladder, kidney, liver and skin cancers) (Rossman, 2003; Wang, 2003). It is of note that the Canadian drinking water standards of arsenic (.025 mg/l) are higher than those of the World Health Organization (.01 mg/l) (World Health Organization, 2006).

One can see the significance of the lack of clean water and its relationship to survival. Half the world's wetlands were destroyed in the 20th century, causing a major loss of bio-diversity. The World Water Council warned that many rivers and streams running through urban centres are dead or dying. Major rivers – from the Yellow River in China

to the Colorado in North America, are drying up, barely reaching the sea. Depleting groundwater resources may be providing as much as 10% of global annual water consumption, which is irreplaceable. Groundwater is over-pumped by unregulated access, affordable small pumps, and subsidized electricity and diesel oil. This drops groundwater tables of several meters a year in key aquifers (World Water Vision, 2001).

The root problems lie in two areas. First, regarding the guardianship/governance of water, there is widespread mismanagement, mistreatment, pollution and destruction of the waterways of Mother Earth. Western laws have not protected the waterways, and life is at risk. There is a fragmentation of governance of water. There are policies at the local level, the provincial level, national level and international level. Policies determine whether or not water is protected. Of most importance, is the reality that few levels of colonial governments realize and recognize the contributions Indigenous peoples can make to the protection of water, through Indigenous laws. There appears to be a need for education amongst policy developers about the importance and value of Indigenous laws, locally and globally.

Second, with the imposition of colonial forms of education, there has been an exclusion of Indigenous Peoples' knowledge about water. Generally, there is a lack of knowledge amongst common masses about the impact of pollution and impurities/contaminations of water due to industries and factories set up in the Indigenous Peoples' territories by companies and governments (Baldwin et al., 2004).

Therefore, a shift is required in the governance of water and the sharing of traditional perspectives on water. A shift is also required in the education system. Furthermore water management policies should include the input of Indigenous peoples, who have knowledge of the land and millennia of traditional knowledge to draw from and contribute (Deloria, 2004 and Stewart-Harawira, 2005).

As McGregor (2004) illuminates in her discourse the differences between Indigenous knowledge (based on the Creation stories and on millennia of oral discourse) and traditional ecological knowledge (or 'TEK', a term coined by academia). McGregor states that although Indigenous peoples in Canada are having an increasing role in land

'management' and policy development with their increasing participation in discourses on TEK. However, there remains a fragmentation in water policies at all levels of government and a general gap in the understanding of Indigenous peoples, their ways of life and worldviews (McGregor, 2004). These are some of the many problems found in the development of water policies. There is a gap in the discourse in water policy development: much attention is given to the politics and economics surrounding water issues, while water policies rarely include traditional Indigenous perspectives and values about water. The sacred nature of water does not appear to be part of the process of water policy development.

The Domain of Inquiry

This thesis will contribute to the body of the world's literature in a variety of ways. It will contribute to Indigenous intellectual traditions by recording the Elders' words, and by providing a basis for discussion within communities to debate and discuss their own traditional teachings about water. The Elders' words may be used by their own communities for education programs, and also by other Indigenous communities to make comparisons with their own cultural traditions.

With a literature review of the some of concepts found in Indigenous and non-Indigenous ontologies and epistemologies, it will reinforce some of the work done by Indigenous scholars, and further dialogue within academia, enhancing understanding of the value of traditional ways of thinking and their potential contributions in today's world. Combining discussions about previous work done on traditional water stewardship practices, some 'best practices' achieved by Indigenous communities, and ideas generated by the Elders interviewed, this research will identify strategies for improved water policy development and practice.

The importance of listening to Elders' teachings will promote cultural enhancement, through the generation of community discussions about the deep meaning of water in traditional societies, in the concepts, the language and the ceremonial practices. In addition, and of high importance, as Deloria (2004) and Stewart-Harawira (2005) point out, there is crucial need to for contributions from traditional Indigenous societies to

water policy development and thereby contribute to the survival of the planet by the protection of water.

The next chapter is a literature review that is a discussion of: (1.) the concepts found in both Indigenous and western intellectual traditions that lead to the crisis of water integrity that the world is faced with today; (2.) some of the ways that Indigenous and non-Indigenous ontologies and epistemologies are divergent; (3.) the political economy of water and the denial of the sacred. Later in the thesis, I discuss ways of bringing together these philosophies and worldviews to enhance water policy.

It is the author's hope that this thesis will demonstrate that Indigenous peoples have their own ontologies, houses of learning, epistemologies, research methodologies, processes of inquiries, tools for assessment, planning, implementation and evaluation for the maintenance and protection of our sacred waters.

CHAPTER 2 LITERATURE REVIEW

Globally, Indigenous Peoples have struggled against colonial oppression for hundreds of years. This chapter will review scholarly discourses, from Indigenous scholars and others that 'get to the roots' of the issues and discuss some of the underlying factors that may illuminate the links between our collective history, the philosophies that steered it and its effect on the state of the world's water today.

Examining the issues affecting water and the various factors affecting both Native and non-Native communities is a complex endeavour. In order to understand how these relationships came to be, it is imperative to examine the historical, philosophical and ideological contexts. Included in this discussion is a brief examination of the way in which constructs developed, how knowledge is culturally defined, and the worldviews and values that are fundamental to relationships. Next, I will outline the relationship of these basic philosophies to frameworks of law, both western and Indigenous.

Following this discussion, I will look at some of the main debates about the political economy of water, from a local, regional (provincial), national (Canadian) to international levels, and the issues we are currently faced with.

For the purpose of this thesis, I will define what I mean by different terms: I will use the terms indigenous, aboriginal, native peoples, First Nations interchangeably. By 'Euro-centric', I am referring to a philosophical base that is rooted in Greek and Roman ideologies. There is a distinction in the beliefs found in the worldview of Euro centrism and those of European descent that hold beliefs of western racial superiority. To describe concepts in Indigenous worldviews, I will talk about 'natural law'. 'Natural law' is, quite literally, the laws of nature, as described by Waikerepuru (personal communication, 2001), and Borrows (2006). Traditional Indigenous laws are the laws that have been defined by Indigenous peoples over thousands of years of observation

and experience of nature, and are expressed in creations stories, songs, ceremonies, rituals, art and embodied in Indigenous languages (Armstrong, 1998).

Indigenous and Euro-centric Philosophical Historical Roots and Concepts

In her paper, "Language matters: Nondiscrete, nonbinary dualism", Waters (2004) links the stealing of native language with the loss of sacred knowledge. With this came massive loss, with huge gaps in understanding, much pain experienced by communities, and an erosion of the social fabric of Indigenous societies (Royal Commission on Aboriginal Peoples Indian and Northern Affairs Canada, 1997). Waters points to Plato's concept of truth as equating reality, material to the real, in which he postulated a polarizing of good vs. bad, God vs. evil and the abstract vs. the physical. Waters postulates that it is the acceptance of the physical realms and not the spiritual realms that created difficulties experienced by Europeans in confronting the metaphysical ideas and beings met in the Americas (Waters, 2004).

Today, there is still a reticence to acknowledge the spiritual in much of the scientific world. Berkes (1999) recognizes this reticence that is embedded in Euro-centric thinking and philosophy in his description of 'a new approach by science', (Berkes, 1999, p.3) through the study of traditional ecological knowledge (TEK) that is a 'radical departure from the static, mechanical, disembodied view of the world dominated by Descartes, Newton, and other thinkers of the Age of Enlightenment, which has dominated our thinking.' (Berkes, 1999, p.3) He continues to say, 'The land ethics of Aldo Leopold (1949), deep ecology (Naess, 1989), Gaia (Lovelock, 1979), a sense of place, bioregionalism, topophilia or love of land (Tuan, 1974), and biophilia and love of living things (Kellert and Wilson, 1993; Kellert, 1997) are some ways in which people concerned with environmental ethics have searched for the personal and spiritual element of ecology that has been missing in scientific ecology.' (Berkes, 1999, p.4) In contrast, Indigenous peoples have had direct human contact with the environment over thousands of years (Berkes, 1999).

To the Europeans Indigenous Peoples were seen as uncivilized, dirty, ignorant, inferior and savage. Thus, Waters states, if Europeans were superior, that meant that Indigenous Peoples are inferior, and, as Vine Deloria asserts, it is the point of reference upon which dominant western superiority defines itself (2004). Deloria argues that 'the primitive' is needed by the colonial societies to congratulate themselves on the progress and development that they are making, away from the 'primitive'. He identifies this view as stemming from John Locke and Thomas Hobbes' hypothesis of all societies, including indigenous, starting as primitive, a concept that was subsequently embraced:

John Locke and Thomas Hobbes may have articulated the idea formally by beginning their theories of a social contract with a hypothetical stage wherein primitive people established a society, but subsequently generations of Western people have wholeheartedly accepted the image [of primitive people] without any critical examination of its validity. Thus the attitude of many philosophers is that American Indians must represent the stage of human development in which superstition and ignorance reigned supreme. The primitive is further conceived as having a pre-scientific perspective; that is to say, that the early peoples are believed to have desperately wanted to use the methods of science to explain their world but were unable to form the abstract concepts that – when universally applied – allowed western people to gain their insights. Thus, the circle is logically closed and the possibility of exchanging ideas is neatly eliminated.' (Deloria, 2004, pp. 3-4)

Deloria maintains that these assumptions essentially shut the door to a respectful dialogue between cultures. One of the ways he demonstrates this is in a story he shares:

A missionary, Reverend Cran, once came to the Senecas to convert them and recited the story of Adam and Eve. When he was finished, the Senecas insisted on recanting one of their creation stories. Cran was livid, arguing that he told the Senecas the truth while he has recited a mere fable to him. The Senecas chastised him for his bad manners, saying that they had been polite in listening to his story without complaining and he should have been willing to hear their tales. (Deloria, 2004, p.4)

Deloria continues to say that, it is more important to discuss and dialogue, instead of competing to define truth. In the Indian world, he maintains that 'truth is a matter of perception, and that there is a clear recognition that different perspectives have equal claim to veracity. (Deloria, 2004, p.5)

Instead of developing an idea of cultural movement that has primitive at one end of the spectrum and modern at the other, great care must be taken to identify tribal societies and Western thinking as being different in their approach to the world, but equal in their conclusions about the world. (Deloria, 2004, p.5)

I would agree that the worldviews, philosophical bases and approaches to life are fundamentally different. I would further the notion that if the worldviews are different, the conclusions about the world would also have to be different. Deloria is reinforcing the need for recognition of Indigenous philosophies and worldviews in finding solutions that the world is facing today.

The perspective that land and water are commodities lies in stark contrast with many Indigenous Peoples' view of Mother Earth as a living entity that is sacred (Burrows, 2006). The different beliefs about land and its meaning to different cultural groups, together with the beliefs of cultural supremacy have created policies that have contributed to how lands and waterways have been, and continues to be treated. Indigenous peoples maintain an interdependent relationship with the Earth, who is the home of all living beings, from whose womb we all came from (Verney, 2004).

In her book, 'The Earth's Blanket, Turner (2005) speaks about the contrast between European perceptions of the Earth: the Europeans taking a utilitarian approach to the land, compared to the fundamental responsibility we have to all of the plants and animals. She talks about the contrasting definitions of wealth, that the definition of wealth is broadened by First Nations cultures as the bounty that is provided by Mother Earth, and the richness of experiencing the natural world. It is not only the richness of the physical world, an Elder once shared that we can be wealthy in spirit (Cree Elder, n.d.)

Only when the last tree has been cut,
Only when the rivers have been poisoned,
Only when the last fish has been caught,
Only then will you find that money cannot be eaten.

Cree prophesy (n.d.)

As with the philosophical and political agendas of taking slaves and land, the missionary movement was synchronous with the colonial movement, and later globalization

(Stewart-Harawira, 2006). The colonizing empires of church and state worked together to gain control of religion, education and commerce, trading in goods and people (Waters, 2004). European concepts of religion influenced European common law, court rulings and policies. At the same time, science emerged in the search for proof or certainty. With this ideology, came the ideal of discovery, new ideas, and new lands. This language is still used today. The ocean and space are viewed as 'the last frontiers', and Indigenous peoples' lands continue to be 'claimed'. An example of this thinking and action is the current scramble for the 'claiming' of the Arctic, with little regard for the people of the land. Thus we can see that our collective colonial history has been intertwined with a history of racism, colonization and today's debates over globalisation (Stewart-Makere, 2006) and that these forces are active today.

European Binary Dualism and the Collision of Worldviews

European binary dualism, as Waters (2004) describes, sets the stage for dominance of men over women, imperialists over colonized, adults over children, those who are able over the disabled, a pure race over mixed races, winners over losers, the valued over disvalued, and the empowered over those disempowered. One might question how power is defined. Indigenous peoples' spiritual power has been maintained by those who have held fast to the ceremonies and rituals (personal communication, Beardy, 2000, Waikerepuru, 2001, and Lucas, 2001). The other definition, in reference to relationship, is about the dominance over and the disenfranchisement of Indigenous peoples because of the dislocation from the land (Stewart-Harawira, 2006).

I will next describe some of the values, as defined by the Tataskweyak Cree Nation (2002) to contrast with values that are rooted in European binary dualism. The Tatasweyak (2002) have articulated the value of truthfulness and consensus – based decision making. These principles are rooted in the collective importance of all community members' participation in making decisions (Tataskweyak, 2002).

It is critical to bring to the dialogue of water protection and policy development, the spiritual in addition to the discourses on economics and politics (personal communication, Waikerepuru, 2007). Where the Cree have a collective approach to life,

problem solving and finding solutions, there is a stark contrast with the western ideal of individualism, and leadership. How success is defined differs between cultures and individuals, in terms of quality of life. There is a desire for rebalancing, harmony, group well being, respect for Mother Earth (Tataskweyak, 2002). Time is seen to be circular, not linear. The wisdom of the Elders and life experience is valued. The home is of sacred significance, and restitution is needed for balance, when something has been taken. Monetary gain, the commodification of resources, human labour, the concept of the inevitability of 'progress', the control, domination, and manipulation of nature (including genetic modification), objectivity, science-based decision-making and solutions, and super-specialization are all criteria for success that are problematic and are at the root of today's environmental conditions of water.

Thus, in understanding fundamental values and philosophical roots, we can better understand the dynamics behind the crisis that water is in today. Indigenous worldviews look at the *relationships* that humanity shares with all of life (McGregor, 2004). I will now draw links between threads in "western philosophy" that may be brought into the discourse with Indigenous philosophies.

Grosz, in her book, 'Volatile Bodies', draws on Merleau-Ponty (1996) who theorizes a need for an understanding of the connections between the mind and the body, the relationship of self with all things, and the receptor-sender inter-relationships found in the senses. He maintains that one cannot separate the person from their environment and that the self is defined by one's environment. Merleau-Ponty recognizes the relationship that exists between the mind and the senses, and their 'necessary inter-relatedness.' (Grosz, 1996, p. 86). Grosz ascertains that, 'the body for Merleau-Ponty is the very point of our access to and our conception of space.' (Grosz, 1996, p.91)

Grosz (1996) also examines Merleau-Ponty's discourse on the visible vs. the invisible, which may 'destabilize the structure of binary oppositions of western thought' (Grosz, 1996, p.93). Grosz states, 'Merleau-Ponty locates experience midway between mind and body.' (Grosz, 1996, p. 93) We are reminded of the medicine wheel, as understood by Cree teachings, which embrace the mind (intellect), body, emotion and spirit; all are interconnected. This same teaching was reflected in the words of Chief Simon Lucas

(personal communication, Lucas, 2001) The circle of life, as described by Cree Elder Mary Lee (retrieved from the world wide web on March 21, 2007 at <http://www.fourdirectionsteachings.com/main.html>), denotes the continuity of life, the connection between life and death, and the importance of balance in the four realms: physical, emotional, intellectual and spiritual. Thus, Merleau-Ponty's link of the physical to the mental realms, is responding to the inter-relationships of two of the four dimensions.

In his book, *Tsawalk*, (Atleo, 2004) discusses the imbalance he is witness to within the dominant society. He writes that John Ralston Saul identified that reason began to separate itself and outdistance other human characteristics: spirit, appetite, faith, intuition, and perhaps most importantly, human experience.

Reason is a cornerstone to science. There is an unnatural separation between the human mind and heart/soul/spirit... What is the source of the imbalance between reason and spirit? The imbalance can be traced to scientific methodology. (Atleo, 2004, p iii)

He continues to say that, while science has a tendency to analyse by fragmenting parts to understand the whole, Knudsen and Suzuki explained the outcome of this phenomenon well:

While science yields powerful insights into isolated fragments of the world, the sum total of these insights is a disconnected, inadequate description of the whole. (Knudsen and Suzuki, 1992, xxii, cited in Atleo, 2004, p.iv)

Umeeek maintains that;

...the pre-eminence of human cognition, or reason in Western culture constrains humans to focus on physical experience, subsuming soul or spirit. (Atleo, 2004, p.vii)

In contrast, in Atleo's worldview, the highest form of consciousness or cognition, is found in the realm of creation's spiritual source, not in the 'shadowy' physical realm. (Atleo, 2004) *Umeeek's* work is important because it: 1.) provides an example of articulating a philosophy that returns to the Creation stories as the source of knowledge and truth, 2.)

draws from both the metaphysical and physical realms to describe an Indigenous (NuuChahNulth) worldview, and, 3.) perhaps most importantly, by explaining concepts found in the language.

Our collective Canadian history has had a long dark period of the residential school system, where these kinds of discourses have been impossible in an environment of cultural and linguistic oppression with systemic, institutional and many cases of personal abuse. The churches and the government collaborated on 'taking the Indian out of the Indian'. The recent apology given by the Canadian government will hopefully be a start in the forging of a new and positive relationship between government and the Indigenous peoples of Canada. As some Indigenous Peoples became converted to Christianity, their traditional ontological constructs were replaced with those of Christianity (Waters, 2004). Others held fast to traditions, while still others combined traditional ways with Christianity. These complexities of perspectives have created divisiveness in communities and continue to do so today. The assumption of Indigenous communities of European ideals of economic development at the expense of traditional ways of being has also impacted community health and cohesiveness.

The long history of oppressive policies that have taken away the means for traditional economies has left many communities competing for limited funds and has inserted a mentality of dependence on the government (Arquette et al, 2002).

In spite of the actions and policies of church, state, and industry, Indigenous cultures have been resilient. The unique cultures and the diversity that exists within families, communities, landscapes and nations can contribute to the dialogue on the environment and on climate change: Indigenous peoples understand their own lands, as no other can. There are more than 500 Indigenous cultures on Turtle Island alone, so a pan-Indian perspective is nonexistent. Within that diversity, there are cultural commonalities shared between cultures, such as a spiritual connection and relationship to the land, and a common oppression by colonizers. The aborigines of Australia and the aboriginal peoples of Canada both share a terrible experience of genocide with policies and the residential school system, while Maori from Aotearoa have also endured oppressive laws and policies.

Newell (1993) describes the historical development of policies for fisheries in British Columbia that have been developed. These policies have shown that aboriginal fishing rights have been subjugated to policies that both allowed over-fishing by settlers and denied cultural rights to the local Indigenous peoples. Policies reflect the value systems of those who create them.

Jeanette Armstrong (1998) shares about the impact of policies and the creation of mega hydro dams on the Columbia River:

The states of Washington and Oregon have compromised their salmon rivers and tributaries to the extent of allowing the most profound depletions and extinctions. American West Coast commercial fisheries are virtually dead. Once thriving coastal fishing communities from California to Washington have become ghost towns. The worst symptom, perhaps, is revealed in the disputes over the dying fisheries illustrated by the open warfare between sport fishers, environmentalists and legal Tribal harvesters over the few remaining runs in places where rivers are blocked by the most numerous dams in the world. These are places, where rivers, now faced with total extinctions of salmon stocks once produced salmon in the millions; places where salmon stocks are endangered beyond rescue from radiation leaks and other deep level contaminations; places where even the American Pacific commercial fleets (except Alaska) have disappeared like the canneries in Cannery Row. (Armstrong, 1998, p.184)

These policies have created conflict, and poor health amongst Indigenous communities, as their traditional diets and economies have been difficult and sometimes impossible to maintain. This is reflected in the poor health statistics and high rates of poverty found in aboriginal communities (Health Canada, 2002a, 2002b, 2005).

There are today Indigenous communities who, in an effort to break the cycle of poverty, are participating in these profit-making ventures (such as hydroelectric dams), which damage or destroy traditional territories. In some cases, the western education system has replaced the traditional values and practices with foreign values.

It would be easy to blame the loss of traditional values on decisions that are made today. But decisions about economic development, including those made about the expansion of mega-hydro projects can be extremely complex. Feit (2004a, 2004b) addresses some

of these complexities of Cree leadership and decision-making affecting traditional hunting and fishing territories. He writes that the issues can become over-simplified. In his review of Cree elders' testimonies, he reflects his perspective on the interconnections of history, place, traditional values and relationships:

These testimonies echo the common theme of rights, destruction, betrayal, the need for restrictions on forest cutting, and a common call for respectful sharing. Through these affidavits Cree hunters eloquently reveal the sovereignty Cree hunters still exercise, and their continuing determination to bring changes to the present relationships with governments and companies. These views have been repeatedly misunderstood by supporters of Cree struggles. The hunters assert basic and unchallengeable rights to their lands, yet they also express a willingness to respect the needs of others and an expectation that this will be reciprocated. As their assertions of their ongoing governance of their lands indicate, this is not a compromise that arises out of subordination or a politics of the oppressed. It is a vision that arises out of a tie to the land. It is embedded in the changing historical relationships of this place, as well as in their intimate relationships with the land and the animals. (Feit, 2004b, p.7)

Feit is recognizing that the traditional values of: 1.) living in peaceful co-existence, 2.) respect for others' needs, and 3.) a desire to adapt to provide ways in which communities can develop economically can all affect how communities make decisions. The late Elder Sandy Beardy shared his belief that, 'we were too generous' (personal communication, Beardy, 2000). Elders who are fluent in the language, understand the cosmologies, ways of life and worldviews of pre-colonial times can have an important role in decision-making, decisions that are based on our traditional philosophies.

The philosophies of Plato, Aristotle, Descartes and the philosophers of Greek and Roman traditions are matched by the oral histories of Indigenous philosophers (Waters, 2004, Atleo, 2004). This Indigenous philosophical sharing may be observed when there are cross-cultural exchanges, and Elders talk about meanings in their own languages. Cordova compares and contrasts the ethics of western thought to that of Native Americans. On one hand, the western code of conduct is based on the 'individual bargaining unit', the self-determining, autonomous 'I'. He theorizes that this stems from the philosophy of Hobbes (1588-1679) in which the 'I' is primary (Cordova, 2004). In contrast to the western concepts, Cordova suggests that Native Americans need to

reclaim the collective, the 'We'. This way of thinking, of being, contributes to the notion of equality, (which does not mean 'the same'). In Indigenous societies, children were considered as important as adults, and equity was achieved through consensual decision-making. Each person, and tribe was autonomous, and non-interference is a value shared by many. The concept of responsibility to family, to community, to all plants and animals leads to a deep sense of environmental ethics. Like the drop of water in a pond, everything we say or do has an effect. He suggests that bringing the 'We' into education would promote social consciousness. This has implications for the development of water curriculum.

Gregory Cajete (2004) cites the example of comparing a community to an ear of corn: as individuals, humans are part of a collective. It reminds me of a photograph my father took of the intricate and beautiful design of the centre of a sunflower. In the same way, as community members, we are like the fibres of a weaving, part of the natural world, and together, we create the 'fabric of society'.

Consistent with this concept, the ocean is known as the sacred mat of the world (personal communication, Waikerepuru, 2001) and we are all connected by water (personal communication, Mataiapo, 2000). This connectedness implies a social responsibility, to all of nature and to each other. The Late Maori *kaumatua*, Hohua Tutengaehe, rarely used the word 'I'. When asked what he planned to do for the day, he always answered with 'we'.

In his dissertation, Walter Lightning (1992) shares the Late Cree Elder's Louis Sunchild's words and understandings about the 'Compassionate Mind'. What differentiates Indigenous Law is the spiritual connection to the land, a guardianship that was entrusted by the Creator to care for the land. 'We are all indigenous to somewhere (personal communication, Lini, 2000). Indigenous values have much to contribute to relationship to land, air and water.

Wolfley (1998) and Arquette et al (2002) discuss the gaps of scientific environmental assessments, and that there is a place, an urgent need for indigenous values in environmental planning. They explore ways that Indigenous peoples can assist in

decolonising the institutional assumption that Indigenous peoples have no place at the table in environmental decision-making. Wolfley (1998) maintains that cultural values and diversity are as relevant as biodiversity.

I was interested to see what kinds of Indigenous contributions are present within environmental education in Canada. I will illustrate an example of one way that Indigenous peoples can further contribute to environmental education: The Canadian Centre for Environmental Education uses the competencies from the national standards for environmental employment, developed by Eco Canada (retrieved from the world wide web on August 15, 2007 at http://www.eco.ca/pdf/nos_complete_final_copy.pdf). These standards were established by the Canadian government to train managers for environment protection, using scientific methodologies. Indigenous perspectives on the environment will potentially enrich the academic world, including environmental education. In the sharing of traditional values, there needs to be caution as to what is shared, to protect sacred knowledge.

In the research conducted by McDaniels and Trousdale (2005), it was well intentioned that Indigenous values taken into account when examining compensation for losses from oil exploration. However, there were problem areas in the process that they chose for their research:

1. As the Elders have shared, there could have been major losses avoided or mitigated, had the communities been consulted at the beginning, before any exploration was done;
2. The research process was flawed, in that the model used was a Euro-centric model, that Indigenous peoples were not privy to how the information was to be assessed, that the values assessed were graded into a hierarchy of importance; thus, that community members did not participate in the design, delivery and analysis of this research;
3. There is an assumption that a monetary value can be assigned to anything, including traditional values.

This study reaffirms the need for Indigenous peoples to be consulted in a meaningful way, and for the design, delivery, implementation and analysis of research be done by Indigenous researchers (Smith, 1999b).

John Borrows (2006) discusses Indigenous legal traditions that are based upon concepts found in the language and the whole way of life. He describes the following concepts: *wahkohtowin*, *miyo-wicehtowin*, *pastahowin*, *ohcinewin*, *kwayaskitotamowin*. Understanding these terms gives a snapshot of the thinking behind Cree law.

Wahkohtowin is viewed as the over-arching law governing all relations and is said to flow from the Creator who placed all life on earth. Humans are a part of this order and are organized into families. Because humanity lives under an encompassing natural law they are responsible to observe other living things that demonstrate the practice of this law. A collection of stories describes Cree observations of the natural world and these stories are used to facilitate order in Cree law. So the sun, moon, winds, clouds, rocks, fish, bugs and animals can all provide illustrations of *wahkohtowin*, which the Cree interpret into law.

Relationships between Individuals, families, governments and nations are guided by *wahkotowin*. *Miyo-wicehtowin* is said to have originated in the laws and relationships that the Cree Nation has with their Creator. It asks, directs, admonishes or requires Cree peoples as individuals and as a nation to conduct themselves in a manner such that they create positive good relations in all relationships....*miyowicehtowin* is an important legal principle because it speaks to maintaining peace between people of different places and perspectives. The maintenance of mutual good relationships, through positive support and assistance (*miyo-wicehtowin*), is often represented by the circle in Cree law. Circles are considered sacred and represent the bringing together of people. They are meant to remind people of Mother Earth and their journey through life: from the earth, to infant, to child, through adulthood to old age and back to the earth. Cree legal traditions can be conducted in circles, such as talking circles, healing circles, and reconciliation circles.

Consequences for failing to abide by Cree law are described as *pastahowin* and *ohcinewin*. *Pastahowin* is used to describe something that goes against natural law. If

such an offence occurs, negative consequences will follow, making the concept of *ohcinewin* relevant. Thus, many of the hurricanes and climate change are a result of humanity's disrespect of the natural world, and natural law. *Pastahowin* and *ohcinewin* can apply to any circumstance where the law is not followed, either through action of omission. There can be many retributive aspects to Cree law, such as "*meskotsehowin* (redress), *kakweskasowehk* (reprove), *apehowin* (revenge), *naskwawin* (reprisal), *pasastehokowisowin* (retributive justice), *naskwastamasowin apo apehowin* (vengeance), *pasihiwewin* (vindication), *atameyimew* (s/he lays blame), *sihkiskakewin* (obligation), *masinahikepayowin* (indebtedness), and *tipahikewin* (the act of recompensing).

Examples of *pastahowin* and *ohcinewin* can be found in Cree-animal relationships. Animals are regarded as persons in their own right and the relationship between the Cree and the animal-persons is governed by the same legal considerations that govern human relationships. In Cree, animals are spoken of as possessing their own *itatisiwin* 'nature': it is *itatisiwak* that caribou migrate, that beavers build lodges, and so forth. In the shaking lodge and in dreams, animals share human *itatisiwin*: They come to be like human. If animals are not treated appropriately *pastahowin* and *ohcinewin* can result, something bad will happen. There are many stories that interpret the law relating to animals in the light of these terms. The stories, the lifestyles, and the relationships to all life forms govern the responsibilities Indigenous peoples have to all of Creation. I will next discuss the implication of Euro-centric politics and economics on the health of water today.

The Political Economy of Water and the Denial of the Sacred

As Stewart-Harawira discussed, the language in environmental management by the governments is indicative of worldviews. For example, the term 'environmental management' does not uphold the sacred relationship Indigenous peoples share with the environment. Indigenous peoples are referred as 'stakeholders,' which also denies the sacred trust Indigenous peoples have to care for the Earth. Environmental management may focus on individual species as opposed to protecting entire waterways. The identification of specific risks that are of scientific concern often takes priority. The

agendas of mining and logging companies, dams, and other forms of development may never consider the impact on Indigenous Peoples, or the survival of bodies of water, plants or animals.

We can see how economic development takes precedence in Western society today. Each Indigenous community has unique issues, a unique landscape, culture and language. Many have their own local struggles in their protection of water. This section attempts to discuss some common elements of Indigenous Peoples' shared struggle to protect and respect water, and the political and economic factors that create these challenges.

In addition to land claims, then comes the question of Indigenous water claims. So then,

Water policy and legislation needs to protect water as a source of life by the recognition, respect and implementation of traditional indigenous and natural law. Water policies are needed to protect water for future generations and for all plants and animals. Indigenous peoples must participate in and provide guidance in the development of such a world water vision. (Peoples World Water Forum, Delhi, 2004)

Indigenous peoples in both developing and developed countries have critical water sanitation issues and poor access to clean drinking water. There is also a misconception that developed worlds have and maintain pristine drinking water for their populations. In Canada, which is defined internationally as a developed country, there are a disproportionate number of Indigenous communities in Canada that lack safe drinking water. About one-third (32.2%) of First Nations adults consider their household water unsafe to drink (NAHO, 2007).

This accompanies a fragmentation of responsibility between government departments, (Indian and Northern Affairs, Canada, the Department of Fisheries and Oceans, the Ministry of the Environment, Health Canada, the BC Ministry of the Environment) and a lack of understanding of the key role in Indigenous laws in the protection of water. There is also a need for political will in government to provide adequate infrastructure for safe drinking water and protection of water for all life forms.

Underlying many problems affecting the waters is the issue of governance, decision-making and multinational companies' drive towards economic gain and exploitations of the environment including water. There is exploitation and abuse of companies providing benefits to other interests at the expense of indigenous peoples (Armstrong, 2003, Newell, 1993, Feit, 2004). Ever-increasing urbanization encroaches on forests and wetlands. Governments have systematically and intentionally used indigenous peoples' land for their own purposes, so-called, 'development', which is unsustainable. Governments, scientists, politicians, Breton Wood Institutions and developers are creating water policies, and they do not understand Indigenous peoples' spiritual relationship to water (Baldwin et al, 2004). For example, the World Water Vision for the year 2025 has water managers, states, and trillion dollar water companies planning the future for our sacred waters. The decision-making structures need to be changed to be inclusive of our laws concerning water (World Water Council, 2003, UNEP, 2006).

Thus, we can see the important role history carries in the way water is treated today. It is in the values and worldviews we hold, how those values are practiced, that shape the policies of water and the structures of decision-making. It is also from our own personal and collective social experience in education that guides our decisions. The Elders have always told us to go back to our ancient values, for future generations.

CHAPTER 3 METHODOLOGY

This research was multi-disciplinary (examining literature from the fields of health, education, environment and law, as it relates to water); it is also cross-cultural, interviewing three Indigenous Elders from Cree, Maori and Nuu-Chah-Nulth nations.

Parallel Committees: Academic and the Traditional Advisory Committee

The research was structured to have an academic committee and a Traditional Advisory Council (TAC). The purpose of the two committees was to receive the expertise and guidance of both western academia and traditional educators and to recognize the importance of both bodies of knowledge with respect to their knowledge in the world of education. This dissertation benefited from having academic advisors and Elders guiding the process of the research and coursework (see Appendix C for a description of the coursework). Each course was a directed study that was guided by both a traditional Elder advisors and an academic committee member.

This research has created an ethical space and a respectful dialogue between cultures (Ermine, 2004), namely, the western academic world and the traditional Indigenous Elders and teachers. Thus, permission to do this research was obtained in a culturally appropriate manner, and also in a way that met the requirements of the Simon Fraser University's ethics review committee (see Appendices B and C).

The proposal for this thesis was accepted at SFU under the Department of Graduate Studies as a "Special Arrangements" doctoral program. It is a unique framework for research, because it acknowledges that Indigenous knowledge is in parity with western knowledge, by virtue of the program structure. In addition, because the field of study is both intercultural and interdisciplinary, the Special Arrangements program is well suited to this research.

The Academic Committee members included Dr. Margaret Jackson, School of Criminology, Simon Fraser University (SFU); Dr. Dara Culhane, Department of Sociology and Anthropology, SFU; Initially, Dr. Carolyn Kenny, Department of Education, SFU was a committee member; however, when she accepted a position at the University of Southern California, she was no longer able to be part of my Academic Committee.

The Traditional Advisory Council (TAC) Members included Elders who were interviewed included the Late Sandy Beardy (Cree); Chief Simon Lucas (Nuu-Chah-Nulth); and Te Huirangi Waikerepuru (Maori) (see Appendix C for the transcribed interviews). The traditional advisors also included Grand Chief Sydney Garriock (Cree); Gideon MacKay (Cree); Hudson and Janet Webster (Nuu-Chah-Nulth); Motarilavao Hilda Lini (Vanuatu); Chief Viraleo Boborenvanua (Vanuatu); the Late Simon Charlie (Coast Salish); Te Tika Mataiapo (Kotunui, Rarotonga); and Te Aturangi Nepia Clamp (Aotearoa).

Research Methodologies Used

This dissertation used a combination of a holistic approach (Hunter, Logan, Barton & Goulet, 2003) to Indigenous research methodology (Haig-Brown & Archibald, 1996, Kenny, 2002, Masuzumi & Quirk, 1999, Rigney, 1997, 2001, Smith, L.T., 1999a & 1999b) and a qualitative, action oriented participatory methodology (Cresswell, 1998, Marshall & Rossman, 1989, Maxwell, 1996, Strauss & Corbin, 1996).

Holistic Indigenous Approach

I used a holistic Indigenous approach to Aboriginal policy research, as defined by Kenny (2000) and Smith (1999c). Kenny's research process began with self-examination of personal beliefs, biases, knowing one's own social and political agendas, and other contextual determinants. This included a reflection of who I am, where I come from, meditation and prayer, and the burning of sweet grass. The process of research as ritual practice, as described by Kenny (2000) was part of the framework for this study. The first stage of preparation was to prepare myself to listen. Preparation also included understanding the contributions of my family, my university education and what Elders had taught me before I started this research. It is for this reason that I have included

reflections of my experience as a mother and nurse as well as the underpinning philosophy in my research approach.

The knowledge from health, education, law, and the environment was examined with an Indigenous model of education developed through discussion with Maori Kaumatua Huirangi Waikerepuru for my Masters of Arts in Child and Youth Care. This model proposed was based on the Medicine Wheel (Illustration 2) and shows, through interconnections, that these bodies of knowledge are all connected by water (Illustration 3). The Medicine Wheel describes the connections between the four directions, all of the races of the world, and the cycle of life.

As Cree people, we were given the gift of being named for the four parts of human beings. Nehiyawak, we were called. It means being balanced in the four parts that are found in the four directions of the Medicine Wheel. These four parts for human beings are the spiritual, physical, emotional and mental aspects of the self. We need to try and balance these four parts that were given to us, to function as people. The fire is in the centre of the Medicine Wheel. That is where the meaning of the teachings comes from. For me this fire is also the self. When you look at the Medicine Wheel, you start from self. And as you look out, you make your circle. This is how the Medicine Wheel represents the life journey of people. The old people will tell you it is life itself. Look at the four seasons and follow the sun. Spring in the east, summer in the south, fall in the west and winter in the north. It tells the whole story of how all life came into being abundantly bright, rising in the east and then fading away as it moves west and north. All life rises and sets like the sun

(Mary Lee, retrieved May 21st, 2007, from the World Wide Web, at <http://www.fourdirectionsteachings.com/main.html>).

Illustration 2. The Medicine Wheel

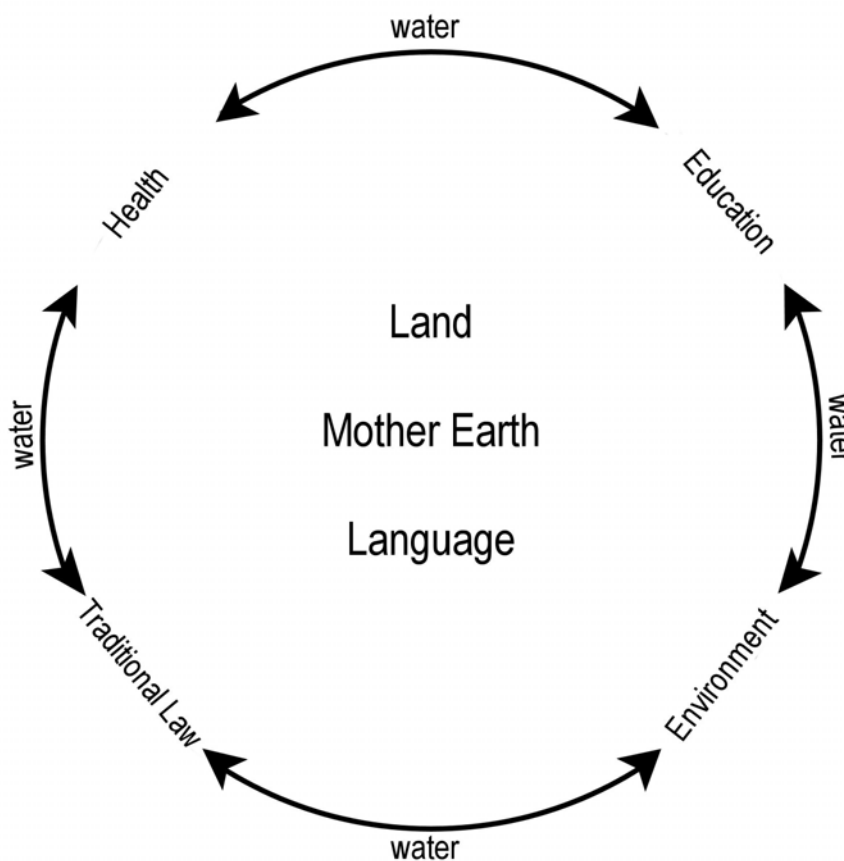


Note. Used with permission.

Indigenous Models of Interconnections Between Law, Education, Health and the Environment

Through discussions with Huirangi Waikerepuru (1999), a model was developed for education about water (see Illustration 3).

Illustration 3. The Interconnections of Health, Education, Law and the Environment



Note. A model for education, © H. Waikerepuru and D. Sanderson, 1999.

The illustration shows how the realms of health, law, education, and the environment intersect, and how all aspects of our lives are interconnected, and connected by water. If water is life and is also the physical form of the spirit, this model will provide the framework for discussion about how water connects all of these aspects of life. Today's world tends to analyse by dissection and fragmentation. This pedagogy, in contrast, will show how concepts of health, education, law and environment are all related, and are connected by the sacred element of water.

The education we receive, the good health we enjoy, and a healthy environment, all depend on how well the traditional and natural laws about water are observed. Thus, water, the essence of life and spirituality, is the binding connective force.

After listening to the Elders, I reflected on *how* those disciplines are interconnected, and what is their relationship is to the other. I came to the conclusion that the roots of Indigenous laws are found in the creation stories, and in the values that are taught in the original languages, handed down for generations.

The model of the Spiral (Illustration 4) brings an added dimension: it is the movement of the circle, the movement of water. The spiral depicts more precisely how health, education, law, and the environment are interconnected.

Illustration 4. Water is Life Spiral



Note. Drawn by Darlene Sanderson.

The spiral symbolizes life to many Indigenous cultures. The spiral can also be seen in the form of the *koru*, the unfurling fern frond, as shared by *kaumatua* (elder) Waikerepuru (personal communication, June, 1996) whereby the spiral makes an appropriate metaphor as water equals life. The spiral implies a source of energy and also movement, growth and change. It also shows a starting place, and that starting place for me lies in the creation stories. I later found a description of the relationship between the circle and the spiral:

The sacred Circle of Life turns slowly but inevitably back to the place where it began...as each age passes, it cannot be reclaimed. We cannot

go back in time. If we were to look from above at the Circle of Life it would appear as a gigantic spiral. Each age, or revolution of the Circle moves the next Circle to a plane in perfect concentric alignment with the last, but on higher level in the spiral. (Lee Standing Bear Moore, 2006)

In the centre of the spiral, at the beginning of time, are the Creation stories. Natural law creates and informs the traditional Indigenous laws (personal communication, Waikerepuru, 2000) through language, ancient stories, and art forms. Traditional laws are passed on through traditional forms of education. Education is the next concept found in the spiral. This education begins before birth, with songs that are sung to the unborn baby (Harris, personal communication, 2000). Education also includes learning the language, cultural practices, ceremonies, and rituals. Good education leads to the next concept of health. It is through this kind of education, a traditional education through the language and cultural practices that teaches about identity and traditional values, so that Indigenous peoples can enjoy good mental, physical, spiritual, and emotional health. At the same time, good health may be enjoyed by all of nature, by all plants and animals. So, we might use the spiral as a metaphor of life: starting with creation stories/traditional laws at the centre, moving along the spiral with education, health and the environment.

An inter-locking double spiral (Illustration 5) can demonstrate balance with both life and death, male and female. For instance, some Indigenous cultures (Navajo and Tewa) talk about male and female rain (Goldtooth, personal communication, 2006). Water brings both life (i.e., amniotic fluid) and death (hurricanes and tsunamis). This inter-locking spiral also has parallels in science, with the double helix found in the structure of human DNA. For the purposes of this chapter, I will use the model of the “water is life” spiral to demonstrate the interconnections of law, education, health, and environment with water.

**Illustration 5. Koru Design *Pounamu*
(Double Spiral)**



Note. Symbolizing the natural universal law of life's continuum. Made from Pounamu Jade (New Zealand Greenstone) 120 – 150 million years old. Found in Te Waiponaumu; Huirangi Waikerepuru, used with permission.

Action-oriented Participatory Approach

An action-oriented participatory approach was utilized to provide flexibility in the research process (Lewis-Beck, Bryman & Liao, 2004, Reason and Bradbury, 2001, Cresswell, 1998). Specifically, I implemented an action-oriented learning approach developed by Lee, (1996) in which action learning is a holistic method that is transferable across cultures, because it is (by definition) grounded in the specific political and cultural contexts in which it is applied.

This type of research methodology is in harmony with Indigenous research methodologies, as it recognizes learning through the intellect, the hands, and the heart, (Lee, 1996), and through life experience (Maracle, 1996). The other dimension, spirituality, was an integral part of this Indigenous research in that it was a fundamental part of the process and content (Smith, 2000).

Some researchers working with Indigenous peoples have established a community advisory committee as part of their research approach (Gibson, Cave, Doering, Ortiz, & Harms, 2005). This committee laid the foundation principles to monitor ethical and cultural appropriateness. I used this model to document stories from three oral historians, Cree Elder Sandy Beardy, Maori kaumatua, Te Huirangi Waikerepuru, and Nuu-Chah-Nulth Chief Simon Lucas.

There is a distinction between storytelling and oral histories. The difference between the two is that storytelling may be a part of oral history, if it is a story that has been passed down for generations. It may simply be a sharing of personal life experience. Oral histories are a collective of ancient stories that include creation stories of the place, and transmit traditional values and teachings. This knowledge is sacred and belongs to the people from where it originated. In this case, the Elders shared both their personal experiences and the knowledge passed down to them from previous generations. Until recently, universities have not had access to this body of knowledge. There have been Indigenous peoples who have shared with university researchers, and these stories have been interpreted from the researcher's perspective. Sometimes it was done in a respectful way; other times, it was a form of misappropriation of traditional knowledge (Jovel, personal communication, 2006, Smith, L. T., 1999c).

Process of Identifying the Elders to be interviewed

The Elders whom I interviewed were introduced to me by word of mouth and each carried community respect from members of their own nation. All of the Elders were not only respected in their own communities, they are also respected in the non-native community. They are/were able to successfully walk in both worlds. The other Elders on the traditional committee are respected Elders whom I met through the non-government organization, Pacific Peoples' Partnership, my work in Vanuatu, and my work in Canada.

The traditional committee was initially asked to be advisors for the thesis. Some of the identified Elders were asked to fulfill this role. Factors such as age, geographical distance, the scope of the study, number of Indigenous nations involved, community recommendations, local community involvement, Elders' health status, and the

knowledge base of the Elders were considered in the selection process. Some Elders who were asked to be on the committee declined due to their local community commitments; however, they recommended other Elders who were known to be knowledgeable about traditional teachings on water. Some Elders were unable to remain on the committee because of health, political or family obligations. The late Elder Sandy Beardy (from the Cree Nation) was introduced to me through a series of connections provided by Professor Emeritus Dr. Verna Kirkness who is a Cree Elder as well as an academic scholar. Professor Kirkness recommended I contact Margaret Harris, a knowledgeable Cree Elder in the area of stories, songs, and making traditional regalia. I felt privileged that my daughter, Amy, and I could learn about traditional forms of education and healing from Grandma Harris.

Dr. Kirkness also suggested that I contact the Cross Lake First Nation. I met Chief Sydney Garriock from the Cross Lake First Nation at the University of Victoria (UofV) around the same time as Chief Sydney received his honorary doctorate from UofV. Chief Sydney Garriock recommended that I listen to Elders Sandy Beardy and Gideon MacKay. Chief Sydney Garriock and Elder Sandy Beardy had known each other for years, as both Chief Garriock's father and Sandy had been Elders in the United Church of Canada. Chief Sydney Garriock was the facilitator of our discussion. Having discussed the intent and purpose of the research with me, Chief Sydney explained, in Cree, both the intent and purpose to Elder Sandy.

The late Sandy Beardy was fluent in the Cree language and had a deep understanding of the relationships of all things in the natural world, including the place from which he came. He knew about ceremonies and rituals and was a traditional pipe carrier in the Cree Nation. Sandy Beardy was also a leader in the Council of Elders for Pimicikimak First Nation, Cross Lake, Manitoba.

Speaking with Elder Gideon MacKay about how one can identify an Elder who is a carrier of knowledge about water, he replied:

In the beginning of May, the ice opens up. Starting in May, that's when the water opens up. The lakes are frozen and snow falls. Sometimes, the snow is up to 2-3 feet. If you come here in January, the snow and ice is

very thick, if you were here, you could see when the ice is thick. In March and April, the ice starts to melt. The water is open in May. It is different in the North from the South and it is different from the people in the west, too. You talked with Sandy Beardy. You can tell a little story about what he said. I miss Sandy. He went with me to the Council of Elders, to the meetings. Now he has passed on and I go by myself. We are starting a traditional school here. We are losing the language. I speak High Cree, and some of the Elders do not understand what I am saying. You should learn High Cree. (personal communication, MacKay, 2000)

From this explanation, one can see that Gideon also carries special knowledge about water. Through sharing his experience, he was teaching how to identify an Elder who is knowledgeable about water. I understood that an Elder is given community respect for his knowledge by community members and that Gideon recognized Sandy's observations of the natural world, his life experience, and his participation in the Council of Elders. I also learned that traditional knowledge is based on the land of one's origin, as the knowledge is different between the different directions. Implicit in Gideon's sharing was the importance of the human connection and the connection of the heart. When he told me that I could share a story about Sandy, Gideon demonstrated how storytelling is used in the transmission of traditional knowledge about water.

My connection to Chief Simon Lucas (from the Nuuchahnulth Nation) came from my wonderful friendship with his sister, Janet Webster, and her husband Chief Hudson Webster. I became friends with the Websters when I was working as a nurse on the Coast Salish community of T'Souke. I received my traditional name there and it was at this ceremony that I met Chief Hudson and Janet Webster. During the course of our friendship, Janet had told me about the work that Chief Simon Lucas does for the Nuuchahnulth.

As I understand it, the Elders in the Nuuchahnulth nation gain respect from their lifetime experiences and from the knowledge that is passed down within families. Chief Simon Lucas is a highly respected hereditary chief. This recognition is communicated in the context of the traditional longhouse. He has a deep knowledge of the ceremonies and stories and he is a fluent speaker of the Nuuchahnulth language.

When I was in Aotearoa (New Zealand) in 1994, and preparing to go to Vanuatu to work and study with the Indigenous community on Indigenous children's health, I met a recognized living treasure, the late Maori *kaumatua* (Elder) Hohua Tutengaehe. Described by Maori community members as "a living encyclopaedia of Maori genealogy," Hohua sparked an interest in my own background. I began to look at my ancestry and cultural background and what this meant to me. Hohua had shared that "education is the key to the survival of our planet" (personal communication, 1994). He also prophesied "someday, scientists will ask the help of Indigenous peoples for the survival of Papatuanuku (Mother Earth)" (personal communication, Tutengaehe, March, 1994).

When I returned to Canada I invited Hohua to participate in an Elders' conference and a conference called "Making Peace and Sharing Power." He recommended an educator, Huirangi Waikerepuru, a Maori Kaumatua and Elder who was raised under the guidance and teaching of his grandparents' generation. He was selected to carry that knowledge and is recognized by his extended family group and Maori society as a *tohanga*, a traditional keeper of knowledge. Fluent in the Maori language, he has taught traditional chants in the setting of the traditional *marae* (meeting-house) and carries knowledge about Maori cosmology. He has the respect of the community as an Elder who teaches about *wairua* (spirituality) and the connection between humanity, the land from which we originate, and the universe.

I heard about Motarilavo Hilda Lini's knowledge and wisdom many years before I met her. Motarilavo Hilda Lini and Chief Viraleo Boborevanua are deeply spiritual and inspirational people. They came to Canada to share their knowledge about their Indigenous laws; they also spoke about observing all the daily duties and activities of the plants and animals on their home island of Pentecost, Vanuatu.

Te Tika Mataiapo was also invited to come to Canada by the non-government organization called the Pacific Peoples Partnership. At the forum called Coastal Zone Canada 2000, Te Tika spoke eloquently about her connection with the ocean. Her name means "the Truth". Te Tika Mataiapo nominated Te Aturangi Nepia Clamp (Maori) to go to the Climate Change Congress to share traditional Maori perspectives on sustainable

practices that can address climate change. He spoke about traditional solutions, drawing from his traditional knowledge transmitted through his art.

Finally, through my volunteer work, I met the late Simon Charlie, a wonderful Coast Salish Elder, who was a master carver of totem poles, traditional masks, and many other art forms. He had a vision of the creation of a traditional village to pass on ancient knowledge to the young Coast Salish and to the wider community.

Research Ethics and the Protection of Traditional Knowledge

Ethics may be identified through the application of values, principles, intentions, personal sense of responsibility, and self-definition that guide behaviours, practices, and action towards others (Ermine, Sinclair, & Jeffery, 2004). Ermine et al. also maintain that to achieve and to sustain appropriate relationships and ways of understanding all the elements of the universe, the element of respect is required.

The protection of traditional knowledge is extremely important to this research. Currently, many Indigenous communities are developing their own research protocols (Union of BC Indian Chiefs, 2000). As Darrell Posey (1995) explains, the protection of traditional knowledge through international discourse has been approached from two standpoints: from an intellectual knowledge standpoint (e.g., The Mata Atua Declaration on Intellectual Property Rights) and from a human rights standpoint (e.g., The Declaration on the Rights on Indigenous Peoples, Mead, 2000). The Kari-Oka Declaration is also a protective mechanism for intellectual property rights. The National Aboriginal Health Organization (NAHO, 2002) has outlined the moral, ethical, cultural necessity for First Nations to maintain ownership, control, access and possession (OCAP), as self-determination in health research. These principles, when applied, demonstrate the respect that is due to the community and their intellectual property rights. This poses a challenge to researchers because it requires a process of community interaction and relationship building that would not otherwise be asked of many research projects. It is because of the importance of protection of traditional knowledge, that every university would benefit from and Indigenous ethics review committee. This type of culturally appropriate infrastructure has been developed within some universities, but not all.

The Tri Council documents, a policy statement from the National Science and Energy Research Council of Canada, the Canadian Institutes of Health Research (CIHR), and the Social Sciences and Humanities Research Council (SSHRC), (Interagency Secretariat on Research Ethics, 2005, p.1, ii) state in their mandate that they are “committed to the highest standards of integrity in research and scholarship.” Achieving this integrity involves educating researchers about the Tri Council principles and the OCAP principles outlined by NAHO (Snarch, 2004). Section 6 of the Interagency Advisory Panel’s Activities outlines the stewardship responsibilities agencies have for the development, evolution, interpretation and implementation of the Tri Council Policy Statement (Interagency Secretariat on Research Ethics, 2005, p.4, ii).

Castellano (2004) also outlined a proposed set of principles to assist in the development of ethical codes of conduct for research, when working with aboriginal communities. She also built into these principles, the need for the recognition of our collective history and the collision of worldviews.

Thus, all researchers working with Indigenous Peoples would benefit from taking a course in Indigenous Research Methodology. This provides the fertile ground for *ethical space*, as Ermine (2004, May 10-13) describes, and the need for mutual respect, before this discourse can begin. Indigenous Peoples’ knowledge, its value and contribution to society, can be reflected in university policies and their researchers’ interactions with Indigenous Peoples. Capacity - building of Indigenous researchers is necessary, which will be described later in this chapter.

To ensure the protection of traditional knowledge, copyright to the knowledge that the Elders have shared is under the names of the Elders and their families. In this way, the university has the opportunity to recognize Indigenous knowledge. Because the local protocols determine what sacred knowledge is to be kept within the communities and what is permissible to share, local protocols guide the process of consents and research methodology. Each Elder interviewed was/is a cultural authority and knows his own protocols.

Due to the destructive impact of western research on Indigenous peoples, many Elders may feel that they are being asked to sign something away and may resist formal consents done in the academic manner. As Smith (2000) describes, many Indigenous Peoples look at *research* as a dirty word. Historically, the Indigenous people who have been researched have not benefited from the research, and have been exploited or hurt by the research process.

As requesting a written consent is traditionally foreign to Indigenous Peoples, consents are given orally only after a level of trust has been achieved. As Carolyn Kenny (2000) writes:

...the academia and all it represents are embedded with the values and beliefs of the people who created them. Therefore, the universities were not created on a foundation of aboriginal values, not at all. (p. 139 -140)

I obtained both a traditional oral consent to satisfy the traditional approach and a written consent to fulfill the university requirements (see Appendix B). Oral consent was given. Specifically, after I explained the intent of my study, the Elders stated my research was important. Indeed, the Elders encouraged me to do this research. The Elders also stated it was important to share traditional knowledge about water.

Some elements that were shared with me were not included in this dissertation. These elements included stories and songs specific to families, sacred ceremonies, a sharing of dreams, protocols that are specific to tribal groups, chants, and art forms (painting and carvings).

There was much discussion about whether or not SFU should make a special provision to recognize the copyright of the Elders' words as belonging to the Elders and their families. I asked the Elders if they wanted their statements to be in a special archive that only allows their release with their or their family's permission. All the Elders wanted their words included in the body of the dissertation. I sent multiple drafts to the Elders, and in the case of Cross Lake, I sent a copy to Chief John Miswagon. The Elders made the decision regarding whom they wished to share the draft thesis with, in their own

community. I also sent a copy of the late Elder Sandy Beardy's interview to the education coordinator, at the Chief's request.

In conducting this research, I made a commitment to adhere to the following ethical principles:

1. Respect protocol: Ensure that protocol is respected. When the topic of water is addressed, the Elders may want to address issues of concern to them in their part of the world, and there may or may not be time for me to share what Elders from other places have shared
2. The control, ownership, access to and the dissemination of the research will be in the hands of the Elders and their families. The university ethics and community demands needed to be bridged, by the careful verbal explanation of the intent and purpose of the research. As each Elder came from an oral tradition, only the knowledge the Elders wanted in the written form was included in the dissertation. In The Late Elders Sandy's case, the Grand Chief Sydney Garriock was the bridge, as he explained to the Elder in Cree, and provided the written consent on his behalf, for the university. Both Huirangi and Chief Simon Lucas were well acquainted with university protocols, so gaining a written consent from each one was uncomplicated. As the intellectual property rights belong to the community, the university did not play a role in the selection process of the Traditional Advisory Council.
3. My accountability in conducting this research was to my community and to the communities of the Elders who shared their knowledge. The Elders' words are theirs and belong to them; the ownership of knowledge belongs to the Elders and their families. I sent drafts of the dissertation to the Elders. I asked each Elder if they wanted me to send it to their respective tribal councils. Elder Sandy Beardy requested that I send it to Chief John Miswagon. Both Te Huirangi and Chief Simon Lucas shared that they would pass it on to their own communities. The accountability to the committee was reflected in the methodology in the following way: The thesis was sent several times to the Elders (and their communities when requested) for their feedback to ensure that the information was accurately conveyed. As an Aboriginal scholar, I agree with Kenny (personal communication, 2003), "it is critical

for aboriginal scholars to be accountable to aboriginal people as much as they are accountable to academic committees. This is what we are striving for as Indigenous scholars – appropriate accountability”.

4. In keeping with the traditional ways, the research agreements reached with the Elders were oral. With all three Elders, the oral research agreements were built upon an element of trust, and relationships and friendships that were previously established. Who we are, where we are from is very important, and also how we are connected had a great deal of significance. So, identity, interconnectedness, and the value of trust and friendship are all important elements to my work about water. I also asked the Elders about whether I needed to obtain consent from the tribal councils.

Because each Elder is/was head of their own families, they were happy to speak on behalf of their families. It must be noted that every community is different, and communities are now establishing their own research protocols.

As Ermine et al. (2004) noted, it is important to share with universities about the differences between Indigenous research consents and processes and those of western traditions that have their roots in Euro-centric education systems and value bases.

5. The benefits of sharing the traditional knowledge and their records should go back to the communities where the information originated. The traditional knowledge that is recorded (audio, video and written) will be returned to the Elders and to their families and communities, as they chose. I felt that the Elders would know the best way to conduct the sharing of information, and I trusted in this process. By returning the information shared back to the Elders, it was my hope that this is one way traditional education may be preserved and shared with the youth. For example, the recorded information from Sandy was sent to the local school, to the education coordinator, to be shared with the children.
6. Future work with communities

I am committed to building research capacity in the Indigenous communities in which I worked. For example, by encouraging and sharing research skills with the youth, more community members will hear what Elders are saying about water and will

learn the value of their teachings in today's world. I would build on community research capacity by the following strategies:

- *Identify which Elders in the community carry the knowledge about the topic of consideration, in this case, water.*
- *Work with the community members, for example the youth coordinator or education coordinator, and ask them to identify students who would like to work on water issues. Perhaps they would like me to make a presentation to the class.*
- *Ask the education coordinator if they would like me to facilitate a workshop that shares my experience with listening to the Elders. This workshop may be offered to the school, or to all community members.*
- *If at all possible, go visit the Elders before any workshop happens*
- *Work with the facilitator and the Elders to share how other communities protect and archive their traditional knowledge. They may or may not wish to record it by audio, written or video forms of communication.*

The potential exists to replicate this research process, and it will vary with each community, depending on their protocols, traditions, desire to preserve the knowledge, and whether or no they want to maintain the oral forms of transferring that knowledge. Indigenous communities, through this process, can establish their own water protection standards and policies that are based on their own traditional laws of nature.

How Each Culture Recognizes an Elder as Respected in their Cultural Context

Cree

From the literature, David Mandelbaum (1996) described how traditional Cree community members acquired prestige or respect in the community. There are very specific roles and responsibilities within Indigenous communities that needed to be fulfilled. Respect is directly linked to personal qualities, such as bravery and giving to the poor. Strength and endurance are also highly respected. The wisdom that comes with

life experience and the community recognition of that wisdom is a mark of a respected Elder. In general, society defines an individual's role in the community.

There are many more ways to acquire respect in Cree society. For example, a Cree person might acquire respect for her or his commitment to community well being, for being a good cook, a skilled hunter or a fisher. Boldt (1993) described traditional leadership in the following way:

...leaders in traditional Indian societies had to earn and legitimate their status and influence by establishing a reputation for generosity, service, wisdom, spirituality, courage, diplomacy, loyalty and personal magnetism... in traditional Indian societies, leaders achieved status and influence, not by possessions or wealth, but by the distribution of it. They shared generously, because it was their obligation – the structure of beliefs, values, customs and traditions required this behaviour. (p. 118)

The late Sandy Beardy possessed many of these above-mentioned qualities that were recognized by his community and visible by the way he lived his life.

Maori

Best (1976) described how Maori, in their knowledge of *karakia* (chants/prayers) raise the *mana* (power/prestige) of the *kaumatua* (Elder). Henare & Kernot (1996) paint the context of Maori spirituality, in their paper about their 'spiritual landscape.' Generosity, kindness, commitment to community well being, knowledge about tradition, and the skill to be a great orator are personal qualities of Maori Elders. Mead (1992) describes in detail the mandate given to Maori leadership to represent their people. He describes the combination of genealogy, talents, personal attributes, community recognition, (both within and outside the family groups) and the spiritual principles that guide the selection of categories for Maori leadership and decision-making. Implicit in this knowledge is the process of dispute resolution and peacekeeping. Henare (1995, October 14-16) describes whanau (family) duties and responsibilities. Huirangi has recently received national recognition in New Zealand by the Maori press for his contributions to preserve the Maori language and culture. He has long worked in the arena of truth and reconciliation to bridge gaps found in governance and education.

Nuu-Chah-Nulth

When I asked Chief Simon Lucas how the community respects an Elder, he asked me not to include this information in this dissertation, as this is knowledge that he preferred to keep in the oral form. This reaffirmed my commitment to only write what the Elders want to be written. As these were his wishes, I also did not pursue finding this information in the literature. Forefront in my mind was the importance of respecting the wishes of the Elders regarding what information can be shared in a written format.

Tools Used to Record the Elders' Words: Audiotape and Videotape

Both audiotapes and videotapes were used. Interviews are especially important in the transmission of traditional knowledge and teachings because storytelling is the vehicle for both education and health information (Kenny, 2002b). Approaching Elders was much different to approaching western participants. A *good feeling* was always there, that the research is ultimately going to improve the well being of their community and ultimately all communities. By a good feeling, I mean that there was a mutual understanding that this information is to be used in a good way, a consensus between us. This element of a good feeling is also something culturally specific to Indigenous peoples, which is not normally part of the discourse in western research methodologies.

Each Elder was interviewed and orally shared life experiences, philosophies, and stories. I recorded the Late Elder Sandy Beardy by audiotape and wrote down those parts he asked me to record in written format. Chief Simon Lucas' interview was recorded by videotape and then transcribed. Huirangi had his words written and the paper he shared with me was used as the curriculum in the context of a traditional meeting on the topic of water on his home *marae* (meeting-house).

The Interview Process

Although the interviews with the Elders used open-ended questions, sometimes I did not ask any questions. With each Elder I began our time together by stating, “I want to listen to what you have to say about water.”

The late Elder Sandy Beardy, Cree, Huirangi Waikerepuru, Maori and Chief Simon Lucas, Nuu-Chah-Nulth were asked the following questions:

- *Tell us about water...*
- *What is the meaning of water in your language and culture?*
- *Why do think that water is important?*
- *What do you think that we need to do in the future?*
- *What are the Elders' teachings about water, and how can those traditional teachings be applied today?*
- *How can health, education, law and environmental legislation be changed to be more in keeping with traditional law?*

The objective of the open-ended questions was to hear what the Elders thought were important meanings of water, so that guidance may be achieved in future actions to protect the water. In other words, the objective was to identify specific teachings that would translate into practical actions for Elder-driven community based activities for the protection of water.

The Elders were interviewed in three different ways that fit into the context of the events of the day and fit into the context of our relationship. Elder Sandy Beardy was interviewed and recorded by audiotape. He was very clear that he wanted me to write down what he had to say about water. Huirangi came to Canada for one month and drafted a written statement about water that he would also use in the context of a *wananga*, or traditional meetinghouse in his home territory. Chief Simon Lucas agreed to be videotaped during a visit with Huirangi and me; the videotaped interview was later

transcribed to text. It is of significance that the interviews were conducted in ways that fit the context of each of the Elder's situation.

When listening to the Elders, the meaning of the story was sometimes forefront and apparent; sometimes it was more subtle and became apparent at a later time. It is important to remember that cross-cultural research requires respect of local protocols and boundaries and an understanding of the researcher's responsibilities within this context.

The Role of the Elders

Traditionally, Elders have been the foundation for education in Indigenous communities. Elders are the teachers, mentors, and guides for the development of all community members because of their experience and knowledge of language and cultural practices. The Elders teach about aspects of the self, community and relationship with the environment, which includes the mental, physical, emotional, and spiritual dimensions of life.

Summary of the Research Process

Like the testimonio approach to research, (Te Whata, 2001) there was never an attempt to be 'objective', because the Indigenous framework necessitates the personal and spiritual connections that we all share. Because of the dynamics between the intellectual, spiritual, emotional and physical realms, the western concept of objectivity does not fit into this research process. It is a process of learning about traditional teachings, which engages an Indigenous pedagogy and research process. This approach is about relationships such as my interviews with the Elders and their relationship with water, the natural world, and the cosmos. Our teachings tell us that the *answer lies within*, and this also has impact on seeking feedback. Unanticipated phenomena were part of the process, as many Indigenous Peoples' worldview embraces change and adapts to the connections shared with society and events (Kenny, 2001). The interviews and my response to them, in the discernment of relevant literature, is a

description of *snowballing*, where the process of relating the Elders' statements shaped the strands of literature that I researched.

At the interview, I explained the intent of the research. All of the Elders were happy to share their knowledge and were anxious to talk about water and what it meant to them, their lives, and their people. After the research intent was carefully discussed, consents were achieved orally, satisfying a traditional approach. The written consent was obtained at a later time, satisfying the SFU Research Ethics Committee. Thus, both pedagogies of education were addressed.

Open-ended questions were asked in the interview. After the interview process, a content analysis was done revealing Indigenous teachings and philosophies about water. I reflected upon the Elders' words to me and asked myself the following questions: What did I learn from this time with the Elder? What did the Elder seem to be emphasizing? What did the Elders say that was in common with what the others talked about?

After I asked myself these questions, I reflected upon related topics from scholarly literature that had connections to the statements that the Elders made. The Elders' words were the focal point and connections were drawn with literature from both western and Indigenous scholars. These areas of study for the directed study coursework were chosen based upon the pedagogy or model of research developed with Huirangi Waikerepuru.

The teachings have sprung from the Elders' words; there are many understandings, principles, and practices of ceremony and ritual within oral cultures that have never been written down. Each person who hears the stories and teachings will learn something from the Elders. In this dissertation, the research encompassed a direct communication between the Elders and me. From this communication, Indigenous principles were identified, together with the Traditional Advisory Council.

Limitations

When comparing the two cultural bodies of knowledge, the Elders' quotations brought an added dimension to the knowledge springing from scholarly literature. This study is limited in that the principles did not arise from a collective process, as the outcome of a discussion of a community group. In other words, the identification of Indigenous principles would occur through Indigenous meetings on water that focus on the teachings of knowledgeable local Elders. A gathering of Elders would have given a collective voice to that wisdom.

Elders that were interviewed were from different oral traditions. Each Elder can only communicate a part of their culture; each family holds different bodies of knowledge, and of course, there is great diversity between cultures. I would argue that an oral tradition is the collective body of knowledge that a family or tribe holds. Thus, another limitation of this study is that it only encompasses the storytelling and some oral history of three individual Elders, coming from diverse cultures. An additional limitation of this study is that it was not balanced by seeking the words from three women Elders, who I have since learned, carry a very different body of knowledge and wisdom.

Future research could include what the Elders from a tribal collective would say about water; what specifically women Elders would say about water; what a collective of respected Elders from many Indigenous nations would contribute. However, this research provides a starting point for future discussion at the community level.

Another limitation of the study involves not fully understanding the original language of each Elder. For example, to fully understand what the late Elder Beardy meant in his words to me, I would need to know the Cree language and be on the land to understand the relationship to the land. There is always something missing in the translation from one language to another. Being on the land would have provided the cultural and physical context of the stories. The teachings would be more meaningful if one is able to see the lake and river the Elders spoke about and to have felt the environment of this water. The experience of this research process led me to understand that it is important for me to go to the landscapes of my origin. Language is the key to understanding

Indigenous perspective; namely, the relationship between the land and the language (Kenny, 2001, Kirkness, 1998).

Adequate time was needed to listen to the Elders. From past experience with Elders, I knew never to interrupt while they were speaking. Repeated interviews enhanced my understanding, as repetition is a form of traditional education. Feedback and response to the contributions the Elders made to this dissertation was often oral rather than written and did not always fit within a specific time frame. Time, space and silence hold different meanings within Indigenous cultures. For instance, many Indigenous Peoples live in the present and hold great meaning in their daily life events. Some concepts do not exist, to my knowledge, in the western scientific framework. For example, Huirangi spoke about “the great nothing, the long nothing,” (Waikerepuru, personal communication, 2004) some of the *ten nothings* that existed at the beginning of time.

There was a wide range of responses from the Elders regarding what could or could not be written down about water. Chief Simon Lucas did not want some things written down, while the late Elder Sandy Beardy wanted me to write down everything he had shared with me. In relation to recording traditional knowledge belonging to another culture, Huirangi had shared with me this statement: “I am sharing this knowledge with you for a reason, for future generations, and if anyone questions that, they can come and see me about it” (Waikerepuru, personal communication, 2004). As an Indigenous scholar, I feel a deep feeling of gratitude, honour, and responsibility to follow their wishes.

The next chapter outlines a rationale for the need for reforms in education and governance, to be able to implement the traditional teachings of the Elders about water. In order for the ancient ways to guide us forward, we need to identify the barriers that create the obstacles. In naming barriers, problems or issues, they may be addressed in the process of finding solutions for the future.

CHAPTER 4

RATIONALE FOR THE NEED OF REFORMS IN EDUCATION AND GOVERNANCE

It is clear from the Elder's words and from the literature, that there is a need for a sharing of traditional Indigenous values, laws and practices. In the next section, I will discuss (1.) a clear rationale for the development of an education curriculum that shares Indigenous peoples' knowledge about water; (2.) the need for the application of Indigenous governance. By creating a non-government organization, a World Indigenous Water Caucus (beginning with Aurora, A Clean Energy Foundation). This provides an example of bringing together traditional knowledge, values and practices with the application of clean energy technologies.

“Our traditional practices are dynamically regulated systems. They are based on natural and spiritual laws, ensuring sustainable use through traditional resource conservation. Long-tenured and place-based traditional knowledge of the environment is extremely valuable, and has been proven to be valid and effective. Our traditional knowledge developed over the millennia should not be compromised by an over-reliance on relatively recent and narrowly defined western reductionist scientific methods and standards. We support the implementation of strong measures to allow the full and equal participation of Indigenous Peoples to share our experiences, knowledge and concerns. The indiscriminate and narrow application of modern scientific tools and technologies has contributed to the loss and degradation of water.”
(Indigenous Peoples' Statement, World Water Forum, 2003)

Globalization and the privatization of water places water and all of life at risk. Today we are faced with the commodification of human labour (Henare, 1995), time, intellectual property, knowledge and biopiracy (Harry, 2000, Posey, 1995, Whitt, 2004), land, and now, water (Barlow, 2001). When examining the structure of the World Trade Organization (WTO) and the International Monetary Fund (IMF), one might ask, how are the poor represented in the decision-making? As Marilyn Waring reveals in her book 'Who's Counting?' (1997), the WTO guiding principles were created by two economists.

The implications of free trade are that, with control and economic gain as the foci, Indigenous Peoples and the poor are further marginalized. As a route to bringing together the politics, economy and cultural (spiritual) considerations of water, there is a moral and ethical imperative for spiritual bodies to provide guidance to economic organizations.

The privatization of water is a danger to all people. The commodification of the sacred is happening with the creation of trillion dollar multi-national companies. The Council of Canadians and many other international non-government organizations have been fighting this movement for many years with some successes (Barlow, 2001). This movement began in 1994 in Uruguay with the introduction of the General Agreement on Trade in Services (GATS) by Monsanto, who wrongfully proposed that bottled water would improve poor peoples' access to water (personal communication, Stewart-Harawira, 2007). The biggest threat to our sacred waters is the Security and Prosperity Partnership (SPP), with closed-door meetings between government bureaucrats from Canada, the United States and Mexico to plan for an eight lane corridor superhighway that will transport goods, a railway and huge pipes to transport oil and water. This has huge implications for piping away our water, both for the environment and also for Indigenous peoples' rights. It is a well-known fact that Canada has fresh water and the US has a huge demand for it. It is the C.E.O.'s of multi-national corporations that are advising the SPP process and the government heads, which is completely counter to the notion of democracy. This process also totally ignores indigenous rights. Therefore, water services must be provided by the public not the private sector. Once water services are privatized, the essence of life itself is determined by the market, which distributes water, based on the ability to pay. Those who can pay increasing water rates get access to the water they need, those who don't have the means are cut off, and after that remain in poor health for lack of clean water for domestic use.

The discussion of the impact of war on the environment and water can merit a thesis on its own. The use of depleted uranium, the continued testing of nuclear devises, all have huge impacts on children and the environment (UNICEF, 2006). Water has a key role in finding peaceful solutions. The United States government links globalization with their 'moral imperative' to fight terrorism. As Stewart-Harawira (2006) discusses, there is an

odd juxtaposition of the concepts of liberty, fighting for the 'greater good', with increased surveillance and militarism.

The promotion of nuclear energy poses many questions regarding its safety on the long term. The fallout of Chernobyl is still being felt today. The Global Nuclear Energy Partnership (the U.S., China, Japan and Russia) will be proposing that the countries producing the uranium (Canada and Australia) receive the nuclear waste, even when they are not consuming the energy. The rationale to do this, given by the GNEP is that it would help prevent the reprocessing the waste for creating a plutonium bomb. (Retrieved from the World Wide Web on September 14, 2007, at <http://www.cbc.ca/canada/story/2007/09/14/canada-nuclear.html?ref=rss>) Western media communicates western values of consumption, individualism and economic gain (Herman, E., Chomsky, N., 1993), when it could be a positive force for appropriate education of the spiritual nature of water. It is the advertising companies (the corporations) who drive the western media (Herman, E., Chomsky, N., 1993). Thus, today we are witness to the huge machine of the global corporate world as the dominant decision-maker, which supersedes legislation of all levels of government as well as indigenous laws and international law. The solutions lie in the sharing of alternate worldviews and economies: those of Indigenous peoples (Stewart-Harawira, 2006). The Indigenous Institute of Pentecost , Vanuatu provides an example of a working traditional economy that is based on traditional laws that share with others and care for the natural world.

The United Nations and The Declaration on the Rights of Indigenous Peoples

The United Nations has moved to address the crisis of water in the work of the United Nations Development Plan (2006). This effort has used a myriad of scientific studies to analyze the situation of the world's water. There is virtually no mention of Indigenous peoples and their perspective on this situation. This report expresses the desire to meet the Millennium Development Goals, to reduce poverty, increase access to clear water and sanitation, for a cleaner environment and for better food security. Indigenous peoples can assist in meeting these goals, when they are consulted. Similarly, in the

report, 'Water, A shared responsibility: the United Nations Development Report 2' (2006) devotes less than two pages of information to Indigenous perspectives on water. International law recognizes the rights of Indigenous peoples to ownership, control and management of our traditional territories, lands and natural resources and that we require free prior and informed consent to developments on our land. This is important to respect and it has been requested numerous times that all our Governments and partners in development would respect it (Baldwin et al, 2004).

In order to ensure that indigenous rights and responsibilities are enshrined in national legislation and policy, Indigenous Peoples' relationship to water and our customary practices should be recognized at all levels of government. Such rights cover both water quantity and quality and extend to water as part of a healthy environment. Indigenous Peoples of the world have called upon the governments to ratify the Declaration on the Rights of Indigenous Populations, which is a United Nations instrument that gives comprehensive information on the rights of indigenous Peoples. The Declaration recognizes the relationship of Indigenous Peoples to Mother Earth and the right to land and all her resources and the right to traditional and customary laws and spirituality.

It is a monumental point in history that 143 nations voted in favour of the Declaration on the Rights of Indigenous Peoples on 13 September, 2007. It is also of note that 11 nations abstained and that sadly Canada, USA, Australia and New Zealand all voted against it.

I would argue, given the history, the present actions and agendas of the globalization movement, observing those actions of the governments of Canada, the U.S., Australia, and New Zealand, that the underlying agenda is economic and the opposing government positions only want to maintain control. These governments do not want to share the control of the vast resources, not only on indigenous lands, but those below the sea. The oil fields that exist in the Arctic have been actively claimed by Canada, Russia, and USA, among others. It is up to Indigenous peoples locally to hold their respective colonial governments accountable to honour the basic human rights, Indigenous peoples' rights that will protect the natural world for all of humanity, all of life.

In recognition of the many problems that Indigenous Peoples have faced on access and control of clean water worldwide, Indigenous Peoples are building solidarity. For example, collective statements were delivered at the 3rd and 4th World Water Forums, the Peoples' World Water Forum, and at the 2004 Goldin Institute for International Partnership and Peace, in Taipei, Taiwan:

“...we know we are here for a common goal: to bring to you the problem of water for our communities... We will continue to remind our governments and partners what our role is and our spiritual relationship with water. We then hope that all of you who are here will start working together with Indigenous Peoples in your own respective countries. We believe that the spiritual leaders, inter-faith partners have a role to play. The governments listen to you. We have hope that you can make a difference by letting someone know why it is important to recognize and respect Indigenous Peoples and give them access and control of their lands and the resources. Together we can make a change. We can make the millennium development goals achievable by ensuring good health and a better environment for all.” (Baldwin et al, 2004)

The three recommendations identified by the Indigenous delegation in Taiwan are thus validated by the literature. There is a need for:

1. The development of education materials about traditional indigenous laws and teachings about water;
2. Establishment of an international Working Group of Indigenous Peoples on Water; and
3. Support for a World Indigenous Forum on Water to be held.

These three recommendations will take financial and support resources to be Implemented. At the root of these debates are the need for equity, justice and fundamental human rights.

The Governance of Water and Laws Affects Its Health

Raina (2000) described the state of the world's water as a crisis of management, not a crisis of scarcity. However, the crisis lies in not the *management* of water, but in the understanding of our relationship with water as humans and the understanding about

how water connects all living things. To explain further, the English term, *traditional resource management* implies that people *manage* the environment. The term, *management*, is often used in relation to our treatment of the natural world. However, I believe people cannot *manage* something that is sacred as this demeans our relationship with the natural world.

According to the World Resources Institute (WRI; 2000), freshwater systems around the world are so environmentally degraded that they are losing their ability to support human, animal, and plant life. WRI (2000) predicted an increase in water shortages for people and a rapid population loss or extinction for many species. Dams, diversions, or canals fragment 60 percent of the world's largest rivers, trapping runoff and sediments. Although dam construction has slowed in the United States, many dams are being built, like the Yangtze River in China, the Tigris and Euphrates Rivers in the Middle East, and the Danube River in Eastern Europe.

Water miners are also depleting the world's ground water, the sole source of drinking water for 1.5 billion people. Furthermore, with the conversion of wetlands to urban or agricultural areas, over one half of the world's wetlands were lost or contaminated with malaria.

The health of water is directly affected by these values, which, in turn, affects the health and well being of all of life, including humanity. How water is valued is critical as to how it is used or misused. For instance, I believe if water had been valued as sacred, the above-mentioned events would not have happened.

In its final report, the World Water Council (2003) revealed that water services for irrigation, domestic, and industrial purposes and wastewater treatment are heavily subsidized by most governments. Furthermore, users who do not value water when it is free, waste it. The premise is, that when people do not have to pay for their water, it is not seen to have a value. In other words, water is evidently viewed as needing to have a monetary price to have any value, giving a *reasoned* justification for using water as a commodity.

In Canada, the federal government regulates water through the Ministry of the Environment. Across Canada, provinces have jurisdiction over the watersheds through various ministries. In British Columbia, the Ministry of Environment exercises jurisdiction. Locally, the municipal council members make decisions on the fate of watersheds; local developers influence local municipal councils. In some cases, local developers make decisions by starting excavation and work without any consultation with Indigenous people or the local district council. I will discuss more fully in this thesis, the lack of morality or ethics in these kinds of actions.

There are many non-government organizations addressing water issues at the local level such as the Veins of Life and the Land Conservancy in Victoria, BC. Globally, the World Water Council has brought together national organizations to address the water crisis. The participation in this discourse is with governments and non-government organizations. However, there is little evidence of aboriginal input in the development of the World Water Council's vision projected for 2025.

Participation of Indigenous Peoples who are knowledgeable about traditional concepts and values (Jackson, 1993) could assist the World Water Council in finding solutions to the crisis. For example, Indigenous values would offer a contribution to the strategies of action suggested by the World Water Council. These strategies included: limiting the expansion of irrigated agriculture, increasing the productivity of water, increasing storage, reforming water resource management institutions, increasing cooperation in international basins, valuing ecosystem functions, and supporting innovation (Cosgrove & Rijsberman, 2000). Again, it is significant that the strategies do not recognize the sacred nature of water.

The trend of poor health of the Earth's waterways demands a critical examination of all laws that govern water, and a responsibility of all those decision-making bodies to be inclusive of traditional ecological knowledge. Guided by Indigenous laws and values, the governance of water determines the health of water and all life. Therefore, our laws, values, and principles determine our relationship with water.

Indigenous Environmental Network (IEN) is an Indigenous non-government organization that works to protect our environment and all life forms, advocacy to influence policies through networking and through education at the grassroots and international levels. Position papers such as the Indigenous Declarations on Water (Council of Canadians, July 8-11, 2001, Indigenous Environmental Network, June 14-17, 2001) promote education on Indigenous perspectives on water. In Kyoto, 2003, IEN was instrumental in the drafting of the Indigenous Peoples' Kyoto Water Declaration (2003).

The World Water Council and Indigenous Peoples

The World Water Council (Cosgrove & Rijsberman, 2000) stated that, in most countries, water concerns continue to be addressed sector by sector by a highly fragmented set of institutions. Due to this fragmentation, the council states this system is ineffective for allocating water across purposes, precluding effective participation of other "stakeholders" and blocking "integrated water resource management." The Council concluded that, unless water policies were changed in the management of water, the crisis would deepen (Cosgrove & Rijsberman, 2000).

The second World Water Forum (2002) documented five Indigenous participants' contributions about the importance of water from their own cultural perspective. The 3rd World Water Forum (2003) received the input from 65 Indigenous peoples.

The United Nations, the World Bank, and the International Water Resources Association were founding members of the World Water Council, "the world's water policy think tank" (Barlow, 2001). Leading professional associations, global water corporations, government water ministries, and international financial institutions constitute the World Water Council's 175 member groups. The Council held the first World Water Forum in Marrakech, Morocco in 1997; the second World Water Forum was held in The Hague in March, 2000. Although meant to address the global water crisis, the forums were used as showcases for transnational water and energy companies and big food corporations such as Nestle and Unilever to promote privatization and full cost recovery as the only solutions to the world's water shortages.

Chair people and panellists were World Bank and corporate executives; one of its two vice presidents, was Rene Coulomb of Suez Lyonnaise des Eaux, one of the world's largest water companies. Only one public sector union representative was invited to speak during the five-day conference. The high cost of forum fees and accommodation limited the number of NGOs who could attend. Although government officials from more than 160 countries attended, they were relegated to observer status and could only approve the final report of the Forum, which named water as a human need, and was collectively identified as a human right, a right for all living things.

There was no infrastructure for Indigenous Elders' participation at the global level. However, 60 Indigenous participants at the forum collectively created an Indigenous Peoples' Kyoto Declaration (2003). This document was not part of the final report. One solution to this inequity would be to have a World Indigenous Peoples' Forum on Water that is given equitable funding by the World Bank.

Main Issues Facing Indigenous Peoples and Water, as Identified in the Literature

1. *There is a widespread pollution of water due to a widespread lack of respect for water and its life-giving properties.* Indigenous Peoples are the most vulnerable to pollution, as traditional foods and traditional medicines depend on the Indigenous plants and animals. For example, in the Arctic, Indigenous Peoples are exposed to high levels of persistent organic pollutants that are cumulative up the food chain (Hansen, 2000).

These effects originate from global pollutants. Consequently, there is a widespread need for the regulation of the source of the pollution, and broad education of the need to keep the air and water clean.

In general, it would seem many people and their respective governing bodies do not understand the meaning of the respect for water as the lack of protective mechanisms to keep water clean demonstrates a lack of knowledge of the sacred value of water and its essential role for all life. This lack of understanding, combined with a drive for economic development and unbalanced decision-making processes create a recipe for disaster for

our Mother Earth that can only be stopped by reclaiming an understanding of respect for the sacredness of water that, in turn, is reflected in the governance of water.

2. The dispossession from land and increasing urbanization to the cities undermines the spiritual relationship that Indigenous peoples have with the land and waterways. Water provides the sustenance for all of life, human livelihoods, and the provision of food, shelter and medicine. The separation from traditional lands and territories (including water) creates an imbalance in all aspects of Indigenous peoples' lives. The relationship of Indigenous Peoples to water is the essence of cultural and spiritual wellbeing (Lini & Castro, 2004, Kerama-Royal & Ashton, 2000). Many people from the dominant culture experience fear when the word *self-government* is expressed. Through cross-cultural education about Indigenous peoples' their spiritual connection to the lands and waters and the meaning of self-governance, communities and those from dominant cultures may then come to understand that all people, plants and animals would benefit from Indigenous practices of traditional law.

3. The roles and responsibilities of Indigenous Peoples' guardianship of water, land and resources are not well understood by dominant societies, and by some Indigenous communities themselves. The concept of Indigenous Peoples' guardianship is found in many oral traditions as a sacred responsibility to care for and respect all plants, animals, landforms, and waters in one's land of origin, and is found in our laws. The implementation of Indigenous Peoples' laws about water have often been violated, disregarded and disrespected (Lini & Castro, 2004). Even work by environmental groups to create parks and reserves prohibits Indigenous Peoples' rights and responsibilities (Roberts, Waerete, Minhinnick, Wihongi, & Kirkwood, 1995).

The author, bell hooks (1994) writes about 'theory as liberatory practice,' that education and the research behind it can be vehicles to social justice. Thus, education about the value of traditional knowledge and its application would be a first step to the recognition of Indigenous Peoples' rights to the land, air and waterways. In addition, education and culturally appropriate policy development would create the space needed for the implementation of Indigenous Peoples' guardianship of water, land and resources.

4. *Water is sacred, not a commodity.* Water is valued as a commodity to transnational water companies; the access to water can also be seen as a human right (Barlow, 2001). In other words, the value of water is seen as its utility to humans. Indigenous Peoples see water as a sacred element, a gift for all life and a right for all living things (Lini & Castro, 2004). Thus, the commodification and privatization of both land and water contradicts Indigenous perspectives that water cannot be separated from land and people. Furthermore, the sale of water contradicts the sacred value of water. By tying water to economic gain, it is no longer valued for its spiritual nature (Goldtooth & Tauli-Corpuz, 2004). As the future of water is at stake, the public education system needs to include more Indigenous perspectives in its curriculum. It is particularly important to include the idea that all life is sacred and not everything needs or should be commodified. The World Bank, the International Monetary Fund and the water industry promote the concept that water is for economic good (Barlow, 2001). This idea has resulted in the privatization of water. However, there is a need to revisit the structure of decision-making about water; specifically, Indigenous Peoples' governance systems should be recognized by all levels of government, including municipal, provincial and federal levels. In the past, committees making decisions that directly affect the lives of Indigenous Peoples have had token representation of Indigenous Peoples, if any at all. To preserve the sacredness of water, Indigenous self-governance is critically important.

5. *There is massive destruction caused by large-scale dams, logging and mining.*

Government and industry rarely, if ever, obtain Indigenous Peoples' full, informed prior consent to mega-hydro, lumber and mining projects (Goldtooth & Tauli-Corpuz, 2004). Many times, Indigenous Peoples may not feel that they have a choice as to whether or not the project is carried out (KAIROS, May 13-18, 2004). Furthermore, there may be a lack of information regarding the choices and availability of economic development or alternative and renewable sources of energy. Unfortunately, these projects can create significant negative impacts. For instance, large-scale dams create massive flooding of traditional territories, river diversion, shoreline erosion, seasonal inversion of flows, and a devastation of Indigenous trap-lines (Tebtebba, 2002; LaDuke, 2004). The Pimicikimak people in Cross Lake, Manitoba have witnessed this kind of destruction.

6. *Access to clean water is made difficult by inadequate water management infrastructures, piping and purification systems.* Inadequate water supply and wastewater facilities are common in Indigenous communities, both in developed and developing countries (Goldtooth, 2004; UNICEF, 2006a). For example, in Canada, a developed country, over half of the Indian reserves are without access to safe drinking water. In a country that is wealthy, it is irresponsible to give preference to urban centres with respect to having access to safe drinking water (Safe Water Drinking Foundation, 2004). There appears to be a gap in jurisdictions when there is a need for joint responsibility shared by Environment Canada, Health Canada and the Department of Indian and Northern Affairs to provide the necessary infrastructures for clean water.

Thus, responsibilities to provide proper infrastructure and training needs to be identified and applied. As a foundation for proper infrastructure and training, it is important to have as a basis a clear understanding of traditional teachings from the Elders, a knowledge of traditional laws, and builds upon community capacity.

7. *The jurisdiction of water governance needs clarification, to put as a priority traditional Indigenous governance.* Globally, decisions about water are made by a myriad of levels of government, industry, Bretton-Woods institutions, non-government organizations and environmental groups. Indigenous peoples have minimal input to decision-making. There needs to be a clarification regarding the role and responsibility in decision-making about water.

In Canada, water quality is regulated by Canadian government guidelines; however, there is a need for the clear identification of roles and responsibilities in the water and wastewater management systems on reserves (Indian and Northern Affairs Canada, INAC; 2003). Band councils, INAC and Health Canada are all taking some level of responsibility to provide safe drinking water to Indigenous communities. However, many communities still do not have access to safe drinking water (INAC, 2003).

In the United States, the Isleta Pueblo people have set their own standards, which I will discuss in more detail later in the thesis. It is a great example of self-determination in ensuring safe community drinking water. The 2003 INAC report has recommended the

development of source water plans and regional action plans. This will be possible with the support of community-based action-oriented research.

The INAC (2003) report identifies challenges to water purity: infiltration of contaminants to wells, agricultural runoff from farms, and contamination from the recreational use of lakes, and pollution from oil and gas exploration. As much of the contamination occurs off reserve, INAC has identified a need for coordination of local municipalities and provincial agencies to protect source water. Assessments are critical to the provision of safe drinking water. This report would have been greatly enhanced by an assessment of pollution sources and the identification of accountability for contamination and poor environmental practices. For instance, if water quality standards are not met, there should be the identification of possible contaminants and their sources, in addition to an assessment of the water and sewage treatment facilities. The criteria for assessing the risks to water quality also need to be re-examined. For instance, if water treatment operators have not received adequate training, water quality is at risk. If there has been inadequate training, many more water treatment systems on reserves in Canada may be in a higher risk category than originally assessed. The report defines the inadequate training of operators as a moderate risk. I would assess this lack of capacity as high risk, because potentially the water quality may be unsafe, and not identified as unsafe by the untrained operator.

Having listened to the Elders, and examining the literature, some potential solutions may include the following:

- *Indigenous Water Policies*

Indigenous peoples developing water policies that are in harmony with Indigenous traditional protocols will provide protective laws for water. Indigenous water monitoring bodies may be formed through the implementation of the UN Convention on the Law of the Sea.

- *Watershed Assessment*

A thorough assessment of all aspects of water policies and use needs to be done to identify all stressors and vulnerabilities to water (Goldtooth, 2004). As Ermine (2004) calls for an ethical space in the dialogue between Indigenous Peoples and others, there also needs to be an ethical space created in the dialogue about water. This includes an ethical space within the framework of academia, policy development, and global forums like the World Water Forum. Indigenous peoples need to be involved at the planning table.

- *Changing how water is viewed*

All communities may declare all water sources to be sacred sites (Lini & Castro, 2004). There are many springs that are covered up by urban development or agricultural use, and not recognized, while other springs are polluted. Changing how water is viewed is possible through the sharing of culture, through education.

- *Building capacity for appropriate infrastructure*

This is important in order to achieve clean water for many communities that do not currently have clean water (Peterson, 2001, May 16-18). Indigenous water policies that combine knowledge of water purification systems and microbial/ heavy metal testing would ensure safe drinking water to communities. In Canada, there is an increasing urgency to improve water quality in First Nations communities (Indian and Northern Affairs Canada 2003). Many communities are on a 'boil water advisory,' or should be on one (Peterson, 2001, May 16-18). Research has shown that many aboriginal water operators are lacking the proper training to safely run water systems on reserves (INAC, 2003). Although many Indigenous educators are developing curricula that honour traditional teachings, there are little curricula in western school systems that are specific to Indigenous perspectives on water.

- *Holding transnational companies accountable*

There should be development and implementation of a Charter of Corporate Accountability, as recommended by Vicky Tauli-Corpuz (2002). In this way, transnational corporations may not be a law unto themselves and jeopardize human rights (Harawira, 2000). Violations by multi-national companies include toxic dumping, the destruction of

protected areas, forced displacement of indigenous peoples, and threats and intimidation of local communities (Halifax Initiative, 2006). Tebtebba calls for governments to develop legislation to hold companies and their directors accountable to uphold international human rights and environmental standards, and to the World Bank to develop policies that comply with these international standards. Again, Indigenous Peoples would have an important contribution to this dialogue by their full participation. An important element of social change is through education, as well as legislation. The late Hohua Tutengaehe shared that, "Education is the key."

- *World Indigenous Water Caucus*

Structural changes in decision-making would also contribute to water management strategy development. The creation of a World Indigenous Water Caucus (WIWC) that can move forward by looking back at traditional relationships with water. The WIWC could provide guidance for improved water policies that are based on spiritual and traditional values and, thus, could protect water for all people and all of nature.

It is apparent that there are a myriad of dynamics that affect the integrity of water, and that there are specific ways to address the difficulties. A fundamental understanding of identity and place in the world is needed, together with a mutual respect between cultures. To understand the importance of Indigenous laws, cross-cultural sharing and cultural awareness education in schools need to be in place. Those who are making crucial decisions about water would benefit from this education, as well. Alternative forms of economies, which demonstrate values of caring for the Earth, are important to learn about. They can demonstrate alternatives to the capitalist economic system that is dominant today in the western world. These are the contributions Indigenous peoples can share to provide solutions to climate change, and the degradation of our sacred waters. They can also provide pathways to peace.

I will next turn to a discussion about the interviews I conducted with the three Indigenous Elders. In this discussion, I will present a summary of what each Elder shared with me. Of course, real treasures are found in their transcripts (Appendix C). Chapter 5 contains the teachings that I personally learned from the Elders, and subsequently grouped them

into 3 categories: 1.) The meanings about water found in the stories shared; 2.) How those meanings are conveyed; and 3.) Elder-driven strategies for action.

CHAPTER 5

A DISCUSSION ABOUT THE INTERVIEWS WITH INDIGENOUS ELDERS

The late Elder Sandy Beardy was interviewed and recorded by audiotape, Te Huirangi Waikerepuru drafted a written statement and Chief Simon Lucas was interviewed and videotaped (transcribed in Appendix D). The Elders may teach something unique to each reader, because everyone has their own life experience to draw from, and has a unique perception about life. So this analysis should be viewed within the context of the author's life experience.

In this next section, I will discuss lessons I learned each Elder's interview. Following a general discussion about the interviews, I will go into more depth of comparisons, and then identify teachings that I have learned from these Elders.

Keep the Falls Moving: A Cree Perspective on Water

My first task was to interview an Elder who carried traditional knowledge about water and had community respect for that knowledge. I asked Grand Chief Sydney Garriock for that guidance. On Grand Chief Sydney's advice, I listened to Elders Sandy Beardy (see Illustration 6) and Gideon MacKay. I was attending an Indigenous Research Methodology class in Aotearoa (New Zealand), with Maori Professor, Linda Tuhiwai Smith, when I requested the interviews from Elder Beardy. As I was in New Zealand, interviews with Elder Sandy Beardy were conducted by teleconference. Illustration 7 shows the waters of northern Manitoba, from where my ancestry springs. Illustration 8, the polar bear is placed here because of the fragile relationship large mammals share with water, that their very existence is at risk because of the diminishing ice (Jolly, D., & Krupnik, I., 2002). Artist Robert Bateman (personal communication, n.d.) had shared that in his treatment of the fur of the polar bear, he approached it as he would a landscape.

The polar bear would not survive the stripping of its fur. In the same way, the earth needs the natural covering of forestation in order to survive.

Illustration 6. The Late Elder Sandy Beardy (right) and Frederick North (left), taken in the 1970's



Note. Used with permission, The Beardy Family.

Illustration 7. Photo of Water in Manitoba



Note. Used with permission, Ken Bereskin.

Illustration 8. Painting of Polar Bear



Note. © Robert Bateman, used with permission.

Elder Sandy Beardy spoke about the importance of clean water, the connection to animals, the terrible impacts of colonization, energy production from dams, and pollution. He shared that he saw the key issues to be the effects of mega-hydroelectric dams, the

resultant pollution and the need for clean water for future generations. He also stated that sharing ideas with other cultures is key to finding solutions for the future. Throughout his interviews, I learned about the importance of spirituality and water's connection to the afterlife.

The style of living for aboriginal people before European contact did not require oil for sustenance. Elder Beardy shared how before contact, we had everything that we needed to live a good life. The natural world provides food, clothing, medicines, shelter, recreation and transportation. The key to enjoying life was through learning the language and through the wisdom of the Elders, returning to the culture. "Someday, we have to go back to our culture...it's time to go back, regroup and organize, and the young people can learn about, how did the people use their culture?" (Beardy, personal communication, spring, 2001). Contact with European society has changed the traditional values that are transmitted through ceremonies and traditions. Mines and oilfields also affected the traditional way of life. The old way of life is very important today. Elder Beardy stated one important way of educating the youth is to have Elders' gatherings. I began to think about Elders' gatherings, both Cree Elders and international Elders' gatherings, the gaps in participation, and the need for Elders' contributions.

When he was asked about water, he spoke about the impact of oil and mining: "Now due to the many mines and oil fields, all these things have affected our way of living" (personal communication, Late Elder Beardy, spring, 2001). Oil exploration and mining practices are not only a source of pollution of the water, they have also affected a whole way of life. I learned from Sandy that the quest for oil and minerals has a history that has not honoured the traditional way of life.

The late Elder Beardy talked about how relationships are very important. When talking about his close relationship with his brother, Beardy was sharing about the importance of family and the link of spirituality to water, light, enlightenment, knowledge, beauty, life, and death. "It is like I am sleeping," his brother said to him in a dream. *Nipiy*, the word for water in the Cree language has etymologic connections to life, death, and sleeping. It reminded me of how the Late *kaumatua* Hohua Tutengaehe spoke about Maori peoples' spirits returning to the sea.

In the second interview, the late Elder Sandy talked about the spiritual beginnings of water, how we are connected to all the animals of the Earth by water, and our responsibility to care for the water. We rely on animals for our survival and animals rely on water. Key in this discourse is connections we share with the natural world and water is the connection. The Elders all spoke about the interconnections we all share with all of life. It was an affirmation of the Indigenous model of the interconnections of health, education, law and the environment.

The late Elder Beardy spoke about our land being holy and sacred. "It was holy land, they called it" (personal communication, Beardy, 2000). Specifically, the original meaning of the word *Kanata* (or Canada as it is now known) is *holy land*. I was reminded of my childhood, and the references in school and church as Israel as the Holy Land. The late Elder Beardy also spoke about the traditional values of generosity and non-interference. It is believed that due to the value of sharing our land, the Europeans were allowed to live here and eventually to pollute the land. It is also believed that the values of helping and sharing are gifts given by the Creator.

The late Sandy Beardy encouraged education, especially for those who consume energy, so that pollution can be stopped. The current global discourse on climate change is related to this.

Mega-hydro dams are constructed because of the need for energy. Unfortunately, dams have a destructive impact on the environment. In addition, trapping, which had provided the food Aboriginal families needed, was taken away through the construction of the dams. Therefore, the late Elder Sandy felt Manitoba Hydro is responsible to provide restitution. He stressed the need to prevent pollution and that alternatives to dams need to be found to create energy. For instance, Beardy mentioned the underwater windmill that captures some of the energy released by waterfalls, thereby sharing knowledge there are technologies that do not harm the fish and the environment. It is imperative that we find forms of energy production that do not pollute and destroy animals.

Sandy Beardy connected pollution to illnesses experienced by communities today. He maintained that there is a link between poor water quality and an increase in the need

for surgical interventions in his community, believing that chlorine added to the drinking water creates illnesses and skin problems.

He shared that water that is moving keeps the water clean. In the past, the fish taken for food could be cleaned on a rock by the river. It is important to care for the lakes and rivers that are still clean, preventing pollution and to clean up lakes and rivers that have been polluted. This is similar to the teachings of a late Coast Salish Elder, who had shared with me, “water must be free flowing for the salmon to come back. When the trees are cut down, the little creeks need the roots of a special tree to keep the water from being stagnant. In this way, the salmonids can flourish” (Coast Salish Elder, personal communication, June, 1996).

In summary, there is a need to: 1. protect clean water, 2. clean polluted water, and 3. compensate those who have suffered due to the loss of a way of life. Repetition was used by the late Elder Sandy to make sure that his teaching was heard and understood. He said that polluted water kills the Indigenous animals; and mentioned that the muskrats have disappeared. He told me more than once that it is our responsibility to care for the land, fish and waters and that the Creator gave this responsibility to us.

Again, he spoke of generosity, sharing with others, and caring for people and the land. How we treat each other is very important. It reminded me of how Chief Viraleo Boborenvanua (Vanuatu) stated: “It is my responsibility as a chief to never hurt peoples’ feelings” (personal communication, Viraleo, June, 2001). Elder Beardy mentioned how he and his brother have given their lives “for King and Empire,” only to be treated as third class citizens. However, we all need to treat each other with respect, fairness, justice and with integrity.

The third interview revealed an emphasis on traditional responsibilities that Cree people have to care for the water and the animals. Responsibility was again placed on Manitoba Hydro for creating polluted water and illnesses. He suggested a strategy for action, namely, to learn from other countries about water purification systems.

The late Elder Sandy helped me to understand that everything was created for a purpose. In his discussion about the importance of breastfeeding babies and the relationship mothers and children have, a parallel may be drawn in that Mother Earth gives us water, which gives us life. When she needs something, we must provide it as loving children. It is our responsibility to care for her and for her waters. Cow's milk was created for calves. Mother's milk was created for human babies. Confusion and inappropriate behaviours come from eating and drinking inappropriate foods. Our connection with the mother is eroded when traditional foods are not eaten. This concept may apply to both one's biological mother, and to the earth.

Returning to our collective responsibilities, the late Elder Sandy summarized ways to protect water, namely, by:

- Practicing our traditional teachings and laws;
- Developing water policies that honour traditional teachings;
- Restricting polluting practices by industry and states;
- Finding technologies that produce clean energy;
- Using water purification systems;
- Refraining from building new dams in the lakes and rivers of the North;
- Chiefs and Aboriginal leadership finding other means of energy production; and,
- Using Elders' wisdom and Elders' contributions from other countries.

These changes, Sandy had shared with me, need to happen before it is too late. A good place to start is in the schools.

Sandy's teachings included never giving up looking for ways to improve water quality. He emphasized that we need to: "Learn from other countries, learn from other people" (Sandy Beardy, personal communication, 2001). Each Elder's experiences, geography, and context for reference are unique. Thus, value is placed on learning from human connections and exchanges as an important way of learning.

The next section describes some lessons learned from Huirangi Waikerepuru (see Illustration 9). Huirangi is from the sacred mountain, Taranaki (Illustration 10), Aotearoa

(Illustration 11) otherwise known as New Zealand. For this study, he has shared the satellite photograph that his tribe, Taranaki and Treaty tribes presented to the Committee for the Elimination of Racial Discrimination in Geneva, to protect their customary rights in the guardianship of their seabed. This photo shows both the dry and submerged lands with which Maori have a spiritual connection.

Illustration 9. Te Huirangi Waikerepuru



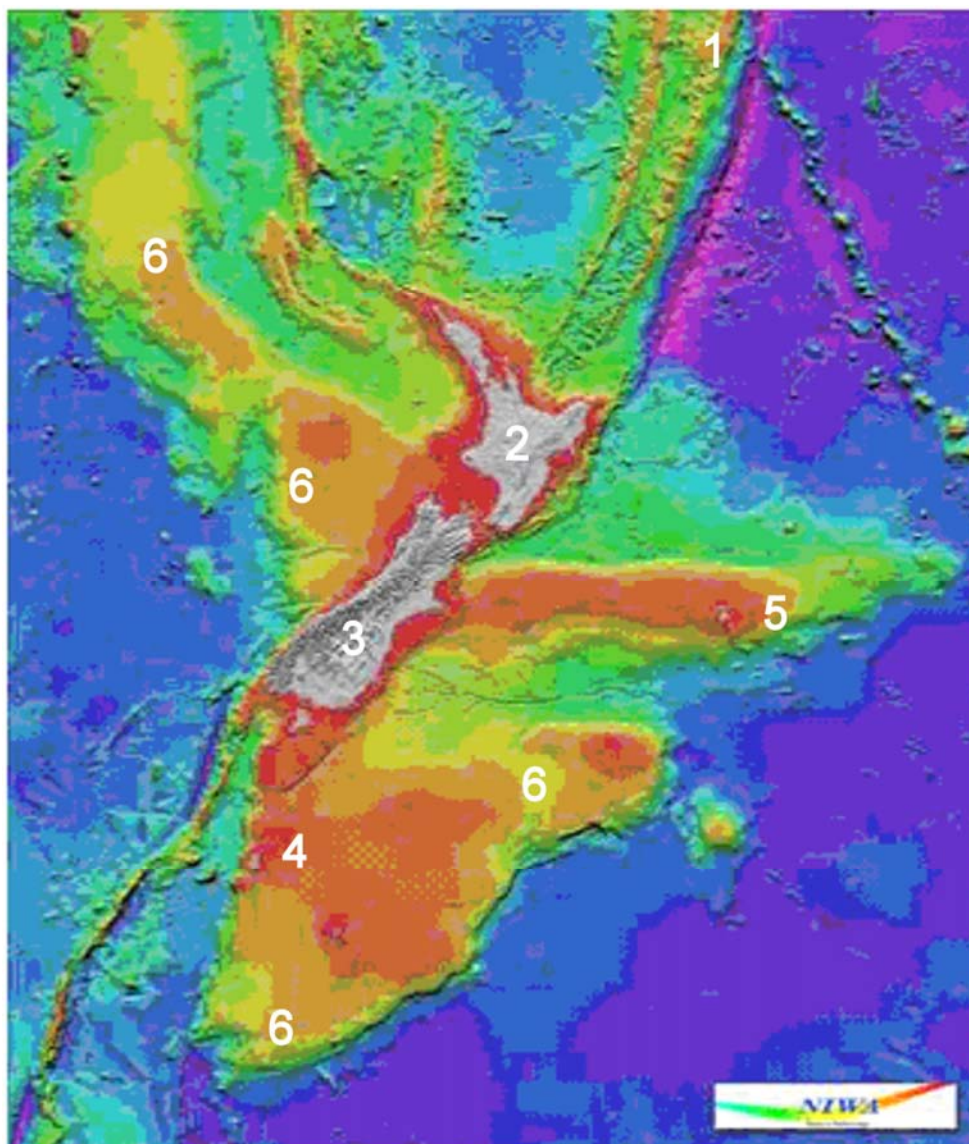
Note. Photo, Darlene Sanderson.

Illustration 10. Maunga Taranaki



Note. Used with permission, Kindear House Bed & Breakfast.

**Illustration 11. Nga Whenua o Aotearoa:
Lands of Aotearoa
(Dry and Submerged Land)**



Note. 1. Rangitahua Kermadecs
 2. Te Ika-a-Māui North Island
 3. Te Ika-a-Ōngahue South Island
 4. Rakiura Stewart Island
 5. Reikohu Chatham Islands
 6. Te Papa Moengaroa Te Continental Shelf
 (Submerged Maori Islands)
 (adapted from Waikerepuru, 2005).

Tangaroa, Maranga Mai! (Atua of Oceans Rise Up!): A Maori Perspective on Water

Te Huirangi Waikerepuru focused on the creation story of Rangi and Papatuanuku and the importance of *karakia* (traditional chant) in the communication of the teachings about water. He demonstrated the deep meaning of water in the language itself. The Maori etymology defines the Maori concepts of life, life force, human existence, and the role of humanity in the universe. Te Huirangi's teachings led to a critical examination of the meaning of water and the meaning of life itself. The concept of relationship and the inter-relationship of humanity explained by Te Huirangi was consistent with my understanding as a Cree of all things being connected, humanity's relationship with the natural world.

Huirangi described his concepts of life and creation. He shared that the AA-Tuu-AA have been described by Maori as deity; Huirangi postulated that the AA-Tuu-AA as existing powers that carry concepts that describe the traditional laws. The AA-Tuu-AA, the offspring of Papa and Rangi are all elements of the natural world and are acknowledged by Huirangi as traditional laws that define humanity's role and responsibility in the world.

Cree have *Kitchi Manitou*, the Great Creator. Also integral to our creation stories is Wesakejak, the Trickster. Through our stories, animals have prominent roles. Simon Lucas also spoke gaining the protection of:

this God Beyond the Horizon, of the Deep Water God, of the deepest part of the ocean for us, that we understand that we want that protection. So that when we go back to the land, we look at our mountains, we know that there is a Creator Beyond the Mountain looking over us. So as you're bathing in this water, you've got to believe that.

(personal communication, Lucas, June, 2001)

The connections Huirangi spoke about are the connections of humanity with our place of origin and we learn about this connection through the language. Discourse on water connects us to questions concerning who we are and where we come from.

The process of recording what Huirangi wanted to share was very different from Elder Sandy Beardy. Unlike Beardy, who spoke to me, Huirangi initially wrote down the

knowledge he shared and spent considerable time to ensure that it was written in a way that was clear and consistent with the meanings he wanted to convey. He followed up with many discussions about water, and the interconnections of health, education, law and the environment. After these discussions, I came to realize that there are parallel views in all of these realms: that Indigenous laws are the roots, the fundamental basis or philosophy of life for Indigenous peoples. These laws are transmitted through the language, which Huirangi has always emphasised: 'We do not have a culture without our language' (personal communication, Waikerepuru, spring, 2000).

The next section is a discussion about lessons I learned from Chief Simon Lucas. Illustration 12 shows Chief Simon Lucas receiving his honorary doctorate from the University of British Columbia. His nation, the Hesquiat Nation is one of the Nuuchahnulth tribes, which spans the west coast of Vancouver Island, Canada (see Illustration 13).

**Illustration 12. Photo of KLA-KIST-KE-IS,
Chief Simon Lucas**



Note. Used with permission, Chief Simon Lucas and BC Aboriginal Fisheries Commission.

**Illustration 13. Photo of West Coast
Vancouver Island**



Note. Used with permission, Jeff Hunter-Smith.

Water is Power: A Nuu-Chah-Nulth Perspective

The community respect and fine reputation of Chief Simon Lucas together with his knowledge of traditional teachings and language were reasons he was asked to honour this dissertation with his contributions. Te Huirangi Waikerepuru and I traveled to Nanaimo to interview and videotape Chief Simon Lucas about water and its meaning. Chief Simon Lucas reviewed the videotape with his family members; he also wrote a letter of reference for me that demonstrated a deep philosophy of water and life. In the letter, Chief Simon Lucas made the following written statement about water:

Water:

Traditional Ecological Water Use

WATER IS IMPORTANT TO ALL LIFE FORMS.

WATER IS ESSENTIAL TO BEGINNING OF LIFE.

WATER IS VERY IMPORTANT TO OUR BELIEF SYSTEMS.

WATER IS IMPORTANT TO OUR SPIRITUALITY.

WATER IS IMPORTANT TO OUR PHYSICAL BEING.

WATER IS IMPORTANT TO OUR MENTALITY.

WATER IS IMPORTANT TO OUR EMOTIONS.

WE NEED TO UNDERSTAND OUR CONNECTION TO WATER,

WE NEED TO UNDERSTAND MEDICINAL USE OF WATER,

WE NEED TO UNDERSTAND THAT WATER CARRIES ALL VITAL NUTRIENTS,

FOR MANY LIFE FORMS.

(PERSONAL COMMUNICATION, LUCAS, MAY, 2000)

Chief Simon Lucas' statements about water are very similar to the teachings found in the examples of the Cree Medicine Wheel as well as the framework proposed by Huirangi Waikerepuru. According to Chief Simon Lucas, water is connected to our spiritual, physical, emotional and intellectual aspects of ourselves. He also spoke of the importance of water as a healing agent, a medicine and its importance to all of life.

The concept of *Ichthmut* that Simon describes is similar to the Maori concept of *mauri* or life force. It also carried with it the meaning of existence before time; the mountain, rocks, and rivers have always been there. Like Huirangi, Chief Simon Lucas described the beginning of time and our place in that creation.

Chief Simon Lucas also spoke about asking for protection from more than one deity. For instance, the interaction of the deities, the God Beyond the Horizon and the Deep Water God, brings protection when whaling. Chief Simon Lucas talked about ceremonies in fresh water and in salt water. In addition, he spoke about the importance of teaching children about making a canoe and about being on the water, and creating that canoe. It is also important to learn how to travel on the water as Cree people see the rivers as ways of transportation, both in the winter and the summer.

Songs, dances, and chants are described by Chief Simon Lucas as an important part of sharing culture. He shared that there are songs, dances and chants about water, the ocean. He talked about the need for people to respect the sea, not to ask for calm, but to accept the power of the wind and waves as something from the Creator. The sea also teaches us about our own limitations and the sea's capacity to take us at any time. Thus, chants are important as they are protective.

Chief Simon Lucas also discussed the political significance of water in peoples' lives. For instance, HiiAatlee defines who a chief is according to landmarks either on the mountains or in the ocean. Ceremonies acknowledging different times of life such as birth, marriage, adulthood and nearing the end of one's life, recognize the importance of the cycle of life. This is similar to Te Huirangi's referral to the renewability of life.

The importance of protocol was stressed, and the respect one shows to chiefs from another territory. One cannot pray one's own prayer; there needs to be the proper respect and recognition paid to the land. Chief Simon Lucas also taught that the understanding of one's own boundaries, roles, and responsibilities are defined by the landscape from which we come.

The impact of residential school was also addressed by Chief Simon. I learned that Indigenous peoples should not waste time blaming the government and the school system. Instead, we can learn from the old people who are still alive and carry the traditional meanings of water. This is consistent with Sandy Beardy's recommendations to get the Elders to teach the young people about their language and traditional ceremonies.

When describing his niece's coming of age ritual of bathing in the fresh water for cleansing and purification, Simon referred to this ritual as the source of a person's strength. The dancers in his niece's ceremony also had to be cleansed.

Like Beardy, Chief Simon Lucas talked about the importance of water to the fish. In Chief Simon Lucas' discussion, it was mentioned how the salmon need clean water to spawn. When lakes and rivers are polluted, the spawning grounds have been disturbed. He shared that this is happening, because the education system does not talk about water like our Elders talk about water. Like Beardy, Chief Simon Lucas acknowledged that education about water is very important. Chief Simon Lucas also talked about the importance of teaching the ceremonies and rituals, and Huirangi emphasized the importance of teaching the language.

As a child, his mother taught him how he need never be hungry or thirsty; she taught him to gather water from a leaf and that nature would always provide water for him. When he saw a particular kind of berry, it was a sign that water was near. When he was four years old, he knew how to get food from the sea.

Three Elders from three nations, each with *long and illustrious genealogies*, (note - Huirangi often acknowledges Indigenous peoples, as 'I acknowledge your long and

illustrious genealogy,' as spoken in his keynote address at the World Indigenous Peoples' Conference on Education, Hilo, Hawaii, 1999). Here, I am acknowledging the Elders' ancestors, and also the sacred waters that they come from. Although each Elder was unique and distinct in his ancestry, language, cultural beliefs, and practices, there was a strong spiritual connection with water and there was a love for the land from which he came.

This led me to the following questions:

1. How can we use these teachings to improve the wellbeing of Indigenous Peoples?
2. What have we learned from the process taken from the Elders' words and the literature?

The Elders reaffirmed the importance of tradition in finding solutions for the future. Indigenous communities are implementing healing programs that include language revitalization and cultural teachings. The storytelling, art, creation stories, ceremonies, and rituals with water reaffirm spirituality, which, in turn, contributes to a resilient community. Thus, language and cultural programs are essential for the survival and cultural wellbeing of Indigenous communities. Listening to what the Elders say about water teaches about relationship-building and peace education. The collective process of hearing what the Elders think about water provides a direction for future research.

Indigenous peoples' cultural right to water is much more than their assertion of that right. During the course of these interviews, I came to realize that there is a moral and ethical imperative for Indigenous Peoples to have the space and opportunity to implement traditional laws about water, and for dominant cultures to recognize that right, so that the source of life may be protected. Important in implementing traditional language are the following human rights issues: the right to one's belief system, the right to one's language and cultural practices, the right to have access to traditional education and to traditional food, the right to have access to clean water, the right to belong, and the right to one's dignity. *The Declaration of the Rights of Indigenous Peoples* clearly outlines these human rights (United Nations, 2006a).

Comparing Cree, Maori, and Nuu-Chah-Nulth Cultures

After reflecting upon the Elders' words to me, I thought about the following: What have I learned from this talk? What do they have in common, in what they are communicating to me? What are they saying about the meaning of water? What does this mean to my life? What are my responsibilities? What are our collective responsibilities?

Some of the similarities amongst the three Elders' teachings emerged for me:

- Water is sacred to Indigenous cultures. Water is important to life and in our ceremonies and rituals.
- Creation stories are central to our teachings; songs and chants tell about our ancestors and our relationship with the natural world.
- Mother Earth is a living entity. All landforms have a name, history, and story. We share a respect for all living things.
- We come from a tradition of oral histories and traditions.
- Relationships are recognized as important, both with our families and with all of nature.
- We share a spiritual connection to the land.
- We share a holistic approach to life and health.
- Traditional medicines are necessary for good health and life.
- We share the value of the importance of family and community.
- Our ways of teaching and learning are similar. The natural world is our classroom.
- There is a sense of spirituality and a connection to the land that we come from and the relationships we have with each other.
- We all share in the belief in water, ocean and river spirits.
- Cultural protocols are important.
- We share a sense of humour, which is an important part of cultural healing.

- The impact of colonization and displacement from the land has taken its toll on the Indigenous Peoples in the form of poor health, including many common diseases, such as cardiac illnesses, diabetes, and asthma. We also share a history of loss of life from the introduction of influenza and smallpox from the Europeans colonizers. The mental, physical and emotional abuses from the government and church policies and practices seen today in the forms of depression, high rates of suicide, alcohol and drug abuse. Although there are varying levels of the impact of colonization, we have survived and have weathered many storms in our cultures.
- There is a simplicity and beauty in the uniqueness of the cultures, in the same way that all living things are a creation of God, our Creator.
- We share in a need to work hard to protect our cultures, to educate the young and to support the health and well being of the Elders.
- Water binds us together. It gives us life and teaches us that we are all related. Although we are not the same, our unique cultural qualities complement one another.
- Traditionally, both Cree and Polynesian peoples travelled by the stars.
- Some of the concepts within the languages are similar. For example, Cree teachings about strength, patience and perseverance compares with the Maori phrase, *kia kaha, kia toa, kia manuanui!* (This means, "Stand strong, have patience, be courageous!")
- The languages are rich in their meaning and imply feelings as well as thoughts and actions in their expression. The languages communicate the connections and relationships between all physical and spiritual things.

While there are many commonalities, I was also struck with the uniqueness, the diversity, and the beauty in that diversity. The importance of protocol, of speaking in the right way, of respecting the communication, the social mores, need for the recognition of self determination all came to the forefront.

I am reminded of the words of an Elder that Verna Kirkness had talked about (personal communication, 1996), about the beauty of a bird's song. In the same way that the

Creator has gifted us with the beauty and diversity of Indigenous languages and cultures, it is a sacred responsibility to protect those languages and cultures. It would not be part of natural law for all birds to sing the same song, beautiful as it is.

It became clear to me that, in order to understand of the meaning of water, I needed to understand the root concepts within the language(s) and the cultural practices as well. This also highlighted to me the limitations of this study, because I am not fluent in my language.

Mouri-Mauri is the dynamic life force, which comes with each child born into this world. The inclusion of sneeze, into the expression is to acknowledge the need for the child to sneeze, cough or splutter to indicate that *hau* (wind) or breath of new life has begun its journey.

Having come from out of its watery world (*waiteika*) into the world of light and understanding, the child might say, "*Ko a-hau tenei. Kua taemai a-hau*" (this is me, I have arrived). *Hau* in this instant reflects *Tāw'iri-ma-atea*, wind, rain, hail, hurricane, typhoon, etc, elements and forces of natural law of the universe. Combined with *Hau* indicates elements of life forces, potential thus becoming a part of a person's *Mauri*.

In discussion with Huirangi, he suggested that I make some comparisons of concepts found within the Cree and NuuChahNulth languages. The real value of this exercise would be found in Elders' discussions, at gatherings where Elders are fluent in their own languages, and this could be shared with less-fluent community members. The realization of how deep and rich one's own language is inspires and motivates one to learn it. For example, Elder Gideon MacKay speaks fluently the High Cree, which is the ancient way of speaking. I can only surmise that High Cree carries the deep and meaningful concepts within our language.

Comparing the Cree and Maori words, there are some commonalities and some differences. The Cree concept of water and its relationship with values or virtues of strength and patience is comparative with the Maori philosophies about water and spiritual strength. The word *nipiy* compares to the Maori concept of death and the next

world through its etymology, in the related words in the language. It also ties in with the stories that the Late Elder Sandy spoke of, when he talked about the afterlife, when asked about water. Relationships can be seen, as well, in the words used in Cree for waterway and for life (*pimiciwan* and *pimitisiwin*). Of note, are the etymological relationships between *pimatisiwin* (life), *miyopimatisiwiw* (he/she leads an exemplary life) and *miyopimatisiwin* (tree of life). Cree beliefs include that the rivers are the veins of Mother Earth, and those veins bring food and nutrients to the rest of the body, meaning all living things on Earth, thereby creating the potential for life (Jean Aquash O'Chiese, personal communication, 2004).

It is my hope that this comparative is only a beginning for discussion of Indigenous concepts about water. It would be a much richer discourse if the comparative could be done by three forums; collectives of Elders' contributions from each nation. When Elders who are fluent in their language and cultural practices share their knowledge, the understanding about water could be immense. The Late Elder Sandy Beardy had a wonderful vision of Elders' gatherings about water.

Where do we go from here? To have Indigenous Elders' gatherings, to understand what their priorities are about water, its meaning in our language and cultures, and to clarify our personal and collective responsibilities to care for the water, are proposed goals for the future.

Indigenous Teachings about Water

To honour the Elders, bear witness to their words, I next focus on themes that emerge from the interviews. I have chosen key statements from the Elders' interviews that carry the essence of the meaning of water. After transcribing and reading the Elders' words many times, I then identified themes, teachings, Indigenous principles about water. Then, as Kenny cautions, it is important not to over-interpret the Elders' words: "the participants are the center of the research. And their words, their stories must remain central to the research telling, the research findings" (Kenny, 2000). As Roberts et al. (1995) states, each Elder is speaking from his own perspective and cultural context. First I listened, then I reflected. I asked myself the questions: What did I learn from their

words? What teachings can I identify from their stories? Once I identified these teachings or concepts, I reflected them back to the Elders, to ensure the accuracy of what I understood.

The principles or teachings are followed by quotations from the Elders that support that particular teaching, and related literature from the academic world. It became increasingly evident that, with all the information available on water, the scope of the study needed to be clear. Finding meaning in the Elders' words and then determining my responsibilities with this knowledge became part of the learning process.

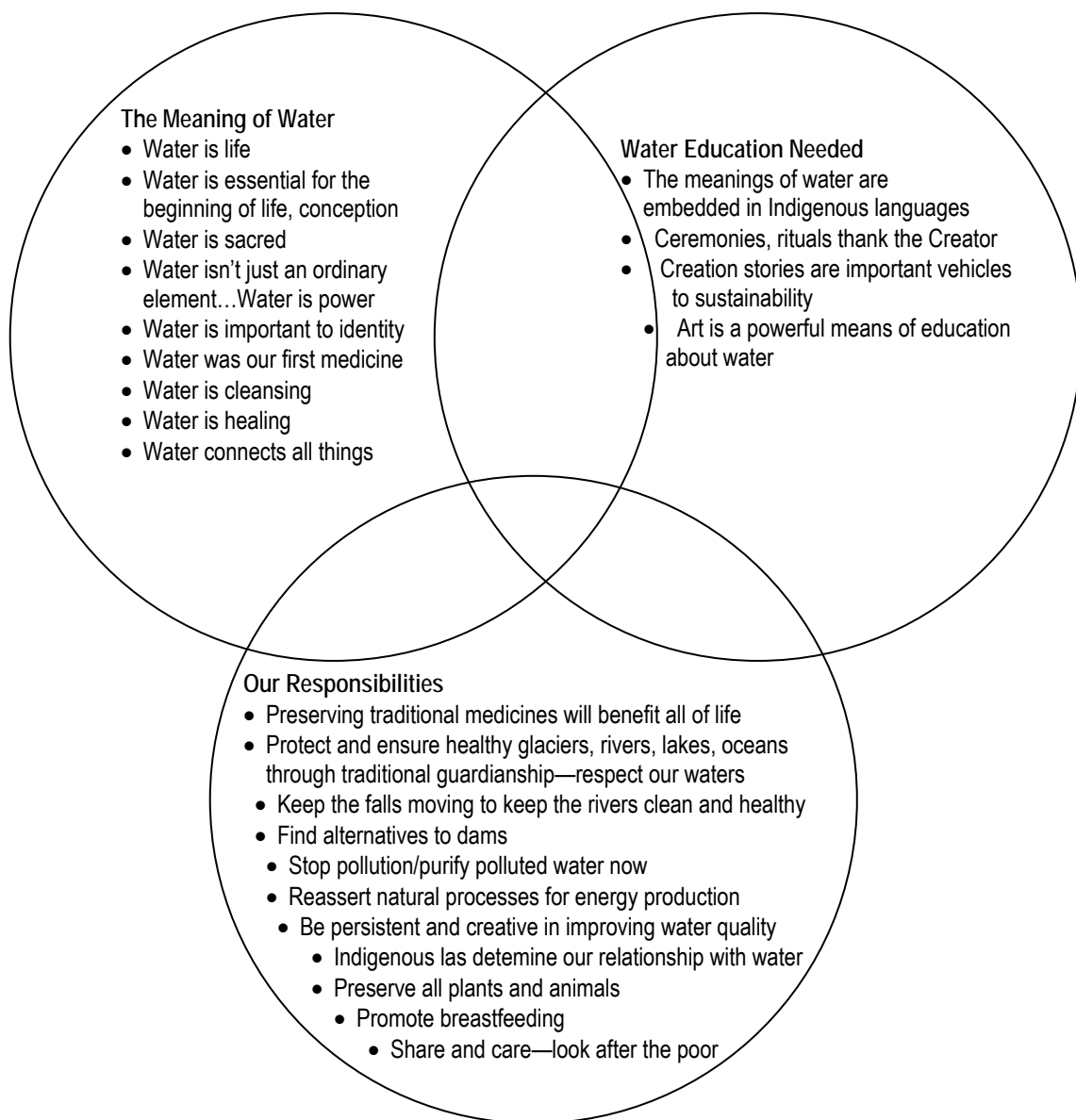
In his Millennium Lecture presented to Te Oru Rangahau Maori Research and Development Conference (1998) entitled "Ethics and Values in Maori Research", Chief Judge E. T. Durie of the Maori Land Court spoke about the need to look at the value system in research. He shared, "in resorting to the past to determine a future course of action in new situations, one must look for the principle involved. More particularly, one must seek the underlying value, for it is the values that establish the enduring cultural norms of a society" (Durie, 1998). In essence, the teachings that I have identified also reveal values that have been shared with me. And it is clear to me that to identify appropriate water policies, the guiding principles must be identified and reviewed first. Our society is very action-oriented, and it is imperative to have clear guidelines/policies defining those actions. So, in keeping with Moana Jackson's suggestion of revisiting the UN Convention on the Law of the Sea, (Jackson, 1993) I will identify some guiding principles that can provide the guideposts for water policy development. As the Elders have always told us, the traditional teachings provide the path for the future.

Once the teachings were identified I was able to organize them under three categories (see Illustration14):

1. the inherent meanings about water;
2. the transmission of the meaning about water through education, and;
3. the guidance provided by Elders for future strategies for action.

The top left circle represents the meanings of water, concepts identified from the interviews. As we move to the second circle, on the top right, we can see *how* these values are taught: through art, and through ceremonies, rituals, storytelling and most of all, by nature, by natural law. The third circle defines concepts generated by the Elders of strategies for action, our collective responsibilities. These concepts identify the meaning of sustainability, and our responsibilities for future generations. The intersecting spaces may be identified as our connections, our meetings, community gatherings, and the sharing of spirit, through prayer, song, and all forms of communication.

Illustration 14. Teachings from Elders about Water



Note .© Darlene Sanderson

Underpinning Principles

Before we discuss the teachings about water, I will identify the underpinning teachings from the Elders about life. Understanding the foundation of a belief system assists in providing a context for the analysis of the Elders' words.

1. The four elements, water, fire, earth and air are what the Creator gave to make life on earth possible. All four are necessary. They are all a part of the medicine wheel teachings (Four Worlds International Institute for Human and Community Development, 1984).
2. Mother Earth provides everything we need to live a good life: food, medicine, energy, clothing, shelter, transportation, teachings. We did not need oil to survive.

Before, they had everything. They didn't depend on oil.
Someday, we have to go back to our culture.

(personal communication,
the Late Elder Beardy, September, 2000)

Prior to contact with western culture, Indigenous cultures have always been self-sustaining. For example, the Cree hunting practices involves using the entire animal. When a moose was caught, every part of the animal's body was used: the skins for clothing, shelter, and warmth; the meat for food, the bones for utensils, the sinew for sewing, the brains for tanning. All of what was necessary for life came from the land (Mandelbaum, 1996).

Traditional practices and lifestyles are being reclaimed by many Indigenous cultures. Motarilavao Hilda Lini has written extensively about the impact that western culture has had on her culture, in Pentecost, Vanuatu. Some communities in Vanuatu are limiting imported goods, speaking their language exclusively and returning to the traditional forms of currency. Indigenous scholars, Benham and Cooper (2000) have developed a collective model of education for native communities that revitalizes languages, cultures, "going back to the source", highlighting the importance of identity, family and sovereignty.

Many Indigenous cultures have embraced the technological world, some retaining traditional values, while others have assumed those of the western world. Some cultural groups have limited their contact with the western world, like the Indigenous Institute in Vanuatu, of which Chief Viraleo is a leader. As Thurman (1994) of the University of the South Pacific stated, “indigenous peoples need to develop on our own terms.” Thus, it is a challenge to Indigenous peoples to develop in a way that retains traditional values and principles. For example, Malcolm Chun from Hawaii (personal communication, 1999) shared the experience of the establishment of a Hawaiian health clinic that is founded on the traditional value base that is rooted in the language and culture.

3. Another call for Indigenous peoples is to understand our individual, community and collective responsibilities.

It's our responsibility, the people who live here, to take good care of our lakes and rivers. And it was our responsibility to take good care of the water.

We still own our land and also the resources.

When the Creator had made this land for us to enjoy, we were told by the Creator to look after the animals, the water, to have them clean at all times.

The Creator made this and to take care of the environment, especially the water. We lived off the land, like what I said before, the fish and the water.

And we were told to look after them, this clean land.

I think you know you got to find out.

Like yourself, learn more how to take care of our water.

(personal communication, the Late Elder Beardy, Spring, 2001)

4. Indigenous elders are our living treasures

When you listen to the old people tell you about these things, it's very important! It's very important how the native people lived. Some people don't like to hear about our culture or language.

(Personal communication, Beardy, 2001)

Elders who have been grounded in culture and language are the foundation of traditional education. Traditional aboriginal education honours the Elders' teachings. It is from their observations, life experience and from the experience of generations before them that provide the foundation for Indigenous peoples' education. The Late Sandy's words also speaks to western resistance to see the value in traditional ways. Indigenous peoples are constantly confronting this resistance today.

Vine Deloria (1995) describes the role of Elders in education. Traditionally, education occurred by example, that Elders are the best living examples of what the end product of education and life experience should be.

In her writings, Kenny spoke about wise people are those who are turning to the Indigenous peoples who still hold clear traditional knowledge, to assist in the understanding of what has gone wrong in our environment, identify what has gone wrong in our governance structures, to find new ways of restoring justice in our societies, and to help us to heal (Kenny, 2001).

5. Our traditional values that are found in our language and cultural practices guide us in all we do:

1. *KI-S STE-NI-TA—KO-SE-WIN: "respect."* A value that is central to Cree teaching is respect. As stated in the book, *The Sacred Tree* (Four Worlds, 1986), it is important to:

Treat the earth and all her aspects as your mother. Show deep respect for the mineral world, the plant world and the animal world. Do nothing to pollute the air or the soil. If others would destroy our mother, rise up with wisdom to defend her. (p. 17)

In comparison, one of the root concepts underpinning the English definition of respect is described by Partridge (1966) as meaning from the root word *respicere*, to turn around, to look at, hence, to feel a regard, or admiration, for; in addition, the word respect is related to the word, *retrospicere*, which means, to look retro or backwards.

It appears that the original meaning of respect in the English language aligns itself with the concept of honouring traditions in Indigenous cultures by *looking back*. This is consistent with the Indigenous value of respect, to look back at ourselves, our genealogy, where we come from, our identity. I would argue that the original meaning of respect in English became lost and is not practiced today.

Examining the values of Indigenous Peoples, the Awassiss Agency of Northern Manitoba, a Cree Child and Family Services Agency, articulated the importance of harmony, balance, introspection, and love and respect for self and family. Specifically, the Awassiss Agency (1997) shared the following values:

2. *MEE-NOOS-STAH-TAN*: “Let’s set things right.” To set an object or situation to its proper path or state.
3. *MIN-OO-PUH-NIW*: “It’s in harmony.” Something is in harmony and flowing on its proper path.
4. *MI-NAW-SIN*: “beautiful” or “good.” In a state of beauty or goodness.
5. *MI-NAW-YAH-WIN*: *derivative of mi-nah-sin*. This word is now used to refer to the well-being of an individual or a situation. For example, a person could be healthy or in a state of good health.
6. *IN-NI-NU*: “Human being.”
7. *IN-NI-SEE-SI-WIN*: “Wisdom.” Its connection with in-ni-nu implies that wisdom lies within each individual.
8. *KA-NA-PAMI-SOO PI-TA-MA*: “Look at yourself first.” Introspection.
9. *DABWE*: “say things right.” There is no word for the absolute truth. This word implies to speak as right as you can about a particular subject-what you know to be true to you.
10. *MI-NI-SI-WIN*: “family,” to create beauty of a place of beauty.” This suggests that the family was a place to create beauty or the place to create beauty.

11. SA-KEE-HEE-TO-WIN: "love."
12. O-WA-TI-SI-WIN: "All my relations."
13. O-TOTEM-IT-WIN: "community or social grouping."

Maori author Pere (1991) describes traditional laws, values and principles that are the foundation of Maori worldview and way of life.

Circle 1: The Meanings of Water

Concept 1: Water is life

Each Elder told me that 'water is life,' that without water, we would not survive. Elder Sandy Beardy describes the reliance our people have with the fish. Implied here is the importance of fish, as a food, medicine, something that is required for health and life.

Nipiy was the most important thing.
Without the nipiy, you do not have the kinosew, the fish.
Especially, the water, I think is the most important thing that we would use in our
bodies.
...water is the most important thing that the Creator has made.

(personal communication,
the Late Elder Beardy, September, 2000)

Simon also talks about the relationship between the water and the salmon, and the cyclical nature of water itself, and all of life:

*THE FIRST RAINDROP MEANS A GREAT DEAL, BECAUSE, ONCE THE SALMON START SPAWNING,
THEY CERTAINLY HAVE TO HAVE WATER THAT IS ABSOLUTELY CLEAN.
ALSO, THE WATER IS COMING DOWN THE MOUNTAIN WITH THE NUTRIENTS THAT THEY NEED.
WE NEED TO UNDERSTAND THAT WATER CARRIES ALL VITAL NUTRIENTS, FOR MANY LIFE
FORMS. IT'S GATHERING UP THE NUTRIENTS FOR ALL THE LIVING THINGS THAT LIVE IN WATER.
WE AS HUMAN BEINGS, LIVE ON THOSE THINGS THAT LIVE IN WATER ALL THE LIVING ELEMENTS
THAT SURVIVE ON WATER.
WATER IS IMPORTANT TO ALL LIFE FORMS.
WATER IS IMPORTANT TO OUR SPIRITUALITY.
WATER IS IMPORTANT TO OUR PHYSICAL BEING.
WATER IS IMPORTANT TO OUR MENTALITY.
WATER IS IMPORTANT TO OUR EMOTIONS.*

(PERSONAL COMMUNICATION, LUCAS, MAY 2002)

Here, he is also talking about a holistic perspective of water, how it is important to every aspect of our being. Huirangi also talks about how water is life, and about his cosmological worldview, and how that it is communicated in his language.

'Wai' is water and water is life.

'Waiora' is living water, or waters of life-giving potential. 'Wairua' is the spiritual essence and conveyor of life's principle.

*(the word wai or water embodies the following elements)
...when you have Time, Energy, Negative & Positive Potential, Elements of Male and Female characteristics, Space & Water, the natural outcome is life and all living things on this planet.*

Wairua = Spiritual Essence, is the medium for the transmission of Life Principle to water and all energy and elements having the potential for supporting life, whether it be Physical, Biophysical, or Metaphysical.

WAI (water) connects with every strand of Maori spiritual, physical, intellectual, emotional, social aspect of life.

It is water that brings life to everything.

*Without water, we don't exist,
we don't live.*

Water is the essence of life itself.

*Waiwai te moana,
Tuatua te moana,
oruoru te moana
koe whakatupuria
te kawa ora*

*The seas abound with water,
the oceans rise up,
bringing forth,
the principle and
laws of life.*

(personal communication, Waikerepuru, May, 2002)

Thus, the laws of life come from the sea, from the water: water is life.

Wai is water and water is life.

Waiora is living water or waters of life giving potential.

Wairua is the spiritual essence and conveyor of life's principle.

(personal communication, Waikerepuru, May, 2002)

As I understand from Huirangi's words, water holds the potential of life. Spirituality (the unseen form of water) carries the life principle, life force, and life's potential.

Simply put, when you have time, energy, negative and positive potential, elements of male and female characteristics, space and water, the natural outcome is life and all living things on this planet.

(personal communication, Waikerepuru, May, 2002)

Wairua, (the spirit), incorporates the idea of spirituality or spiritual essence to water, which carries with it, the principle and elements of life, thus giving spirit and life to all living beings and creatures. This spiritual essence of water, needs to be considered when any decisions are made about the environment.

Waiora, living waters, or waters of life-giving potential, is the transition from wairūā to the physical manifestation of water. Waiora (living waters) interacts with elements of the universe, like the energy from Raa ngī ateanui (Radiating Sun in Great Space) and Papa Tuputupu Whenua (Earth Mother of Abundant Growth).

(personal communication, Waikerepuru, May, 2002)

Huirangi's discussion brings to mind both the concept of living waters, and the concept of dead water. In other words, dams that blocking water takes away its life force, its vitality and capacity to carry the life potential.

Wairua, that which carries those elements, those characteristics essential to the living being. Wairua, indicates its link in a linguistic way, because of water. Wairua refers to the spiritual essence; therefore it implies a physical potential to it, that the substance manifests. So the spiritual nature of water, or the wairua, becomes part of the physical aspect of water, the physical manifestation, which is also wai. So we have many references to wai, water, such as: wainui (great waters), waiora (living waters), wairere (flying waters). They imply levels of application.

- *Wainui is the importance of water, and how it has existed for millions of years.*
- *Wairoa also accentuates that first description of the greatness and importance of water, having existed over a long period of time.*

(personal communication, Waikerepuru, May, 2002)

This compares with Beardy's statement that water was 'the most important thing' (personal communication, the Late Elder Beardy, September, 2000). It also is coherent with the Cree creation story that tells of water existing at the beginning of time, even before landsforms.

- *Waiora is the life giving potential of water. Ora is life and wai is water, the waters of life-giving potential.*

(personal communication, Waikerepuru, May, 2002)

And that's important for us to understand, because, we as human beings, live on those things that live in water, Nuu-Chah-Nulth people, whether it is fresh water of salt water.

(PERSONAL COMMUNICATION, LUCAS, MAY 2002)

So, the water provides life for all of the plants and animals that nourish and clothe us.

Well, I come from Nuu-Chah-Nulth, which means, "People That Are Surrounded by Mountains" in our territory. So it is important for us to understand, the first raindrop, the first raindrop comes to us at the highest peak of our mountains. And from that first raindrop falls many, billions, trillions of drops that start to flow down those mountains, in many different directions, one can't even count the amount of directions that it comes. Well, we're told that it's important for it to do that because what it does, as it's coming down the mountains and flowing into little streams, big streams and the river system, it's gathering up the nutrients for all the living things that live in water

(personal communication, Lucas, may 2002)

I am reminded of the living entity of Mother Earth, the call from Cree Elders to protect the source. It also speaks to the need to continue to let the rivers flow. The cyclical nature of water as described by both Huirangi and Simon, the importance of water gathering nutrients for all of life shared by Simon, and the importance of movement, discussed by Sandy are all important.

Why is it important for the salmon in our territory? Well, the first raindrop means a great deal, because, once the salmon start spawning, they certainly have to have water that is absolutely clean. You know, it's at it's cleanest. Also coming down with the nutrients that

We need to understand that water carries all vital nutrients, for many life forms.

(personal communication, Lucas, may 2002)

Thus, water carries and provides nourishment for all of life. Water connects us all to all other life forms, with all of Creation, in our Indigenous belief systems. This compelled me

to seek out the meaning of water to other cultures and faith traditions. Many cultures and faith traditions view water as life. Ryrie (1999) describes water as always being a symbol of life.

Water and life were once inseparable...In Sumerian, the word *mar* meant sea, but was also the word for womb; *a* was the word for water and also meant sperm, conception and generation. The Hebraic language includes the ideogram *Mem*, deciphered as mother, life, womb or sea...Water and life were one and the same. (p. 28)

Here we see parallels with Te Huirangi's statement, in how the meaning of water is linked, through the language, to life, conception and procreation. The Dalai Lama shares his understanding about water: "Without water, we cannot survive. Water is the very basis of our survival. Very important! Water also symbolizes the things which purify" (Swanson, 2001).

In addition to the concept that water is life, the story that the late Elder Sandy shared about his brother implies water's connection to the afterlife. Linguistically speaking, the word for water in Cree holds similarities to the word for death. This is also consistent with water's meaning in Maori terms as part of the human life cycle, from birth to death, and that the spirit returns to the sea.

The Elders also talk about the relationship between water and conception:

Concept 2: Water is essential for procreation and conception

*WATER IS IMPORTANT TO ALL LIFE FORMS. WATER IS ESSENTIAL
FOR THE BEGINNING OF LIFE.*

*WE ALL KNOW THAT INDIGENOUS PEOPLES AROUND THE WORLD KNOW THAT ALL OF US, AS WE
ARE IN OUR MOTHER'S WOMB, ARE COVERED WITH WATER. SO RIGHT AWAY, BEFORE WE ENTER
THE WORLD, WE ARE ALREADY SOMEHOW PROTECTED BY WATER. IT PLAYS AN IMPORTANT
ROLE IN THE EMOTION OF A PERSON.*

(PERSONAL COMMUNICATION, LUCAS, MAY 2002)

Simon's words are consistent with Te Huirangi's statement is essential to the male and female characteristics. From a scientific perspective, the sperm, eggs, placenta and the amniotic fluid all require water to contribute to the very beginning of life. Huirangi also spoke of the meaning of *ai* as part of the etymology of the Maori word *wai*, as human

potential, and procreation, and that those word relationships imply that water and human reproduction is inextricably linked.

During the course of this study, I have come to recognize that women have a special role to play in the protection of water. This is because Elders have since shared with me that women have a special knowledge about water. Being child bearers, we know about needs for babies that men do not innately know.

I was inspired by a piece of Maori *pounamu* (Maori jade or greenstone, Illustration 12) that shows the balance needed to have a sustainable world: There is a need for male/female, life/death, young/old. Everything needs to be in balance. Huirangi talked about *Rongo* (balance, peace) as a natural law.

What the western laws do not identify in their policies about water is the spiritual connection that Indigenous peoples share with water. This connection is like a blessing to Huirangi.

*The raindrops form,
then becomes the rain,
and then they come down on the mountains, the land, the landscape. They form
the rivers.
And it's like the blessing
on the landscape.
The Blessing,
the use of water, as a blessing,
to cleanse, to bring life,
to bring health back to all living things.
So Tohi, Tohi is the word to bless, like baptism.
The mountain is sacred, because the first raindrops fall on the mountaintops.
Why do you baptize? To bless, to bring spiritual life.
Wairua is the spiritual element, the spiritual aspect of all physical things. Wairua*

*is that spiritual essence, which is sourced back before Rangiateanui and
Papatuputupuwhenua, before the inter-relationship between the Radiating Sun,
Earth Mother and the elements of the universe.
(personal communication, Waikerepuru, May, 2002)*

The element of water seems to transcend time, if it existed in Maori terms before the Sun and the Earth Mother. In the Cree creation story, water existed before the first land.

Elder Sandy spoke about the water as being part of Creation; that it comes from the Creator. I came to the conclusion that:

Concept 3: Water is sacred

*The Creator sent snow from heaven,
Also in the summer,
sent rain to improve the quality of water.*

*(personal communication,
the Late Elder Beardy, September, 2000)*

Wairua (Spiritual Essence), is the medium for the transmission of life principle in water and all energy and elements having the potential for supporting life.

Wairua is the spiritual element, the spiritual aspect of all biological life. Wairua is that spiritual essence, which is sourced back before Rangiateanui (Radiating Sun in Great Space) and Papatuputupuwhenua (Earth of Abundant Growth), before the inter-relationship between the Radiating Sun, Earth Mother and the elements of the universe. It is traced back to elements of all potentials.

(personal communication, Waikerepuru, May, 2002)

It is clear from these statements that water, which has a spiritual essence and comes to us from the Creator, is sacred.

This is what we call te wahingaro, that which is hidden, wahingaro, that which is unseen.

(personal communication, Waikerepuru, May, 2002)

I believe that Huirangi is referring here to the spiritual essence of water, 'the unseen'.

...And yet those potentials are still there. Those potentials are part and parcel of the elements, and the potentials of life and energy of the universe. And so, wairua has come through from the Primordial Beginnings. That's the spiritual essence. It is that spiritual essence, which carries with it, those potentials of all life.

(personal communication, Waikerepuru, May, 2002)

Huirangi describes *Wairua* as spirituality, which brings the potential for the following dimensions:

- Mana: reflects the unique nature, social order, intellect and sense of social responsibility of each individual being

- Matauranga: intellect and intuition are the characteristics related to knowledge, understanding and wisdom
- Reo: language and culture (personal communication, Waikerepuru, 2002)

There is also the potential of language, which is fundamental to all cultures. Wairua, is what carries those characteristics. It becomes formalized in its transition from spiritual essence to the physical manifestation of water. It is this spiritual phenomenon, which brings life to all beings, whether it is human, animal, plant or organism. At death, the spirit returns to its spiritual source, via the vehicle it had come, water in the form of a river, or source of water, which flows to Tangaroa, the sea or ocean.

Therein lies the inter-relationship between the spiritual and the physical. When it passes through that transition of physical manifestation, then it brings those elements with it, to interact with the forces of nature, in a way that brings about the life force, the dynamic life force, the Mouri. It's that dynamic life force which then gives it the components for those characteristics imbued into the living being. And that's the transition from the spiritual to the physical manifestation of water, which carries with it life potential.

(personal communication, Waikerepuru, May, 2002)

I found the word *wai-ata* to be interesting. Huirangi told me that it means a song or a chant, and the word *wai* is part of the word *waiata*. *Ata* means a reflection in water or a mirror. So, I understand the *wai-ata* is reflecting spirituality, and the ancestral connection with the natural and spiritual worlds. In the *waiata* shared by Huirangi the words *tohia*, *tohia* means to bless:

So rain begins again. The raindrops form, then becomes the rain, and then they come down on the mountains, the land, the landscape. They form the rivers. And it's like the blessing on the landscape. The blessing, the use of water, as a blessing, to cleanse, to bring life, to bring health back to all living things. So Tohi, Tohi is the word to bless, like baptism. To bless, to cleanse and connect with spiritual life.

*(personal communication,
Waikerepuru, May, 2002)*

Takapou Whariki, te mana o Tangaroa o te wai. Tangaroa, the Sacred Mat,
Deity and Master
of water.

(personal communication,
Waikerepuru, May, 2002)

Each one of them had to have their own sacred place to swim, where no one else could see them. Because in this case, our people say that to converse with the Creator is one of the most sacred occasions that an individual has.

(personal communication, Lucas, 2002)

In many faith traditions, water ceremonies are a central means of spiritual cleansing, renewal, blessing, representing both new life and death (Swanson, 2001). The sacred nature of water may be a point of commonality with all of humanity: water is recognized as essential to life, and is sacred to many faith traditions. Bringing the sacred nature of water into discourses of 'water management' becomes an essential and urgent component of any discussion that involves the purity and protection of water.

**Concept 4: Water isn't just an ordinary element...
Water is power**

*Water is an element, which is fundamental.
Water is the physical form of the spirit.
(personal communication, Waikerepuru, May, 2002)*

It plays an important role in the emotion of a person. Why the water becomes important in your emotional state. It plays an important role in your mental state. I got to prepare for whaling, I'm going to swim. It has an important mental element. And also, it's got an important role to the physical conditions. So it was important for our people to make sure that they always washed themselves, creating this physical power.

But the fourth element is the spiritual connection that this water created, with us what we call, Hotla behotwilth.

*IT WAS THE THING THAT CREATED THE POWER IN THAT INDIVIDUAL.
THE PEOPLE HAVE TO UNDERSTAND
THAT YOU HAD TO BELIEVE THAT WATER WASN'T JUST AN ORDINARY ELEMENT.
WATER IS POWER
IT'S THE SOURCE OF STRENGTH*

it's the Source of strength. You can't help to try to make people to understand that it's one of the most important elements in this world, where we come from.
(personal communication, Lucas, may 2002)

The strength that Simon speaks about means spiritual strength to me. We are reminded of Mary Lee, (retrieved from the world wide web on March 21, 2007 at <http://www.fourdirectionsteachings.com/main.html>) who talks about the strength of spirit. Ritual bathing of Shinto priests in Japan, Christian baptisms, holy springs in Bali, and the creation in the holy Ganges river in India name only part of humanity's connection of water as a source of spiritual strength (Swanson, 2001). Te Huirangi's description of water being the physical form of the spirit (personal communication, 2004), was the first time I had heard about this concept. If all living things are connected by water, it follows that spirituality connects us all, no matter what faith tradition or geography we come from.

The resiliency of Indigenous peoples in Canada is due to the strength of spirit and the continuation of ceremonies and rituals. They have persisted in the face of cultural oppression and attempts at cultural genocide. In spite of our collective history, there are Elders who are passing on traditional knowledge, reaffirming our collective spiritual strength. The rivers were meant to flow.

Concept 5: Water is connected to identity

Indigenous peoples often ask, 'Who are you, and where are you from?'

*Ko wai tou ingoa ? (Who is your name ?)
From whose descending waters do you flow?
WAI is connected to the
spiritual, physical, and
genealogical being of humanity.
(personal communication, Waikerepuru, May, 2001)*

Thus, genealogy is important in our identity, and as Harry had illuminated, that our genes are the accumulation of all of our ancestors' life experience, and are the sacred gift for our children's children (Harry, 2002).

Ko Wai Ra? Ko Wai Ra?(Of whose essence are we?)

Ko wai tou ingoa ? (Who is your name?)

Wai implies the spiritual, biological and genealogical connection between the individual and “ia”, his or her parents. (ia = he / she or his / her)

Every marae (community) have some form of standard statement of identity.

...we are people born and bred of Tangaroa, the sea, with our ancestral roots firmly in central Polynesia and the Pacific Ocean, the Maori environment. The mountain is sacred, because the first raindrops fall on the mountaintops, regarded as the sacred threshold of the Guardians and Authorities of the Universe. The rivers begin to flow down the mountains to the lowlands, passing nearby marae which claim the river as the Waituku Kiri, waters for the deceased relative's spirit as the pathway for its return to the Home Source of Spirituality.

'The Namer of Names' is paramount, and created the names of all of the landscape, all of the oceanscape and all of the skyscape. Everything was named. The quantum physics of the universe was already described.

(personal communication,
Waikerepuru, January, 2007)

Identity and place are inseparable. The names of places come from the Creator and hold sacred meaning to the people of the land.

*WATER, FRESH WATER AND SALT WATER PLAY A VERY IMPORTANT ROLE POLITICALLY
(PERSONAL COMMUNICATION, LUCAS, MAY 2002)*

Simon's statement implies to me that the water defines not only one's identity, but also one's role and responsibility in the community, by means of traditional social relationships.

Some of the highest rituals, the Sea Serpent Dances comes from that. If you ever see Nuu-Chah-Nulth Dances, you'll see our chiefs of all different shapes of Sea Serpent, what we call HiiAatlee. I have no idea why the translation became in English to Sea Serpent, but it's an ocean creature that we call HiiAatlee. I am one of those who had that name, Hii Aatlee. It's a big name, which now my son holds, and I hold the name Kah klit is. During the understanding of water, I was told, throughout your lifetime, you're going to carry four names.

(personal communication, Lucas, may 2002)

It is my observation that today, most children living in Canada identify themselves as Canadian, and do not know their waters of origin. I believe that all children, no matter who they are or where they are from, need to know their own genealogy. This is a

fundamental change that schools would benefit from: children knowing their own roots. When children are asked, “Where are you from?” they relate this question to where they are born. When children understand their genealogical places of origin, and the importance of traditional laws about water in their education, I believe that they will have a stronger sense of belonging to their place of origin, and a respect for the laws of the land. While it may be argued that this is a cultural norm, when one identifies themselves as being from the place of their birth, cultural education within the schools can help to change that understanding. To identify oneself as being from the place of one’s genealogy may bring about a new appreciation of the Indigenous peoples of the land, as well as a new understanding of self, and of a clearer concept of one’s genealogical connection to their land of origin.

Concept 6: Water was our first medicine

In his feedback to these concepts, Elder Gideon MacKay describes water as a medicine, and identifies the role that animals have in keeping it clean:

The principles are all what I have told you. The only thing that I didn’t mention was that the frogs and snakes and the turtles all clean the water. There are no creatures like that in our lake, our water now. They clean the water, that’s why the water is polluted. Water is also our medicine. That’s why the Creator made water, so that we can get well from it. That’s why the water is here.

(personal communication, MacKay, 2004)

In the creation stories, the water was here before man or animal. It was here before the land. It was here at the beginning of time (Waikerepuru, 2004).

Concept 7: Water is cleansing

What the Creator has made, he did not put in chlorine in order to purify the water, but the Creator sent snow from heaven, also in the summer, sent rain to improve the quality of water. So, the native people did not have much sickness in the past because of the good water that they used to drink and to cook with.

The water keeps moving, keeps moving. When you go swimming, all that water, it’s not dirty. It’s like you flush the toilet and clean water comes up. That’s the way it is. Everything was clean.

(Personal communication, the Late Elder Beardy, 2001)

Sandy implied that the movement keeps water clean. The unnatural ebbing and flow of waterlines as a result of dams makes it difficult for the natural habitat to survive. Stagnancy encourages the growth of bacteria and algae. One of the late Elders from Saanich shared with me that the replanting of a particular indigenous tree encourages the return of salmonids. The roots keep the stream flowing fast, which is necessary for the baby salmon. A parallel may be drawn to the human body: when you have sluggish circulation in the human body, there is more turbulence within the atria of the heart for example, and with that turbulence, clotting or bacteria can accumulate to create bacterial endocarditis and atrial fibrillation.

In this way, everything was clean, when you clean the fish and all that drains out with the current. There were no dams to hold the water back. So everything was open. The current, the river cleans everything.

You know, the falls, the rapids, the fast water, they used to say the rapids are the ones who purify the water. You know, like turn it over and over and over. Like when you boil water, it kills the germs. This is something that the native people used to use many years ago, eh?

(Personal communication, Late Elder Beardy, 2001)

this ongoing cycle of the water and its cycle of, it is said to be cleansing, its own cleansing process

(personal communication, Waikerepuru, May, 2001)

Water is cleansing of both the physical and the spiritual realms. I believe that this is how it heals. As well as playing an important role in both the physical and spiritual strength of the individual, ceremonies have a role both in cleansing and healing. Therefore, it is important to cleanse ourselves with clean water, for physical and spiritual health.

*IT'S GOT AN IMPORTANT ROLE TO THE PHYSICAL CONDITIONS.
SO IT WAS IMPORTANT FOR OUR PEOPLE TO MAKE SURE THAT THEY ALWAYS WASHED
THEMSELVES, CREATING THIS PHYSICAL POWER.
(PERSONAL COMMUNICATION, LUCAS, MAY 2002)*

Concept 8: Water is healing

They (the old people) knew that the water is very, very important for different occasions, you know. Or when somebody gets sick out in the wilderness where there's no medicine. A lot of times, they get a cure from this water, you know. I think that it's very important to keep the falls moving.

(personal communication, the Late Elder Beardy, spring, 2001)

The water is very important to us, because that is where our medicine comes from. This is true for us in the South. It's different in the North, where they walk on the frozen water, and in the spring it melts. We travel on the water, it is healing to us, we swim in it. I don't know about the seals, I know about the medicines from the South, it is the fish, the otter, the beaver and the muskrat. They are all good medicine to us.

(personal communication, MacKay, 2002)

WE NEED TO UNDERSTAND THE MEDICINAL USE OF WATER.

(PERSONAL COMMUNICATION, LUCAS, MAY 2002)

I also reflected on the notion that if Indigenous peoples have been resilient to colonial forces because of our spirituality, it would make sense to have water ceremonies available to those youth who have lost their sense of identity, from a loss of language, culture, and traditional values. It is an urgent and well-documented issue that suicide rates are 5 to 7 times higher among First Nations youth than non-aboriginal youth (Health Canada, 2007). As water is a spiritual cleanser and a healer, those young people who are in trouble with the law may benefit from traditional education about water. It may be proposed that the education about water would be of most benefit if it is culturally relevant, and includes concepts from their language of origin. This type of program would reconnect youth with their roots, and encourage Elders to share their much-needed traditional knowledge, with an audience who will be nourished with the gift of knowledge.

With this self-understanding, and a stronger sense of identity, it follows that there would be fewer problems with mental illness, depression and consequently, suicide rates. Indigenous youth are particularly at risk for these conditions, as the strength of identity and sense of belonging has been undermined. With language, and cultural education

that includes water ceremonies, this may be a strategy to be considered to address mental health illness, behavioural problems, depression, anxiety, and drug and alcohol abuse within Indigenous youth. Further research may be done with developing programs for traditional education of teachings of water for aboriginal youth.

Concept 9: Many Indigenous peoples have water spirits

*THE FOURTH ELEMENT,
IS THE SPIRITUAL CONNECTION
THAT THIS WATER CREATED.
PROTECTION OF THIS
GOD BEYOND THE HORIZON,
OF THE DEEP WATER GOD,
OF THE DEEPEST PART OF THE OCEAN FOR US, THAT WE UNDERSTAND
THAT WE WANT THAT PROTECTION.
SO THAT WHEN WE GO BACK TO THE LAND,
WE LOOK AT OUR MOUNTAINS,
WE KNOW THAT THERE IS A CREATOR BEYOND THE MOUNTAIN LOOKING OVER US.
SO AS YOU'RE BATHING IN THIS WATER,
YOU'VE GOT TO BELIEVE THAT.
NOW THAT'S FRESH WATER.
(PERSONAL COMMUNICATION, LUCAS, MAY 2002)*

Tangaroa, Deity of the Sea,
also referred to as the Takapau Whariki (Sacred Mat),
embracing Mother Earth,
linking all land and all people on the planet.
It is a legacy to be respected and protected, for future generations.
This chant is a traditional form of acknowledgement not only of Tangaroa,
Guardian and Authority of water, rivers, lakes and oceans,
but also the spirit of those deceased relatives who have traveled on the river and
waterways of each community out to sea and onward back to the Home of Spirits
from which its spiritual journey through life started from.

(personal communication, Waikerepuru, May, 2000)

The common thread between cultures is the deep respect for the sea, and the deities that are recognized in the relationship between humanity, the natural world and the cycle of life. The recognition of the spirits of the lakes, rivers and oceans, pays respect to nature, the ancestors and to the inherent validity of Indigenous peoples' spiritual beliefs.

Concept 10: Water connects all things

It is useful to note how the term *wai* = water, is inter-woven into many aspects of Maori language and culture.

(personal communication,
Waikerepuru, May, 2000)

Huirangi notes that the term *wai* (water) is inter-woven into many aspects of Maori language and culture. Water cannot be separated into one realm. In the same way, water is important to life, health, education, the laws that govern our lives, and the environment. The metaphor that water weaves into every aspect of life is consistent with the ocean known as *Takapau Whariki*, the Sacred Mat that connects us all together. The ocean is described as the home source of spirituality. The following statements from Huirangi and Simon show synchronicity with concepts found in the medicine wheel:

Wai connects with every strand of Maori spiritual, physical, intellectual, emotional, social aspect of life. The etymology of the word *wai* offers other dimensions of information to help in understanding the importance of water in Maori cultural terms, regarding life, language and identity.

(personal communication, Waikerepuru, May, 2000)

*WATER IS IMPORTANT TO OUR SPIRITUALITY.
WATER IS IMPORTANT TO OUR PHYSICAL BEING.
WATER IS IMPORTANT TO OUR MENTALITY.
WATER IS IMPORTANT TO OUR EMOTIONS.*

WE NEED TO UNDERSTAND OUR CONNECTION TO WATER

(PERSONAL COMMUNICATION, LUCAS, MAY 2002)

The human connection to water, our interconnectedness to all of life, and water connecting all of life demonstrates how all of life and all nations are connected. It makes me feel responsible to act and speak in a good way, because everything we do has an effect on others.

Tangaroa, Atua of the Sea, also referred to as the Takapau Whariki (Sacred Mat), embracing Mother Earth, linking all land and all people on the planet. It is a legacy to be respected and protected, for future generations. The cyclic nature of water, as given in the chant, describes the ongoing interaction between the celestial and terrestrial realms as the fundamental factor for all life on this planet.

<p><i>Ko koe ra tenei Tangaroa, Tangaroa Takapau whariki i Papatuanuku e takoto nei. Pari atu ki whaho, pari mai ki uta.</i></p> <p><i>Ka etoeto ai koe, Rewa huna ki te atea</i></p>	<p><i>This is you, Tangaroa Takapou Whariki, surrounding and embracing, Papatuanuku, Earth Mother. Tangaroa, the sacred mat flowing outwards, and flowing back, inwards, onto the land.</i></p> <p><i>You evaporate, rising unseen into space.</i></p>
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This gives us a location, which shows the relationship between Tangaroa, the ocean and Papatuanuku, the Earth Mother. But it also shows its relationship to us, as human beings, because without Tangaroa, we would not be here.

*(personal communication,
Waikerepuru, May, 2000)*

This discussion brings to mind the significance and importance of relationships. It reminds me of the Elders always encouraging us to build on good relationships with others, with Mother Earth and all of life.

We looked at that continuing relationship between Tangaroa, the land and the sun. We look at the ongoing relationship between the sun and its impact on the ocean such as condensation:

ka eto eto.

(personal communication, Waikerepuru, May, 2000)

Some people see us as being isolated. Living on this island, we see ourselves as so connected to the rest of the world because water connects to all of life. We are surrounded by water, here in the Pacific.

(personal communication, Te Tika Mataiapo, Rarotonga, 1996)

And every animal that uses this water, helps the native people to survive this land. It was 'Holy Land', they called it...we wanted to share what the Creator had made.

*(personal communication,
the Late Elder Beardy, spring, 2001)*

Sharing, caring, respect, and the connections that we all share can be taught in dominant school systems. The traditional stories have been shared by means of new technologies, such as cartoons and videos. There could potentially be whole teaching units at all grade levels to learn about these stories. It is especially important to teach the little children, and this could begin at preschool levels. It is my observation that many young people do not understand how to share, as the dominant teaching of individualism and personal property often takes precedence. The lack of caring of individuals and corporations is evidenced by the level of pollution that we witness in our waterways.

Circle 2: The Meaning of Water is Transmitted in Various Ways

Concept 11: The meanings of water are embedded in our Indigenous languages

The spiritual connection to the land and water is taught through concepts found in Indigenous languages.

*The word for water in Cree is very simple:
It's nipy.
The word for river is sipiy.*

*(personal communication,
the Late Elder Beardy, September, 2001)*

*WAI, in Maori linguistic and cultural terms is water and is deeply rooted in the spiritual, cosmological, genealogical, beginnings of all life and life forms.
The etymology of the word WAI offers other dimensions of information to help in understanding the importance of water in Maori cultural terms.*

*(personal communication,
Waikerepuru, May, 2002)*

It is clear, in Huirangi's explanation of water (WAI), how important the language is in communicating the understanding of the importance of water. *Wa* (meaning time and space), *a* (meaning human potential), *ai* (meaning procreation) shows how much meaning can exist within a single word within the language.

WATER IS VERY IMPORTANT TO OUR BELIEF SYSTEMS.

*It means that we are still the same. In the same way, the rocks' formation's changes but the rock is still there. Ikthmood is a very important word for us here, it describes our place in the beginning of time, when life was first created. The sky, the stars, the sun, the galaxies, moon and all what the universe is about, as humans,
we were still Ikthmood.*

*(personal communication,
Lucas, may 2002)*

In essence, this means to me that Indigenous peoples have always been in their place of origin. The language defines Indigenous peoples' relationship with the natural world, including the whole universe. The etymology of the words, the understanding of the deep meanings within the language speaks to the cosmology of Indigenous philosophies.

*"Ko te reo Te Ikanui o Te Awa, ko te 'ono I Wairua me te Pūwaiora."
Language is the Great Fish in the River of Life, joined by the Spirit and Life-giving waters.*

*"Nā, kainga to ika kia ranea koe, e puawai ai, te waiata o Wai Tua'wakarere."
Consume your fish and be sustained,
that ancient music of living language and spiritual waters,
flow on.*

(Proverbial expressions, Waikerepuru, 2000)

Listening to Te Huirangi's description of the depth of meaning of water in Maori inspired me to learn more about my own Cree language. The word *nipiy* (water in Cree) is related to the words that mean sleep, *nipa* (you sleep), *nipawin* (a sleep), *nipasiw* (he likes to sleep) and death, *nipowi' nakwun* (deathlike) (Anderson, 1997). As previously mentioned, this meaning is congruent with the Maori philosophy that the human spirit travels back to the sea after death by way of the river. River, in Cree, is *sipiy*. *Sepe yitomowin* means patience in Cree and *Sepe yitum* means, "he is patient, he bears it without complaining." *Sepi kapa wiw* means "he stands for a long time, not tiring" (Anderson, 1997). So, strength and patience are human attributes that are related to the meaning of water. Rivers have spirits and teach us strength and patience. Both qualities are needed when traveling by waterways and gathering traditional foods.

If there's any question you want to ask me, simplify your language, so that I can understand it. Don't use those million dollar words.

*(personal communication,
the Late Elder Beardy, September, 2001)*

Language is powerful. How it is used determines how accessible it is. For example, those within the medical profession understand that the medical terminology needs to be put into language that the clients can understand. So, too, academic discourses can make the information either accessible or inaccessible to community members. There are often, within Indigenous communities, special ways of speaking with Elders, and other ways of speaking with other adults and children.

In Canada, there is an assumption that either the English or the French languages are the only languages that can be used for academic purposes. In Poland, there are dissertations in Polish. In Cree territory, there is the potential of Cree dissertations. It is really about how education is defined, and who are the knowledge keepers.

Concept 12: The importance of Traditional History

Creation stories, storytelling and cultural practices are the vehicles to sustainability

Through the Elder's stories, the creation stories, the sharing of life experience is an education about learning the values that are part of Indigenous cultures. The late Elder Sandy taught me about strength, courage, faith, encouragement, hope and especially, caring for Mother Earth. Huirangi taught me about the power of Indigenous languages, their communication of a deep spiritual relationship with the earth and the cosmos; that the creation stories have a real and urgent message for today. Chief Simon taught me, through his stories, the respect we need to show each and every person, and all of life, and about the importance of protocols. When we respect another culture's protocols, we are also demonstrating respect for their laws and traditional ways of communicating.

In our relationship with the dominant culture, there needs to be a balance:

But I guess we were too kind to others. But we believe that the Creator gave us the land to share with others. But we were too generous, but not surrender our land, as far as I'm concerned. We still own our land and also the resources.
(personal communication,
the Late Elder Beardy, September, 2001)

I believe that Sandy was referring to the contradiction that is inherent in the Cree culture. The value of cooperation, harmony and peaceful co-existence has been used to negotiate with Indigenous peoples, to the detriment and sometimes destruction of traditional territories. I think that Sandy was telling me here that we can be kind, and sharing people without surrendering the land and waters.

Also, we gave our lives for King and Empire, and as a matter of fact, I lost my brother to war. And to be treated like this, it's a shame.
(personal communication,
the Late Elder Beardy, September, 2001)

This begs the question of the meaning of treaties. What do they mean, when there has been a need for reciprocity and respect shown to both sides.

After all we have done, I lost my brother. And yet I'm treated like a third class citizen. So I wish you good luck with your work. I encourage you to keep up and work for the poor.
(personal communication,
the Late Elder Beardy, September, 2001)

Sandy encouraged us to care for the poor. One might ask, is he referring to Indigenous peoples? I believe that our countries have a responsibility to care for all people, and the wealthier countries care for the poorer ones.

You know, as you get old, you forget. This is what I am, now. I'm getting on to 81, on August 21st. August 21st, I'll be 81.
There's a guy here that brought me two geese.
(personal communication,
the Late Elder Beardy, September, 2001)

Here, The Later Elder Sandy was demonstrating humility and providing a good example of someone taking care of our Elder, bringing him food.

*It's important to
honour and value the old stories.
I think it's a good thing to hear about the old stories.
That's why they get tobacco for the Elders...because we
value the stories the Elders told us.*

*(personal communication,
Cree Elder Gideon MacKay, June, 2003)*

Priorities need to be defined for the future. The Elders who share the old stories are the guideposts.

*It's very important how the native people lived. Some people don't like to hear
about our culture or language.*

*I am 81 years old. I have been married for 51 years. I have 7 beautiful children,
44 grandchildren and 17 great-grandchildren. I fought in the Second World War.*

Thus, storytelling is a means of communicating ones' relationship with the natural world and one's responsibilities. Life experience and the importance of family were a large part of education. I learned that the whole family needs to be included in education.

The next statement from Sandy speaks about how certain kinds of food are appropriate for our bodies. In the same way, there are forms of education that are suited to us culturally. I am again drawing the parallel of the nourishment of our bodies needs to be healthy for us, as well as the nourishment of our minds.

*And maybe you'll laugh at this but maybe they are using milk, cow's milk. Maybe
they are using one of the stubborn cows in the group, maybe that's why the kids
don't want to listen (he laughs). This is something that we use to talk about
water, breastfeeding, because breastfeeding is good.*

*(personal communication,
the Late Elder Beardy, September, 2001)*

He also used humour in education, which is a good example for me as a teacher.

Concept 13: Ceremonies and rituals thank the Creator

Ceremonies and rituals are an important part of thanking the Creator for all of the elements, all of life. They are important conveyors of the meaning of water.

IT (WATER) ALSO DEALS WITH THE FOUR ELEMENTS. MANY SONGS AND DANCES CAME FROM LISTENING TO THE WIND AND THE OCEAN

(PERSONAL COMMUNICATION, LUCAS, MAY 2002)

*They used to celebrate the Indian Summer.
(personal communication,
the Late Elder Beardy, September, 2000)*

*IN THE AREA OF WHALING:
AND IN THAT BELIEF SYSTEM SAYS THAT,
EVERY DAY, BEFORE THE SUN COMES UP, YOU HAVE TO BATHE YOURSELF AND CLEANSE YOUR
BODY BEFORE THE DAY,
BEFORE THE SUN COMES UP,
SO THAT YOU'RE CLEAN WHEN THE SUN COMES UP.
AND YOU DO THE SAME THING
BEFORE THE SUN GOES DOWN.
(TO PREPARE THEMSELVES FOR WHALING),
THE WHALERS HAVE
THEIR OWN SACRED PLACE TO SWIM
SO THAT WHILE THEY ARE BATHING THEY WOULD RUB THEMSELVES WITH THESE YOUNG
HEMLOCK BOWS EVERY MORNING WHILE THEY ARE BATHING. WELL, BECAUSE OUR PEOPLE LIVE
IN TWO TYPES OF WATER, SALT WATER, ONE OF THE THINGS THAT OUR PEOPLE WERE TAUGHT
TO DO: FIRST THING IN THE MORNING WAS TO TAKE A DIVE IN THE OCEAN, SALT WATER.
WHAT IT MEANS FOR AN INDIVIDUAL IS: THAT YOU'RE GOING TO MAKE A CANOE.
YOU'RE GOING TO LEARN TO TRAVEL THAT WATER, THE OCEAN WATER.
YOU'RE GOING TO GET YOUR RESOURCES FROM THE OCEAN.
DURING PREPARATION FOR A (YOUNG GIRL'S) COMING OF AGE,
SHE MUST BATHE FOR FOUR DAYS IN A LAKE WHERE WE DEEMED TO BE ABSOLUTELY PURE.*

(PERSONAL COMMUNICATION, LUCAS, MAY 2002)

Part of the ceremonial life of the Indigenous peoples on Turtle Island (North America) includes sweat lodge ceremonies. A sweat lodge is a sacred place, a place of healing and a place of understanding our connections to the universe.

Thus, Cree ceremonies and rituals are fundamental forms of education. For example, water and smudging in the Cree traditions are essential to health and education. A

fundamental Cree teaching is the importance of bathing in water for cleansing the body and spirit. The smudging, washing of the spirit with the smoke of sacred herbs, is also a form of cleansing. Thus, if relationships between family members have been injured from negative experiences such as going to residential school, the key to regaining good health lies in the education and practice of traditional teachings by learning our own languages, ceremonies, and rituals. When the practices of cleansing are reclaimed, a healthy spirit and a healthy body will result. Thus, it follows when children have been taught well how to live a healthy life, they will enjoy good health.

...A river sings a beautiful song
 Come clad in peace
 and I will sing the song
 the Creator gave to me when I and
 the Tree and the Rock were one...
 (Angelou, 1993)

Concept 14: Art is a powerful means of education about water

The art forms, Illustrations 13 to 16, are examples of visual and spiritual expressions of traditional stories and the values that are taught within those stories. It is believed that the art has a spirit of its own.

The traditional understanding of water is closely connected to peace, and the principle of harmony with humankind, the elements, and nature. I believe that an international network of Indigenous Peoples will be able to form a network for peace education and peace building. Knowledge nourishes our mind, like food nourishes our bodies and spirit, and learning is enhanced when our body is nourished. Like the baskets of knowledge our Maori friends share, the baskets of food should be clean and pure. The growth of good food depends on a good supply of water. One way we can maintain the purity of water is to practice the Elders' teachings.

Below is a carving given to me by my late dear friend, Simon Charlie. It was a birthday present, and he gave a smaller thunderbird to my daughter, Amy, who was born on the same day of the year. A Cowichan story of the Thunderbird and the Orca, as told by Coast Salish artist Joe Jack (retrieved from the world wide web on August 21st, 2007 at

www.joejack.com/thunderbirdandorca.html) shares the values of respect, sharing, working and praying together, and the importance of art in learning a style of life.

**Illustration 15. Thunderbird Carving
by the Late Simon Charlie**



*Note. Carving by Simon Charlie, photo Amy Mawdsley,
© Simon Charlie family.*

**Illustration 16. Otter Bowl
Carved by the Late Simon Charlie**



*Note. Carving by the late Simon Charlie,
photo Amy Mawdsley, © Simon Charlie family.*

The following print demonstrates the connections of the four races of humanity, the four directions, and how water connects us all.

**Illustration 17. *The Gathering*
by Tyee Floyd Joseph**



*Note. Photo Amy Mawdsley
© Floyd Joseph 2006*

Below, is a beautiful set of screen prints that are shared by Ake Lianga (Solomon Islands). He shares his culture about the sea, and many traditional values, through his art.

**Illustration 18. *Journey Begins*
(diptychs I & II), Solomon Islands**



Note. © Ake Lianga 2004, used with permission.

This diptych tells the story of the early people and their movement to a new island. It is believed that the shark, who is the keeper of the sea, guided the early people to the islands of their settlement. Prior to any journey, the travelers must pay their respects to the sea and the shark in order to provide them safe passage during their travels. The travelers will perform a ritual that shows the shark that they respect the waters and that they have their trust in him to show them the way. In return for the ritual, the travelers will receive the luck and protection of the sharks in the sea. The bird symbol in the sun is the Hornbill, which is known for its great presence. Hornbill is also the name of the canoes in these pieces.

(Ake Lianga, 2004)

Kenny (1998) describes the role that art carries in our lives and the need for art in our education:

As First Nations peoples we experience and define beauty in relation to the way we live. Our relationship to Mother Earth and to each other, the way we live together in a place, our appreciation of holistic aspects of life, all coalesce to give a sense of coherence to our worlds. Through this sense of coherence, we know who we are and we can see the visions of who we might become in the future. This visionary landscape is rich in image, metaphor and symbol. It is punctuated by texture, song, story, and prose. It is implied in the patterns of a basket, the shape of a carving, and reflects the lands that we inhabit, our experiences on it, and the knowledge that we acquire because of our respect for place. This is our sense of art as First Peoples. (p. 77)

Thus, we can communicate the Elders' teachings in a variety of ways, through art. Children and adults alike enjoy learning through art. Not only does art inspire the spirit,

provoke our intellect, tantalize the senses, it can bring a sense of fun and joy to the experience of learning. There is also much beauty in the experience of water.

From this sharing of culture, with Elder Sandy Beardy's guidance that we can learn from other countries, together with the teaching of values and respect through art, it made sense to me to create a children's book. When I showed this artwork to Coast Salish artist and teacher, John Elliott, he shared that his culture has stories that are almost the same (personal communication, Elliott, 2004). The children's book can be a collection of Indigenous art about water from many nations. In this way, the teachings can be relayed through the sharing of culture and art. Key questions may be asked of the students, so that they will understand the depth of respect for water and the importance of Indigenous law.

The Elders have shared what water means to them, and how these meanings can be shared through traditional Indigenous forms of education. I will next discuss specific directives for action that have also emerged from the Elders' words.

**Circle 3: Our responsibilities to teach about water:
Elder-guided strategies for action, strategies for the Future**

**Concept 15: Preserving our traditional medicines (including water)
will benefit the health of all living things**

Gideon MacKay, Cree elder, describes the relationship between water, animals and good health:

The water is the most important thing. The Creator gave us the water. The water comes from the Creator. The white man did not give us the water. The fish swim around in the water. The fish are medicine to us Indian people. The fish make us healthy. Any kind of fish is good for us, good for our bodies. The beaver are good medicine, too. They swim around in the water. The muskrat are good for us, too, the kind that come from the water. The water is very important to us, because that is where our medicine comes from. This is true for us in the South. It's different in the North, where they walk on the frozen water, and in the spring it melts. We travel on the water, it is healing to us, we swim in it. I don't know about the seals, I know about the medicines from the South, it is the fish, the otter and the beaver. They are all good medicine to us.

*(personal communication,
MacKay, summer, 2003)*

Because we looked after our game, like our fish, moose and ducks. Because we knew that God made them.

(personal communication, Beardy, 2000)

It seems clear to me that if traditional medicines are protected by protecting water, all of life will be protected. Therefore, these Indigenous laws will benefit everyone, both native and non-native.

Concept 16: Traditional guardianship of the waters will ensure healthy glaciers, rivers, lakes and oceans

And it was our responsibility to take good care of the water... When the Creator had made this land for us to enjoy, we were told by the Creator to look after, like the animals, like the water, to have them clean at all times. But when the Europeans came to this country, the way they live, they thought that they were going to live the way they used to in the other countries, without destroying the environment. But that didn't happen. They destroy, they pollute the water, and they destroy the environment through these factories, and all this. We lived off the land, like what I said before, the fish and the water. And we were told to look after them, this clean land

(personal communication, the late Elder Beardy, 2001).

The Elders are clearly telling us that it is Indigenous people to care for the lands that they come from. The late Elder Sandy Beardy talks about the water as a sovereign and sacred trust.

The concern for protecting the earth and water has led Indigenous peoples to a variety of strategies: Many use direct action to physically stop the assaults on sacred sites. Others educate the wider community about indigenous worldviews and how traditional teachings contribute to the understanding of relationship. Litigation is also used, with lawyers looking to the state laws (including common law, federal and international law) to ascertain whether or not indigenous peoples' laws and values can be protected under the dominant system. Some traditional peoples stay with the traditional laws and practices.

Education is the key

*(personal communication,
the Late Hohua Tutengaehe, Maori Kaumatua, 1994)*

To educate our communities, Elder Sandy had a recommendation:

*Invite the Elders 60 years old and up.
I think the best bet is
to get all the Elders together,
about 70 or 80 years old.
They learned a lot from their parents.*

*(personal communication,
the Late Elder Beardy, spring, 2001)*

*THERE ARE PEOPLE THAT STILL UNDERSTAND THE VERY SIGNIFICANT ROLE
OF WATER IN OUR LIVES.*

*SO, WE NEED TO BRING BACK SOME OF THOSE TEACHINGS THAT HAVE BEEN
AROUND FOR 60,000 YEARS.*

(PERSONAL COMMUNICATION, LUCAS, MAY, 2000)

The above statement is a teaching that is necessary to change western law to honour traditional laws. It starts with the fundamental recognition of Elders as an authority of Indigenous law. Elders need to be heard and listened to; and as, Elder Sandy suggests, the best way of accomplishing this is to hold Elders' gatherings, forums or conferences.

For many generations, Maori have had laws and practices for protecting the environment. Maori people have a cultural responsibility to maintain the Kaitiakitanga principle (guardian principle) over its seas, lands, air, resources and Mana Tangata Whenua (sovereignty).

Tangaroa, guardian and authority of water, rivers, lakes and oceans, but also the spirit of those deceased relatives who have traveled on the river and waterways of each community out to sea and onward back to the Home of Spirits from which its spiritual journey through life started from. Our kaumatua (elders) always paid respects to the sea when we went fishing or to collect shellfish, and at the end of the day, to give thanks for the gifts of food from the Food Basket of Tangaroa.

*(personal communication,
Waikerepuru, May, 2002)*

Always respecting the sea demonstrates a grateful heart, giving thanks to the Creator and respecting the ancestors, who walked this earth before us.

Our kaumatua have said we must always respect the sea. We must not trample on the mana, law of the sea. Nothing should go into the sea that will desecrate the tikanga (law) of Tangaroa, as is happening with the raw sewage outfalls, all forms of plastic and nylon fabrics, which fish eat and die from choking.

I can remember my own tauheke (grandparent) saying to me, (I was quite young at the time, 8 or 9 years, and living at Taiporohenui marae, Te Hawera, in Taranaki region of Te Ika A Maui, North Island): He said to me, "Always greet the sea, because it provides us with life, food and sustenance. You must always be mindful of the moods of the sea. "Kia Tupato". Always take care. Do not turn your back on the sea, or be careless because there are many dangers, above and below the sea.

For Maori, it's quite simple, really. That's from Maori, that's the way we perceive it. We all have responsibilities to the water, to protect the water, not to desecrate the water, because water is used for all sorts of things. There are special areas of waters, springs, fountains, and waterfalls that are used specifically for spiritual ceremony and rituals, baptismal purposes, for healing purposes, for cleansing purposes, and all these rituals are to do with and must be with water. And therefore waters have to be protected, and incorporating indigenous practice or laws. There are people who will protect them.

THERE ARE THOSE WHO STILL HAVE TO LEARN.

*(personal communication,
Waikerepuru, May, 2002)*

This statement means to me that we should not be polluting our oceans with raw sewage outfalls, and waste produced by the transport and cruise ships. In addition, the

nuclear powered submarines and ships, nuclear testing, and waste disposal, oilrigs, tanker ships and gas lines all pose a threat to the safety and cleanliness of the oceans.

Sandy told us that Indigenous chiefs have a responsibility to educate people how important it is to have clean water.

That chief said he was going to work partnership with Manitoba Hydro, to put more dams below the Nelson, which is no good, eh? That's a poor way for a chief to do that. They should try to make people understand that it pays to have good quality of water for future generations.

(personal communication, the Late Elder Beardy, spring, 2001)

- **Learn from other countries**

But I'm sure if you look, and try to find out from other countries, like where you are now in New Zealand, if they have any problems with the water.

Maybe if we can't improve the water quality, maybe some countries know how to purify the water, or maybe perhaps they'll share their wisdom, that we can use if we cannot improve our drinking water.

(personal communication, the Late Elder Beardy, spring, 2001)

Sandy promoted learning from the experience of other countries, and learning from other Indigenous Elders. He taught me the value of persistence, the desire to learn, that learning is a lifelong responsibility. He taught me that education ought to be for everyone and inclusive, and that there is a need for widespread community education.

- **Offer widespread community education**

So therefore, I think, it is so important to include the people in the cities, not to pollute our water anymore than they have to.

(personal communication, the Late Elder Beardy, spring, 2001)

The need for widespread community education is also reflected by the words of Jebra Ram Muchahary (Bodo, Northern tribes of India), when he spoke about his belief that the masses do not know about the impact of pollution on our sacred waters (Baldwin et al, 2004). The traditional teachings need to be shared by those who can do so, and still protect sacred knowledge. In addition, the question may be posed: how is the best means of sharing education about post-colonial history to a population that has never heard about our collective history in the

education system? There are decolonisation programs in Aotearoa, like the Treaty of Waitangi Project (please see www.waitangi.co.nz).

- **Understanding our reality today**

You can't go and clean your fish in the river and then get your water from there. It's not that clean, not like it used to be, eh?

Now we can't clean the fish in the river because it is no longer clean. I imagine there will be people who will work on this to avoid the destruction of the clear, good clean water, so you save the water for us, for our people in the future. But if we don't, I don't know what future generations will use.

(personal communication, the Late Elder Beardy, spring, 2001)

The reality of the situation today of the world's waters needs to be made known. It is also important not to present information in a way that is overwhelming with the seriousness of the situation. Learners need to feel that they can make a difference.

- Working together:

Environmental groups are committed to protect the natural world, but many have not learned about what Indigenous peoples' responsibilities are. It is my observation that many environmental groups approach sustainability from a scientific perspective, and the protective mechanisms that are advocated are often in the form of municipal, provincial or national parks. If environmental groups understood the relationship, role and responsibility Indigenous peoples have

- Making Priorities:

Water is the most important thing for life.

So, I think that's the most important thing of all, is water. You know, all people of old days, never used bottle to raise their small kids. They breastfed their children. I was breastfed, too, when I was a baby. Because the good quality of water that our mom used was created for us to live through the breastfeeding of our mothers. So, if we use bottles for our babies, I don't think they will be as healthy as a person who has breastfed their children.

(personal communication, the Late Elder Beardy, spring, 2001)

Central to the importance of water is the importance of appropriate waters for babies. There is a comparison between the relationship between mothers, and children and the love and nourishment that Mother Earth gives to us with food, water and clothing.

Teaching children to care for the earth can be shared alongside programs like the Roots of Empathy program, which demonstrates the caring a mother has for a baby. As the child becomes an adult, as Sandy refers to, the child helps the mother when assistance is needed. Similarly, when Mother Earth needs something from us, we give it to her. This demonstrates the principle of reciprocation.

Our collective Responsibilities:

Concept 17: Keep the falls moving: The movement keeps the rivers clean and healthy

I identified the above teaching, based on the Elders' words:

They used to say the rapids are the ones who purify the water. You know, like turn it over and over and over. Like when you boil water, it kills the germs. This is something that the native people used to use many years ago, eh? The water keeps moving, keeps moving. The current, the river cleans everything.

(personal communication, the Late Elder Beardy, September, 2001)

Sandy's words imply that the water needs to move to maintain its cleansing qualities. Huirangi also related that there are living waters and dead waters, in his worldview. The concept of water's power is also related to its ability to move in a natural way.

*Waiora is living water or waters of life giving potential.
(personal communication, Waikerepuru, May, 2002)*

Huirangi had also talked about *waimate*, or dead water, stagnant water, water that has lost its vitality. He has told me that it is water from a dam (personal communication, 2002).

Elder Sandy Beardy was particularly directive in his suggestions for alternate solutions that would prevent further hydroelectric power development:

They will find a way to get electricity without dams. Before the Manitoba Hydro, there was clean water, then the Manitoba Hydro came. It (the water) flows a little but not much, because of the dam, eh? There was a

guy from South America, who came to this community, Cross Lake, about 20 years ago, I guess. They told us that they have power, too. They have dams. But where they built their dam, or some kind of development of electricity, they have their project built right on the falls. So, they don't build dams and destroy their environment. You want to find out about it, to see if it is true. They don't need to flood the lands. I think that's what they're doing in South America. That's what they are doing, they put it right in the falls. Like a windmill. They have some kind of machine, or power, without destroying the land. Because of the dams that are being built by Manitoba Hydro, everything seems to die down, except the inland, where there are no projects built.

(personal communication, the Late Elder Beardy, September, 2001)

Concept 18: Alternatives to dams need to be found, so traditional lands and waterways are not submerged

Maybe someday, they will use something instead of oil, like timber or something like that. Maybe 2 centuries in the future, there will be something else used, when there is more oil. It is about time to go back, regroup and reorganize.

(personal communication, the late Elder Beardy, 2001)

- **It is important to use alternative energies**

Maybe someday, they will use something instead of oil, like timber or something like that. Maybe 2 centuries in the future, there will be something else used, when there is no more oil. It's about time to go back, regroup and organize.

(personal communication, the Late Elder Beardy, spring, 2001)

- **Repetition is used in education for emphasis re foundation of the problem: that dams are not appropriate sources of energy**

We got lots of water out in the wilderness, out in the bush. But this main river channel, the Nelson River, is the one that gets this polluted water because of account of hydro development. Winnipeg used to get contaminated water, too. But now they get water from Sioux Lake, I think.

(personal communication, the late Elder Beardy, 2001)

Hydro companies and all other corporations need to be responsible for compensation and restitution for damage done to the lakes, rivers and oceans.

For government:

So, I imagine the countries down South, maybe in the near future, they will get short of drinking water. So they'll have to get from some place like northern areas, northern lakes. Therefore, it's our responsibility, the people who live here, to take good care of our lakes and rivers, not to get the people from the South to

come and dirty our water. Do you know what I mean? To take care of our environment, what's left, you know.

(personal communication, the Late Elder Beardy, spring, 2001)

I believe that the late Elder Sandy was predicting Security and Prosperity Partnership, and critical need for Indigenous peoples to protect our own water. People in the USA need to know how important it is to keep the water clean, because they are the highest consumers of hydroelectric energy.

- **Need for governments to listen to Indigenous peoples, and to recognize Indigenous peoples' laws**

But after that dam was built, the water, the current, the river seems to stop flowing. It flows a little but not much, because of the dam, eh? I hope they listen to you, some of these people, to help you to help us to have our water clean, a water system, just like in Winnipeg.

(personal communication, the Late Elder Beardy, spring, 2001)

Sandy clearly stated the damages that dams have already created, and the need to find other ways of energy production. One of the outcomes of this research was a non-government organization, that brought together traditional wisdom and clean energy technologies (please see Chapter 6). Governments have a responsibility to provide proper infrastructure for clean drinking water. Sandy indicated that in Cross Lake, there is a need to improve water quality because of contamination

For everyone:

Concept 19: Pollution of the water needs to stop for the collective health and survival of all of life

There are chemicals, fertilizers, farm and industrial run-offs, which flow, untreated into the sea. Our kaumatua would say, "The polluters wouldn't like it if we put it into their food cupboards, but they don't care about ours."

*(personal communication,
Waikerepuru, May, 2002)*

This statement is similar to Sandy's call not to dump garbage onto our kitchen tables, believing that the polluter must be mad to do such a thing.

So therefore, I think we should try to avoid, not to pollute the water, this lake, as they have done in the past. You know, with poor water Manitoba Hydro had

*destroyed the environment, it destroyed all the animals, the fish, the moose
we used to live on*

(personal communication, the late Elder Beardy, 2001)

*The Nelson River is the one that gets this polluted water because of
account of hydro development.*

*Maybe there's ways to protect our water, so it won't be contaminated from
these factories that they have.*

I hope the governments would listen to you.

*It is so important to include the people in the cities, not to pollute our
water anymore than they have to.*

(personal communication, the Late Elder Beardy, spring, 2001)

In reality, all Indigenous peoples' lands are affected by pollution.

- **Take personal responsibility for your own education**

*I think you know you got to find out, like yourself, learn more how to take care of
our water. Still, there's quite a bit of water in northern Manitoba, the northern
provinces.*

(personal communication, the Late Elder Beardy, spring, 2001)

For Research

- **Need for research to find out about hydroelectric power that doesn't
need to flood**

*There was a guy from South America, who came to this community, Cross Lake,
about 20 years ago, I guess. They told us that they have power, too. They have
dams. But where they built their dam, or some kind of development of electricity,
they have their project built right on the falls. So, they don't build dams and
destroy their environment. You want to find out about it, to see if it is true. They
have something like the big falls in Ontario, Niagara Falls. They have power, right
in those falls, some kind of electricity. They don't need to flood the lands.*

*I think that's what they're doing in South America. That's what they are doing,
they put it right in the falls. Like a windmill.*

(personal communication, the Late Elder Beardy, spring, 2001)

I later learned about Blue Energy (please see Chapter 6) and I was reminded to
research water power technology from South America.

*Chlorine is no good. We experience that in our community. So, I think that it will
take a long time to improve the drinking water. But not to give up, keep trying and*

look ways of improving...in that way, maybe in future generations will be glad that they will be using good water, good quality of water for their bodies, and surely there's ways.

(personal communication, the late Elder Beardy, 2001)

- **Research is needed about the impact of chlorine and other additives to water.**
- **Research is needed about how other countries protect their waterways: this highlights the importance of an international gathering of Elders**

I am sure that they could find ways of development for electricity without destroying the environment, and water. So I think that that's the only way I see that we could have good quality of water in the future, to do it now, eh?

Before it's too late.

(personal communication, the late Elder Beardy, 2001)

- **Find out about underwater propellers that produce electricity: research and then visit**

Maybe you can find out how they get their water, there in New Zealand. The and take good care of my sheep! (Beardy, 2001)

Concept 20: Clean water provides good health

Poor water kills everything, the fur bearing animals, the fish, and the muskrat. This time of the year, we used to have muskrat here.

There's more operations in our community than anywhere else in the North, because Hydro development hydro project are the ones to blame for this poor quality of water. But not to use chlorine. Chlorine is no good.

We use this chlorine, which doesn't suit our body.

(personal communication, the Late Elder Beardy, spring, 2001)

Only after the Last tree has been cut down,
only after the last river has been poisoned,
only after the last fish has been caught,
only then you will find that money cannot be eaten.

(Cree Indian Prophecy, n.d.)

Concept 21: Indigenous laws determine our relationship with water

Unchanging, traditional laws have been shaped by natural laws of the universe:

*Maori regard particular elements of the universe as the six offspring of Radiating Sun and Earth Mother.
These children are referred to as AA-tuu-AA
or Atua in its simplistic form.
These AA-Tuu-AA are regarded as having powers over specific deity and particular natural laws of the universe.
These powers are acknowledged as fundamental aspects of the environment to be respected and managed under the principle of Tapu (sacredness, ritual ceremony, and indigenous law)
(personal communication, Waikerepuru, May, 2000)*

The notion of *tapu* or the sacred is something that is part of traditional peoples' daily life. It is a way of life.

*YOU'VE GOT TO HAVE PROTOCOL.
(PERSONAL COMMUNICATION, LUCAS, MAY 2002)*

As George Brernton, Cree Elder shared:

*Spirituality is like the poles around the totem pole. Each pole is like the churches of the world, no one is greater or lesser than the other, and they all meet at the same place, with the Creator.
(Brernton, 1996)*

So I think, we were too generous a people, to let the Europeans come and pollute our water. But we wanted to help, we wanted to share what the Creator had made.

(personal communication, the Late Elder Beardy, spring, 2001)

There should be a recognition within dominant cultures that the spiritual beliefs of Indigenous peoples are as valid as any other religion or belief system. There is a need for equity in representation of Indigenous peoples in discourses on faith.

As Indigenous laws and beliefs determine many Indigenous peoples' relationship with water. It is, as Sandy shared, important that the values that are held, are not used to the detriment of the lands and waters. Care should be taken that the values of co-operation, harmony and co-existence not create giving away the land, air and water.

**Concept 22: Protocols are Essential:
Always Respect the Sea**

DON'T FOOL AROUND WITH THE OCEAN. YOU HAVE LIMITATIONS. YOU DON'T FOOL AROUND WITH THE WATER BECAUSE IT CAN GRAB YOU WITHOUT ANY KIND OF NOTICE.

(PERSONAL COMMUNICATION, LUCAS, MAY 2002)

Our kaumatua (elders) always paid respects to the sea when we went fishing or to collect shellfish, and at the end of the day, to give thanks for the gifts of food from the Food Basket of Tangaroa.

We must always respect the sea. We must not trample on the mana, law of the sea. Nothing should go into the sea that will desecrate the tikanga (law) of Tangaroa, like what is happening with the raw sewage outfalls, all forms of plastic and nylon fabrics, which fish eat and die from choking.

Always greet the sea, because it provides us with life, food and sustenance. You must always be mindful of the moods of the sea. "Kia Tupato". Always take care. Do not turn your back on the sea, or be careless because there are many dangers, above and below the sea.

(personal communication, Waikerepuru, May, 2000)

In the sharing of a Maori perspective of the sea (Waitangi Tribunal, 1985, July), the following was learned:

Local tribes taught a respect for the sea, the sea gods and for Kaiwhare the guardian spirit of Manukau who wreaked havoc on transgressors. The maintenance of the laws of the sea are through tapu and rahui (with their self imposed punishments by whaka hawea and maori mate). Quietness at sea is important, and food is prohibited on the water. Other prohibitions include gutting fish at sea or opening shellfish, lighting fires or cooking on the shoreline. Bathing was prohibited in certain places at certain times and urinating in the water was prohibited at all times. We were told how people used kits not sacks, never dragged the kits over shellfish beds, dug only with their hands, replaced upturned rocks, and never took more than they needed. Incantations and rituals are still practiced by many. The reading of signs was a specialized art, the reading being taken from wave patterns, fish breaking the waves, shellfish digging deeper into the bed, bird movements and the growth or blooms of trees. The appropriate places for collecting various fish of shellfish according to seasonal migratory, spawning and feeding habits were also described.

(Waitangi Tribunal, 1985, July)

Thus, the importance of protocols/traditional laws cannot be over emphasised. It is the responsibility of Indigenous communities to identify their own protocols and to also identify the knowledge that needs to be shared with other cultures. The power of the sea must always be acknowledged (Illustration 19).

Illustration 19. The Power of the Sea



Note. © Tom Dempsey / Photoseek.com, used with permission.

Concept 23: Children need clean water

if we go out and drink any part of the river or lake, we give our kids sickness.

(personal communication, the Late Elder Beardy, spring, 2001)

Adults are responsible for our children and their health. We have a responsibility to our children's children, and all who come after them.

Because the water we have in our bodies, is excellent, good. And when we drink polluted water, we'll get sick. There is one doctor in Cross Lake, here. This is the community here that has been polluted for 25 years. And there are more operations in Cross Lake due to the poor water supply.

(personal communication, the Late Elder Beardy, spring, 2001)

Concept 24: We do our work for the next 7 generations

*To not pollute that much more in the future, for this new generation coming up...to save and to supply good water for our future generations.
(personal communication, the Late Elder Beardy, spring, 2001)*

The work that we do for the next seven generations defines both our rights and our responsibilities. Many relationship problems stem from a lack of understanding about personal and collective roles and responsibilities. There is an imperative to clarify our collective roles and responsibilities in the protection of water.

This means Indigenous peoples should get together at the national and international levels to organize and strategize for the protection of water for future generations. It would need to be grassroots people who are connected to their cultural history, language and traditions, to guide this process. Traditional education and language revitalization programs need full support and resources.

For traditional Indigenous peoples, the knowledge carriers will pass the knowledge from one generation to the next. For others, like Indigenous scholars, there is a responsibility to educate the non-native world of the value of traditional laws and Elders and to promote traditional forms of education through the language and cultural practices within our own communities.

*If we drink polluted water, or if we go out and drink any part of the river or lake, we give our kids sickness. Because the water we have in our bodies, is excellent, good. And when we drink polluted water, we'll get sick. Children go out to swim now, they get sores in their body. There is one doctor in Cross Lake, here. This is the community here that has been polluted for 25 years. And there are more operations in Cross Lake due to the poor water supply.
(personal communication, the Late Elder Beardy, September, 2001)*

Therefore, rather than wait for the pollution to happen, and then try to clean it up, it makes sense to have primary prevention of illness for our waterways, by protecting it with traditional guardianship, and making known our laws and the need for Indigenous peoples to guide any decisions that affect our waterways. This brings forward the next principle:

Concept 25: The protection of water is urgently needed

So I think your work is very important to have good water for our everyday needs and also in the future. If we have a good quality of water, everything will go well, just like in the past. But I don't think that will ever come because most of our countries are being used to destroy the water quality and the animals.

(personal communication, the late Elder Beardy, 2001)

I think Sandy was implying that the present direction that the world is going, is not a good one.

So, I think, and I hope it is not too late, to avoid, and not to pollute our water, but to try and have our environment clean, like it was before, and that is impossible, too. Because without gas and electricity, the cities won't survive.

*I think it's wise to try to do something now, before it's too late. It pays to have good quality of water for future generations.
Let's get together, work together, and try to find ways to avoid pollution in our country.*

(personal communication, the Late Elder Beardy, spring, 2001)

Sandy stressed the need to protect water and to try to purify unclean water. He communicated urgency, encouraging us to learn what we can. He encouraged me not to give up hope, it's not too late. There is a need to educate the people consuming the electricity. Chief John Miswagan spoke to the Minnesota power people in his presentation, 'Only Beavers Build Dams'.

We all have responsibilities to the water, to protect the water, not to desecrate the water.

(personal communication, Waikerepuru, May, 2000)

As Elder Beardy encourages us:

*Let's get together, work together,
and try to find ways to avoid pollution in our country.
(personal communication, the late Elder Beardy, 2000)*

We also need to work together for a vision of clean water. One of the solutions is to work with environmental groups, churches, governments and community groups in the realm of education, responsibilities, guardianship and clean-up. Environmental groups can include Indigenous perspectives in their education programs by employing

Indigenous peoples knowledgeable in the area for roles in education. Organizations like Greenpeace, Western Canada Wilderness Committee and many others could sponsor Indigenous people who understand sustainability. Also, environmental groups could commit a portion of the funding they receive to Indigenous initiatives. Churches and governments, in their legacy of diminishing language and cultural practices, can make some restitution by providing the funding and the resources to fully fund language programs and to bring together Elders and to sponsor forums on water that honour local protocols.

Concept 26: Polluted water needs to be purified

I used to go out and fillet fish on the rock, instead of using a pan or some kind of bowl or something. We just went ahead and washed our fish and the same place, we had our pail of water, because the water that you use in the bowl is dirty unless you throw it out.

(personal communication, the Late Elder Beardy, spring, 2001)

I raised, my wife and I, we raised 11 kids, 7 girls and 4 boys. I raised these children of mine from country food, out of that trapping, fishing and hunting. Even though I didn't have no other job. The fur prices were good, so the food that I gave, that I managed to get out of this trapping. The environment was really good. And all of the good food that I had here. For example, all of a sudden a madman comes into our room, our house and dumps dirty water all over the food, where the kids are enjoying the food. Then they are not able to eat because of the dirty water. This is the same way Manitoba Hydro has done to our environment. This water is one that I miss very much. I hope someday, you'll be successful in finding the way to save and to supply good water for our future generations.

So, I guess this is all I experienced in the past. I never went to university, but I know in the past what our country looked like before developments came here. It was excellent.

*So therefore, I think it's very important to look after what the Creator has made.
He made everything clean
and man was told to make it clean.*

*Maybe there's ways of purifying water so that it's good for our bodies.
...maybe some countries know how to purify the water, or maybe perhaps they'll share their wisdom, that we can use if we cannot improve our drinking water.*

(personal communication, the late Elder Beardy, May, 2001)

Here is where the best of both worlds may be brought together. As the Isleta people have done, Indigenous peoples can train youth in both traditional education

about water, and with the tools of western science, can learn about hydrology, developing scientific strategies and actions to purify the water.

Another Elder-guided strategy for action for water and health is found in a most simple way. A bond is established between a baby and a mother by the first waters that babies drink, mother's milk.

Concept 27: Breastfeeding is the healthiest food and water for babies

Breastfeeding connects the child to the mother and protects the baby from illness.

You know, all people of old days, never used bottle to raise their small kids. They breastfed their children. And the mothers are so loving to their children, that when they ask for something, they automatically get what they want from their children. Because they've been looking after them good. But young girls use bottle too much. And the water quality that they use for the water is not for consumption in their body. So that's one way of improving the water.

(personal communication, the Late Elder Beardy, spring, 2001)

Ukaipo means the breast milk suckled by the baby at night. It is the land that nurtures and cares for the child and all of life. It is the same as Papatuanuku, the Earth Mother who produces the food so that all living things can grow and flourish. So, the mother must be protected. We all must protect her.

(personal communication, Waikerepuru, May, 2002)

Concept 28: Children need traditional education about water

...and the young people can learn about, how did the people use their culture? It's very important. If you are interested in the way I talk,

I think the young people need to learn.

Someday, we need to go back to our culture...and I think that when the oil and gas disappears, so we will have to go back to how we used to enjoy things...those schools, I guess, (need) to teach the young people how to do something to save the good quality of water. You people who want to learn your language. Invite the Elders, 60 years and up. We learn a lot about Indian traditions and living. 70 years ago, everything was excellent.

I think that we should do something. I guess, I don't know where you could start this. Those schools, I guess, to teach the young people how to do something to save the good quality of water.

(personal communication, the Late Elder Beardy, spring, 2001)

Action is important! The schools are where we start. If we include families, the children and families can be educated at the same time. There is a need to organize ourselves.

...how did the people use their culture? I think the young people need to learn.

(personal communication, the Late Elder Beardy, spring, 2001)

THAT WATER, BECAUSE I WENT TO A SCHOOL OF A DIFFERENT RELIGION, I WASN'T TAUGHT ABOUT THE MOST IMPORTANT PARTS OF MY YEARS ABOUT THE ROLE THAT WATER PLAYED, WAS SUPPOSED TO PLAY IN MY LIFE. RATHER, I WENT TO A SCHOOL THAT DIDN'T TALK ABOUT WATER IN (THE WAY) THAT MY GRANDFATHER TALKED ABOUT IT... IT'S BECAUSE THE EDUCATION SYSTEM DOESN'T TALK ABOUT WATER LIKE OUR ELDERS TALK ABOUT WATER.

(PERSONAL COMMUNICATION, LUCAS, MAY 2002)

Here we have another recommendation or strategy of action from the Elders, through education. Education in the dominant school system, as Chief Simon has shared, does not include traditional education about water. There needs to be full resources provided for language programming at all levels for communities. Also, the traditional teachings about water can be offered to all ages, based on local Elders' teachings. Traditional education about water can take place in the following ways:

1. In Indigenous communities, language and arts programs require adequate resources. There is a need for equitability in funding for language and cultural programs.
2. The mainstream school system requires Elders' teachings so that children understand that water is sacred, and that local protocols need to be respected. Children need to hear about the importance of traditional laws of the land where they are living.

Water policy developers need to hear about traditional teachings about water from local Elders to include traditional ecological knowledge in all water policy development. They need to understand that water policies need to be guided by local Indigenous Elders.

These policies could ideally be developed by Indigenous peoples who understand their traditional teachings. This means restructuring decision-making bodies. The clarification of roles and responsibilities need to be established, to protect the knowledge and to protect the water.

As previously mentioned, it follows that, if traditional teachings are communicated through art and storytelling, that the creation of a children's book on the topic of water from an Indigenous perspective would fulfill this need. As Elder Sandy suggested, Elders from many nations can contribute to this education. Each cultural and linguistic group in Canada could be invited to participate. In working with the safe Drinking Water Foundation, Sue Peterson proposed that we create a day-timer of art and stories for children, so that the children will have the booklet to refer to on a daily basis, as part of their daily organizer booklet for school. Pacific Indigenous groups, in collaboration with the Pacific Peoples' Partnership, could make the same type of book. Of course, intellectual property rights must be at the forefront, and the book would be for educational purposes, with any profits sent to children's education and health programs in the communities where the traditional knowledge came from.

Concept 29: The wider community needs education about water

So when the Europeans came, they destroyed everything...and now, the people do not have anything to celebrate. For example, they used to celebrate the Indian summer. This used to be important for the Native people.

The dominant society needs to understand the impact of colonization, and the importance of history on culture and climate.

In the North, what we used to have was the most colorful of Indian summers. And now, we don't have that, on account of the white culture.

As Chief Simon Lucas told me that if Indigenous peoples' laws were recognized, we would not have a problem with climate change (personal communication, Lucas, may 2002).

They destroyed all that. We lived out around water, the ocean, lakes, and rivers.

Concept 30: Look after the poor

More than 800 million people, 15% of the world's population and mostly women and children, get less than 2,000 calories a day. Chronically undernourished, they live in permanent or intermittent hunger (World Water Council, 2003).

This imperative called for by Elder Sandy Beardy is consistent with the cultural values of sharing and caring. Fyre Jean Graveline (1998) writes about the inequities that we are living with on a global level. She raises the awareness of the widespread homelessness, joblessness, illiteracy, crime, disease (including AIDS), hunger, poverty, drug addiction, alcoholism and other illness-producing habits, and that these ailments are largely products of multi-national capitalism. I would add to this that the root problems are the human need to dominate other peoples, culturally, spiritually and physically, and the natural world. This movement is vitally interconnected with the continuing destruction of Mother Earth, upon whom our existence depends, which seriously affects Indigenous peoples. So the advancement of the Western way of life is an ongoing form of domination and cultural imperialism (Stewart-Harawira, 2006). However, education and a shifting of hearts and minds can bring a hope for change.

Other cultures also value sharing. Mahatma Gandhi, a great source of inspiration, stated:

I will give you a talisman. Whenever you are in doubt, or when the self becomes too much with you, apply the following test. Recall the face of the poorest and the weakest man (woman) whom you may have seen, and ask yourself, if the step you contemplate is going to be of any use to him (her). Will he (she) gain anything by it? Will it restore him (her) to a control over his (her) own life and destiny? In other words, will it lead to swaraj (freedom) for the hungry and spiritually starving millions? Then you will find your doubts and your self melt away. (Gandhi, n.d.)

Concept 31: Get all the Elders together

When you listen to the old people tell you about these things, it's very important.

We'll try our best to give you what we learn and be able to use a little bit from there. And from Elders from other countries, too, eh? Like where you are.

(personal communication, the Late Elder Beardy, spring, 2001)

I think the best bet is to get all the Elders together, about 70 or 80 years old. They learned a lot from their parents. You people who want to learn your language. Invite the Elders 60 years old and up. We learn a lot about the Indian traditions and living. 70 years ago, everything was excellent

(personal communication, the Late Elder Beardy, spring, 2001)

In conclusion, there are many responsibilities that need to be taken on, by both Indigenous peoples and by the wider community. The next two chapters will outline outcomes of this research: a non-government organization that links traditional wisdom with clean energy technologies (Chapter 6), and an educational model developed on traditional perspectives on water (Chapter 7). The foundation for both the nongovernment organization and the educational model is the concepts, values and principles learned from the Elders.

CHAPTER 6

AURORA – A CLEAN ENERGY FOUNDATION

One of the outcomes of this research has been the creation of a new, non-government organization, called Aurora – A Clean Energy Foundation. This chapter will describe how it came to be, and some of the successes and challenges that we experienced. This initiative serves as an example of how the Elders' teachings can be put into practice.

The scientific world and environmental groups have, for the most part, taken a dominant role in defining the concept of sustainability. Scholars such as Berkes (1999), Thorpe et al. (2002), Krupnik and Jolly (2002) and Turner (1997) all acknowledge the value and importance of traditional knowledge for a sustainable future and the need for its application. The non-government organization Aurora – A Clean Energy Foundation was established, founded on traditional values and principles. It is an effort to apply those values and principles in practical ways, by promoting traditional education that includes a reverence for the Earth, and providing opportunities for communities to make choices for clean energy technologies.

Background

The Climates of Change Congress, held March 19 – 21, 2000, in Victoria, BC saw the coming together of leaders of clean, new and renewable energy systems, leaders of economic and social reform, and indigenous elders offering solutions from an ancient relationship with the natural world.

The Climate Change Congress visionary, Val Hambly, shared her belief that 'we need to work together' (personal communication, Hambly, 2000), that there is a need to bring together traditional wisdom with clean energy technologies. It was consistent with the late Elder Sandy's encouragement to work together and to find alternatives to the

building of dams. At the Congress, Te Aturangi Nepia Clamp made the following statement:

There needs to be an integrated approach to the sustainability of our planet, the foundation of which needs to be traditional values and principles provided by First Nations and substantiated by scientific research, development and implementation.

(Nepia-Clamp, from his address to the Climate Change Congress, Victoria, BC, Canada on March 19th, 2000)

Hal Fox (then editor of the Journal of New Energy) approached the Climates of Change Secretariat, shared that he

'would like to follow up on the conference with an offer to help B.C. develop some new-energy devices and systems. I would like to suggest that some of the same group establish a working relationship in which Emerging Energy Marketing Firm, Inc. (EEMF) would help provide technology...If it is possible, I would like to do something constructive with some of the younger First People of British Columbia. There is a tremendous opportunity, with little risk, for leaders in B.C. to establish a business wherein some of the new-energy devices and systems would be manufactured and marketed in Canada.' (communications from Hal Fox sent to Aurora group, 2001)

With the combination of education, the application of clean energy technology and the implementation of traditional knowledge and values, there is a hope that we can have a sustainable future for our children, our grandchildren and generations to come. Working together, we can have a clean energy future!

The founding members included people from a wide range of backgrounds, nations and expertise. We used the example of the Hawaiian health unit that Malcolm Chun had described to us, and established guiding principles that were based on traditional values. These guiding principles were rooted in the indigenous languages of the different members.

One of the principles was that of equity in decision-making, which became challenging to some members, who wanted to make 'executive decisions' on behalf of the rest of the group members.

We took several meetings to establish our mission statement. I had witnessed, from other non-government organizations, that when there is a lack of clarity in vision or mission, the group can easily become diverted into different directions. In this case, it was a challenge to bring together two different approaches to the same problem (traditional and technical).

Our mission statement was defined in this way:

To bring together Indigenous peoples' traditional wisdom, modern science and clean energy technologies, to provide socially, economically and environmentally sustainable power systems for rural and remote communities

Our goals were to: transmit traditional knowledge about water within indigenous communities; create demonstration projects using clean technologies (initially Blue Energy tidal power); encourage the development of laws and policies for the environment, health and education that are in harmony with natural law (traditional Indigenous laws); provide education, training and employment through the application of non-polluting energy sources and modern technology.

We hope that through community education, rural communities can reclaim traditional teachings about water and their application and hear about the variety of clean energy technologies available to us all, and choose the devices most appropriate to their geographical setting. The community education will be through forums of 'getting the Elders together' as the late Elder Sandy Beardy encouraged (thereby replicating the research for this thesis), and bring together scientific experts in the realm of clean energy technologies, so that communities can choose their own strategies for action. This is an important first step in community development, and in planning the community's wishes in making choices best for their communities.

We plan to implement demonstration projects of clean energy, initially micro-hydro turbines. Because many rural communities do not have access to electricity, many resort to the use of diesel generators. Often, BC Hydro generators and lines go right over aboriginal communities, and the pollution generated by the diesel machines is detrimental to the environment. In addition, many rural communities do not have access

to information about clean energy technologies, and have limited access to economic development opportunities. This group will endeavour to provide that education, especially when the only other options appear to be further hydro developments, mining and forestry. When combined with the traditional teachings of their own cultures, and an understanding of their own values, young people will have the opportunity to make healthy choices for their own landscape. In addition, there will be opportunities for education and employment.

One of the challenges that we experienced was that funding was readily available for the implementation of clean energy technologies, but a lack of interest in funding community for supporting consultation and education meetings. It proved to be frustrating because there is a need for consultation with communities before the specific clean energy technologies can be chosen and then implemented. The community needs to be listened to before the strategies can be determined. To hear what community wants, their concerns and interests need to be heard, and in addition, knowledge needs to be shared with them, so that informed decisions can be made. This highlighted the need for Elder-guided community gatherings.

The following clean energy technologies were considered as opportunities to present to communities: Super-efficient generators, generating hydrogen from water, photovoltaics, micro-hydro turbines (Blue Energy), district energy, cold fusion, biomass, solar thermal, wind power combining new super-efficient generators, high density charge clusters, Toups Technology (Magnegas), Trenergy (HDCC in liquids), Ground source heat pumps, Greenhouse heaters/greening products, radioactive waste removal (liquids and solids), HDCC Sparx, on-board automotive battery chargers, Hydrino. We decided to focus on the Blue energy technology for now.

The outcomes that we aspired to were: to address climate change, and to build better relationships between native and non-native groups, bringing together Elders, families, youth, academics, scientists and others in the community.

Climate change would be addressed through: a) better community education; b) the development of better environmental, health and education policy development to be in

harmony with natural and traditional law; and c) the application of clean energy technologies.

Another outcome we worked towards was about relationship building. We wanted our organization to result in a) better relationships with the natural world, protection of water, through the application of traditional teachings and clean energy technology; and b) between human beings, with a better understanding of peace education and peace-building, from the teachings springing from water.

Aurora – A Clean Energy Foundation is a group of Indigenous and European individuals and groups that have come together for a sustainable future. We meet on Coast Salish territory, Vancouver, British Columbia, at the Blue Energy Canada offices. Our backgrounds range from Scottish, Coast Salish, Nuu-Chah-Nulth, Cree, Maori, Rarotongan, Irish, German and English. We welcomed anyone who shares our commitment for future generations.

Our vision is to have all people make wise decisions on energy use, sources and choices, which would protect and sustain our sacred environment for the benefit of present and future generations.

Our next objective was to define a common set of values. These values were drawn from Indigenous cultures, and values that the European people valued as well. This took a great deal of discussion. We discussed our values and agreed upon the following values as ones we share: Water is fundamentally sacred. Collectively, humanity needs to regain a state of balance in all four directions (This comes from the Cree concept of *pimastiwini*). We have a shared responsibility to set things on the right path (*Mee-no-osta-an*, Cree) returning to a harmonious and beautiful state (*Min-oo-puh-niw, mi-naw-sin*). Wisdom lies within each one of us (*In-ni-see-si-win*). We share in decision-making, with equity, and aspire to a global community, where there is a real sharing of resources for a sustainable future. We also value the values of caring for The Earth, a demonstration of love (*sa-kee-hi-to-win*), and a mutual respect (*ki-stay-min-ito-win*) for each other (as a community) and for the natural environment. We value respect, dedication, integrity and teamwork of all people, indigenous and non-indigenous in

working toward the common goal of environmental protection and sustainability. We value the contribution which traditional knowledge and wisdom on environmental sustainability can make in identifying and understanding, preventing and solving environmental problems. We also value the contribution of modern science and technology in identifying and understanding, preventing and solving of environmental problems. There is recognition and acceptance of the shared responsibility for the environment by all people and that it is important to co-operate in the sharing of information with our partners, clients and the public. We also recognize that all things are related and connected: humans, plants, animals are all connected to the universe (Mitukwasin, Lakota).

The operating principles identified were: to practice exemplary leadership in environmental sustainability; to promote innovation in the combined application of traditional wisdom and modern science and technology; to show care and commitment to all our employees, encourage excellence in staff development and working conditions for successful delivery of services and programs to our clients.

Three projects were chosen. The first project is an education project within communities, promoting the transmission of traditional knowledge about water, by means of workshops. This will improve community education at all levels, by supporting the transfer of traditional knowledge in Indigenous communities; the creation of school curriculum; and improving environmental, health and education policies. The second project chosen was to produce a video about Elders speaking about water. The videos may include traditional knowledge on water, and information about the potential for the application of clean energy technologies and economic development of rural communities. The final project chosen was a demonstration project, featuring Blue Energy micro-hydro turbines

Project One: Research and Transmission of Traditional Knowledge of Water

The first project was to build upon the present research in other places. Elders share what water means to their language and culture. The residential school system in Canada undermined traditional teachings about concepts about water, ceremony, ritual,

stories and songs through the language. For a community to recover its health, spiritually, emotionally, mentally and physically, community members, young and old need to hear and be reminded of traditional teachings and their implications in today's world. A mechanism or vehicle to learn these teaching is through the indigenous language. Therefore, community workshops supporting the traditional teachings about water through the understandings of the language is a means of improved environmental policy development. Through community gathering and workshops, community-based policies can be developed. Three workshops in each community will achieve this goal.

This project was identified by the group as part of a doctoral program with Simon Fraser University, Burnaby, BC, that recognizes the importance of traditional indigenous education and its application in today's world. Because the traditional understanding of water is closely connected to peace, this network of Indigenous peoples will be able to form a network for peace education and peace building. This is especially important in these turbulent times.

Project Two: Video Production on Traditional Teachings about Water

Pakihana Grant Hawke, *kaumatua* (Maori Elder), from Orakei Marae (Auckland, Aotearoa New Zealand) will produce two videos on water: one for his own community on traditional teachings and another for policy-makers at the local and national levels. Environmental, health and education legislation can be shaped to be in harmony with natural law.

Pakihana will facilitate the sharing of other Maori Elders on the subject of water. They are: Kevin Prime, Nga Puhi (Kaitaia and Bay of Islands); Hori Parata, Ngati Wai (Whangarei); Bill Kapea, Ngati Whatua (Auckland); Margaret Kawharu, Kaipara Ngai Whatua; Del Wihongi (Nga Puhi); Emily Kirkwood Karaka, Ngati Wai; Nganeko Manhinnick, Ngati Tiata; John Hohupata, Terawera, Ngati Awa Poroto (Southern Manukau)

Pakihana Hawke identified the following areas of importance to be discussed on the videos: Traditional teachings through the stories, *karakia* (songs) and life experience will

be shared; the importance of language and spirituality in the development of policies affecting the waterways; the importance of reconnecting people with their ancestral waters. Issues of concern will be identified, with the hope of cleaning up places of significance for our spiritual lives. The strategies that may be used for the restoration of the fish stock, replacement of the irrigation systems, restoration of the algae, and addressing issues of sedimentation from dredging will all be discussed. The hope expressed as an outcome of this education will be the rechannelling of water for healthier communities, water purification, pollution prevention and strategies for the future protection of water. "We carry the past with us into the future."

This project is aimed at the development of two educational videos on water and sustainability, targeted at two different audiences, First, Indigenous communities: examines (in their language and culture) the traditional teachings about the meaning of water and aboriginal water policy. Also, it will look at the feasibility of micro-hydro projects for sustainable energy usage in the native community. For policy developers, this video provides guidance for developing policies in health, environmental and education legislation that protect water sources and enhance its uses.

Both videos will be created from a dual script outline and the content assimilated through interviews and coverage of existing water systems and demonstration projects.

Project Three: Blue Energy Demonstration Projects

The third project will be described in a brief fashion, as it is focussed upon the technical aspects of the initiative.

- Phase 1 Community Consultation/ Education and Needs Assessment
One to Three Workshops for each community
- Phase 2 Training of Youth
- Phase 3 Installation of Unit(s) Chosen by the Community

The Davis Hydro Turbine can be compared in design and output to an ultra-efficient underwater windmill. Four fixed hydrofoil blades of the Davis Turbine are connected to a

rotor that drives an integrated gearbox and electrical generator assembly. The turbine is mounted in a durable concrete marine caisson, which anchors the unit to the ocean floor, directs the water flow through the turbine and supports the coupler, gearbox, and generator above. The hydrofoil blades employ a hydrodynamic lift principle that causes the turbine foils to move proportionately faster than the speed of the surrounding water. Computer optimized cross-flow design ensure that the rotation of the turbine is unidirectional on both the ebb and the flow of the tide.

The design of the Blue Energy Power System requires no new construction methodology: It is structurally and mechanically straightforward. The transmission and electrical systems are similar to thousands of existing hydroelectric installations. A standardized high production design makes the system economical to build, install and maintain.

The Blue Energy Power System's Davis Turbine modular design is capable of meeting any site application from 5 kW to 500 kW for river applications and from 200 MW to 8000 MW ocean installations.

The Davis Hydro Turbine forming the Blue Energy Power System is designed for modularity, according to two distinct scenarios:

- The Davis Hydro Turbine "Ocean Class" system, which will link 7-14 MW units across ocean and estuarine passages;
 - The Davis Hydro Turbine "Mid-Range" 250-kW unit, which can operate individually or be linked together for remote and river-based applications
- Three workshops will be conducted in each community. The community will choose the size of the turbine(s).

I will next describe the educational model about water that is another application of putting the Elders' teachings into practice.

CHAPTER 7

EDUCATION MODEL ABOUT TRADITIONAL INDIGENOUS PERSPECTIVES ON WATER

In addition to the projects of Aurora, A Clean Energy Foundation, the dissertation research has resulted in a curriculum that would allow for the dissemination of the Elders' teachings about water. It is the second translation into action component of the dissertation.

It is well documented that western forms of curriculum do not meet the needs of Indigenous peoples, and that Indigenous peoples have their own forms of education, including curricula (Armstrong, 2000, Benham & Cooper, 2000, Cajete, 1994, Kenny, 1998, Kirkness, 2002). After discussion with my advisor on education, it was suggested that for the purpose of this thesis, this chapter will include the potential applications and general framework of the educational model on water that I have developed and piloted. The curriculum itself will be included as a disc attached to the thesis. I will summarize this educational model. Prior to this summary, I will discuss ethical issues about education, self-governance, its implications and ethics needed to be applied to this water education program.

Ethical Stance

The subject of ethics will next be discussed in two related areas: 1.) The ethics of self-governance of education and what that means; and 2.) The ethics of engaging with community in developing education programs (in this case, water education).

Firstly, this research engages in the ethical space of dialogue between Indigenous ways of knowing and Euro-centric paradigms of education. This ethical space includes the complexities of Indigenous peoples who are 2nd and 3rd generation post residential

schools, with increasing populations of urban aboriginal communities. I have been privileged to be a part of community based research on aboriginal early childhood education, and have witnessed some of the barriers local communities experience in their access to education (Elliot, 2006). As we have seen from our collective colonial history, there is a crisis of separation of Indigenous peoples from their language and land. There are many communities who have only a handful of fluent speakers of the language. In the realm of research of education, there is a need for surveys to be conducted by aboriginal researchers to do needs assessments. In this way, the results of the research can accurately reflect the needs of the community. It is impossible to base an aboriginal community's education needs on Euro-centric yardsticks. When aboriginal children are asked culturally inappropriate questions (like identifying a picket fence, when it was never part of their lived experience), it puts into question the ethics of applying education models and assessments that do not fit the needs of the community. This is a continuation of the cultural imposition of values. Huirangi has shared with me his perspective that any child, who does not learn his or her first language, is a child with a disability (Personal communication, Waikarepuru, 2006). Another aspect of ethics is the principles of justice and equity. When we examine the millions of public dollars spent on the Canadian education system, one might ask, 'Is there an equitable portion of that funding directed at the preservation and restoration of aboriginal languages?' In the greater Victoria area, there is a real need for equitable funding to be directed at research and development for language programs for the whole family, so that preschool children can go home and talk with their own parents in their own language. This is a fundamental human right. Thus, there is a need for more aboriginal-conducted research, development, design, delivery, and evaluation of aboriginal education that promotes the language and cultures of the Indigenous peoples of the land. In addition, Indigenous peoples need to be at the table when funding is allocated, and funding criteria is established. Communication and dialogue can address the inequities currently found within the education system

This is self-governance, to conduct education in one's own way, in one's one language and culture. There are different styles of learning, as we have heard from the Elders, and that learning from the Elders, nature, art, ceremonies and cultural practices are so important to an Indigenous child's healthy development. Through the efforts of many

years of aboriginal educators teaching Canadian educators, there have been major strides achieved, with the growing recognition of other ways of knowing, other styles of learning and the value of respect for Indigenous traditional knowledge

Therefore, there is an ethical and moral responsibility that school districts, provincial governments, churches and federal governments carry to compensate for the past wrongs that have altered children's access to language and culture today. This means an equitable portion of education funding from preschool to adulthood, including graduate levels of university. Barriers to linguistic and cultural education need to be identified and eliminated for human rights to be recognized in Canada. There is also concurrently a development of new terms, like 'traditional ecological knowledge' (TEK), 'knowledge translation', 'relevance', 'protocol' that is used by academia that holds no meaning for traditional people. Once again, the importance of language emerges. Aboriginal –designed curriculum itself poses unique challenges, because the original language was oral and the process of writing anything down puts at risk the protection of traditional intellectual property. Ethical behaviour may also be described as taking responsibility to protect Indigenous languages, as was called for in the recent paper submitted by the International expert group meeting on Indigenous languages (United Nations, 2008). This expert group recommends that all sectors of society to take responsibility. Thus, there are many dimensions of ethics in the development of the water education programming.

The next aspect of ethics that will be discussed is the ethics of community engagement in education programme development. If self-determination of education is adhered to, that every child has a right to his or her own language, then this determines the process of working within a particular learning community. I will use my context of living and working in Coast Salish territory. If the program is offered on Songhees and Esquimalt territory, then the people of the land have a right to their own education as a priority.

It is my philosophy it would be beneficial for the facilitator for this program to know who he/she is and where he/she originates from, to come from an Indigenous world-view, and have an understanding of his or her own philosophy and vision of education, as a starting point. Bearing in mind that each community will have its own vision of education

and aspirations, language dialect, diversity of community members and families, makes this process additionally complex. As I learned from Angel Sampson (Songhees preschool administrator) and our joint process of community consultation regarding the development of an aboriginal parents' conference, 'Little Hands reaching for a Brighter Future', there is a tremendous opportunity to design curriculum based on the guidance and direction of the community itself. In the case of the urban preschool program, the program directors asked me to design the curriculum based on my teachings, education and experience, following a meeting with the educators, and another meeting with the program participants (the parents), to determine their input to the education on water. I also used my experience of the local knowledge-keepers of language and culture, and asked them for their feedback. After the meeting with the parents of the group, I developed a draft and then sent it back to the preschool staff. They reviewed the curriculum and edited it.

The program is based at an urban aboriginal setting, the parents in the program come from many Indigenous from different parts of BC and some come from European backgrounds. There is also a variety of parents' experience in their own language and cultural roots. Some of the parents have much experience in their own traditions and others have had very little (if any) exposure to their own roots.

In recognition of the respect for local community input to aboriginal program development, I asked local Indigenous teachers if they would review the content of the curriculum, for their input. Thus, I endeavoured to achieve contributions from the aboriginal early childhood educators, the parents of the preschoolers (for cultural relevance to their own roots), and the Songhees educators, to respect protocol. I needed to retain copyright of the program, because many of the concepts and words came from the Elders who contributed to this thesis.

Following the delivery of the program, we will have focus groups or surveys to ask the parents and children what they learned from the program. In addition, the JOH facilitators will also be surveyed to hear about their perspectives. To protect traditional knowledge, it will be encouraged to keep the cultural knowledge as oral, and to promote

the connection the parents have with their own Elders, land, families and resources for language retention.

Curriculum Model

The model of the spiral will be used for the curriculum on water, because it represents life in a holistic way. It is an Indigenous model that employs a process of engagement and development of the education. The Centre of the spiral may be regarded as the Past. This spiral will demonstrate the connections between the Past Present and the Future. The fundamental concepts are the Indigenous laws that are rooted in our languages and cultural practices. The traditional teachings about water spring from our ancient stories and concepts found within our own languages. Thus, the teachings about water offered about a place in our beautiful world need to recognize the original laws of the territory. It is at the local community's discretion, as to what is shared, because of the sacred nature of Indigenous knowledge.

➤ **Centre of the Spiral: The Past, Indigenous Laws about Water**

The ocean is the sacred mat: water is life, water is sacred. 'This is a fundamental law of nature' (Waikerepuru, personal communication, 2001). These laws are the fundamentals, the building blocks of education. Understanding self (who one is where we come from) is also the basis of this education.

The centre of the spiral is representative of the centre within oneself: where one originates, and self-understanding. The teacher-student relationship is based on the principle of *ako* (Waikerepuru, personal communication, 2001), that we are all teachers and learners throughout our lifetimes, and that this process of learning begins from birth and continues until we pass into the next world. Teachers share their knowledge and learners share their knowledge. In this way there is a reciprocal relationship, one that is based on sharing and equity. The teacher may have more knowledge and life experience in a particular area. At the same time, there is a fundamental respect for the student's life experience, no matter what their age. It is through this self-understanding, that the student can better recognize their own place in the world, their relationship with

the people of the land where they may live, and their relationship with all of creation. It is through their own original stories and their own original language that this self-understanding may be achieved. This curriculum is, in Huirangi's daughter Te Urutahi's words, 'a journey inward as well as a journey outward' (personal communication, Te Urutahi Waikerepuru, 2008). It is an experience that is at once educational, environmental, cultural and spiritual. The learning is experiential, and one that combines Elders' teachings and stories (which transcends generations), learning from nature and from the landscape. It is about understanding the meanings of language in the places of landforms and waterways. It is, in keeping with self-determination of the people of the land, at their discretion as to how and what traditional teachings that they wish to share.

➤ **The spiral moves out, the Present**

This phase may also be seen as the Present, and the importance of cultural practices. Understanding these concepts about indigenous laws come from understanding the language, and from traditional forms of education. It is the mechanism, the ways in which we understand the past. This includes learning from the Elders, nature, songs, ceremonies, rituals, and art. This education is family-centred. It is at this point that the family/community decides what they wish to share with the non-native community. As Huirangi explains, 'We have *tapu*, which is the sacred, and *noa*, which is common knowledge.' (Personal communication, Waikerepuru, 2001) The content and process of the curriculum will depend upon what the Elders want to share. The education model must therefore be taught or shared by a local Indigenous person who is knowledgeable about his or her own cultural context. In so doing, this retains the control, the sharing of knowledge within the community's hands (upon whose territory the program is delivered). What is taught within their own Indigenous communities may be very different from what is shared with the wider community. This is because of the need to protect sacred traditional knowledge. There is some sacred knowledge that stays within knowledge-keepers, and within families, never written down, and it is knowledge that has to stay that way.

How this education is shared again will depend on the Indigenous community's wishes. Some may choose to share within the context of their traditional houses of learning, while others may want to speak at a university or public school. Others may want to

teach in the natural setting, by a lake or a stream. In this way, the community itself chooses the art forms and technologies available to them. For example, the traditional technologies of fishing may be demonstrated or they may choose to use a power point slide show. The community may or may not choose to integrate their traditional knowledge with western science curriculum. As one indigenous educator pointed out to me, there are plenty of ways that our children are already exposed to western theories and technologies about water in their school system. It is my belief that is important to bring together the best of both worlds. For example, young people need to hear about traditional teachings about water from the land, and also about practical ways that they can protect the water through water quality testing.

Traditional education provides the basis for the education, creates healthy communities, and a balance with the environment. Fundamental to this education is about learning the language and the concepts found in the language that cannot be translated into English. We learn to protect our first medicine, water and all other traditional medicines, both plant and animal, which provide our food and shelter, as well.

The scope and sequence of the curriculum needs to be determined by the community delivering it. A model of the sequence of teaching is described below. The teachings that have been identified in Chapter 4 may come after the local Indigenous Elders' sharing. This is in respect to local protocol. In addition, the pedagogy of the local Indigenous communities is the basis for the curriculum. This supports Indigenous self-determination of education. The facilitator/teacher may ask the local Elders, the local Indigenous community how they wish to share, and the local people take the lead in how it is structured. The nursing process of assessment, planning, implementation and evaluation (Wilkinson, 2007) may be used in the planning of the community-based curriculum.

The most basic concepts/aspects of the topic that should be learned first are:

- 1.) The essential fundamental importance of Indigenous languages in understanding self and the meaning of water
- 2.) Protocol is of critical importance. There is an overlay of the imposition of law, and an overlay of imposition of education and health systems

over traditional forms of law, health and education. These forums may serve to affirm the need for Indigenous peoples to teach and share in their own way. Any teachings from outside the community may provide a springboard for reflection about what their own teachings are on the topic of water.

- 3.) The fundamental traditional values about relationship will all of life, which again are rooted in the language, provide the basis for this education.

The learning should ideally start with the self, and may stem from hearing from the local Elders, with time for reflection. This time may then give the learner an opportunity to reflect on themselves and how these lessons build upon their own life experiences. Personal growth may be seen through the *sharing* of personal life experience, through the expression of art, or through journaling. The integration of learning of self may also be demonstrated by the creativity found in the creativity of thought that is transformed into action. This action may be a reflection of how they see themselves as empowered to make a difference in the integrity of water, and what their own personal responsibilities are. In other words, building from self-understanding, hearing the words of local Elders, and perhaps inspiring them to learn their own language will have the potential of bringing the collective back into the consciousness of education and the opportunity to recognize Indigenous laws as a means for a sustainable future. The topic of water is best taught through the Indigenous languages themselves and through the experience of being on or beside the water.

The curriculum will engage students' prior knowledge and encompass a diversity of learning styles by asking them the following questions:

- From whose descending waters do you flow?
- What waterways or oceans are of your genealogy?
- What memories do you have of water as a child?

In this way, everyone's genealogical roots and life experiences are honoured. Water connects us all, and we can all share in the joy, wonder and beauty it holds. Water is sacred; water is life! Teachers will know recognize that the students are developing the respect and reverence for water, and for all of life, when they hear what the students are sharing. It will come naturally.

The spiral continues to unfurl, 'The Future', reaching out to the wider community

The education needs to happen internally first, and, as the community decides, can reach out to the non-native community, sharing the values that are held by that nation. This maintains the unique nature of the laws, as they are very specific to each nation. When the Elders of a nation speak to the issue of water, it can be conducted in a way that suits that community. It also provides the mechanism for communities to control their own form of education, and protects their own sacred knowledge. Then, as the community decides *what* if any information is to be shared with the outside cultures, it may do so. A good example of this was cited by Tebtebba (2002): Indigenous mapping was created by Indigenous peoples in the Philippines, and approved by the communities before it was shared with the government.

This is the phase of sharing of knowledge and culture, and of transformation. Of course, there will be a variety of ways that this knowledge is received: some will learn with open hearts and minds, seeing water in an entirely different way, and learning about their own places of origin. Others will openly reject it as superstition, as part of the denial of the sacred, spiritual aspects of our collective lives. There will also be those who will agree with some of the values and disagree with others. The degree of participation will be influenced by the social, political ideologies that stem from colonization and the influences of other immigrant cultures.

This education framework may be used by any Indigenous nation, because it recognizes local protocols and teachings. It may be delivered to any age group, from pre-school level to adulthood, as the focus is on the lessons to be learned from Elders.

The following summary of the workshops we delivered illustrates an example of the program that can be offered to adults. The Late Simon Charlie (Cowichan) invited me to co-facilitate a workshop on water with Jane Marston (Chemainus):

Traditional Indigenous Perspectives of Water

How Can Elders' Teachings be Applied Today for Future Generations?

Prayer (start and end of each day)

Day 1 Introduction

Traditional Laws about Water (Local Elders)

Film

Day 2 Traditional Laws about water (Other Nations)

The Importance of Creation Stories

Water and its Meaning in our Languages

Day 3 Water and Cultural Art

The Healing Capacity of Water

Creation of Art about Water

Day 4 Water and Traditional Medicine

Water and Energy

Day 5 Water and Western Legislation

Water: Our Responsibility, Our Privilege

Water and Peace Education

Relationship Building

Lessons Learned

Potluck Dinner

Activities:

- Inclusion of learning from nature, prayer, ceremony and ritual, art (song, dance, visual arts), humour and food

By: Field Trips, Elders panels, Resource people, Focus groups, Lectures, Games, Sharing of culture, Journal keeping Videos, Readings/texts, Role playing

Goal: That this course can be a beginning step to build community capacity to develop water policy that is in harmony with, and honours local indigenous laws about water, in the realms of health, education, law and environmental legislation.

Objectives: That at the end of this program, the student will:

- Understand the meaning of water to their own cultural, social and spiritual context, that self-understanding be developed;
- Do a critical analysis of the current situation with water;
- Identify how water policies can be improved.

We first listened to stories about water from local Elders, artists, and Indigenous filmmakers. The workshop was piloted in February 2004. The participating group, twelve people from diverse Indigenous and European-based cultural backgrounds, heard from the local Elders, including the Late Simon Charlie, a renowned Coast Salish master carver. Next, the group listened to stories told by other local Elders in the context of the film, "The Wisdom of the River," produced by Harold Joe. Then, Jane Marston, also a master carver, showed slides of traditional art that held meanings about water. Following the slide show, the local Elders discussed local issues regarding water; the next day, I shared what I had learned from the Cree, Maori, and Nuu-Chah-Nulth Elders. The themes then centred around water and education, water and health, water and the environment, and water and the law. Finally, the lessons learned included the drafting of potential water policies that were guided by the teachings of the Elders.

Potential outcomes of this education:

1. Honoring local protocols and teachings of local Elders
2. Strengthening links between Elders and youth, because there will be opportunities to hear what the Elders have to say.
3. Revitalizing language, through the discussion of the meaning of water in the language.
4. Healing will be supported through an understanding of identity (from whose waters do you descend from?), a sense of belonging and spiritual connection to the landscape, and through knowledge about the healing properties of water. There is the potential to promote aboriginal mental health through the education about the healing and cleansing capacity of water of both the physical and spiritual dimensions.

5. Demonstrating the link of human health to the environment. Learning from the natural world, art and cultural experiences.
6. Reclaiming family-centered education that is experiential.
7. Facilitating community-based, Elder-driven research, controlled by the community, and thereby builds capacity aboriginal water policy development.
8. Raising the awareness of the sacred nature of water, where discourses on politics, science, technology and economics historically have dominated.
9. Building on the foundation of traditional laws, and combining western science for aboriginal youth to bring in resource people to learn water quality monitoring and standard setting, which will facilitate a better form of water protection.
10. Unifying conflicting relationships, because it identifies values that can be shared by all. It will bring people together to better understand how indigenous laws can benefit everyone.
11. Recruiting the planning and development of a World Indigenous Forum on Water and Peace (as recommended at the UN permanent forum on Indigenous Issues, May, 2007), as there is a need for Indigenous peoples to come together.
12. Sharing best practices of protecting water in Indigenous communities may be shared in both local and international forums.
13. Engaging communities in dialogue about eco-cultural tourism initiatives that will promote better cross-cultural education, bringing in sustainable economic development to traditional territories that are alternatives to unsustainable practices.

Evaluation and markers for success

Whether or not the program has been a success can be determined by interviewing the children and parents (or community members) after the program has been completed to glean what they learned from the program. These interviews may be conducted either

individually, as focus groups or as part of the circle sharing at the end of the programme. In the latter way, everyone benefits from the sharing of experience by the group. A testing of language competence, developed by the local people, an oral explanation of their cultural learnings specific to their own culture (or the local culture) and knowledge about water can all be indicators of success. In addition, a series of questions that demonstrate feelings of success, improved self esteem, knowledge about identity, one's own place of origin are measures that are culturally based can indicate success. The local community's educators may also design these indicators.

Broadly, and on the longer term, other measures of success may be: better mechanisms (policies) for water protection are in place that are developed in full consultation with Indigenous peoples; sacred sites that are protected and respected; positive relationships established between different community groups (for example, Urban and Local First nations, greater awareness between First Nations, tertiary education institutions and water policy developers); individuals, families and organizations doing their part in water conservation, protection and clean-up; better governance of waterways, and bodies water, governance that is guided by Indigenous peoples.

² Another curriculum, one specific to families of preschool children, was created as a result of this dissertation. It can be found in Appendix D.

CHAPTER 8 CONCLUSION

Given the long history of traditional teachings, the more recent history of colonization and the current challenges of globalization, there is an imperative for education and action to protect water. Indigenous peoples' can contribute to the development of water policies at all levels. There is also a need for the recognition of the sacred nature of water to be brought into the forefront, in discourses on water protection, scientific interventions, political strategies and economic considerations of water.

The contributions that the Elders have made for this study are many and ongoing. We return to the question of 'How can Elders' teachings about water help shape policies in education and health so that the policies can be in harmony with traditional thinking/laws about water?' The answer to this question lies in the true recognition and implementation of traditional laws about water. This can happen only through appropriate education about the contributions Elders can have to water policy development. It also lies in the understanding that we cannot enjoy good health without a clean and healthy environment, which relies on the implementation of traditional teachings about water. This begins within Indigenous communities, and the movement to reclaim understandings of traditional laws through the reclamation of Indigenous languages. The deep meanings of the cosmos cannot be fully understood without the language and education about the cultural practices. Today, humanity is on a self-destructive course, which can be reversed with the recognition and implementation of traditional laws, which protect the waterways of Mother Earth, which we all need for life (Waikerepuru, personal communication, 2007).

I will discuss the potential contributions that spring from Elders' teachings, ways that this research can be of benefit to Indigenous communities, to the wider community, at the local level and at the global level. Indigenous Elders have a huge potential of contributions to the sustainability of Mother Earth, because of their deep understanding of traditional laws that are protective of water.

Contributions to Indigenous Communities

This research can contribute to local native communities, because the curriculum can be made available to whole families, and promotes mental, physical, emotional and spiritual health and well-being. A clear understanding of identity, a secure cultural base in one's language and cultural practices enhances an understanding of one's place in the world, and all relationships. This curriculum may be used in preschool programs, school programs, outdoor education programs, traditional camps, community meetings, because it is based on local protocols and recognizes the authority of local traditional governance over its own education. It provides a forum to listen to local Elders, their teachings, their concerns and strategies for action. It can also serve as a springboard for community-based research, that is reflective of community needs.

Perhaps most importantly, it provides a forum for discussion about the crucial importance of language in cultural retention. If the deep concepts about water and life are to be understood, then government policies need to change to offer full support in language immersion programs for early childhood education, both for small children and their families. In order for communities to be healthy and to maintain a healthy relationship with Mother Earth, language revitalization and traditional forms of education need to be reclaimed. Our own Indigenous communities have to reclaim our fundamental human right to our languages, cultures and spiritual practices. We also need community capacity building, which includes the full support of Elders in sharing their knowledge, and full resources for language education. As Simon had shared, his mother taught him where to get water, and where to find the food, at the age of four. 'We don't need classrooms for our education.' (Waikarepuru, personal communication, 2007) Indigenous communities anywhere can use this program, because it recognized the protocols of the local community, and the authority of the local Elders. Cross-cultural sharing is fostered. The process of engagement with community should always be mindful of protecting sacred knowledge, and sharing as appropriate.

In sharing with the dominant society, the education may be offered in the context of eco-cultural tourism, which has the potential of many benefits. Indigenous youth listen to what the Elders are sharing, songs, and stories, and are then able to share this with visitors with pride of their culture and dignity of their people. For the visitor, this

education promotes a sharing and greater respect of the 'other' culture, and a better understanding of their own place in the world, building relationship with the Indigenous peoples they meet. No harm is done to the Earth.

Contributions to the Wider Community

The wider non-aboriginal community can also benefit: Children in public schools will gain a recognition of the sacred nature of water and all of Creation from the sharing of culture of Indigenous peoples. If children have an experience in the natural world (for example in the traditional canoe trip) with teachers who can share a deep sense of respect for other ways of knowing and being, then the children will learn this respect for themselves, other people and for Mother Earth. However, before the children can learn, it is essential that the teachers involved in this program take a thorough cross-cultural training. All teachers, including early childhood educators should have education included in their university degree programs. (note - In Aotearoa, cross-cultural education is mandatory as part of medical and nursing health professional's education).

This curriculum may be adapted to be part of cross- cultural awareness training. The experience we had in piloting this education in the 5 day water workshop provided a non-threatening forum to bring many cultures together in a respectful way, thereby creating an 'ethical space', as Ermine et al describes (2004).

Local water policy development will benefit from the guidance provided by traditional laws about water. Recognition and respect builds relationships. With this kind of interaction, the waterways will be protected at the local level. A comprehensive watershed strategy can be built upon this education.

Contributions to All Levels of Government

This research is a call for the recognition of the fundamental human rights, equity and dignity of Indigenous peoples: for the endorsement and implementation of the Declaration of the Rights of Indigenous Peoples. Indigenous peoples have the right to their own sacred sites, for the right to practice their own spirituality and belief system,

their own health systems, traditional education, speak their own language and make decisions about their own lands, including the water (oceans, lakes, rivers and springs) and the air. Those who carry the knowledge, the Indigenous Elders who have the ancient knowledge hold the key to a sustainable future for generations to come.

Changing the UN system to be more inclusive of women, including Indigenous women, can result in a more peaceful, sustainable world. To meet the Millennium Development goals, and to increase equity for women, and reduce violence towards women (through the UN adoption of Article 1325), there is an opportunity to include Indigenous women in the dialogue. A step to meet these objectives would be to ratify, endorse and implement the declaration of the Rights of Indigenous Peoples. Proper participation of Indigenous Elders and leaders in global forums and discussions on water needs the proper funding and infrastructure.

Thus, the outcomes of this research focus on education, community development, the creation of Indigenous peoples' water policies, and systemic change. A World Indigenous Water Caucus that plans for a World Indigenous Forum on Water and Peace, as recommended to the UN Permanent Forum on Indigenous Issues, (May, 2007) will bring together peoples who can offer the world solutions in way that science cannot. Bringing the spiritual connections and dimensions into the discourse on technology, economics and politics, will bring back a balance into the relationship with water and the natural world.

Water: Our Collective Responsibility

We all have the responsibility to keep water clean. It is our collective and individual responsibility to protect the water, streams, rivers, lakes, and oceans. There is also an imperative to be committed to our work and to our relationships with the natural world and with each other. Setting priorities that are nurturing to relationships requires balance in the spiritual, physical, emotional, and intellectual elements of our lives. Traditional Elders' teachings about water can influence policies in health, education, law, and the environment through Elders' gatherings, Indigenous communities listening to what Elders have to say about water, and the recognition and implementation of self-

governance. Pollution must stop and multinational companies need to pay high levies and fines for polluting. Legislation has to be changed to keep the waterways clean. There is an imperative for Aboriginal members to create steering committees to provide input on the research, policy development, and governance of our waterways.

The development of housing, the cutting of trees, and the building of any new dams should have the full and informed consent of Aboriginal people. It is clear that we need to find clean and renewable technologies to power our modern lifestyles so we can diminish the reliance on fossil fuels. The Elder Beardy encouraged the protection of clean waterways that still exist and he encouraged innovation and creativity to find clean, healthy solutions for all of our children and grandchildren.

In governance, there need to be structural changes in governments with equal representation of Indigenous Peoples and equal participation of decision-making by Indigenous Peoples (Waikerepuru, personal communication, 2007). For true sustainability, there needs to be a shift to the application of traditional values that are taught in Indigenous Peoples' languages and cultures. Indigenous Peoples have traditional understandings of their *relationship* with water, with the natural world, and with each other in humanity. *Indigenous Peoples carry solutions for harmony with the natural world and with each other.* There is a desperate need for this knowledge to be applied. A global Indigenous congress can assist the world in remembering and recovering a peaceful state of being.

In summary,

Water, like light, carries with it many elements.

Light can be refracted into all of the colours of the rainbow (Illustration 23):

Red, Yellow, Orange, Green, Blue, Indigo, and Violet.

**Illustration 20. Photo of
Rainbow and Water**



Note. Used with permission, Courtney Milne.

Water carries with it, the elements of Life Force, Memory, Identity, Spirituality, Intellect, Wisdom, Caring, Love, Respect, and Peace. All of these elements have to be in balance.

To return the world to a natural healthy state, world governments, industry and business need to include and recognize the importance to apply traditional laws to our relationship with water. To that end, all decisions affecting water and water policy development would benefit from the input of Indigenous Peoples. The values that drive the decisions that are made have to be examined. In addition, as important as it is to educate governments and to develop policies that honour and uphold traditional laws about water, there is also an urgent need, as the Council of Canadians has revealed, to hold multi-national corporations accountable and responsible in their actions. Water is sacred; it is not a commodity and we cannot allow the polluting and destructive practices to continue.

The next World Indigenous Peoples' Conference on Education in Melbourne, Australia, (2008) can play a leadership role in the establishment of a declaration of Indigenous Peoples' relationship with water. This can result in water policies in health, education, and environmental law that are in harmony with traditional law. These recommendations can guide the next World Water Forum, together with the Kyoto Indigenous Peoples' Declaration of Water. The recommendations can be a starting point for future discussions about water. There should be equal representation of Indigenous Peoples and dominant cultures at the next World Water Forum. A World Indigenous Forum on Water and Peace can potentially benefit all of life. Future research may include Indigenous peoples holding forums where local Elders can share their knowledge about water, finding solutions and future directions for all.

The answer to the research question that was posed, namely, how Indigenous Elders' teachings can be applied today to shape better health, education, environmental legislation, and law, lies in education. Through the sharing of traditional teachings about water in Indigenous languages and through the application and the implementation of traditional law, we can achieve health now and in future generations. Simply put, the sources of water need to be protected, respecting the connection of water to spirituality, and recognizing water as the source of all life.

Indigenous communities need to define for themselves how they want to implement their traditional laws about water, as the Elders have shared. Sacred sites and water sources need to be protected under the guardianship of Indigenous peoples.

Illustration 21 symbolizes the root importance of traditional teachings about life, spirituality, and love to finding a peaceful relationship with the natural world. It is my hope that this research demystifies Indigenous self-governance, and that it can be understood that the practice of traditional Indigenous laws will be of benefit to all.

Illustration 21. The Fruits of Traditional Teachings about Water



Note. This Tree of Life demonstrates how the traditional teachings of water nourish relationships, traditional medicines, and an understanding of self to foster a peaceful relationship with self, others, and with the natural world. Photo Joan Wolfe, used with permission.

A CREE LEGEND

There would come a time when the Earth would be ravaged of its resources, the sea blackened, the streams poisoned, the deer dropping dead in their tracks.

Just before it was too late, the Indian would regain his spirit and teach the white man reverence for the Earth, banding together with him to become Warriors of the Rainbow.

There was an old lady, from the Cree tribe, named "Eyes of Fire", who prophesied that one day, because of the white mans' or Yo-ne-gis' greed, there would come a time, when the fish would die in the streams, the birds would fall from the air, the waters would be blackened, and the trees would no longer be, mankind as we would know it would all but cease to exist.

There would come a time when the "keepers of the legend, stories, culture rituals, and myths, and all the Ancient Tribal Customs" would be needed to restore us to health. They would be mankind's key to survival, they were the "Warriors of the Rainbow". There would come a day of awakening when all the peoples of all the tribes would form a New World of Justice, Peace, Freedom and recognition of the Great Spirit.

The "Warriors of the Rainbow" would spread these messages and teach all peoples of the Earth or "Elohi". They would teach them how to live the "Way of the Great Spirit".

They would tell them of how the world today has turned away from the Great Spirit and that is why our Earth is "Sick".

The "Warriors of the Rainbow" would show the peoples that this "Ancient Being" (the Great Spirit), is full of love and understanding, and teach them how to make the Earth (Elohi) beautiful again. These Warriors would give the people principles or rules to follow to make their path right with the world. These principles would be those of the Ancient Tribes. The Warriors of the Rainbow would teach the people of the ancient practices of Unity, Love and Understanding.

They would teach of Harmony among people in all four comers of the Earth.

Like the Ancient Tribes, they would teach the peoples how to pray to the Great Spirit with love that flows like the beautiful mountain stream,

and flows along the path to the ocean of life. Once again, they would be able to feel joy in solitude and in councils. They would be free of petty jealousies and love all mankind as their brothers, regardless of color, race or religion. They would feel happiness enter their hearts, and become as one with the entire human race.

Their hearts would be pure and radiate warmth, understanding and respect for all mankind, Nature, and the Great Spirit. They would once again fill their minds, hearts, souls, and deeds with the purest of thoughts. They would seek the beauty of the Master of Life - the Great Spirit! They would find strength and beauty in prayer and the solitudes of life.

Their children would once again be able to run free and enjoy the treasures of Nature and Mother Earth. Free from the fears of toxins and destruction, wrought by the Yo-ne-gi and his practices of greed. The rivers would again run clear, the forests be abundant and beautiful, the animals and birds would be replenished. The powers of the plants and animals would again be respected and conservation of all that is beautiful would become a way of life.

The poor, sick and needy would be cared for by their brothers and sisters of the Earth. These practices would again become a part of their daily lives.

The leaders of the people would be chosen in the old way - not by their political party, or who could speak the loudest, boast the most, or by name calling or mud slinging, but by those whose actions spoke the loudest. Those who demonstrated their love, wisdom, and courage and those who showed that they could and did work for the good of all, would be chosen as the leaders or Chiefs.

They would be chosen by their "quality" and not the amount of money they had obtained. Like the thoughtful and devoted "Ancient Chiefs", they would understand the people with love, and see that their young were educated with the love and wisdom of their surroundings. They would show them that miracles can be accomplished to heal this world of its ills, and restore it to health and beauty.

The tasks of these "Warriors of the Rainbow" are many and great. There will be terrifying mountains of ignorance to conquer and they shall find prejudice and hatred. They must be dedicated, unwavering in their strength, and strong of heart. They will find willing hearts and minds that will follow them on this road of returning "Mother Earth" to beauty and plenty - once more.

The day will come, it is not far away. The day that we shall see how we owe our very existence to the people of all tribes that have maintained their culture and heritage. Those that have kept the rituals, stories, legends, and myths alive. It will be with this knowledge, the

knowledge that they have preserved, that we shall once again return to "harmony" with Nature, Mother Earth, and mankind. It will be with this knowledge that we shall find our key to our survival.

This is the story of the "Warriors of the Rainbow" and this is my reason for protecting the culture, heritage, and knowledge of my ancestors. I know that the day "Eyes of Fire" spoke of will come! I want my children and grandchildren to be prepared to accept this task. The task of being one of the..."Warriors of the Rainbow."

(First People, n.d.)

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Carriers of Traditional Knowledge

Cree Elders:

The Late Sandy Beardy, Pimicikimak (Cross Lake, Manitoba)

Gideon MacKay, Pimicikimak (Cross Lake, Manitoba)

Nuu-Chah-Nulth Elders:

Chief Simon Lucas, Hesquiat Nation (Vancouver Island, British Columbia)

Chief Hudson Webster, Ahousat Nation (Vancouver Island, British Columbia)

Janet Webster, Hesquiat Nation (Vancouver Island, British Columbia)

Cowichan Elder:

The Late Simon Charlie (Cowichan, British Columbia)

Member of Koutu Nui (Hereditary Chief):

Te Tika Mataiapo (Rarotonga, Cook Islands)

Vanuatu Chief:

Motarilavoia Hilda Lini, Tuuraga Nation (Pentecost, Vanuatu)

Chief Viraleo Boborenvanua, Tuuraga Nation (Pentecost, Vanuatu)

Aotearoa Kaumatua:

Pakihana (Grant) Hawke, Orakei Marae (Auckland, New Zealand)

Te Aturangi Nepia Clamp,

Te Huirangi Eruera Waikerepuru, Taiporohenui Marae, Taranaki (New Plymouth, New Zealand)

Te Huirangi Eruera Waikerepuru, Taiporohenui Marae, Taranaki (New Plymouth, New Zealand)

APPENDICES

Appendix A.

Informed Consent by Participants in a Research Project

Simon Fraser University
Department of Graduate Studies

INFORMED CONSENT BY PARTICIPANTS IN A RESEARCH PROJECT

Entitled:
“Nipiy Wase Kumiw: Clear Water”

Both the University Ethics Committee and the Report on the Royal Commission on Aboriginal Peoples (1997) describe ethical conduct for research in aboriginal communities. Both the University and those conducting this research commit to these standards. The interests, comfort and safety of the participants, and the protection of indigenous knowledge, are of utmost importance, in keeping with both codes of ethics. That the Cree, Nuu-Chah-Nulth, Maori, and Cook Island Maori communities benefit from this type of research is of top priority.

This form, and the information that it contains, is for your protection and for your understanding of the research procedures. Your signature on this document will mean that:

- You have received a document that explains the potential benefits of this research project.
- You have been given enough opportunity to consider the information in this document, and that
- You voluntarily agree to participate in this project.

You may wish to keep information in this study confidential. If you wish your name included in reports, please sign option 1. If you wish to withhold your name, please sign option 2. You can stop the interview at any time, and you can refuse to answer any questions you may not wish to answer. You may also decline to discuss matters that you may not want to discuss. You will not be required to write your name or any other identifying information on the research materials, unless you choose to do so. Materials will be held in a secure location. It is possible that, as a result of legal action, the researcher may be required to divulge information obtained in the course of this research to a court or other legal body.

Having been asked by Darlene Sanderson of the Department of Graduate Studies at Simon Fraser University to participate in a research project, I have read the procedures specified in the document.

I understand that the procedures to be used in this project and that the results of this project may bring some benefits to the Cross Lake Cree, Nuu-Chah-Nulth, Maori and Cook Island Maori communities.

I understand that I may withdraw my participation from this project at any time. I also understand that I can contact Darlene Sanderson, Principal Researcher, with questions about the project. I can reach her through:

Cross Lake Tribal Council
Nuu-Chah-Nulth Tribal Council
Taranaki
Koutu- Nui

I may register any complaint I might have about the project with:

Dr. Jonathan Driver,
Dean, Department of Graduate Studies
Simon Fraser University
8888 University Drive
Burnaby, BC
V5A 1S6
Tel: (604) 291 3148

I understand that the researcher will be working with a representative from your community in the design and implementation of the project and the preparation of the report on the project.

I also understand that I will have access to the draft and the final report on the project, and will have an opportunity, as a participant in the study, to give Darlene Sanderson feedback on the drafts.

I agree to participate in an interview as described in the document referred to above, during the Canadian winter, 2000 in Cross Lake, Manitoba, (Hesquiat/Rarotonga/ and Taranaki)

Name (print): _____

Address: _____

Witness: _____ Date: _____

Once signed, a copy of this consent form and a participant feedback form should be provided for you.

Check one:

- Confidentiality
 No confidentiality

Signature _____

Appendix B.

Thesis Coursework

The coursework was structured as follows:

1. **Indigenous Research Methodology**

This course will prepare me for all aspects of appropriate research processes for each of the courses. Indigenous research methodology will offer culturally meaningful approaches in indigenous communities. Protection of indigenous intellectual property will be forefront in the methodology used for the research.

2. **The Meaning of Water and Health**

The primary goal of the research is to articulate the meaning of water from three indigenous perspectives: Cree, Nuu-Chah-Nulth, and Maori. They will be compared and contrasted with each other to find commonalities, in relation to health. Then, these perspectives can be compared with a Western perspective on water.

3. **Education: The role of cosmology and traditional chants and songs in the preservation of the ocean.**

This course will involve my learning of our Cree chants, songs and language with Elders and traditional people. The understandings or concepts learned will then be compared with an example of an indigenous framework for education that has been articulated by a Maori perspective.

4. **Water, Peace and Spirituality**

This course will focus on the relationship between the traditional teachings about water, spirituality and peace education. It will rely on traditional elders as the primary resource for this body of knowledge, and gather and share traditional knowledge where appropriate.

5. **Environment: Creation stories, core values and the implementation of those values in resource management**

- A comparative research study that identifies 3 components: Creation stories and the core values within the language and teaching. Facilitation of a process where each participating nation will share orally with youth, community members and selected interviewers the creation stories of their own. Under the direction of the Elders, in the context of a workshop, the core values of the creation stories can be identified. A comparison of the commonalities can then take place.
- Each nation can then research the local environmental laws to identify the problems in environmental legislation to recommend strategies to implement the core values in their own context. A component of this discussion is to identify how well the UN Convention on the Law of the Sea has been met. Finally, the nations can come together to discuss how the implementation of traditional values can contribute to our relationship with the environment.

Appendix C.

Interviews with Indigenous Elders

Interviews with the Late Sandy Beardy, Cree Elder

The Late Sandy Beardy was born at Thicket Portage, Manitoba. At the age of three, he moved with his family to Cross Lake First Nation, where he lived for 77 years. He was married for 50 years and had 11 children, 43 grandchildren and 13 great-grandchildren.

The Late Sandy attended the Norway House Residential School until grade 6. From there, he went to Cross Lake, where his livelihood relied on hunting, trapping and fishing. He was employed as a labourer, logger and community development worker.

A war veteran, the Late Elder Sandy served in the army from August 8th, 1942 to January 8th, 1946. He was awarded five medals for volunteering and serving in the 2nd Division in the Canadian Army, as a private and then as a gunner rank. He served in Normandy, France, Belgium, Holland, and Germany, before returning to Cross Lake.

The Late Sandy Beardy was also actively involved in the political arena. His political career included two years as a chief and six years as a band councillor, and on an ongoing basis as an Elder. He participated and sat on the Elders' Council for Cross Lake First Nation, and as an Elder for the M.K.O., the Assembly for Manitoba Chiefs, and the Assembly for First Nations political organizations.

(from First Nations Family Justice: Mee-Noo-Stah-Tan Mi-Ni-Si-Win, 1997).

Interview 1

The following interview is written verbatim:

The word for water in Cree is very simple: it's nipi. The word for river is sipy. As I was listening to the CBC, they were talking about the shortages of oil. The shortage of oil. I know that this world Canada belongs to the native people. Before, they had everything. They didn't depend on oil. So when the Europeans came, they destroyed everything. And now, the people do not have anything to celebrate. For example, they used to celebrate the Indian Summer. This used to be important for the Native people. In the North, what we used to have was the most colorful of Indian summers. And now, we don't have that, on account of the white culture. They destroyed all that. We lived out around water, the ocean, lakes, and rivers. Nipi was the most important thing. Without the nipi, you do not have the kinosew, the fish. They call it kinosew. Someday, we have to go back to our culture. There's a lot of good places to enjoy. Because we looked after our game, like our fish, moose, ducks. Because we knew that God made them. And I think that when the gas and oil disappears, so we will have to go back to how we used to enjoy things. You people who want to learn your language. Invite the Elders 60 years old and up. We learn a lot about the Indian traditions and living. 70 years ago,

everything was excellent. Now due to the many mines and oil fields, all these things have affected our way of living.

When you listen to the old people tell you about these things, it's very important. It's very important how the native people lived. Some people don't like to hear about our culture or language. Maybe someday, they will use something instead of oil, like timber or something like that. Maybe 2 centuries in the future, there will be something else used, when there is no more oil. It's about time to go back, regroup and organize and the young people can learn about, how did the people use their culture? It's very important. If you are interested in the way I talk, I think the young people need to learn. I think the best bet is to get all the Elders together, about 70 or 80 years old and..... They learned a lot from their parents.

I am 81 years old. I have been married for 51 years. I have 7 beautiful children, 44 grandchildren and 17 great-grandchildren. I fought in the Second World War. I have a brother who was killed in Normandy. Two weeks before he was killed, this is what he saw. You can write this down, are you writing this down? He said he saw heaven open its doors. There, he saw a land more beautiful than anything he ever saw before. He said he saw a building that was not made from hands, one that lasts forever. St. John: 14 speaks of this. He said he was living in this house and looking at himself in the rooms. He said that there were endless rooms. He said, "I looked outside and the land was so beautiful, filled with many different kinds of grass. There was no sun, but the light was so bright, like 1000 suns shining brightly." He said, "Brother, if I get killed, do not weep for me, but carry for what we came here for, to fight for freedom." When he woke up, he said he was sorry to leave a land, so beautiful, he could not describe it. Then, one week after, in Normandy, he was killed. I wept and wept. Then I fell asleep, and he came to me in my sleep. He said, brother, do not weep for me, it is like I am sleeping. Then when I woke up, all the loneliness disappeared. So then when I went back to the front line, I said to the Lord, "You gave me life, I give you mine." The reason why he saved me is to tell you and others that there is life beyond. I hope you have learned something from this. Maybe you will send us a letter. I wish you the very best in what you do. (Beardy, 2001)

Interview 2

The second interview with the Late Cree Elder Sandy Beardy (from Cross Lake, Manitoba, Canada) was also conducted by teleconference with the assistance of Vice Chief Sydney Garriock. Sydney opened the discussion in the Cree language, which explained the intent of the research, and also served to make the Elder comfortable to talk. He indicated to the Elder, that if he needed time to talk about something, to allow that for himself. Chief Garriock said that we will connect in future teleconferences, to make sure that the Elder is satisfied with his responses. He explained to the Elder that the purpose of the research is to hear about the meaning of water, and the traditional practices of water.

Regarding the question of protocol for consent, "In our practice, they don't usually allow paper in our practice, but I'll allow the Elder Beardy to speak on that whether he wants to proceed without any written documentation."

You know, I'm glad to have this opportunity to speak on water. I think water's very important, for human consumption, like in our bodies; we've got about $\frac{3}{4}$ water within us. Therefore, when God created everything, He created

water. The water is so important to all the human beings, also the animals that God created. And it was our responsibility to take good care of the water. But that didn't happen. It did happen before the Europeans came to this country. Everything was clean here, the water. You can go here to the river, and get a pail of water. Without boiling it, you can drink it. It was good for you, because the water was very clean. And every animal that uses this water, help the native people to survive this land. It was 'Holy Land', they called it. There was no liquor; nobody knew how to make bowls. So therefore, everything that we used, like animals, they all live with this water in their system, just like us. So I think, we were too generous a people, to let the Europeans come and pollute our water. But we wanted to help; we wanted to share what the Creator had made. Especially, the water, I think is the most important thing that we would use in our bodies. So, I think, and I hope it is not too late, to avoid, and not to pollute our water, but to try and have our environment clean, like it was before, and that is impossible, too. Because without gas and electricity, the cities won't survive.

So therefore, I think, it is so important to include the people in the cities, not to pollute our water anymore than they have to, because in Northern Manitoba, everything, the environment used to be clean, the water. The kids used to swim in the water. As I said before, I think the water is the most important thing that the Creator has made. So therefore, I think we should try to avoid, not to pollute the water, this lake, as they have done in the past. You know, with poor water Manitoba Hydro had destroyed the environment, it destroyed all the animals, the fish, the moose we used to live on.

Even though we never had no work, in the past, we still survived with this water. Because it was good for human consumption. So, therefore, I agree with you, to work on this water to not pollute that much more in the future, for this new generation coming up. If we drink polluted water, or if we go out and drink any part of the river or lake, we give our kids sickness. Because the water we have in our bodies, is excellent, good. And when we drink polluted water, we'll get sick. There is one doctor in Cross Lake, here. This is the community here that has been polluted for 25 years. And there are more operations in Cross Lake due to the poor water supply. What the Creator has made, he did not put in chlorine in order to purify the water, but the Creator sent snow from heaven, also in the summer, sent rain to improve the quality of water. So, the native people did not have much sickness in the past because of the good water that they used to drink and to cook with.

So, I think, what I said before, poor water kills everything, the fur bearing animals, the fish, the muskrat. This time of the year, we used to have muskrat here. But after that, all disappeared with the polluted water, hydro development. I think it is a shame, for us, to use this polluted water. After all, the Creator made excellent water drinking water that we used to enjoy in the past. But now, we use this chlorine, which doesn't suit our body.

I wonder if there is a way to have good drinking water without putting chlorine or something else that will affect our body. I wonder what the Creator thinks when this happened to his people. Children go out to swim now, they get sores in their body. Before, I used to go out, I myself, swim out in the lake, when I get out from the water, I was still clean, without getting any sores. So I think I agree with you and try to convince the scientists or these people who know something because I myself, I never go to school,

high school. I just got only to grade six, the famous boarding school, I'm talking about.

We got lots of water out in the wilderness, out in the bush. But this main river channel, the Nelson River, is the one that gets this polluted water because of account of hydro development. Winnipeg used to get contaminated water, too. But now they get water from Sioux Lake, I think. Before that, people used to get sick and the doctors knew that the water was the problem, so they had to go 100 miles to get good water. So I just want to explain that much more about this water. I think you know you got to find out, like yourself, learn more how to take care of our water. Still, there's quite a bit of water in northern Manitoba, the northern provinces.

When the Creator had made this land for us to enjoy, we were told by the Creator to look after, like the animals, like the water, to have them clean at all times. But when the Europeans came to this country, the way they live, they thought that they were going to live the way they used to in the other countries, without destroying the environment. But that didn't happen. They destroy, they pollute the water, and they destroy the environment through these factories, and all this. We lived off the land, like what I said before, the fish and the water. And we were told to look after them, this clean land. If it wasn't for the Europeans, this land would have been, still the same as before they came. So that's all I can say about that. If there's any question you want to ask me, simplify your language, so that I can understand it. Don't use those million dollar words.

The water keeps moving, keeps moving. When you go swimming, all that water, it's not dirty. It's like you flush the toilet and clean water comes up. That's the way it is. Everything was clean. I used to go out and fillet fish on the rock, instead of using a pan or some kind of bowl or something. We just went ahead and washed our fish and the same place, we had our pail of water, because the water that you use in the bowl is dirty unless you throw it out. In this way, everything was clean, when you clean the fish and all that drains out with the current. There were no dams to hold the water back. So everything was open. The current, the river cleans everything.

So you know, it is very hard to explain. But you know what I mean, anyway. But you go out into the lake, you know, it doesn't affect the water. Just like today, it's different, eh? You can't go and clean your fish in the river and then get your water from there. It's not that clean, not like it used to be, eh? So, I imagine the countries down South, maybe in the near future, they will get short of drinking water. So they'll have to get from some place like northern areas, northern lakes. Therefore, it's our responsibility, the people who live here, to take good care of our lakes and rivers, not to get the people from the South to come and dirty our water. Do you know what I mean? To take care of our environment, what's left, you know.

I'm talking about the Cross Lake area that is all polluted. Fish are gone, everything gone. I would like to thank you for working on this so that people will help us to take good care of our water while it's here. A lot of good big lakes, east from here, and north where there is no hydro development, yet. But, I hope that they will find a way to get electricity without dams, you know. I imagine there will be people who will work on this to avoid the destruction of the clear, good clean water, so you save the water for us, for

our people in the future. But if we don't, I don't know what future generations will use. So, I wish you good luck for this work that you are doing. I hope the governments would listen to you. You know, you are trying to help the people, and also to tell the people that The Creator made this and to take care of the environment, especially the water. I think it is so important. So, as I said before, before the Manitoba Hydro, there was clean water, then the Manitoba Hydro came. We would go out in the river here, get our pails, because that water was very clean, eh? But after that dam was built, the water, the current, the river seems to stop flowing. It flows a little but not much, because of the dam, eh? I hope they listen to you, some of these people, to help you to help us to have our water clean, a water system, just like in Winnipeg. We've been trying to get water supplied from inland, but so far, we haven't been successful. It's coming in the future, I know, we'll be able to get our water supply from inland, where the water is not polluted. So, I think this is about all I could say.

People come from Europe, to find out about these projects, the effects they have done to our land and they destroy the way we used to live, the way we used to survive, everything the Creator has made, made it good for us. I raised my family from trapping, fishing and hunting.

I raised, my wife and I, we raised 11 kids, 7 girls and 4 boys. I raised these children of mine from country food, out of that trapping, fishing and hunting. Even though I didn't have no other job. The fur prices were good, so the food that I gave, that I managed to get out of this trapping. The environment was really good. And all of the good food that I had here. For example, all of a sudden a madman comes into our room, our house and dumps dirty water all over the food, where the kids are enjoying the food. Then they are not able to eat because of the dirty water. This is the same way Manitoba Hydro has done to our environment. This water is one that I miss very much. I hope someday, you'll be successful in finding the way to save and to supply good water for our future generations.

So, I guess this is all I experienced in the past. I never went to university, but I know in the past what our country looked like before developments came here. It was excellent. But I guess we were too kind to others. But we believe that the Creator gave us the land to share with others. But we were too generous, but not surrender our land, as far as I'm concerned. We still own our land and also the resources.

Also, we gave our lives for King and Empire, and as a matter of fact, I lost my brother to war. And to be treated like this, it's a shame. After all we have done, I lost my brother. And yet I'm treated like a third class citizen. So I wish you good luck with your work. I encourage you to keep up and work for the poor. I guess this is all I have, Darlene.

You know, as you get old, you forget. This is what I am, now. I'm getting on to 81, on August 21st. August 21st, I'll be 81.

There was a guy from South America, who came to this community, Cross Lake, about 20 years ago, I guess. They told us that they have power, too. They have dams. But where they built their dam, or some kind of development of electricity, they have their project built right on the falls. So, they don't build dams and destroy their environment. You want to find out about it, to see if it is true. They have something like the big falls in Ontario,

Niagara Falls. They have power, right in those falls, some kind of electricity. They don't need to flood the lands. I think that's what they're doing in South America. That's what they are doing, they put it right in the falls. Like a windmill. They have some kind of machine, or power, without destroying the land. They should have done that in the first place. And also find out more about instead of putting dams all over the Nelson River, they should have they machinery, just like a windmill, eh?

There's a guy here that brought me two geese. I'll have a good meal tomorrow. I'll have some soup. I enjoy this talking on the phone, I guess it is the quickest way, over the miles. I try my best to share what the Creator has given me. (Beardy, 2001)

Interview 3

My name is Sandy Beardy from Cross Lake, Manitoba, Canada. I was asked to say something about water. Water is very important to our lives. As a matter of fact, $\frac{3}{4}$ of our bodies are water. So therefore, I think it's very important to look after what the Creator has made. He made everything clean and man was told to make it clean. Soon after we were given this country, the land, everything was good, the water. Every creature that we have in this country was very clean due to the water. The water was clean, and we had rain, and in the winter, we had snow. To purify the water that we use, so it won't get contaminated or polluted. So therefore, I think we made a very good job of the entire environment. Because when we have the clean environment, everything that is in this country, through the clean water that we use, everything, the animals the fish, everything was clean. Because the Creator made a very good job in creating this land, and also the people, the native people. It is after the native people have used this land, and protect it, because nothing was spoiled. The food that we enjoy, if we had plenty, we shared with other tribes in our country. Now, everything is unclean, unfit to drink the water. Because of the dams that are being built by Manitoba Hydro, everything seems to die down, except the inland, where there's no projects built. So after these projects came about, after the White Man came here. They didn't take very long to spoil the good quality of water we used to use and I think today, it's very hard to improve the quality of water that used to be 2 or 3 hundred years ago.

I think it's wise to try to do something now before it's too late. We have, while we got the opportunity to do something. Let's get together, work together, and try to find ways to avoid pollution in our country. If you're not able to do something, maybe there's ways of purifying water so that it's good for our bodies. You know, this $\frac{3}{4}$ of our bodies, as I said is water. And when we drink water, that is unclean, we get sick. Many kinds of sickness develop in our bodies, just like here in Cross Lake. There's more operations in our community than anywhere else in the North, because Hydro development hydro project are the ones to blame for this poor quality of water. Maybe if we can't improve the water quality, maybe some countries know how to purify the water, or maybe perhaps they'll share their wisdom, that we can use if we cannot improve our drinking water. I know they still have good quality of water out in northern lakes but I don't think they haven't done anything like that to pipe water to our community.

So, I think that's the most important thing of all, is water. You know, all people of old days, never used bottle to raise their small kids. They breastfed their children. I was breastfed, too, when I was a baby. Because the good quality of water that our mom used was created for us to live through the breastfeeding of our mothers. So, if we use bottles for our babies, I don't think they will be as healthy as a person who has breastfed their children. And maybe you'll laugh at this but maybe they are using milk, cow's milk. Maybe they are using one of the stubborn cows in the group, maybe that's why the kids don't want to listen (he laughs). This is something that we use to talk about water, breastfeeding, because breastfeeding is good. It comes out from the mother, eh? And the mothers are so loving to their children, that when they ask for something, they automatically get what they want from their children. Because they've been looking after them good. But nowadays, young girls, (I don't mean you), but young girls use bottle too much. And the water quality that they use for the water is not for consumption in their body. So that's one way of improving the water.

I think that there's no other way of buying water that will suit our body unless we get it from inland to purify our water. But not to use chlorine. Chlorine is no good. We experience that in our community. So, I think that it will take a long time to improve the drinking water. But not to give up, keep trying and look ways of improving...in that way, maybe in future generations will be glad that they will be using good water, good quality of water for their bodies, and surely there's ways. I don't know what South America is using but they find ways of using good quality of water for their bodies. So, I think the only way we could do, is to find ways of these factories and other mines, maybe there's ways to protect our water, so it won't be contaminated from these factories that they have. But I'm sure if you look, and try to find out from other countries, like where you are now in New Zealand, if they have any problems with the water. I tell you, maybe there's ways of doing that, to improve the quality of water. You know there's wells are drilled, but supposing the wells are dry.

You know, it's very difficult to improve the water quality that we use. I'm sure in our lakes, up in North from here there's lots of big lakes. I don't know, maybe there's ways not to let the hydro not to put dams in these rivers, eh? Like, down below here, there's a community called Nelson House. That chief said he was going to work partnership with Manitoba Hydro, to put more dams below the Nelson, which is no good, eh? That's a poor way for a chief to do that. They should try to make people understand that it pays to have good quality of water for future generations. I am sure that they could find ways of development for electricity without destroying the environment, and water. So I think that that's the only way I see that we could have good quality of water in the future, to do it now, eh? Before it's too late.

So I think your work is very important to have good water for our everyday needs and also in the future. If we have a good quality of water, everything will go well, just like in the past. But I don't think that will ever come because most of our countries are being used to destroy the water quality and the animals. So I hope someday you'll be successful with the work that you're doing, because I am sure the Creator will help you, will give you the wisdom, how to get out of this mess that the factories and other developments have done to destroy our water quality. Because the first year, I hear that across

Canada, the water is poor. I think that we should do something. I guess, I don't know where you could start this. Those schools, I guess, to teach the young people how to do something to save the good quality of water. So, I think that this is all I can say about this water. We'll try our best to give you what we learn and be able to use a little bit from there. And from Elders from other countries, too, eh? Like where you are.

You know, the falls, the rapids, the fast water, they used to say the rapids are the ones who purify the water. You know, like turn it over and over and over. Like when you boil water, it kills the germs. This is something that the native people used to use many years ago, eh? They knew that the water is very, very important for different occasions, you know. Or when somebody gets sick out in the wilderness where there's no medicine. A lot of times, they get a cure from this water, you know. Sores and so I think that it's very important to keep these falls moving. But the way they are doing it here, they put dams in and the waters were stilled, there's no current to it, not as fast as it used to be, eh? So you know, what one of the people told me from South America, they don't put dams anywhere in the river. They put some kind of a machine right in the falls, right in the falls, you know. They got something, like propellers or something like that, that develop the electricity without spoiling the environment, not the way they are doing it here. He was from South America. I don't know the name of the person, he came here. They start dams around here, and I told the Chief in Council about that, eh? But a lot of those who were told have died already, eh? There's no harm trying to find out yourself in the future, Someday, when you've got the opportunity to travel to South America, and find out these dams, eh? There are many of them. Well, that's what this guy told us, eh? They get some kind of industry, the machinery that they use to get power right from the falls, without destroying the environment, you know? So, I think, to inquire, something like that, where there are phones, eh? You're going to get in touch with some of them first, eh? If you get the opportunity to go and see it for yourself, then go, but find out first. Don't go there for nothing! So I think I give you all the information I have.

Maybe you can find out how they get their water, there in New Zealand. The only place I know with mountains is BC. Here, it's high hills, rocky hills. So, keep up the good work and find us good quality water. Have a nice holiday, and take good care of my sheep! (Beardy, 2001)

Interviews with Te Huirangi Eruera Waikerepuru

“TANGAROA, MARANGA MAI”

Atua of Oceans, Rise Up! – A Maori Perspective on Water

Te Huirangi Waikerepuru is a highly respected Maori kaumatua (Elder), from Taranaki, Aotearoa, New Zealand. Firmly rooted in his language and culture, he provides traditional spiritual leadership to Maori and other Indigenous peoples. Recognized for his work at the grass roots to international level, Te Huirangi received an honorary doctorate from Waikato University, Aotearoa (New Zealand) for his knowledge, expertise and commitment to Maori language and culture. A licensed interpreter of Maori language, Te Huirangi was a founding member and chairperson of a language nongovernmental organization that has

laid the foundation for the protection and enhancement of the Maori language in the face of extinction. He has had many years of experience of native language revitalization, and has assisted other aboriginal groups (Hawai'i and Rapa Nui) in the establishment of indigenous language programs.

He was the Chairperson of Nga Kaiwhakapumau I Te Reo (Wellington Maori Language Board) when it took the Maori Language Claim to the Waitangi Tribunal. The outcome of the claim and the Tribunal Report is now firmly established as part of New Zealand history in that it led to the establishment of the Maori Language Act and the Maori Language Commission (Peter Addis, Chairperson, School of Maori Studies, Victoria University of Wellington, New Zealand)

Other responsibilities Te Huirangi holds are:

- Cultural management consultant for Tuiglobal, Ltd., Aotearoa
- Tribal Kaumatua (Elder) for Taranaki Region, Te Ika - ā - Maui (North Island, New Zealand)
- Kaumatua of Te Hau Tikanga Maori Law Commission (Wellington)
- Kaumatua of Te Hau Takitini o Aotearoa (Association of Staff in Tertiary Education)
- Ahorangi (teacher of high standing) at Western Institute of Technology (at Taranaki)

Te Huirangi spent a month in Canada, and created the following statements, in response to the question "What is the meaning of water to you, in your culture and language?" Together, we transcribed his words, first recording them by tape. We then wrote down what he shared with me and Te Huirangi read the transcripts and identified areas that he wanted clarified. Te Huirangi was later invited to be the keynote speaker for the Koutou Nui, Rarotonga, Cook Islands, on the topic of water. The following is the paper he transcribed with me:

Te Kaupapa: "He Whakaaro Maori mo te Wai."

"Te Wairua Te Waiora me te Hauora."

Spirituality and Waters of Life-giving Potential.

Waiwai te moana,	The seas abound with water,
Tuatua te moana,	the oceans rise up,
oruoru te moana	bringing forth,
koe whakatupuria	the principle and
te kawa ora	laws of life.

Wai is water and water is life.

Waiora is living water or waters of life giving potential.

Wairua is the spiritual essence and conveyor of life's principle.

Wai, in Maori linguistic, physical and cultural terms is water and is deeply rooted in the spiritual, cosmological, genealogical, beginnings of all life and life forms.

Wai connects with every strand of Maori spiritual, physical, intellectual, emotional, social aspect of life. The etymology of the word wai offers other dimensions of information to help in understanding the importance of water in Maori cultural terms, regarding life, language and identity.

It is also necessary to include the word atea, as the universal dimension in which all energy, matter, water and life interact.

- | | |
|--------|-----------------------------------------------------------|
| atea | = Space, infinite space and potentiality of the universe. |
| aa = ~ | = Potential energy, unlimited, negative or positive. |
| w~ | = Time in space (atea) and unlimited potential. |

w~tea	= Clear space and unlimited potential.
ai	= the act of procreation between male and female.
wa-ai (wai)	= Water implies Time, the Act of Procreation, Unlimited Energy and Life-producing potential.

Simply put, when you have time, energy, negative and positive potential, elements of male and female characteristics, space and water, the natural outcome is life and all living things on this planet.

Wairua, (the spirit), incorporates the idea of spirituality or spiritual essence to water, which carries with it, the principle and elements of life, thus giving spirit and life to all living beings and creatures.

Waiora, living waters, or waters of life-giving potential, is the transition from wairūā to the physical manifestation of water. Waiora (living waters) interacts with elements of the universe, like the energy from Raa ngī ateanui (Radiating Sun in Great Space) and Papa Tuputupu Whenua (Earth Mother of Abundant Growth).

MANA ATUA are the Powers/ Forces of Nature and Masters of Potentiality

Maori regard particular elements of the universe as the offspring of Radiating Sun and Earth Mother. These are referred to as Atua in its specific form. These are regarded as having powers over specific realms and particular natural laws of the universe, as shown below.

These powers are acknowledged as fundamental aspects of the environment to be respected and managed under the principles of Tikanga Maori, indigenous Maori Law, custom and practice.

ATUA	Spiritual and physical characteristics of natural universal law
1. Rongo Tau	Atua of peace, balance, health, well being and harmony Waters of Rongo used for spiritual health, wellness, and therapy
2. Tu Matauenga	Atua of challenge, conflict, law and order, defender of peace
3. Tane Tokorangi	Atua of forests, birds and insects, all living on land, minerals or Tane Mahuta, the forest, waters, and all living things in the forest
4. Tangaroa	Atua of oceans, land underwater, space, fish, all life and minerals. Power over all water, lakes, waterways on land and in space
5. Haumia Tiketike	Atua of all natural, fresh foods to be eaten or foods to be cooked
6. Taawhiri ma-atea	Atua of winds, pure air, breathe of life. Conveyor of all waters, rains, hail, storms, ice and snows.
7. Ruaumoko	Atua of unborn potential, creating earthquakes, eruptions while still in the womb of Earth Mother.

Awheko (physical matter), from which all living creatures spring. Awheko is matter, which interacts with water, laden with the spiritual essence of life principle, with time, space, radiating Sun and Earth Mother. It is this interaction, which produces the vast biodiversity and wonder of the natural world, in all living beings and things, on our planet of our responsibility.

It is useful to note how the term wai = water, is inter-woven into many aspects of Maori language and culture.

This is a summary of terms linked with water showing aspects of the human life cycle from ara wairua to renga wairua (entry and departure of the spirit or from birth to death).

1. ara-wairua	ara, pathway of the spirit, senses, emotions
2. wai-nui	waters of fundamental importance
3. wai-roa/waitaheke	waters of long and illustrious genealogy

- | | |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4. wai-ora | waters of life-giving potential |
| 5. wai-rere | waters of flying and cascading waterfalls, the song, natural music and flow of water, reflecting the harmony and rhythm of life. |
| 6. wai-taatea | waters of life, sperm |
| 7. wai-hono | waters of union, male / female act of procreation |
| 8. wai-here | waters of bonding and conception |
| 9. wai-hanga | waters of creation, to make or build (e.g. embryo) |
| 10. wai-uu | waters of breast-milk for childbearing and rearing |
| 11. wai-tohi | waters of ritual cleansing, blessing, and removal of tapu |
| 12. wai-horoi | waters for bathing, cleansing & healing |
| 13. wai-hohourongo | waters of spiritual healing & peace |
| 14. wai-tukukiri | waters for departing spirits, tears of mourning, returning to the spirit world |
| 15. wai-ata | songs, chants, laments, an outward expression of an inner emotional and spiritual reflection. Ata is an image or reflection in the mirror or in water. |
| 16. rerenga - wairua | spirits returning to the spirit world |
| 17. ara rerenga-wairua | the spiritual pathway to the spiritual home |

Tangaroa, Atua of the Sea, also referred to as the Takapau Whariki (Sacred Mat), embracing Mother Earth, linking all land and all people on the planet. It is a legacy to be respected and protected, for future generations. The cyclic nature of water, as given in the chant, describes the ongoing interaction between the celestial and terrestrial realms as the fundamental factor for all life on this planet.

For many generations, Maori have had laws and practices for protecting the environment. Maori people have a cultural responsibility to maintain the Kaitiakitanga principle (guardian principle) over its seas, lands, air, resources and Mana Tangata Whenua (sovereignty).

Wairua (Spiritual Essence), is the medium for the transmission of life principle in water and all energy and elements having the potential for supporting life.

The following list is additional to the list relating to the human life cycle:

- | | |
|------------------------|---------------------------------------------------------------------------|
| 1. Waiora-o Tāne | Life-waters of Tane |
| 2. Te Au-o Tāne | Cook Strait, flowing between the North and South Island |
| 3. wairangi | dizziness |
| 4. wai whenua | water of the earth, waters of the placenta |
| 5. wai Maori | fresh, unadulterated water, spring water |
| 6. wai moana (wai tai) | seawater, salt water |
| 7. wai hohourongo | healing waters, for meditation, rebalancing, cleansing, peace and harmony |
| 8. wai reka | sweet waters |
| 9. wai kakara | fragrant waters |
| 10. wai maeneene | soothing waters |
| 11. wai kaukau | bathing waters |
| 12. wai mirimiri | caressing, massaging waters |
| 13. wai mahana | warm waters |
| 14. wai makariri | cold waters |

15. wai hōhonu	deep waters
16. wai kerekere	deep waters
17. waikarekare	rippling waters
18. wairiporipo	whirling waters
19. wai paru	muddy or dirty water, mud pool waters
20. wai piro	polluted or stinking waters
21. wai kino	dangerous waters
22. punawai	spring waters
23. kerekerewai	watery numb sensation in the limbs
24. hungawai	an in-law relative
25. wai mate	dead water, water where the sick may go for blessing, cleansing and healing. Mate maybe ill or dead.
26. wai whakamate	dead water, damned water, water stopped in its journey to the sea

Some Place Names

1. Te Wai o Turi	Waters belonging to Turi (Ancestor) (Ariki of Aotea Waka)
2. Te Waikaukau o Ruaputahanga	Bathing-waters belonging to Ruaputahanga (Ancestress)
3. Te Wainui o Mata	Great Waters belonging to Mata (Ancestor)
4. Te Au o Tane	Cook Strait (between Te Ika a Maui, North Island)
5. Te Waka a Maui	(South Island, Aotearoa, NZ)
6. Waingongoro	Snoring waters
7. Waikanae	gurnett (Fish) waters
8. Waiau	energy laden waters
9. Waitara	tara meaning wide steps taken to cross the river
10. Waikaremoana	Lake Waikaremoana, rippling seas
11. Waitangi	Weeping waters

Interrogatives

Asking questions of persons relating to themselves, their names, their parents:

Wai is linked to questions in Maori. The question will be asked in the following manner:

Wai implies the spiritual, biological and genealogical connection between the individual and "ia", his or her parents. (ia = he / she or his / her)

Wai fundamentally links a person, or persons being questioned about their name, their parents, and their grandparents, as a means to link genealogies.

Ko wai tou ingoa ?	Who is your name?
Ko Mere toku ingoa.	Mere is my name.
Ko wai te ingoa o tou Matua/Whaea?	Who is your Father's/Mother's name?
Ko Tuki te ingoa o toku Matua.	Tuki is my Father's name.

Ko Pikiroa te ingoa o toku Whaea. Pikiroa is my Mother's name.

Wai is fundamentally part of us as humans. In Maori terms, humans are regarded as being different to all other living things, and inanimate objects. Hence, the question is asked, "Who is your name?", as opposed to, "What is your name?" Therefore, it can be seen that wai is of special significance, in that wai is connected to the spiritual, physical, and genealogical being of humanity.

Also, nā wai tenei?(the radio)	To whom does this belong?
No wai tenei? (The dress)	Whose garment is this?
Te tai e-e! Te tai e-e!	Oh the seas! Oh the oceans!
E pari ana koe ki whea, r te tai?	Tide, to where are you going?
E pari ana kite te Paerangi	To distant horizon
Ki te kau heke,	To the onward journey
Ki te kau matua,	To the pathway of elders
Kei tua o Paerau	beyond the horizon
Kei te huinga o te Kahurangi,	to the gatherings of the distinguished,
E oti atu ai koutou	who have departed
Ki te po ra e	into the night.

This chant is a traditional form of acknowledgement not only of Tangaroa, guardian and authority of water, rivers, lakes and oceans, but also the spirit of those deceased relatives who have traveled on the river and waterways of each community out to sea and onward back to the Home of Spirits from which its spiritual journey through life started from. Our kaumatua (elders) always paid respects to the sea when we went fishing or to collect shellfish, and at the end of the day, to give thanks for the gifts of food from the Food Basket of Tangaroa.

Our kaumatua have said we must always respect the sea. We must not trample on the mana, law of the sea. Nothing should go into the sea that will desecrate the tikanga (law) of Tangaroa, as is happening with the raw sewage outfalls, all forms of plastic and nylon fabrics, which fish eat and die from choking.

There are chemicals, fertilizers, farm and industrial run-offs, which flow, untreated into the sea. Our kaumatua would say, "The polluters wouldn't like it if we put it into their food cupboards, but they don't care about ours."

I can remember my own tauheke (grandparent) saying to me, (I was quite young at the time, 8 or 9 years, and living at Taiporohenui marae, Te Hawera, in Taranaki region of Te Ika A Maui (North Island): He said to me, "Always greet the sea, because it provides us with life, food and sustenance. You must always be mindful of the moods of the sea. "Kia Tupato". Always take care. Do not turn your back on the sea, or be careless because there are many dangers, above and below the sea.

Every marae (community) have some form of standard statement of identity.

Ko Te Moananui a Kiwa	The Great Sea of Kiwa (Pacific Ocean)
Te ukaipo, te taketake	is the nurturing breast
Ko Aotearoa Taiwhenua	Aotearoa is the landscape
Ko te Ika a Maui te Moutere	The fish of Maui is the island
Ko Taranaki te maunga	Taranaki is the mountain
Ko Tangahoe te awa	Tangahoe is the river
Ko Taiporohenui te marae	Taiporohenui is the marae (community)
Ko Hāpotiki ko Hāmua	Hāpotiki and Hāmua
Nga Karangatanga hapu	are the resident family groups

Pakakohi iwi, no nehera.
 Wainui/Tangahoe iwi, no nehera
 Ruanui iwi o Taranaki Tai Tonga
 Tihe Mouri Ora

Pakakohi is an ancient people
 Wainui/Tangahoe is another ancient grouping
 Ruanui is the broad collective of South Taranaki
 Sneeze, oh living heart, of Life's Principle.
 Life's Essence, Life's Dynamism.

It is easy to see from the statement of identity, that we are people born and bred of Tangaroa, the sea, with our ancestral roots firmly in central Polynesia and the Pacific Ocean, the Maori environment. The mountain is sacred, because the first raindrops fall on the mountaintops, regarded as the sacred threshold of the Guardians and Authorities of the Universe. The rivers begin to flow down the mountains to the lowlands, passing nearby marae which claim the river as the Waituku Kiri, waters for the deceased relative's spirit as the pathway for its return to the Home Source of Spirituality.

Ko Tangaroa te mana o te wai!
 Na Hikaia Amohia tenei korero,
 he nui tonu nga wa i korerotia e ia
 i roto i ana pakanga nui ki te
 Kawangatanga mo te Kaitiakitanga
 me te mana whakahaeranga
 mo te awa o W'anganui.
 Ko koe ra tenei Tangaroa,
 e miti nei i o maua wae.
 Tangaroa Takapau whariki
 i Papatuanuku e takoto nei.
 Pari atu ki waho, Pari mai ki uta.
 Ka etoeto ai koe Tangaroa,
 rewa huna ki te atea.
 Na te Rā ngi ateanui,
 na hau mahana o uta
 na hau mahana o tai
 whakakapua mai i te atea,
 hau tere i runga ra
 hipa ai i nga matapihi o wāteanui.
 Rokohanga ko wero ninihi,
 ko te anuanu, ko te anu matao,
 te ngakina a Tawhiri-ma-tea

 Ka puta te tōtā, kōpatapata te wai.
 Te kōpatapata ua.
 Nau mai te ua, nau mai te nganga,
 nau mai te haunui.
 Nau mai te hukarere, te haupapa
 ki nga maunga o te whenua
 te huarewa o nga atua.
 Tohia ra e wainui, wairoa, waiora,
 wairere,

Tangaroa, the Ancestral Deity over Water
 This statement was made by Hikaia
 Amohia of Taranaki and
 Wanganui during his many battles
 with the government over the guardianship,
 management and protection of
 the Wanganui River, Aotearoa (NZ).
 Here you are, Tangaroa,
 Lapping at our feet.
 Tangaroa of the Sacred Mat
 Embracing Earth Mother beneath us,
 Ebbing, ever outwards, and back to the land.
 You evaporate and rise here, Tangaroa,
 rising unseen into space, caused
 by Radiating Sun in Great Space,
 warm inland breezes,
 and warm ocean breezes
 to form clouds above in space
 carried briskly by the winds
 across the windows of time and space.
 To meet the sharp spikes
 of cold and frigid winds,
 to be at the mercy of Tawhiri-ma-atea,
 Ancestor of all winds,
 Bringing condensation and droplets
 of water, droplets of rain.
 Welcome rain, welcome hail,
 welcome, early morning dew.
 Welcome snow flakes, to
 settle on the mountains of the land,
 the altar of the Gods.
 Blessed by Great Waters of
 Life's Principle, flying waters,

i kōkoi awa,	rock formed rivers, descending,
taheke pokare iho,	rippling downwards,
i puke tahuahua ki te mania,	past rolling hills and plains,
hoki mai ai te wai Maori.	returning fresh water
Ki te wai moana,	to the sea,
e takoto nei	spread calmly before us,
ki Tangaroa te moana.	Tangaroa the Sea.
Ko Tangaroa Takapou Whariki	Tangaroa, the Sacred Mat, embracing
i Papatuanuku	Mother Earth,
e takato nei, e takato nei!	here before us.

Since we are sitting at the edge of Tangaroa (Oak Bay, in Victoria, on Vancouver Island), this is a good place to start talking about water, from the Maori perspective, Tangaroa is one of the elements of the universe. We talk about Rā-ngi and Papatuanuku, n₁? Rāngī-ateanui, Radiating Sun in Great Space, and Paptuanuku, Earth Mother. So, from Earth Mother and Rangi-Ateanui, come their children, and they represent the elements of the universe: there is

- Rongo (peace, balance, healing, well-being and goodwill to all)
- Tane Tokorangi or Tane Mahuta (forests, all life on land, minerals, and resources)
- Tangaroa (water, oceans, fish, minerals and resources)
- Tumatauenga (challenge, conflict, law and order, defender of peace)
- Haumia Tiketike (natural foods)
- Tawhirimatea (all winds, pure air, breath of life)

Now, these are some of the elements of the universe and Tangaroa is one of them. Water provides the very essence of all life, provides food from the sea, lands and rivers. The life Principle and water are fundamental to all living things. Without water, we don't exist, we don't live. Water is the essence of life itself.

When we talk about Tangaroa in that chant, Tangaroa, embraces Papatuanuku, Earth Mother. The tide moves outwards, inwards, lapping on the land, and outwards.

Ka etoeto te wai moana.	The water evaporates and rises into space as mist.
Ka rewa huna ki ateanui.	Rising unseen into great space.
Ka rere nga kapua,	The clouds rise into the sky.
mai te moana ki kapuarangi, ma nga	From sea to clouds, water evaporating and
hau - ā - Tāwhiri-matea,	taken up by warm winds,
ka pā te hau mahana.	the warm winds of the land, the warm winds of the sea. It takes them up, they form the clouds and eventually they strike the cold winds.
Ma te hau makariri, te anu matao,	Those are the cold winds, bringing
teuananu, ka puta te <u>tōtā</u> .	<u>condensation</u> . So rain begins again. The raindrops form, then becomes the rain, and then they come down on the mountains, the land, the landscape. They form the rivers. And it's like the blessing on the landscape. The blessing, the use of water, as a blessing, to cleanse, to bring life, to bring health back to all living things. So Tohi, Tohi is the word to bless, like baptism.
Tohia, Tohia!	To bless, to cleanse and connect with spiritual life.
Te Wainui,	Vast waters, ancient waters,
te Waiora!	water that brings life:

Te Wairere!	As it flows down, sweeping onto the landscape, in the form of rain. Then the rivulets form the rivers and waterfalls.
Kōkoi awa, t~heke pōkare iho i kurae.	Those are the little groins, which form little streams on the mountain and then runs down the mountainside, cascading over the cliffs.
Wairere ki te moana, o Tangaroa.	You have flying water, as it flows down through the hills, onto the plains, back to Tangaroa.
Takapou Whariki, te mana o Tangaroa o te wai.	Tangaroa, the Sacred Mat, Deity and master of water. That's the cycle of water.

“Ko Tangaroa te mana o te wai!” I repeat the phrase here, which was stated by kaumatua, Hikaia Amohia. He made the statement in one of his many battles with government over the kaitiakitanga and management, control and guardianship of the W’anganui River. That went on for a long, long time. In fact, it was he and his uncle, TitiTihu, who both died before anything really happened. But that was his statement, and I thought, seeing that we are sitting here, beside the sea, in Oak Bay, Vancouver Island, it’s a useful one to begin with. We are here right beside Tangaroa and Tangaroa is the same scene way down in the South Pacific, this is the Pacific Ocean. To us, it is the Moana Nui a Kiwa, the Pacific Ocean. He, Hikaia Amohia, was the one that made that statement. Tangaroa was Te Mana o te wai; the master, the deity, the Guardian-figure of water and Life-potential within the universe. This is because Tangaroa is symbolic of water, and water is fundamental. This was a political statement made when Wanganui were making their claims against the government.

Explanation of the Chant

Ko koe ra tenei Tangaroa, Tangaroa Takapau whariki i Papatuanuku e takoto nei. Pari atu ki whaho, pari mai ki uta.	This is you, Tangaroa Takapou Whariki, surrounding and embracing, Papatuanuku, Earth Mother. Tangaroa, the sacred mat flowing outwards, and flowing back, inwards, onto the land.
Ka etoeto ai koe, Rewa huna ki te atea	You evaporate, rising unseen into space.

This gives us a location, which shows the relationship between Tangaroa, the ocean and Papatuanuku, the Earth Mother. But it also shows its relationship to us, as human beings, because without Tangaroa, we would not be here. That bird there, that screechy bird, wouldn’t be here either, or those fluffy cats wouldn’t be here, or this food that we are eating wouldn’t be here. We would be non-existent. Here lies the fundamental aspect of water, Tangaroa, the Ocean.

We looked at that continuing relationship between Tangaroa, the land and the sun. We look at the ongoing relationship between the sun and its impact on the ocean such as condensation: ka etoeto.

Because of the warm winds of the land, the warm winds of the ocean that carries it high, closer to the sun. It is the ongoing inter-relationship between the winds, the sun, the sea, and the land. And about this ongoing cycle of the water and its cycle of, it is said to be cleansing, its own cleansing process. And so it goes back up into the atmosphere and it forms clouds up in the skies, and celestial regions. Eventually it is carried by the winds, until it meets with cold winds, so that the inter-relationship is continued with warm winds down here and cold winds up there. Eventually, that brings Te tōtā (condensation). And from tōtā, you get kopatapata, raindrops, and when you have raindrops, you have the rain, and eventually, it comes down on the mountains, the landscape and the ongoing cyclic inter-relationship is maintained.

Wairua is the spiritual element, the spiritual aspect of all biological life. Wairua is that spiritual essence, which is sourced back before Rangiateanui (Radiating Sun in Great Space) and Papatuputupuwhenua (Earth of Abundant Growth), before the inter-relationship between the Radiating Sun, Earth Mother and the elements of the universe. It is traced back to elements of all potentials. This is what we call te wahingaro, that which is hidden, wahingaro, that which is unseen. And yet those potentials are still there. Those potentials are part and parcel of the elements, and the potentials of life and energy of the universe. And so, wairua has come through from the Primordial Beginnings. That's the spiritual essence. It is that spiritual essence, which carries with it, those potentials of all life.

There is a difference between human existence and animal existence, in terms of our physical, social and intellectual needs. We need to understand that the wairua is that which brings with it the following characteristics and potential of Mouri, Mana, Matauranga, Intellect, and Reo (language and culture). Mouri, the dynamic force of life to all living things. Mana is the element which reflects the unique nature, social order, intellect and sense of social responsibility of each individual being. Matauranga, intellect and intuition are the characteristics related to knowledge, understanding and wisdom.

There is also the potential of language, which is fundamental to all cultures. Wairua, is what carries those characteristics. It becomes formalized in its transition from spiritual essence to the physical manifestation of water. It is this spiritual phenomena which brings life to all beings, whether it is human, animal, plant or organism. At death, the spirit returns to its spiritual source, via the vehicle it had come, water in the form of a river, or source of water, which flows to Tangaroa, the sea or ocean.

Therein lies the inter-relationship between the spiritual and the physical. When it passes through that transition of physical manifestation, then it brings those elements with it, to interact with the forces of nature, in a way that brings about the life force, the dynamic life force, the Mouri. It's that dynamic life force which then gives it the components for those characteristics imbued into the living being. And that's the transition from the spiritual to the physical manifestation of water, which carries with it life potential.

It is clearly identified in the term, wai. Wairua, that which carries those elements, those characteristics essential to the living being. Wairua, indicates its link in a linguistic way, because of water. Wairua refers to the spiritual essence; therefore it implies a physical potential to it, that the substance manifests. So the spiritual nature of water, or the wairua, becomes part of the physical aspect of water, the physical manifestation, which is also wai. So we have many references to wai, water, such as: wainui (great waters), waiora (living waters), wairere (flying waters). They imply levels of application.

- Wainui is the importance of water, and how it has existed for millions of years.
- Wairoa also accentuates that first description of the greatness and importance of water, having existed over a long period of time.
- Waiora is the life giving potential of water. Ora is life and wai is water, the waters of life-giving potential.

For Maori, it's quite simple, really. That's from Maori, that's the way we perceive it. We all have responsibilities to the water, to protect the water, not to desecrate the water, because water is used for all sorts of things. There are special areas of waters, springs, fountains, and waterfalls that are used specifically for spiritual ceremony and rituals, baptismal purposes, for healing purposes, for cleansing purposes, and all these rituals are to do with and must be with water. And therefore waters have to be protected, and incorporating indigenous practice or laws. There are people who will protect them. THERE ARE THOSE WHO STILL HAVE TO LEARN.

Tena koe Darlene Lii kwal Sanderson

Greetings, Darlene Sanderson.

Ki o Tupuna, whanau, whenua, maunga, awa!

Ancestors, families, lands, mountains & rivers!

E mihi ana ki a koe, i to tononga mai ki a au,

Thank you for inviting me to contribute to the

hei korero i nga ahuatanga o te wai, hangai ki te Hauora, Matauranga, Taiao me te Tikanga.	dissertation on water and its connections to Health, Education, Environment and Law.
E koa ana toku ngakau ki te tuku korero, ki a koe o Te Cree, o Manitoba, me te iwi NuuChahNulth o British Columbia, Ca.	It is with pleasure to share with you, your Cree Culture of Manitoba and that of , NuuChahNulth, British Columbia. Ca.
Tangaroa Moana, Maranga Mai ! (the.W.)	Tangaroa, Oceans Rise Up ! (the. W)

Interview with KLA-KLIST-KE-IS, Chief Simon Lucas

“Water Wasn’t Just an Ordinary Element. It was Power.” A Nuu-Chah-Nulth Perspective on Water

Chief Simon Lucas is a tenth ranking hereditary Chief of Hesquiat, which is located on the west coast of Vancouver Island. His hereditary name is Kla-Kisht-Ke-Is. Simon was also the elected chief of Hesquiat for 30 years. For six years, in the early 70s, he served as co-chairman of the Nuu-Chah-Nulth Tribal Council. During this period, he did research on the number of Nuu-Chah-Nulth who were involved in the commercial fishery. “At that time, there were 175 independent boats from the Nuu-Chah-Nulth Nations.

Simon comes from seeing and knowing an abundance of the wealth and food chain, of various species of salmon, knowing many little spawning streams were in fact a very high contributing salmon resource to our people, culture and to the commercial fishery.

Simon comes from a very deep philosophical background. In his culture the first raindrop symbolizes the first drop of life to all living from the highest peak of our mountains down to the spawning beds.

Through his experience in the commercial industry, he quickly found out how important the ocean is to all river systems in BC. The ocean was alive and offered the food chain for every living species. Its an integral part for all migrating stocks. “The variety of life in the ocean is immeasurable. We must embrace the visible and invisible life that makes up our ocean. We must treasure and cherish and protect all the living creatures that the Ocean provides for us,” said Simon.

Simon has always very involved in the fisheries all his life on the tribal, provincial and international level. In 1983, First Nations identified a need for an organization to bring tribes together to discuss parallel problems and to work on solutions, developing policy and recommendation to Government on advisory committees. Along with the importance of getting together, there was a real need for consultation to compile all the issues that face us, such as regulations, Pacific Salmon Commission, allocation, trans-boundary and NAFTA and water rights.

Chief Simon Lucas served previously as the Chairman of the B.C. Aboriginal Fisheries Commission since it was established in 1983 to February, 1997. The Commission is a forum to protect and enhance the aboriginal fishing rights of the First Nations in BC.

Chief Lucas is a member of the Commercial Fishing Industry Council; former Board member for the Native Brotherhood of BC; a member of the Treaty of Indigenous people International (TIPI) formally known as Pacific Northwest Treaty Steering Committee; a member of the Advisory Board on Aquaculture to the Province of B.C.’s, advisory capacity for previous Ministers of Fisheries and a

member of an advisory board on Native issues for the B.C. Medical Association; Board Member of Aboriginal Disability Society; Chairman for two terms and honorary Member, Port Alberni Friendship Centre; Board Member on Nuu-chah-nulth Economic Development Corporation. He is closely associated with the Northwest Indian Fisheries Commission in Washington State and with the Columbia River Inter-Tribal Fish Commission in Oregon State.

Chief Lucas has served as an Executive Board Member of the Aboriginal Council of B.C since 1990. The Aboriginal Council manages the allocation of funds to First Nations in B.C. to conduct land claims research for Specific Claims such as Right-of-ways, which are based on the government's failure to fulfil specific fiduciary obligations under treaties, other agreements or the federal Indian Act.

Chief Lucas is very much involved in his traditions, culture and is fluent in his traditional tongue. He is a popular speaker at international and national forums on environmental issues which affect fisheries and aboriginal peoples. He is also in demand on social issues such as health, drug and alcohol, family violence and suicide. (BC Aboriginal Fisheries Commission, 2003)

As mentioned before, my connection with Chief Simon was through my friendship with his sister, Janet Webster and her husband Hudson. Chief Simon Lucas is highly respected in both the native and non-native communities. The community respect and fine reputation that Chief Simon Lucas carries, together with his knowledge of traditional teachings and language are reasons behind asking him to honour this thesis with his contributions. Together with Te Huirangi Waikerepuru, we traveled to Nanaimo to interview Chief Simon about water and its meaning to him. The interview was videotaped and then transcribed. It was later sent back to Chief Simon for his review. He informed me that he gave it to some of his family members for their review, as well. When I was making my application for this doctoral programme, I asked Chief Simon Lucas for a letter of reference. In that letter, he gave me a statement that demonstrates that he carries a very deep philosophy of water and life. In the letter, Chief Simon Lucas made the following written statement about water:

*WATER
TRADITIONAL ECOLOGICAL WATER USE*

WATER IS IMPORTANT TO ALL LIFE FORMS.
WATER IS ESSENTIAL TO BEGINNING OF LIFE.
WATER IS VERY IMPORTANT TO OUR BELIEF SYSTEMS.
WATER IS IMPORTANT TO OUR SPIRITUALITY.
WATER IS IMPORTANT TO OUR PHYSICAL BEING.
WATER IS IMPORTANT TO OUR MENTALITY.
WATER IS IMPORTANT TO OUR EMOTIONS.
WE NEED TO UNDERSTAND OUR CONNECTION TO WATER,
WE NEED TO UNDERSTAND MEDICINAL USE OF WATER,
WE NEED TO UNDERSTAND THAT WATER CARRIES ALL VITAL NUTRIENTS,
FOR MANY LIFE FORMS.

(Lucas, 2000)

I want to start my talk on what I heard and learned from my elders, when I was a young boy. They used the word "*Ikthmood*". And that's a very important word in the Hesquiat language. For us, it describes the beginning of time. "Don't ever forget your *Ikthmood*," our grandparents tell us. It means that we are still the same. In the same way, the rocks' formation's changes but the rock is still there. *Ikthmood* is a very important word for us here, it describes our place in the beginning of time, when life was first created. The sky, the stars, the sun, the galaxies, moon and all what the universe is about, as humans, we were still *Ikthmood*.

Where does life begin, where is one of its beginnings?

Well, I come from Nuu-Chah-Nulth, which means, "People That Are Surrounded by Mountains" in our territory. So it is important for us to understand, the first raindrop, the first raindrop comes to us at the highest peak of our mountains. And from that first raindrop falls many, billions, trillions of drops that start to flow down those mountains, in many different directions, one can't even count the amount of directions that it comes. Well, we're told that it's important for it to do that because what it does, as it's coming down the mountains and flowing into little streams, big streams and the river system, it's gathering up the nutrients for all the living things that live in water. And that's important for us to understand, because, we as human beings, live on those things that live in water, Nuu-Chah-Nulth people, whether it is fresh water or salt water. Where does this fit in, in our belief system? (Nuu-Chah-Nulth). Well in our belief system, we're made to understand it and why I believe that it's important for us to understand what water meant. And I'll use an example, so that it's clearly demonstrated what water meant to our people. And it's in the area of whaling: and in that belief system says that, every day, before the sun comes up, you have to bathe yourself and cleanse your body before the day, before the sun comes up, so that you're clean when the sun comes up. And you do the same thing before the sun goes down. So that ritual, that ritual took about 12 months they talk about. In this case they talk about the amount of moons.

So why was it important? I think that people have to understand, why was it important to be clean? What were some of the things that were important? Well, we know that if there were twelve whalers, those twelve couldn't swim or bathe in the same place. Each one of them had to have their own sacred place to swim, where no one else could see them. Because in this case, our people say that to converse with the Creator is one of the most sacred occasions that an individual has. So what he done, a young hemlock tree in our area, whether our people know it or not, it has a little bit of soap in there. So that while they are bathing they would rub themselves with these young hemlock bows every morning while they are bathing. So water plays an important role in the belief system. It was the thing that created the power in that individual. The people have to understand that you had to believe that water wasn't just an ordinary element. So when you see the first raindrop, the first raindrop suggests something very powerful in our territory.

What it means that all the living elements that survive on water. It's important in Nuu-Chah-Nulth area to understand where water plays an important role in an individual. We all know that Indigenous peoples around the world know that all of us, as we are in our mother's womb, are covered with water. So right away, before we enter the world, we are already somehow protected by water. It plays an important role in the emotion of a person. Why the water becomes important in your emotional state. It plays an important role in your mental state. I got to prepare for whaling, I'm going to swim. It has an important mental element. And also, it's got an important role to the physical conditions. So it was important for our people to make sure that they always washed themselves, creating this physical power.

But the fourth element is the spiritual connection that this water created, with us what we call, Hotla behotwilth. Now we start identifying, "Where am I going to go as a whaler?" And as you're talking in the water, I know that I am going to go beyond the horizon. You'll never reach the horizon, because you'll end up at land somewhere. So as you're bathing in this water, you understand that. That there is a God Beyond the Horizon. And that's important for people to understand, and also as you are bathing, you understand, ok, when I go out there, I want the protection of this God Beyond the Horizon, of the Deep Water God, of the deepest part of the ocean for us, that we understand that we want that protection. So that when we go back to the land, we look at our mountains, we know that there is a Creator Beyond the Mountain looking over us. So as you're bathing in this water, you've got to believe that. Now that's fresh water.

Well, because our people live in two types of water, salt water, one of the things that our people were taught to do: First thing in the morning was to take a dive in the ocean, salt water. And

that was important for our people. You got to understand that. There had to be a connection right away. As the young child, understood that salt water has a major role in our area. What it means for an individual is: that you're going to make a canoe. You're going to learn to travel that water, the ocean water. You're going to get your resources from the ocean, whether at high or low water tide, or way out in the ocean. And that's important for the connection, that's why salt water plays a major role in Nuu-Chah-Nulth. It also deals with the four elements. And it's important that people understand that our understanding of the ocean. One of the many chants come from listening to the winds and the waves of the ocean. Many songs and dances came from listening to the wind and the ocean. And one of the things that our people done every time that a huge storm came. We're going to face one pretty soon. But this chant and I think that, Naa Aa Dahaiche, Naa Aa Dahaiche Waa Wagnath, Listen to what the day is saying. So our people used to chant, not saying, Oh let it be calm...No, but thinking about the power of the waves and the power of the wind, that it's created naturally by the Creator. They tell us, "Don't fool around with the ocean. You have limitations. You don't fool around with the water because it can grab you without any kind of notice. So that chanting is important. Some of the highest rituals, the Sea Serpent Dances comes from that. If you ever see Nuu-Chah-Nulth Dances, you'll see our chiefs of all different shapes of Sea Serpent, what we call HiiAatlee. I have no idea why the translation became in English to Sea Serpent, but it's an ocean creature that we call HiiAatlee. I am one of those who had that name, Hii Aatlee. It's a big name, which now my son holds, and I hold the name Kah klit is. During the understanding of water, I was told, throughout your lifetime, you're going to carry four names. So when I was born, I got a name, when I got married, I got another name. When I reached a certain age, I got another name. So, I am coming to my last name soon, when my son is going to take over the chieftainship that I hold. So water, fresh water and salt water play a very important role politically. In this way, each of our chiefs have Ha Holtlee, which is marked by landmarks, whether up in the mountains or in the ocean.

And it's important for people to understand that you've got to have protocol. You can't just go into one chief's territory, and say, this is what I am going to pray. No, there needs to be a clear understanding of where the land you're at. And my grandfather died in 1960. But we come across some of these writing where he talks about one day he found a whale drifting off across a place called Raffle Point. So he started towing it in, only realizing that this whale was on somebody else's territory. So, he towed it in to the place. And one of the things that he says is that, "The chief didn't offer me a piece, and I understand that". It wasn't for me to get a piece of that meat, but to his people. I think that's where people have to understand the boundaries that each one of us has, that we all have boundaries. So all of this, you have your political activities, that's around water, whether it is fresh water or salt water. What does it mean for an individual? I want to talk about today's terms. What happened to us in the early 1900s to this day. That water, because I went to a school of a different religion, I wasn't taught about the most important parts of my years about the role that water played, was supposed to play in my life. Rather, I went to a school that didn't talk about water in that my grandfather talked about it. So what's important for us to do now is not to say, Oh, it's those guy's fault that we don't know. No, there's people that still understand the very significant role of water in our lives. So, we need to bring back some of those teachings that have been around for 60,000 years. I don't know, but it's very significant. So my family and other families of chieftainship, anytime that we hold (Feasts?) the last feast that we done through my son that we held a coming of age with his daughter. One of the first things that she had to do, was to go and bathe for four days in a lake where we deemed to be absolutely pure. So she went there for four days. Then the dancers, who were my grandsons had to do in there. So it was important for us to tell them, You've got to believe that, it's the Source of strength. You can't help to try to make people to understand that it's one of the most important elements in this world, where we come from. So, my understanding through my elders, is, many can talk about what it does for resources. Why is it important for the salmon in our territory? Well, the first raindrop means a great deal, because,

once the salmon start spawning, they certainly have to have water that is absolutely clean. You know, it's at it's cleanest. Also coming down with the nutrients that they need. We are seeing now what happens when you fool around with the rivers, the lake system, they have destroyed all those natural habitats and rearing grounds where they've disturbed this, and it's because the education system doesn't talk about water like our elders talk about water. So, you see the contradictions in our lives, today of how people treat water and how our people (treat water). So, I think that my understanding of water, the depth of it, to me is further than anybody can imagine, because it deals with my inner self, it deals with my mind, my mental being. So I think that our people, you know an example in Hesqiat territory, as I was growing up, mother never said to me, "Look, you're going to pack a lunch." No, she always told me what to look for where I was walking. You'll always know where to take water. So she showed me the salal leaf, how to fold it, how to make it into a cup. We always used that. So I always knew where the water was. She always told me, this is what's around water, different kind of berries that live along the riverbanks, and you'll see them there. And when you go into the salt water, she told me what to look for. One of those was sea urchin. You'll never go hungry, when you go out. So sometimes, we would be gone for all day, and I am four or five years old, so I understand that when I was four or five years old, why it's so important. I think that's all.

Appendix D.

Sacred Waters: A Cultural Handbook for the Families of Preschool Children

Water is sacred. We acknowledge that water connects and regulates planet earth as the sacred mat of life, which is the ocean, and we acknowledge water also nourishes the land and all living organisms including human beings. Water is the physical form of the spirit... Education is needed to learn about the sacredness of water and peace. Communities must declare all water sources as sacred sites. (Excerpt from indigenous perspectives, Peoples World Water Movement Declaration New Delhi, 2004)

Background

Water is life. Water sustains Mother Earth. The abuse of Mother Earth has brought about pollution, climate change, and drought. As a result people worldwide are beginning to wake up, face the eminent possibilities of lack of water and sustenance for Mother Earth and themselves. Indigenous Peoples worldwide were given the task to protect Mother Earth. Within this task come many responsibilities and teachings. It is time to share these teachings and educate all children who are the future.

Introduction

Environmental education is of utmost importance today. However, often times Indigenous wisdom is over-looked as is the sacred nature of water. It appears there is little in school curriculum that teaches about the traditional meanings of water and a respect for this source of sustenance and life especially from an Indigenous perspective. Indigenous Peoples worldwide have come together to bring attention to the sacred nature of water and how all peoples need to come together to honour, respect, and take care of water.

It is time to bring the message and the Sacred Water teachings of Indigenous Peoples to the children. Children are the future. Children are the hope of tomorrow. Armed with knowledge and wisdom they can and will make a difference.

The development of a Sacred Water Cultural Handbook for teachers will be the first step for teaching the future generations and sharing Indigenous knowledge, perspectives,

and wisdom with hopes that the handbook will contribute to a full-scale curriculum project on Sacred Water.

Protocol

The author wishes to recognize that this curriculum is offered in Coast Salish territory, and honours the local Elders and teachers. The author also recognizes that she comes from another landscape, and will ask the permission of local people before this knowledge is shared. The words of the Elders that are quoted in this program retain the copyright for them and their families. The author Darlene Sanderson will retain copyright of the handbook. The Indigenous teachings contained in the cultural handbook were received and shared from Indigenous Elders who trusted they will always be used following sacred direction and proper Indigenous protocols and procedures.

Philosophy

The philosophical basis for this education, as set out by the Elders, is that Indigenous concepts and understandings of spirituality are found in the language. Creation stories, concepts and meanings found in our languages are encouraged. It is a philosophy of family-centred education that supports the learning of the child and the family as a whole. The parents and caregivers are supported in their education as the primary teachers for their children and builds on their capacity to share their own cultural understandings. While the children and families came from a wide range of cultural backgrounds, we are recognizing and acknowledging that this preschool is on Coast Salish territory.

Beginning with the sharing of Creation stories, parents and caregivers are asked to take the lead in researching theirs or their child's original Creation story, and will be given the opportunity to share with the group. These stories and other ancient stories can identify values, philosophies, roles and responsibilities that are at once, personal, and collective, to their families and communities. They also assist in identifying one's relationship with the natural world through an understanding of their spiritual interconnections with all of life.

With experiential and culturally based learning, children are able to learn with their parents, 'by doing', by experiencing nature, by observation, and by learning how to listen. Children are also encouraged to learn through play, imagination and creativity. Our creativity is a gift from the Creator. This style of education is also capacity building. It supports the whole family, as well as the child. Parents and caregivers identify for themselves the cultural experiences that they wish to share with their children. For example, they may have Elders in their families (who may be fluent in their language) and would enjoy sharing on the topic of water and identity (for example). The parents and caregivers may have videos to share that were produced specific to their cultural group, or pieces of art, which tell a story.

Language revitalization will be encouraged, bringing in speakers, as well as discussions about concepts found in the language. Even if a few words are shared in the classroom, with the parents, involvement, there may be more opportunities to speak at home. When parents and caregivers have full involvement in the design of this program, they will gain a sense of ownership and achievement at its fruition. It will promote leadership within the family members, as more responsibilities are identified and taken on. An opportunity may be created for the parents to share traditional forms of leadership within their communities. This strengthens the social fabric, the weaving of the human 'water' mat that we all share in community life.

Project Design

The community for which the program will be offered will design the project. The parents and caregivers will play a key role in the program development for their children, with water as the theme. They will be asked which cultural experiences that they wish to share with their children, from their own and the child's cultural base.

Target Audience

Preschool children aged 3 to 5 and their caregivers in the Coast Salish territory of Victoria, British Columbia.

Who Benefits?

All community members will benefit from this curriculum. This one is tailored to a specific group: preschool children and their families

What is the ideal process for this education?

Indigenous peoples can share their laws about water with their own communities first, and then to the wider community. The community gathers with their Elders to talk about water and about what knowledge they want shared with the wider community. This will protect sacred knowledge and maintain community decision-making sharing traditional ecological knowledge. When the education is discussed within the communities, Indigenous communities can develop their own water policies, according to their own laws.

The education may start:

- With an internal **community gathering** or
- With a **conference** guided by Elders or
- With a circle of local Elders to talk about preschool education
- With a circle of parents/ caregivers to see how they would like to proceed

Examples:

1. The Tu Cho Conference on water (2006) was a good example of everyone hearing the plenary session, and not with breakout sessions, so that 'everyone is of one mind,' as the Elders had wished. The framework may be used, looking at water from a holistic perspective, and its interconnectedness with all aspects of life.
2. The Halalt Nation hosted the 'Honor our River Day, where young and old experienced the river, the culture, and fostered understanding and relationship building between people and cultures.

3. The Simon Charlie Society implemented this curriculum in a 5-day session (3 consecutive weekends). The group continued to meet for several months afterward.

In recognition of local protocols, it is essential to listen to the community members, local Elders, to plan and develop opportunities for learning. If this curriculum is to be used in other parts of British Columbia, the Elders group will be asked for their feedback first. The author will also collaborate with members of the First Nations Early Childhood education group, the First Nations Education Steering Committee (FNESC), the BC Union of Indian Chiefs (BCUIC).

Where can the curriculum be offered?

- Within Indigenous communities: in traditional camps, *wananga* (traditional houses of learning)
- Offered to the wider community
- After Indigenous communities have been engaged, it may be offered in schools: educating teachers first, for their cultural awareness, for education for children and their families
- Environmental Studies Education
- In this case, it is a response to a request for a cultural preschool education for an urban aboriginal preschool and daycare.

Ideally, the local indigenous community will host the initial meetings. The local Elders are the cultural authority and are our teachers. Contributions for education may come from the community members and the skills and abilities that they share; foundations, universities, local water organizations, church organizations, municipal, provincial and federal governments can provide financial and infrastructure support, thereby supporting indigenous control of education.

Because the journey of education is from 'womb to tomb', a lifelong journey, we are all learners and teachers. As Huirangi shares, *ako* means both teacher and learner. The

sharing of life experiences will be a consistent part of the education experience. Thus, the life experiences of the families of the children will be valued, and will have input to the design of the curriculum. They will be asked what kinds of cultural experiences are meaningful to them. In essence, this is a type of community-based research that reflects the aspirations of the community. This reflection is like water, because it reflects back to the community members what their strengths are, from their life experience, and what contributions they can make to their own children's education, and as role-models and teachers for their children. This fits with my own philosophy that the family is the main foundation for education.

Because the subject matter needs to be meaningful to small children, parents and caregivers can suggest cultural experiences that their children might enjoy, as well as have an information session about normal early childhood development specific to their child. Aboriginal Infant Development Program (AIDP) educators can provide sessions on normal childhood development. Aboriginal early childhood educators can assist in the program development with activities that are age –specific and meet cultural and linguistic needs. There is the opportunity to engage with Elders who are linguists from the nations that the children are from.

Storytelling can engage all age groups. It can be especially meaningful if the stories are shared in the form of plays, and by other aboriginal children, as is demonstrated by 'The Mink Goes Fishing' play, created by the Songhees preschool. The children might be involved with a discussion after the play to bring out particular teachings that are specific to that story: they might be asked, 'What did we learn from this story?' The teacher can have the affirmation that the child has learned something, by his or her oral response, or the successful participation in the creation of a piece of art or regalia.

Local Elders who know their own language and culture may be invited to tell stories. Oral instruction through the stories and plays may be complemented by the use of texts, the use of images, and, if the community wishes, western science. Storybooks may be created by the communities in their own language about ancient stories that teach about water. Creating these books may also inspire the creation of artwork about the beautiful ancient stories, in both traditional and contemporary styles. A beautiful story, 'Chen Li and the River Spirit' appeals to this age group.

Images may also complement the education of water: a guest speaker who is a local artist may wish to share slides of their images to explain the meaning of water in their culture. In addition, the children and their families may be encouraged to create images in art forms that are consistent with their cultures. The creation of a canoe, carving a paddle, and weaving a blanket hold many teachings about life. Hulitan Social Services has already built a canoe for the families, and may be used as part of the cultural experience.

A guest speaker, perhaps a scientist that brings in water quality testing materials, a microscope can show children the world of microbiology and the active life in water. (Note: the community may want to keep this program completely cultural, as there are many opportunities for western science found in the western school curricula.) This may also serve to encourage children's potential future work in science, in a culturally relevant setting. With a foundation of Indigenous language and science, he/she can engage in the science of the western world with a strong cultural base.

The curriculum below is based on the laws and teachings from my own part of the world. Each nation has their own teachings, and each community may want to define what their laws and teachings are. Before this curriculum is offered, spend some time with local Elders, who carry traditional knowledge, to see if the values listed below need to be adjusted to be in harmony with their cultural values and their language.

Potential Outcomes

Outcomes for success are culturally defined. The child may be seen to be successful if he or she has been able to learn some of his or her own language, gain a sense of pride in their identity, and understand that they are a person of great beauty, a gift from the Creator. They will be able to understand that they have an important role in this life and that each community member has gifts, talents and abilities that they can contribute to their families and communities. A measure of success is a young child who is joyous in their identity, knows who they are and where their genealogy springs or originates from.

Section 1 Fundamental Teachings

- From the Culture of the Land:

It is important to ask the people of the land what they want to communicate to the little children and their families, to demonstrate respect for where the curriculum is being offered. The Elders have shared that their values that are found in the language is fundamental to education. The local instructor can share his/her own values from their place of origin, after the local Elders have shared what they want shared, and in their own way.

- From the Cree culture

Next, the instructor, who may be from another landscape, may share his/her own values (in this case, Cree). With a healthy spirit, we can be healthy emotionally, physically, and intellectually. We begin each gathering with a prayer of gratitude to the Creator, in our own way.

Wahkohtowin: the over-arching law governing all relations, flowing from the Creator who placed all life on earth. Humans are a part of this order and are organized into families. Humanity is responsible to observe other living things that demonstrate the practice of this law. Cree stories describe observations of the natural world and are used to create order in Cree law. So the sun, moon, winds, clouds, rocks, fish, bugs and animals can all provide illustrations of *wahkohtowin* (Cree law). Relationships between Individuals, families, governments and nations are guided by *wahkotowin*.

Miyo-wicehtowin originated in the laws and relationships that the Cree Nation has with the Creator. It requests, guides, admonishes or requires Cree peoples as individuals and as a nation to carry themselves in such a way that they create positive good relations in all relationships. It is important because it speaks to maintaining peace between people of different places and perspectives. The circle often represents good relationships, through positive support and assistance in Cree law.

Circles are seen to be sacred and represent the bringing together of all people. They remind people of Mother Earth and their journey through life: from the earth, to infant, to child, through adulthood to old age and back to the earth. Cree legal traditions can be conducted in circles, such as talking circles, healing circles, and reconciliation circles.

Pastahowin and *ohcinewin* are the consequences for failing to abide by Cree law. *Pastahowin* is used to describe something that goes against natural law. If such an offence occurs, negative consequences will follow, making the concept of *ohcinewin* relevant. Many of the hurricanes and climate change are a result of humanity's disrespect of the natural world, and natural law. *Pastahowin* and *ohcinewin* can apply to any situation where the law is not followed, either by something we have done or something we had a responsibility to do.

The following is drawn from the Four Directions teachings, from Mary Lee:

1. **Listening** to traditional Elders' teachings, it is about living by those principles and accepting responsibility. This includes accepting guidance and wisdom from outside of ourselves, using our ears before we speak. Listening to traditional stories, to our parents, fellow students and our teachers.
2. **Respect:** giving honour to all of life, honouring the basic rights of all others. Everyone has their own beauty and individuality, given by the Creator and each of us has the capacity to make our own choices. This is what self-determination means. The answers that we seek lie within. As Indigenous peoples, we have the right to determine our own health, education, based on our own languages, philosophies and cultures. We have an essential role and responsibility within our communities: We are like a weaving, a tapestry of humanity. In understanding respect, we understand that we have many responsibilities. Everything we do has an effect on others. Respect other's role in the web of life.

'It is my responsibility to never hurt anyone's feelings.'

(Chief Viraleo Boborenvanua, Pentecost)

3. **Humility:** We are but a "strand in the web of life." Understanding this helps us to respect and value life.
4. **Happiness:** show enthusiasm to encourage others. Our good actions will make our ancestors happy in the next world. This is how we share happiness.
5. **Love:** live in harmony accept one another as we are; accept others who are not in our circle. Love means to be good and kind to one another and to our selves.
6. **Faith:** We must learn to believe and trust others believe in a power greater than ourselves, whom we worship and who gives us strength to be a worthy member of the human race. To sustain our spirituality, we need to walk it every day. Not just sometimes, but every day. It's not just once a week; it's your life.
7. **Kinship:** Our family is important to us. This includes our parents, brothers and sisters, who love us and give us roots that tie us to the lifeblood of the earth. It also includes extended family: grandparents, aunts, uncles and cousins, and their in-laws and children. They are also our brothers and sisters and give us a sense of belonging to a community.

8. **Cleanliness:** Today when we talk about cleanliness, most people think hygiene, and that's very important. But years ago, when old people talked about cleanliness, they meant spiritual cleanliness. Clean thoughts come from a clean mind and this comes from our spirituality. With a clean mind and sense of peace within we learn not to inflict ills on others. Good health habits also reflect a clean mind. Do not pollute your mind with violence on TV, movies or games. A clean mind, a clean body will have a positive effect on others and on the environment.
9. **Thankfulness:** We learn to give thanks: to always be thankful for the Creator's bounty, which we are privileged to share with others, and for all the kind things others do for us.
10. **Sharing:** We learn to be part of a family and community by helping with the provisions of food and other basic needs. When we share our responsibilities we learn cooperation, working together and enjoying the fruits of our labour. Collective decision-making allows the contributions of many hearts and many minds for the collective good. Sharing our knowledge, sharing our food, sharing our wealth is essential for a balanced world.
11. **Strength:** This means not only physical strength, but also strength of spirit. This is learned through fasting. Patience during difficult times is valuable. To show understanding and not complain shows strength. We get our strength and patience from cleansing, from water. We must accept difficult times so that we may give others strength to accept their own challenges.
12. **Good child rearing:** Children are gifts from the Creator. We are responsible for their well-being, spiritually, emotionally, physically, and intellectually. Fundamental to good child rearing is learning to care and love children. Children are blessed with the gift of representing the continuing circle of life, which we perceive to be the Creator's will.
13. **Hope:** We must look forward to moving toward good things. We need to have a sense that the seeds we are planting will bear fruit for our children, families and communities.
14. **Ultimate protection:** This is the ultimate responsibility to achieve the balance and well being of the body, mind, emotions and spirit for the individual, the family, the community and the nation.

We are all connected

The control flaps on a tipi teach that we are all connected by relationship and that we depend on each other. Having respect for and understanding this connection creates and controls harmony and balance in the circle of life. When we don't know how to use the flaps, it gets all smoky inside the tipi, and you can't see, which is like life – because if we can't live in balance, we can't see clearly where we're going. For every time that a pole is added, a rope goes around to bind that pole into place. You have to be there and see it to appreciate that teaching. That rope is a sacred bond, binding all the teachings together until they are all connected.

Section 2 Teachings about Water and about Ourselves

Theme One: Identity

Sharing Circle:

Who are you and where do you come from? From whose descending waters do you flow?

Talk about where our ancestry is from, where our waters of origin are, through genealogy and landforms.

Use words in our languages to talk about our places of origin.

Resource materials:

1. Materials created by local people
2. Handout on meanings of water in other languages from Creek and Maori
3. Handout on Global Education on water

Activities:

1. Globe or map of the world

Make a map of the world on the floor, and the children can stand on that place, with the message that they can be proud of who they are and where they come from. The child and caregiver can talk about this and each one is paid respect for the beautiful part of the world that they come from.

2. Genealogy activity:

Make a simple chart of children's parents and grandparents, with the child's picture, and posted on the wall with pride. If the child is a foster child, or does not know their parents, have the child's picture posted with beautiful pictures of their part of the world.

Share your Creation Story

Examples: Coast Salish, Cree

Questions?

What did you learn from this story?

What kind of relationship did the animals have with the water?

How are we connected to the animals?

Did each of you learn something special/different from our classmates?

Learning outcomes:

- Ability to listen and learn from storytelling
- Learning to respect one self, and others, and gain appreciation of everyone's beauty that is a reflection of where we come from.
- Understand that we all have creation stories where we come from
- Learn about the relationships we have with the animals
- Learn that water is sacred, water is life, and that water was here at the beginning of time

Activities:

Local guest speaker/Elder who is knowledgeable about the topic

Field trip Sharing time with other preschools: Visit Songhees Preschool: The Mink and the Salmon (visit the other preschool or have the children come to the preschool)

Share art forms that tell a story

Theme Two: Language, Water and Spirituality

Circle Sharing: What is the word for water in your language?

Guest speaker: Elders talking about what water means in the Coast Salish language

Learning outcomes:

- Understanding the healing and cleansing use of water,
- Understanding the importance of prayer, ceremony and ritual in our daily lives
- Recognition of importance of protocol, local laws, that local indigenous laws protect water and sacred sites
- Understanding the link of water, the natural world and spirituality
- Understanding that water cleanses and heals our bodies, our spirit
- Recognizing the beauty and uniqueness of ourselves as individuals, community members
- Building self-esteem and respect for self and for others
- Understand the importance of all 4 elements to life: Water, Earth, Air and Fire (balance)
- Also talk about water safety: respect the water, respect the sea

Activities:

1. Ask the caregiver to prepare for this lesson by bringing to the group anything they can find out about water and their own background in preparation for a sharing time of children's experience with playing in water.
2. Snowflake creation: Each child and caregiver make a cut-out snowflake that shows how we are all unique, beautiful and special
3. Field trip with Elders: go to the beach, Goldstream or lake
4. Talk on water safety

Theme Three: Water and Cultural Activities:

Circle Sharing time: Discussion about personal experiences with water.

Learning outcomes:

- Affirm the principle of sharing
- Demonstrate an understanding of the interconnections we sharing with the natural world.

Suggested cultural activities:

(Note - these activities are springing from the author's experience. The parents and caregivers will be asked for their input of cultural experiences that they wish to share with their children)

1. Tell Thunderbird story from Cowichan, highlighting the importance of sharing.
2. Invite a dance group to sing and dance a paddle song.
3. Invite the Rainbow Drum Group to perform (or create one of our own).
4. For cultural art, present a slide show from resource person.
5. The creation of water art: children create watercolour painting about water. Ask children to paint a beautiful picture of water.
6. Creation of art about peace.
 - A mosaic can be created that shows each child's vision of peace.
 - A blanket can be sown that includes everyone's vision. This promotes the values of cooperation, sharing, honouring everyone's input (respect).
7. Weaving workshop with family (with wool or cedar) from resource people.
8. Making a drum or a mandela and then painting it with family member with resource person.

9. Take the children and caregivers to Tseycum to take a traditional canoe ride, and hear songs and stories from that part of the world, while experiencing being on the water.

This education framework endeavours to reflect community strength. Like water, this reflection is one of community spirituality. By community input to the design, planning, development, implementation and evaluation of their own curriculum, there will be a true ownership of the education by the families involved. It will also be culturally relevant, because it not only honours the local protocols, but it brings together language and cultural principles that belong to the families who are sharing, learning and teaching their children. It is the author's hope that this style of learning will encourage the deep respect of water and life through the learning experienced by the whole family.

Appendix E:

My Experiences with Water Conferences

This section summarizes my experiences and communications with conferences on water and spirituality. These conferences were important venues for learning and networking, and were relevant to the area of study, and they taught me about the connections of water. They also highlight the importance of indigenous participation at these venues. Indigenous participation is essential in future decision-making about the world's water.

Coastal Zone Canada 2000

At the Coastal Zone Canada 2000 conference, held in Victoria, BC, Canada, the under-representation of First Nations was a stark reality. The entry fee for the conference was over \$400, which eliminates the participation of lower income people and maintains the status quo of the elite. The majority of participants were from an academic, industrial/business or government background. There were 5 participants coming from an indigenous perspective.

The World Water Forums

The 2nd World Water Forum was held in Belgium (March 20, 2000). Douglas Nakashima was the rapporteur on a session on "Water and Indigenous peoples". Perhaps this session was addressing the absence of participation of Indigenous peoples in the development of a "World Water Vision" for the year 2025. The presenters in this forum are from the following nations: Aboriginal (Australia), Cree (Canada), Fijian (Fiji), Hopi (USA), Ibaloi-Igorot (Philippines), Karen, Thai (Thailand) and San (Namibia/Botswana): Tjama Napanangka and Joan Nagomara described how water, in the Great Sandy Desert of Australia, secret/sacred sites are often associated with water sources. Aboriginal understandings of the bio-physical, spiritual and mythical dimensions of their country are learned through song, story and paintings. Tjukurrpa or Dreamtime, a space-time where ancestors create the landscape and its water sources, providing living proof of their eternal presence.

A member of the Karen tribe, (Thai) Joni Odochao shared about their relationship with the environment. The Karen ensure that vital water sources are protected and conserved, by respecting the spirit of nature and protection of forests, which has been disrupted by *development*. It can be restored through indigenous participation and knowledge.

Milika Naqasima talked about the cultural importance of water in the Pacific Islands, the techniques and challenges of water management. Bathing in the sea and using coconut oil enables fresh water to be conserved.

In South Africa, the San (Bushmen) are dispossessed of traditional lands and resources. First, by sharing water knowledge, the San have helped outsiders who have then depleted the land's resources. And second, by introducing modern technology for boreholes, governments have *developed* the land for settlement and thus contributed further to the San's loss of homeland (Nakashima, 2000). Traditional knowledge that is shared with governments and those outside the culture who misused it, is an experience endured by many Indigenous peoples (Harry, 2002).

Joji Cariño, an Ibaloi-Igorot and Commissioner, World Commission on Dams, emphasized that large-scale water projects frequently target indigenous lands. Indigenous communities stress that developers must recognize customary water and land uses, respect indigenous rights and obtain prior informed consent before proceeding with large-scale water development projects. Chayan Vaddhanaphuti, spoke of Thai villagers living along the Mun river whose way of life has been

completely disrupted by a hydropower dam built in 1989. Besides the trauma of resettlement, the Pak Mun dam blocked fish migrations and destroyed fish habitats, eliminating the principal means of livelihood for thousands of villagers. Marie Roué (Cree) analyzes the diametrically opposed visions of nature held by indigenous Cree and government officials. Whereas the Cree valued the First Rapids as a traditional gathering place, abounding with fish, the developers envisioned this place as an ideal dam site, that could convert otherwise *wasted* water flow into *useful* megawatts. Finally, Vernon Masayesva recounted how in Hopi and Navajo territories, springs have gone dry and water levels in wells have dramatically dropped. The excessive exploitation of the aquifer by a coal company operating a coal slurry line is at the heart of the problem. The session closed with a CD-ROM presentation by Barbara Glowczewski that dealt with water in Walpiri Aboriginal cosmology and society (Nakashima, 2000).

Participants stressed that, having examined the Forum documents, it is clear that indigenous/tribal peoples, their unique systems of values, knowledge and practices have been overlooked in the Global Water Vision process. *It was concluded that there is an urgent need to correct the imbalance of mainstream-thinking by actively integrating indigenous women and men in the subsequent phases starting with the Framework for Action.*

“This is a recurrent problem for Indigenous peoples who are often constrained to deal with vital issues on terms dictated by others. Many shared their experience of how their people’s traditional knowledge was seen as inferior in the current political, legal, scientific system and therefore their arguments are time and again discarded by courts and other institutions. A number of other important issues raised in the discussion have been noted directly in the following actions.” (Nakashima, 2000)

Even with these recommendations coming from the 2nd World Water Forum, there continued to be under-representation at the subsequent 3rd World Water Forum.

- Strong measures should be taken to allow indigenous/tribal peoples to participate and share more actively their specific experience, knowledge and concerns in the Global Water Vision and Framework for Action.
- Governments should recognize that large-scale water development projects target too often the lands of indigenous/tribal peoples, as the latter occupy so-called *marginal* environments, which are favoured for large-scale development.
- Governments must recognize the significant contribution of customary tenure systems to water/land conservation and must expand their valuation of water and other resources, beyond the material and economic, to also encompass the spiritual and sacred.
- Watershed management should be based on women and men’s participation at the community level, as well as their local knowledge and spiritual/cultural relations with water. To ensure that environmental management is effective, governments must provide equitable rights of access to local resource users, such as through *community forest laws* (e.g., in Southeast Asia) and similar legal arrangements.
- Large dams should no longer be built as they lead to massive disruption of ecological and social systems. Small dams and reservoirs, designed and managed with the participation of local people, represent a more equitable and sustainable solution.
- The present process of participation in development is rather one of incorporation and co-optation: this needs to be rectified by requiring developers to obtain at a minimum the prior informed consent of indigenous communities.
- Where indigenous communities/landowners provide their prior informed consent for development, it is recommended that compensation be provided through their involvement as shareholders in commercial enterprises, and/or provision of royalties and meaningful employment (as opposed to single lump sum settlements).
- International declarations and conventions on human rights and Indigenous peoples should be adhered to. In the case of the San of southern Africa access has been lost to their traditional hunting and foraging lands and subsistence resources of water. This is contrary to the conclusions of the UN Commission on Human Rights special “Committee on the

Elimination of Racial Discrimination” (1998). Governments in southern Africa are urged to follow the UN recommendations on indigenous rights and to develop positive initiatives to promote indigenous rights and to support NGOs working to this end. The assistance of the United Nations may also be valuable in this respect.

- International organizations, governments and NGOs should promote and facilitate exchanges between Indigenous peoples to share understandings of water problems and their solutions. NGOs, in particular, should help in finding partners and experts to assure the transfer of appropriate technology (e.g., water pumps, windmills, sanitation/purification systems) to indigenous communities in need. (Nakashima, 2000).

Further research should be done to determine the *implementation* of these recommendations and those formulated by Indigenous peoples at the 3rd World water Forum.

The World Peace Summit (2000)

During the World Peace Summit held in New York, in 2000, I was sent the following emailed letter from Shanna MacLean, and for me, it holds important lessons about water and spirituality. The following letter also demonstrates how the sharing of experience is an important form of indigenous education:

So many images, so many new friends, so much love and hope. The echoes of the prayers in the General Assembly were so easy to meditate with and be in prayer with or ride into the cosmos with. I spent most of eight hours with my eyes closed listening for the melodious sounds of the different chants, songs, prayers, and dedications.

Each of you is familiar with U shaped General Assembly Hall. Imagine saffron robes, Tibetan monk orange and cranberry, orange robes, Sufi hats, Sikh turbans, Muslim black robes, Catholic priests and cardinals with their red or magenta undergarments, the black hoods of the Greek Orthodox, Korean shamans with black peaked hats, beautiful Eagle bonnets of Native Americans, the colourful blue and red sacred clothes of the reindeer people of Northern Sweden, East Indian saris shimmering everywhere, white robes, purple robes of African priests, the large high, white bonnets of the Russian orthodox church, the gray robes of Japanese shinto priests, the painted robes of African shamans, feather headdresses from Brazil and Central America, Anglican collars, and many other pleasures greeting your eyes every where you looked in the Hall. It was extraordinary. In fact, it was so unusual that in addition to listening to each other, by the second day, everyone was having their picture taken with everyone else in the hallways between presentations. When Kofi Annan stood up, we gave him a standing ovation for inviting the spiritual communities to be part of the UN community in terms of support.

When Bawa asked the assembled community from the podium, “Clap if you are willing to be a supportive force for the United Nations and the creation of peace on our planet?”, a thunderous clapping happened again. Kofi Annan was visibly moved and had to wipe tears from his checks as they rolled down. As the support continued to be expressed into the walls of this hallowed chamber (walls which had been reverberating with prayers all day), tears continued to flow. It was very touching.

One of my many responsibilities has been to be with the 65 indigenous delegates. They are each precious to me. To say we are understaffed, is an understatement, with less than 50 people to serve the needs of 2200, many of whom are used to being the center of adoring attention and carefully planned details for taking care of them. We’ve all worn 5-6 different hats during the past three days.

Late in the day yesterday (we were running 3 hours late) it was their turn to present to the halls of the UN. Oren Lyons called for all the Indigenous to stand together as he spoke. The 87 year old elder with his Eagle bonnet, Joe Medicine, had been wanting to welcome the people to Turtle Island at every venue, finally got a chance. He sang a beautiful welcoming song. Then Oren spoke the most moving words about the importance of our time followed by an Eskimo, Angaangaq Lyberth, from Greenland saying,

“About 10 years ago now, one of my people came back to our village and reported a strange phenomena. ‘There is a trickle of water coming down the glacier. I think that the ice is melting.’ Today that trickle is a stream of water. So I say to you, while we sit here talking, and making commitments to peace, *remember the ice is melting...the ice is melting. But this ice is easy to melt compared to the ice in the human heart, so I am going to sing a song for that, a song to melt the ice of the human heart.*”

Standing there in clothing made from 3 different types of sealskins and a simple leather string around his forehead, he took out a large sealskin drum and began to play a haunting and deep call to inner integrity. When he finished, he whispered once again, “*Remember the ice is melting.*” After a moment of stunned silence, those who had listened to this remarkable presentation with 65 Indigenous people(s) standing in support behind them broke into thunderous clapping again.

Later, when I talked with Oren to the bus, a saffron-colored robed monk came to Oren and said, “You (meaning all of the people) have been Moses for this gathering; you have parted the seas and left us a path to a more beautiful future.” *The Indigenous people’s message became like water for a humanity dying of thirst.* Their panel today was standing room only with crowds being turned down at the door for over an hour. The Amazon from Brazil told of his training, did the healing song and dance for inner pain, and set out a sound from his mouth like one can only imagine being a bird or other creature in the jungle. The Ecuadorian shaman sang the song of a river and his mouth, too, recreated the sound of every river I have ever stood beside including the fish as they are jumping, the various birds, the wind, the many different water currents, and then he sang the song for healthy water. The Mayan elder presented a talk that one person told me was worth the whole four days alone. Jane Goodall sat in the back the entire time (we went over an hour because each indigenous delegation had a message to give) and had it filmed. It was/is extraordinary....well, my friends, I am quite tired as it is late and tomorrow our last day will be quite big...We are signing a beautiful document; A Commitment To Peace. And early in the morning we are having a Women’s Breakfast entitled: Women and the Birth of World Peace.

(MacLean, 2000).

This message compels us to take the responsibility of protecting the sources of water and our sources of spirituality by caring, melting the coldness of the human heart.

The Canadian Water Network

In the year of 2001, there was established Canadian Water Network. A coalition / collaboration between industry, government and academia, it holds the following Mission Statement:

The mission of the Canadian Water Network/Reseau Canadien de l’Eau (CWN-RCE) is to ensure Canada’s pre-eminent role in the management and sustainable use of water resources; to ensure the protection of human and ecosystem health; and to ensure sustainable economic growth in the water technology and services sector. (Canadian Water Network, 2001)

The network has identified these “Strategic Business Objectives”:

- To substantially and progressively the leverage ratio of Partner Funding to NCE funding over the 7 year period.
- To grow the network, particularly in areas that are less extensively represented at present.
- To effectively merge the business and academic cultures for mutual benefit.
- To contribute effectively to national policy deliberations and regulatory development
- To develop and increase the market for highly qualified personnel
- To act as a seed for other networks.

There is a discussion on consultation, with not one word about Indigenous peoples’ participation. The identifies themes for research are: Policy and Governance, Water Resource Management, Drinking Water and Health, Public Health, Waste Water Management, Infrastructure, Groundwater and Sediment, Protection and Remediation. The team leaders appear to be academics from universities across Canada. There is no aboriginal participation (yet) in this discourse.

With over half of the world’s lakes and river now polluted, we face a crisis for our very survival. We will need to work together, as Elder Beardy has said. The challenge for the upcoming generation of aboriginal peoples is to apply our teachings to the present day. Education of traditional teachings about water will be key. Coordinators for water forums and conferences need education about the importance of indigenous participation at these forums. For example, the Canadian catholic Organization for Development and Peace sent 9 delegates to the peoples’ World Water Forum. One Elder proposed that this organization should be invited to sponsor an equal number of indigenous participants to participate in upcoming water forums, those who are knowledgeable about water.

Once again, it is through the language and cultural practices about water that will convey the values and principles necessary for the survival of the planet. It is about indigenous education of language and culture by and for Indigenous peoples being adequately supported with appropriate resources; once this is achieved, the sharing of traditional knowledge about water can assist the world in a regaining of balance.

Third World Water Forum

Kyoto, Japan hosted the 3rd World Water Forum, on March 16-23, 2003. The coordination of the indigenous session was managed by the Center for the Respect of Life and Environment, Wageningen University, and Tebtebba. David Groenfeldt, the coordinator for the Center for Respect for Life and Environment, requested my assistance in gaining participation at the forum of the traditional Indigenous peoples that I have had the privilege to work with. With funding available for only 20 to 30 indigenous representatives, this was an improvement from the first World Water Forum, but it is a long way from equitable participation and input of Indigenous peoples. It is for this reason that the next World Water Forum should ensure that a parallel Indigenous Water Forum takes place, and that funding be made available for Indigenous peoples, in the thousands. There needs to be equitability built into the structure of the World Water Forum, with an indigenous planning committee, so that the recommendations that are made have meaningful input from traditional peoples, and are not determined only by state and corporate interests. Indigenous peoples are not stakeholders: Indigenous peoples hold the keys to real sustainable practices.

I will next briefly discuss some of the local situation of water in Victoria, BC, and some of the indigenous initiative, in which Coast Salish people are implementing their own traditional sustainable practices:

In Victoria, BC, many of the decisions affecting water are made at the local level. There are municipal councils that govern the watersheds. As a result, the tiny lake, which I live beside, has a *water steward* who is a local resident, and an interest in the water. The British Columbia Lake

Stewardship Society (BCLSS) “is a registered, charitable, non-profit organization that was formed in 1997 due to public concern and a need for grassroots network to deal with lake issues. The B.C. Lake Stewardship Society is pleased to announce a new three-year program: the B.C. Lake Stewardship and Monitoring Program. The Ministry of Water, Land and Air Protection is a major project partner and has contributed financially to the project, as has B.C. Gaming and Environment Canada through their Science Horizon and Youth Internship Program. This 2 1/2 day program offered education about water quality monitoring to any interested community member. When contacted, the BCLSS Project Manager, Heidi Bennett appeared very open to traditional indigenous curriculum contributions, as well as training First Nations in water quality testing. The BCLSS is a branch of the larger North American Lake Stewardship Society.

The Environmental Law Centre in at the University of Victoria interacts with a myriad of “community stakeholders, partners and players.” The mandate is evidently to get as much local community participation in decision making, with little interaction with First Nations. In other parts of this thesis, however, I have discussed the partnership the T’Sou-ke people have forged with local, provincial and federal governments. Chief Vern Jack, of the Tseycum Band, Saanich, of the Coast Salish Nation, has long been a protector of water. With his community, set up water guardianship, with the support of the Department of Fisheries and Oceans. The support of the federal government, like many other instances, is committed to 6 months of support.

Manitoba has its unique set of challenges with water. The Pimicikimak Cree have endured a legacy of destruction from hydro-electric power generation, as described by Chief John Miswagon, in this presentation called “Only Beavers Should Build Dams.”