Neebee Miseew aa Aiispitaskimka chaastchee aa Kiniwaptoomk /
Water Ethics: Exploring Cree youth's relationship with water in Eeyou Istchee

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ABSTRACT

Neebee Miseew aa Aiispitaskimka chaastchee aa Kiniwaptoomk /
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This study explores the question '*What characterizes the relationship that Cree youth in Eeyou Istchee (Eastern James Bay, Northern Quebec) have with water?'* The research process followed an *ecosystem approach* as well as a *case study methodology,* and was guided by the principles of *Indigenous methodologies.* Methods included my participation in Cree youth activities related to water, a canoe expedition, and conducting semi-structured interviews and video elicitation exercises with 17 Cree youth aged 15 to 24 from the community of Wemindji. Five adults working with youth and/or with water in the community were also interviewed. Findings show that the relationship Cree youth have with water is rooted in a complex web of influences coming from a hybrid-narrative of cultural references from both traditional Cree codes and Western institutions, infrastructures and technologies. Notably, the rapid change resulting from colonial history and residential school impacts has influenced the interactions Cree youth have with the natural world, including with water. The findings point to the following seven key dimensions that shape their relationship with water: physical interactions with water; Cree culture; Western-laden institutions; technology and indoor comforts; contemporary youth culture; the pan-Indigenous movement; and perceptions related to Cree youth. The discussion presents the concept of an integrative water ethic, applied to Cree youth. With adequate supports that address challenges of lost stories, splitting and disengagement by nurturing cultural pride and positive self-identity for Cree youth, their integrative water ethics could contribute to the development of a more sustainable mainstream water ethic in Canada.

Keywords: water ethics, Indigenous youth, Crees of Eeyou Istchee / Eastern James Bay Cree

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Dedication

"The youth should be our first concern
Someday they will be in our place
People may think they don't care
But deep down inside they do
They care about their parents, the community and each other
They need our understanding
of how things are for them
Living in these days is tough for them
They don't have much to turn to
With nothing to do and no one to talk to
is it any wonder they drink and do drugs?
It's their way of reaching out
its their way of dealing with pain
its their way of getting attention
are we listening to them?
They may not take an interest in our meetings
Afraid no one will listen
Still we can't afford to wait any longer
For things will only get worse, not better
so, let us help them see, let us help them learn
to see their lives and futures as a better one
a future full of hopes and dreams and peace
for the youth are our greatest gift"

-Anonymous; Poem read at the Wemindji
Youth General Assembly; March 9th, 2015.

I dedicate this thesis to the water that flows through
the youth of current, past, and future generations.

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CHAPTER 1 - Introduction

1.1 Introduction to thesis topic

Given the context of global threatened water quality and access as well as the context of political and intercultural tensions related to water (Barlow, 2013; Chamberlain, 2008; Desbiens, 2007; Linton, 2010), questions such as the following are beginning to attract greater attention:

- How do we value water?
- How do different human societies think of and care for water?
- What role do rights and responsibilities related to water have within our cultural policies?
- Whose access to water should be privileged, and on what criteria?
- Do cultural narratives support ideas that humans are a part *from* nature or a part *of* it? More specifically, do they encourage us to think of our human bodies (which are 70% composed of water (NASA, 2007)), as being a part of (or a part from) the global water cycle?
- Is it morally acceptable to dam rivers?
- Should bodies of waters have legal rights? Should rivers have the right to run free?

Reflections on such questions are shaped by our worldviews and cultural narratives related to water. However in the majority of cultures, when it comes to water, "[w]e have no systematic way to think about its value" (Brown & Schmidt, 2010, p. 3).

The development of a systematic way to think about the value of water is complex but recognized as necessary because research and knowledge creation related to the human relationship with water can reveal insight into the foundational values and conceptual frameworks that guide water governance and that shape our relationship with water. Furthermore, in the words of American Water Ethicist David Groenfeldt (2013), "The reason to explore our water ethics is to discover new ways of framing our problems and creative ways of addressing those challenges" (p. 10). The emerging study of Water Ethics will be defined and discussed in *Section 2: Literature Review* and following sections. Exploring a group's water ethics can furthermore guide us to discover new ways of thinking about the complexities and underlying assumptions of the human relationship with water.

In this thesis, I explore ideas and practices related to the human relationship with water by examining how people understand water as well as the unquestioned assumptions related to water that people hold. Furthermore, I study the foundational values and ethical frameworks upon which our thoughts and actions related to water are based.

Youth in particular are interesting allies in the endeavour of exploring the human relationship with water. It is generally during the youth period when the human brain defines personal and collective outlooks on life - and let's keep in mind that the brain is 73% water! (US Geological Survey, 2015).

Over the past decade, youth programs related to water have increased in popularity in Canada, making the study of how youth relate to water interesting. Youth are commonly viewed as being the future leaders of society so learning more about their relationship with water now can provide insight into potential future trends of water leadership, water policies and water practices.

A gap in the literature related to water ethics is that there is little reference to actual case studies in Canadian contexts, particularly related to youth and/or Indigenous Peoples. Through my research, I address this niche by working with youth from the Cree Nation of Wemindji in Eeyou Istchee (Eastern James Bay, Northern Quebec).

Questions that are relevant to this research include the following:

- How do Indigenous youth today hold water ethics similar to those of their ancestors?
- What factors have contributed to the longevity of the traditional water ethic and/or to its weakening or demise?
- How has the Cree water ethic changed over time?
- What realities are unique to Cree youth?

These queries stand as underlying currents that have inspired this research; I state them here to provide framing and situate my inquiry. The specific research question that guides this study is: '*What characterizes the relationship that Cree youth in Eeyou Istchee have with water?'*

Due to the interdisciplinary nature of this work, I bring together knowledge from various disciplines including:

- Applied Human Sciences;
- Geography;
- Anthropology;
- Philosophy;
- Education; and
- Environmental Studies.

This allows me to present a convergence of multiple interdependent subject matters related to exploring the human relationship with water. *Concordia University's Individualized Program* has allowed me to include inspiration from multiple fields of knowledge.

I begin this thesis with a review of the literature, highlighting knowledge related to the field of water ethics with a specific focus on: the dominant Western water ethic, the need for a new water ethic, and the role that Indigenous water ethics can play. Furthermore I summarize literature related to youth development and apply how their water ethics might develop in terms of their cultural ways of knowing and education, and then introduce the notion of *integrative knowledge* (CWN, 2014). Following is an explanation of my approach and methodology as guided by an *ecosystem approach* (Sharpe, 2011), applying a *case study methodology* (Johansson, 2003; Yin, 2009) while considering *Indigenous methodologies* (Hart, 2007; Kovach, 2010; Smith, 1999; Wilson, 2008). I then present the case study, familiarizing the reader with context specifically related to the Crees of Eeyou Istchee (Cree People in the region of Eastern James Bay, Northern Quebec), as well as by presenting the findings that have emerged from my research related to the reality of Cree youth and how it applies to their relationship with water. I describe my research activities which include participating in a canoe and snowshoe expedition with youth in addition to spending time at their local Youth Centre and briefly working at the community pool and school. In *Section 6: Discussion,* I elaborate on some of the findings and how they relate to concepts presented in *Section 2: Literature Review,* I present considerations related to engaging Cree youth in water protection, and I propose future research ideas.

1.2 Personal introduction

Before diving into this thesis, I feel it important to briefly situate myself, a practice encouraged by many Indigenous methodologies (Cole, 2006; Ferrara, 2004; Smith, 1999; Wilson, 2008). Doing so, as a researcher, I can explain how my previous paths have brought me here, and share my personal inspiration for doing this work. I am a white woman of Euro-descent and I can trace my roots back to ancestors that settled in Canada seven generations ago coming from Scotland, Ireland, Germany, England and France. However I feel little affiliation with these backgrounds and subsequently self-identify as Canadian of distant European descent. I have been extremely fortunate to have grown up with a supportive family who has fostered an appreciation for being active and appreciating the outdoor environment. My childhood summers were spent in, on, and by water at my family cottage on Chandos Lake in the Kawartha Lakes Watershed (in Ontario) in the Atlantic Drainage Basin. To access the cottage for winter weekends we walked through snow (a form of water!) pulling our luggage and belongings in sleds, by foot or skidoo, for over a kilometre

as we did not have winter road access. We also had to melt ice and snow for water use indoors. I credit much of my appreciation for water from these cottage experiences throughout my youth where our interactions with water involved processes requiring effort, in addition to common feelings of connection with water, satisfaction and pleasure.

In situating my fascination with water, my interest in it runs deep. In grade school I focused my annual science fair projects on the physical properties of water and later on human uses of water. In high school, I was drawn to learn about different religious significances related to water, "the blood of the earth". Throughout my undergraduate degree, in McGill University's Environment and Development stream, I became concerned with issues of water pollution and conservation. During my professional career, it was water justice that made me think more critically about our interactions with water, and from attending several environmental conferences, I developed an interest in water policy and governance.

1.3 Statement of purpose

Reflections on where I would like to direct my life's work make me realize that it is our water ethics (which will be defined and explained in the *Literature Review*) that is at the core of the subjects that drive my passions. A common prediction I've heard lately at conferences is that the next world war will be fought over water resources, and I therefore understand this as an alarm for the dire need to better understand our human relationships with water.

In 2012, I brought a group of Canadian youth to the Rio+20 Earth Summit (formally known as the United Nations Conference on Sustainable Development), in Rio de Janeiro, Brazil (while working for Canada World Youth). Being there I witnessed a widespread and shared international concern for the world's water, specifically related to water policy and water management/governance. Both at the United Nation's conference as well as the parallel People's Summit, water was a priority; there was a distinguished "Water Day at Rio + 20" at the main conference, and a "Blue Pavilion" at the Peoples' Summit. Interestingly, what impacted me the most from both conference sites, from both the formal negotiations and informal discussions, was the array of drastically different viewpoints held by individuals from various cultures and lifestyles regarding water practices, water policies, water management, and water governance. Everyone displayed concern for water wellbeing; however the challenge lay (and continues to lie) in the fact that the global human population harbours a multiplicity of perspectives on what water is, on its value on our human relationship with it, and about how it should be cared for. Even within the group of Canadian conference youth delegates I was supervising I observed a wide diversity of viewpoints related to

water, despite their similar socio-cultural backgrounds and age demographic. I also noticed a common denominator among delegates which was a very anthropocentric perspective.

Perspectives related to water are not only rooted in unique personal experiences and cultural narratives, but also in systems of water politics centred on human wellbeing. Who, and which paradigms, dominate water discourses and decisions and whose needs are prioritized is an important factor in analysing discourses and decisions related to water. I understood that the effects of such political influences on people contributes to the construction of our individual relationships with water, and that together, the ways in which we systematically organize ourselves contribute to our collective relationships with water.

Considering the challenges of inter-cultural conflicts related to water, water pollution, water rerouting, water justice, and threatened water access, my purpose in doing this work is to contribute to the larger exploration of what we must do to advance the ability to identify and define our relationship(s) with water. From the book *The Journey of the Universe*, we are told that "In the midst of these formidable challenges we are being called to the next stage of evolutionary history. This requires a change of consciousness and values – and expansion of our world views and ethics" (Tucker & Swimme, 2011, p. 61). My purpose in doing this research is to contribute to our understanding of the complexities of the human relationship with water and to increase our capacity to evolve our collective consciousness to one that leads to greater sustainability and resilience of all life on Earth.

More specifically, in creating such knowledge, I strive to offer further insight into the foundational values and paradigms that guide personal and collective water practices and policies. Groenfeldt (2012) calls for the development of tools for analysing ethics and using ethics as a framework for understanding knowledge. I hope that my research related to Indigenous knowledge and Indigenous water ethics can contribute to creating a step in the evolution of developing such tools. In this work I have kept in mind the following;

> ...indigenous knowledge about water is not readily reducible to descriptions by researchers, but needs to be derived directly from indigenous "wisdom keepers" (Armstrong, 2006). What outside researchers can contribute, however, is an interpretation of the significance and cultural meaning of this Indigenous knowledge. Together, these two types of new water knowledge can contribute to a broader understanding of water management from an ethical

> perspective, and to a deeper understanding of particular water ethics within a cultural context. (Groenfeldt, 2013, p. 168)

Ultimately, such knowledge can contribute to understanding water ethics within different cultural contexts and then hopefully contribute to defining frameworks for water governance and water cooperation in local, national and international arenas. Above all, the underlying purpose of my research is to act as a catalyst and a guide for new ways of understanding how we understand water and for inspiring new ways of protecting the source that keeps all life alive.

1.4 The use of terms

Eeyou Istchee / Eastern James Bay Cree: The Cree People in Northern Quebec, in the region of Eastern James Bay use the term 'Eeyou Istchee' to refer to themselves; the term includes the land and also themselves as people of the land. Throughout this thesis I will therefore refer to these Cree People as the 'Crees of Eeyou Istchee', with the exception of quoted texts from elsewhere that use the term 'Eastern James Bay Cree'.

Indigenous / Aboriginal / Native / Native American / Indian: I have chosen to use the term Indigenous to identify Peoples and populations who self-identify as First Nations, First Peoples, Inuit, Metis, Aboriginal, Native, Indian and/or similar cultural descriptors. Throughout this thesis there are quoted phrases that use the terms 'Native Americans', 'Indians', etc. which I employ as equivalent terms (despite some being considered less appropriate in today's literature and discourse). I have chosen to consistently capitalize the term 'Indigenous' although there are some quotes I have included where the word is not capitalized. In efforts to not generalize all Indigenous Peoples and in efforts to acknowledge characteristics unique to the Cree people with whom I worked, when referring specifically to the Cree People of Eeyou Istchee I use the term Crees of Eeyou Istchee, or sometimes simply Cree (which should not be mistaken with Plains Cree, Woods Cree, Moose Cree, or other Cree groups in Canada). When referring specifically to the Cree People in the community of Wemindji, I specify the Cree Nation of Wemindji.

Water ethics / water worldviews: Although in lay person's terms we could use the term *water worldview*, in academia the predominant term is water ethics and I will therefore use it throughout this thesis.

Western: I use the term 'Western' to depict cultures descending from European roots, commonly the white people of the world and the dominant population (and ethic) in Canada. This term could be synonymous with Euro-descending.

Western worldviews and ethics: Western worldviews and ethics are those common to Western tradition and cultures, descending from European roots, as per the literature.

Youth: The definition of youth is complex in the sense that it is often not associated with an age category but rather oftentimes defined by socio-cultural factors (Beatty & Chalk, 2006; Helve & Holm, 2005). For example, an interpretation could be the stage of life in which one is no longer a child or teenager (so legally considered an adult in societies that have declared 18 years of age as an adult) yet the individual remains dependent on parents, guardians, or other supporters for financial security. However, for the sake of this research I use the definition of youth as set out by the United Nations' Youth Report (United Nations, 2011) which categorizes youth as being the age demographic of individuals between the ages of 15 and 24.

CHAPTER 2 - Literature Review

In this *Literature Review* I present existing knowledge related to water ethics, related to youth, and related to Indigenous Peoples, and also how these subject areas intersect. I discuss the context in which youth find themselves in today's world and apply it to their relationship with water. Relevant cultural context is provided to frame the lives of Indigenous youth including the intergenerational impacts of the legacies of colonialism and residential schools in Canada. The information on the field of water ethics defines relevant terms and presents theory related to this emerging subject area. Particular attention is put on describing the dominant Western water ethic in Canada as well as on explaining why it is unsustainable. I subsequently present the call for a new water ethic and discuss why leading academics and activists promote that holders of the dominant water ethic, learn from the collective water ethic of Indigenous Peoples. Finally I introduce integrative knowledge (CWN, 2014) and describe how it is relevant to the call for a new dominant water ethic.

As an interdisciplinary thesis, the weaving of topics is integral to demonstrate the relationships that exist between the different fields related to this work. Hence there is some back and forth in the presentation of ideas in order to illustrate their braided nature and how similar topics build upon one another, such as ethics, ways of knowing, and knowledge.

2.1 Indigenous youth water ethics

2.1.1 Context

Canadian Water Ethicists Sandford and Phare (2011) state that "In the simplest of terms, an ethic can be defined as a set of moral principles concerning human conduct in the context of our relationships with one another and with the rest of the world" (p. 3). Water Ethics relates to these moral principles that guide our conduct and relationship specifically with water. A water ethic is thus formally defined as "a normative framework guiding actions that affect water" (Brown & Schmidt, 2010, p.4) as well as "the way a community or an individual views water usage, allocation, and existence" (West, 2007, p. 202).

When exploring water ethics, it is first important to note the biophysical intimacy of the human relationship with water, especially when taking into account that our bodies are approximately 70 percent composed of water (NASA, 2007). Considering that in today's time approximately 121 million people around the world turn 16 every year (Ortiz & Cummins, 2012), vast amounts of water are sequestered in, and passed through, youth bodies worldwide. Consequently, the

biophysical relationship that youth have with water is significant. Furthermore, bearing in mind that it is the water ethics of today's youth that will act as the underlying water ethics that guide the world's decision makers for decades to come, the current psycho-ethical-social relationships that youth have with water is particularly relevant.

The youth phase in one's life is a time of socialisation (Hayes, 1998) and one which is pivotal to the development of their ethical frameworks. It is during this period when personal and social development is heightened (Beatty & Chalk, 2006; Cieslik & Simpson, 2013; Helve & Holm, 2005; Li, 2009) and when their ethics, particularly water ethics in this case, are important. For today's youth, this integrated ethical, personal, and social development is happening amidst a context of *wicked problems*[1] (Rittel & Webber, 1973; Bastien & Holmarsdottir, 2015), in which floods are increasing, precipitation is less predictable than previous times in history, and droughts are escalating in certain areas of the world. Climate change and sustainability, rapidly growing technologies and political dynamics play significant roles in youth culture. Such context is interconnected with "…contemporary shifts in youth culture, [which] echo broader sociocultural movements; in this case, globalization and, connectedly, proliferation of media [which] have been linked to increased hybridity and fragmentation of youth culture" (Bennett & Kahn-Harris, 2004, p. 2). This point of "increased hybridity and fragmentation of youth culture" and its wider context are significant when analyzing conditions in which youth are developing their present day water ethics; it will be discussed further throughout this thesis. Specific to water and youth, "The world faces severe and growing challenges in maintaining water quality and in meeting the rapidly growing demand for water resources. As the present young people will be playing central roles in the future, the importance of understanding their views and paving way for their participation is of utmost importance" (Araya & Kabakian, 2004).

A significant element of the socialization period for youth that influences their water ethics includes the consideration that it is "a transitional stage which involves the passive reception of adult culture" (Hayes, 1998, p. 52). For many Indigenous youth, specifically the socialisation process and passive reception of adult culture includes elements of *historical trauma* (Heart, 2003; Garrett

[1] The term "*wicked problems*" is featured in a cutting edge book entitled "*Growing Up Global",* In *"Youth 'At the Margins': Critical Perspectives and Experiences of Engaging Youth in Research Worldwide"* in which the current wicked problems include "urbanization, poverty, poor health, social exclusion and inequity, radicalization of youth, violence, civil war, and un- and under-employment" (Bastien & Holmarsdottir, 2015, p. 2)... Furthermore, they explain that these *"wicked problems"* need to be considered when working with and thinking about youth, "with emphasis on the need to move towards transdisciplinarity and systems thinking in order to adequately engage with and tackle the global challenges currently facing youth and impacting youth transitions" (Bastien & Holmarsdottir, 2015, p. 2).

et al., 2014). These impacts of intergenerational trauma on Indigenous communities linger (Duran & Duran, 1995; Garrett et al., 2014) and have resulted from the cultural genocide efforts of Canadian colonialism, residential school policies and practices, and assimilation efforts by drivers of dominant systems and structures such as Western education (Garrett et al., 2013). As per the *Truth and Reconciliation Commission* (2015);

> Cultural genocide is the destruction of those structures and practices that allow the group to continue as a group. States that engage in cultural genocide set out to destroy the political and social institutions of the targeted group. Land is seized, and populations are forcibly transferred and their movement is restricted. Languages are banned. Spiritual leaders are persecuted, spiritual practices are forbidden, and objects of spiritual value are confiscated and destroyed. And, most significantly to the issue at hand, families are disrupted to prevent the transmission of cultural values and identity from one generation to the next. In its dealing with Aboriginal people, Canada did all these things. (p. 1)

Indigenous youth are therefore oftentimes inheriting a heavy and complex *colonial mentality* which "relates to a mental state that blocks the viability of Native values and beliefs and assumes the values, goals, and perspectives of Euro-Canadian society" (Ferrara, 2004, p. 39). In effect, according to Ferrara, an Art Therapist and Healer who works with Cree youth, what oftentimes results is a situation where these youth find themselves in a conceptual labyrinth with navigational tools that are different from the traditional ethical frameworks of their previous generations, and some theorists believe the ethical frameworks to be less intact. Frequently colonial mentality is accompanied by a sense of conflicted relationships – conflicted relationships between Indigenous youth and the dominant mainstream, between Indigenous youth and their own culture, and within themselves as individuals related to their own identities and value systems.

Related to identity and value systems today, common to many youth around the world is a growing illusion of separation from the non-human natural world (Hutchins, 2014; Plumwood, 2000; Wilson, 1984). The question of human - environment relations and whether a group of people consider themselves being *a part of* nature or *a part from* nature, is an interesting one among today's youth (Louv, 2008; Ray, 2005). In addressing this question, context is crucial. Specifically for Indigenous youth, the context consists of influences that are significantly different from those of their ancestors, such as increasing presence of, and interactions with, technological inventions and infrastructures from Western culture. However there appears to be a gap in the literature with respects to how Indigenous youth relate to nature in terms of quantity and quality of exposure to

being immersed in natural environments, and additionally, with respects to how their sense of identity corresponds to being a part of or a part from nature.

For the majority of youth world-wide, their contemporary context includes having technology at their fingertips (like easy access to internet and mobile smart phones), being continually bombarded with powerful mass media influences, and being raised in systems influenced by globalisation, consumer capitalism, expansion of international trade, and economic and political pressures (Cieslik & Simpson, 2013; Helve & Holm, 2005). Additionally, many youth are gravitating towards urban centres due to trends of urbanization, educational opportunities, and/or job market demands, and are therefore spending less time outdoors. In effect many youth are developing a sort of *Nature Deficit Disorder* (Louv, 2008) which distances them from nature including from natural sources of water. This poses questions that do not seem to be addressed in the literature related to Indigenous youth and the time they spend outdoors immersed in natural settings versus time indoors surrounded by more permanent infrastructures, commercialized market systems, and indoor conveniences.

When a person is physically and socially distanced from something, such as water and the natural world, it is much less likely that they will have a relationship with it or will view themselves as being a part of it. Explained by Ray (2005), “the closer I am to the object of my moral obligation – or, more accurately, the more intimately connected that I sense I am to the Other – the more likely I am to engage in right behaviour toward it” (p. 162). The current trend of youth being distanced (in the case of the natural world and water) from the object(s) of their moral obligations contributes to the attestation that, as per Writer and Environmentalist Wendall Berry (in Louv, 2008), “[o]ur children no longer learn how to read the great book of Nature from their own direct experience or how to interact creatively with seasonal transformations of the planet. They seldom learn where their water comes from or where it goes” (p. 113). Such phenomena, particularly the lack of experiential environmental knowledge, acts as an obstacle in the development of youths’ identity to recognize themselves as being closely linked with bodies of water such as rivers, lakes, precipitation, etc. (Sachatello-Sawyer & Cohn, 2005). It remains unaddressed in the literature of whether or not such phenomena has an impact on the individual and collective water ethics of today’s youth, specifically Indigenous youth.

It should be noted here that although increasing numbers of youth are living with Nature Deficit Disorder which perpetrate the illusion of separation from the natural environment (Hutchins, 2014; Plumwood, 2000; Wilson, 1984), many youth are simultaneously learning more about

environmental issues. The current generation of *digital natives* (Rudi, 2012) is surrounded by messages related to climate change, natural disasters, species decline, hydraulic system geo-engineering, food and water shortages, etc. They are told that they are living in a pivotal time, a time where terms such as *intergenerational crime* (Generation Squeeze, n.d.) and *the tipping point* (IPCC, 2014) give them messages that previous generations have left them with jeopardized futures. Youth are receiving messages such as "Environmental issues, which affect youth livelihood prospects and health through access to resources such as water are, for example, one of the most critical global challenges of our time, something that also threatens our cultural heritage (UN, 1987) and will profoundly affect future generations" (Bastien & Holmarsdottir, 2015).

Furthermore, youth are learning that it is their responsibility to clean up these wicked problems and that it is their duty to 'save the world' and/or 'save humanity'. In the words of Karl Eric Knudsson, "It is not enough just to save the children. We have to prepare them to save US" (IICRD, 2014, p.23). Such messages bring with them a call for an ethic that includes responsibility (McGregor, 2014). A question not addressed in the literature is that of whether or not some of the high levels of anxiety among Indigenous youth (Garrett et al, 2014; Williams, 2013), relate to the responsibilities they might feel towards caring for the natural world and also the possible feeling of not being equipped to adequately do so.

Although the literature does not cover the issue of youth possibly feeling inadequate to 'save the world', it does address the question as raised by adult academics. Specifically, some academics wonder if youth have or lack the capabilities to address the wicked problems. "The fear is that... we may have a generation of youth who not only have a 'one dimensional' way of living but are also ill-equipped to deal with the challenges they face in a world threatened with climate change, conflict and economic uncertainties" (Cieslik & Simpson, 2013, p. xviii). Furthermore,

> The concern is that the values and morals of young people have been corrupted so that a disproportionate worth is attributed to income and consumption rather than those activities beyond consumerist and commodified relationships... consumer culture socialises young people into a materialistic way of life where notions of success and wellbeing are understood in terms of acquisitive individualism... This is a view that echoes Marx's critique of capitalism where he argues individuals become distracted by the lure of things and in the process become alienated from the social relationships and one's 'essence' that are the basis of a richer, more enduring wellbeing (Marx, 1984)." (Cieslik & Simpson, 2013, p. 166)

This begs the question of whether youth and their corresponding water ethics are in fact equipped to address issues related to water, or not. As per a Sioux Elder (in Sachatello-Sawyer & Cohn, 2005), “A way needs to be found to make young people want to learn the importance of water, before it is too late and our information is lost forever” (p.1).

The academic literature presented thus far provides a general idea of thinking related to water ethics, youth, and Indigenous youth, however literature bringing together the topics and thus exploring the water ethics of Indigenous youth remains minimal. One researcher who addresses the combination of topics is Deborah McGregor (2014; 2009; 2005; McGregor & Whitaker, 2001) who writes about Indigenous Peoples, sometimes specific to Indigenous youth, and water policy and governance. It is relevant to note that McGregor is Indigenous herself and approaches water-related subjects while situating herself in her Anishanaabe culture and academic profession. The principal writers in the field of Water Ethics (Armstrong, 2009; Brown & Schmidt, 2010; Feldman, 1995; Groenfeldt, 2013a, 2013b, 2012, 2010; Jennings, Heltne & Kintzele, 2009; Postel, 2010; Sandford & Phare, 2011; West, 2007) are descendants of European Western culture which invites questions related to water ethics and the worldviews from which these individuals are writing from.

The literature related to water ethics in general remains in its infancy stage and discourse on the subject of water ethics remains for the most part in academic circles (Sandford & Phare, 2011). One reason for this, in the Canadian context, is that:

> Most Canadians have no idea of the water ethic they have consciously or unconsciously subscribed to over the past century – if any – and fewer still have realized the need for creating a different one. Most Canadians don’t know where they are coming from with respect to water, and therefore do not know where we are going. If we want to manage water sustainably, that has to change. (p. 5-6)

Given that today’s youth will be the water conservationists and water governors of the future, the exploration of water ethics held by youth today is particularly relevant to understanding future patterns and predictions related to humanity’s relationship with water (Araya & Kabakian, 2004). Ultimately, a better understanding of the water ethics held by different groups of society, including youth, could provide insight into informing and improving sustainable water practices and policies (Brown & Schmidt, 2010; Feldman, 1995; Gruenewald, 2003; Postel, 2010; Sandford & Phare, 2011). Considering this research focuses on Indigenous youth, and that there is a call from Water Ethicists for holders of the mainstream Western water ethic to learn from holders of Indigenous

water ethics (Sandford & Phare, 2011), a call which is discussed further in *Section 2.4.1: The need for a new water ethic*, it is relevant to understand the roots of traditional Indigenous water ethics.

2.1.2 Relations to Indigenous knowledge.

Understanding Indigenous youth water ethics can be enhanced by understanding the basis of generalized traditional Indigenous ethics and traditional Indigenous knowledge, both which are rooted in conceptual frameworks different from those of the dominant Western systems, structures and paradigms (Bartlett, Marshall & Marshall, 2012; Groenfeldt, 2013a; Marshall & Bartlett, 2010; McGregor, 2009; Sandford & Phare, 2011; Wilson, 2001).[2]

It is important to acknowledge and appreciate the unique characteristics of individual Indigenous Peoples and Nations and to not group all Indigenous identities as one. While remaining mindful of this, there are broadly accepted characteristics considered common to Indigenous Peoples worldwide (Stocek, 2013; Callicott, 1989). As Indigenous scholar Little Bear (2000) states, "there is enough similarity among North American Indian philosophies to apply concepts generally" (p. 79). Specific to water, "research has shown that there are many similarities in the views of Indigenous peoples with respect to water in Canada" (McGregor, 2012, p. 494). According to Turnbull (2000), central to Indigenous ontology is the acknowledgement that humans *are* the land and water, and that the land and water is sacred and guides meaning and accountability. Similarly, Gregory (1994) explains that:

> It is also the breath, along with water and thought, that connects all living things in direct relationship. The interrelationship of water, thought (wind), and breath personifies the elemental relationship emanating from "that place that the Indians talk about", that place of the Center where all things are created. (p. 41)

Specifically in Canada, Indigenous Peoples share a common root of knowledge defined as "a distinct system of knowledge with its own philosophical and value base... It includes ecological teachings, medical knowledge, common attitudes towards Mother Earth and the Circle of Life, and a sense of kinship with all creatures" (Royal Commission on Aboriginal Peoples, 1996, p. 526-527).

[2] As a note to the reader, in this sub-chapter I have chosen to include several long quotes rather than consistently paraphrase in efforts to portray the essence of the generalized Indigenous water ethic from Indigenous Peoples themselves. In doing so I strive to, where possible, reduce my filtered interpretations that are based on my own prior knowledge, feelings, and institutions (as per Bishop's (1998) insights).

Therefore Indigenous cultures are recognized as having an ethic that is intimately related to the natural world and grounded in a relationship of gratitude and respect for the land (Bartlett, Marshall & Marshall, 2012), reciprocity (Berkes, 2012), responsibility (Mandamin, 2012; McGregor, 2014), and holism and the recognition that all things are connected (McGregor, 2009; McGregor, 2014).

> ...humans share the breath of life with other living things, we exist within and are affected by the mutually reciprocal web of interrelationships in a natural community, plants, animals, and other natural phenomena and entities are imbued with power, the natural world creates through the interplay of opposite yet complementary primal energies, and there exists a guiding creative force in Nature that affects everything. (Cajete, 1994, p. 90)

From the descriptions of Indigenous water ethics, we can deduct that *relationality* (Wilson, 2008) is a significant and underlying characteristic of Indigenous ways of knowing and is relevant when exploring the relationship Indigenous Peoples have with water. Relationality determines our relationships and how we relate to things and ideas and how we situate them relative to one other, and water is understood as being in a united relationship with the land, and so oftentimes when Indigenous people refer to the land it inherently includes the water.[3] The characteristics described above related to the relationship that many Indigenous Peoples have with the land are therefore transferable to the relationship they have with water, as reflected in their collective water ethic. Notably, as McGregor (2014) describes, "First Nations are not simply concerned about water, but have specific responsibilities to protect water" (p. 501), and have a "holistic understanding of water" (p. 499).

The following *Indigenous Peoples' Kyoto Declaration on Water* (which is referenced as the land-marking document on Indigenous Peoples and Water)[4] written by a global alliance of Indigenous Peoples for the *Third World Water Forum* in 2003 depicts well the collective global Indigenous water ethic:

1. We, the Indigenous Peoples from all parts of the world assembled here, reaffirm our relationship to Mother Earth and responsibility to future generations to raise our voices in

[3] For this reason, at many points in this thesis and throughout this research it is/was challenging to speak and think about water as something a part from the land. However, while recognizing the interdependency with land, I do recognize water has unique traits to it and can be spoken about separately. Although this is an idea I wish to reflect on further in future works.

[4] Relevant to this thesis and its focus on Indigenous youth, I searched both academic and grey literature for water declarations specifically from Indigenous youth and was unable to find examples.

solidarity to speak for the protection of water. We were placed in a sacred manner on this earth, each in our own sacred and traditional lands and territories to care for all of creation and to care for water.

2. We recognize, honor and respect water as sacred and sustains all life. Our traditional knowledge, laws and ways of life teach us to be responsible in caring for this sacred gift that connects all life.
3. Our relationship with our lands, territories and water is the fundamental physical cultural and spiritual basis for our existence. This relationship to our Mother Earth requires us to conserve our freshwaters and oceans for the survival of present and future generations...Water is not only an aspect of Indigenous spirituality but a very major component of that spiritual world. Water, whether as a substance, or in the form of water bodies (rivers, lakes) and meteorological phenomena (rain, snow, fog, clouds), are seen through a spiritual - not an economic - lens. (Groenfeldt, 2003, p. 6)

This declaration highlights several pertinent points related to water including responsibility, honour, respect, relationships, cultural and spiritual significance, and sacredness. McGregor (2014) explains that with knowledge comes responsibility and provides an explanation of the characteristics that contribute to the water ethic of Indigenous Peoples:

> The ethic of responsibility to water reflects the notion that water is understood as a living force which must be protected and nurtured; it is not a commodity to be bought and sold. Water, according to First Nations peoples, has cleansing and purifying powers. It is the giver of life with which babies are born. It is imperative in our traditions to keep the water clean so it can continue to fulfil its purpose. Perhaps the most telling expression of First Nations views on water is that, without exception, Elders, TK [Traditional Knowledge] holders and practitioners involved in the policy research stated that water *is* life. Elders did not state merely that water is closely associated with life, or that it is part of life, but rather that water is life itself. (p. 501)

Additionally, for some Indigenous people, water is considered a relation or a relative of humans (Groenfeldt, 2013a; Lavalley, 2006; Restoule, Gruner & Metatawabin, 2013) and has a personality; “the water, they have feelings too... They are always there to provide for you; what do you give back...? It gets upset too, it gets hurt just like the animals” (Elder Mary Louis in Blackstock, 2001, p.6). McGregor (2009) explains that water, like humans, has responsibilities towards Mother Earth and that humans should not meddle with water’s efforts to fulfil these responsibilities. Water is

characterized as the 'lifeblood' of the Earth, being alive and often fills the claim that 'water is life'. In fact in 2014, Indigenous representatives in Ontario hosted a workshop with provincial and federal government representatives entitled *Water Is Life: Traditional Ecological Knowledge to discuss various strategies to work collaboratively to protect water* (McGregor, 2014).

For some groups of Indigenous Peoples water is important for its healing powers. As explained by Mary Thomas, a Secwepemc Elder from BC (in Blackstock, 2001);

> ...when we're weighted down with a lot of grief, your life is becoming unmanageable, or you're going through a lot of pain, the first thing our grandmother and my aunt and my mother would say, "go to the water." Water is powerful and yet it can be so gentle. (p. 4)

Responsibility, honour and respect can be seen in the following examples. Many Indigenous Creation stories begin with the Earth completely composed of water, therefore water being credited as the "primal substance" (Blackstock, 2011) and deserving of honour. In 2011, Indigenous Chiefs of Ontario hosted a workshop entitled *Honouring the Water: Indigenous Water Forum to explore how concepts of responsibilities, rights and jurisdiction can be realized throughout the Great Lakes Basin* (Chiefs of Ontario, 2011). Josephine Mandamin (2012), an Ojibwa Elder known as 'Grandmother Water Walker', has walked around the five Great Lakes and along the St. Lawrence River carrying water in efforts to promote respect and care for water and to raise awareness about Indigenous ethics related to water. She states that the evolution of our relationship with water is one of "raising political consciousness" where "everybody in the whole wide world will know that the water has to be treated with dignity, with respect" (video).

Such thinking is congruent with that of the Crees of Eeyou Istchee who insist that their ethical foundations must be considered when negotiating water management and water policy. In a document written to the Quebec government, they express that their ethical foundations are rooted in deep respect for complex relationships; they acknowledge that humans are a part of the environment, and they recognize the integral and interdependent natures of the environment's different parts.

> The indivisible, interdependent and interrelated nature of our human rights complements and reinforces our perspective of the integrity of the environment and resources of *Eeyou Istchee* [the land and the people]. The environment and its resources and ecosystems - of which we are a part - are also integral and interdependent in nature. These complex

> relationships must be respected and preserved in any new water policy for *Eeyou Istchee.* (Grand Council of the Crees, 1999, p. 34)

Recognizing interdependency and interconnectedness allows Indigenous water ethics to acknowledge that if harm is done to water it consequently results in harm to all life forms including humans; caring for water is therefore in effect also caring for humans and other life forms (McGregor, 2009). Furthermore,

> Indigenous communities are linked to their local waters in a symbiotic relationship; indigenous culture and spirituality depends upon the health of the water and watershed, while the environmental health of the water depends on the spiritual practices of the indigenous communities. (Groenfeldt, 2013a, p. 138)

Although Indigenous Peoples worldwide have expressed unity to be recognized as a collective Indigenous culture, it should also be noted here that there are distinct socio-political-environmental contexts related to each nation or community. Indigenous nations are each unique, and furthermore, considering that water ethics are not static, it is important to acknowledge that Indigenous worldviews are transforming rapidly and are, in the cases of many nations, less rooted in traditional ethics and are increasingly influenced by more dominant Western ways (Groenfeldt, 2003; McGregor, 2014; Sachatello-Sawyer & Cohn, 2005). Particularly among youth, Western influences and colonial mentality (Alfred, 1999; Ferrara, 2004) sway traditional Indigenous water ethics in many cases to adopt characteristics of dominant mainstream ways of thinking and behaving.

Given the context of rapidly growing natural resource development, Groenfeldt (2003) explains that, “[i]nternal debates revolving around development options nonetheless often reflect economic considerations promoted by the outside dominant society” (p. 1). Subsequently, “[c]enturies of decision making based on this contrasting worldview have dramatically changed the relationships between First Nations peoples and water” (McGregor, 2014, p. 496). Again, youth are oftentimes the demographic most experiencing ‘this contrasting worldview’ in effect creating a sort of hybrid or integrative worldview.

2.1.3 Youth phase as opportunities and threats.

In this section, I first review literature related to youth in general, and then related more specifically to Indigenous youth.

The nature of the youth period in life is characterized by rapid change and transition, thereby causing theorists to consider the youth stage as a period of "both social being and social becoming: as a position in movement" (Christiansen et al., 2006, p. 11). It is generally during the youth period of 'becoming' where an individual's water ethic goes through a developmental process more intense than other periods of life; for it is during the youth phase when individuals form their pre-adult identities and corresponding ethical frameworks. While 'socially becoming', youth engage in journeys of exploration related to different ways of being and thinking and creating their personal ethical codes. Beatty and Chalk (2006) explain that it is therefore a stage when youth are susceptible to influences around them because:

> Complex pathways emerge within the adolescent brain for evaluating situations, reacting to them emotionally, and assessing possible reactions. The strength and speed of the neural connections that govern these functions are shaped by genetic traits, by experience, by social context, and by learned emotions. For adolescents these pathways are developing. (p. 8)

Furthermore, they specify that these developing pathways are further fostered by "interactions among brain structures, hormonal changes, other biological and behavioral impulses, and the contextual settings that surround and engage young people" (p. ix). Due to this intensity and complexity of interactions within and around youth, this time in life was understood as one of 'storm and stress' and vulnerability (Erickson, 1968; Cieslik & Simpson, 2013). Furthermore, "[d]ue to dramatic developmental changes and growing psychological needs for autonomy and independence, the passage of adolescence is challenging and stormy under normative conditions" (Li, 2009, p. 479). This idea of youth being synonymous with 'stormy' originates theoretically from Hall who, through a Darwinian framework, "developed his recapitulation theory proposing that adolescence was a stage of savagery, a period of 'Strum and Drang' (storm and stress)" (Helve & Holm, 2005, p. 5).

The myriad of stress on youth may correlate with the increased diagnosis of mental health issues among youth, for "[m]ental health is increasingly recognized as an issue of global importance given that it influences social and economic outcomes across the lifespan" (Bastien & Holmarsdottir, 2015, p. 3). Impacts are resulting in "high rates of accidents, suicide, homicide, depression, substance abuse, eating disorders, violence, risky sexual behavior, and reckless behaviors...among young people" (Beatty & Chalk, 2006, p. 15).

Youth are impressionable from the “passive reception of adult culture” (Hayes, 1998, p. 52), however, traditional practices and ideas related to family, community, and working have changed. Such changes have affected the social norms and expectations that compose the contexts in which youth development occurs (Beatty & Chalk, 2006; Cieslik & Simpson, 2013). Contrary to previous generations, the family may now play a less dominant role in influencing the youth’s sense of self and moral/ethical conduct than it did in previous generations; in current times, mainstream media and online activities are viewed as growing in significance as powerful influences in shaping youth’s identities and moralities. Additionally, considering that online activities are predominant in youth culture, it is important to note that online activities have encouraged isolation (Rosen, 2007). Cieslik and Simpson (2013) elaborate by stating that, “[s]tudies have also shown how the supposed anonymity and security of online interaction can promote the disclosure of personal information and involvement in risky behaviours that lead to vulnerability and exploitation” (p. 156). Accordingly, they describe the risk associated with online activity which is merged with stresses of “[l]ong-term social change linked to globalisation – such as de-traditionalisation, individualisation, de-politicisation and the growth in instrumental rationality” (p. 42) and youth are therefore referred to as living in a *risk society and reflexive modernity*.

Within these emerging contexts youth today are adopting what are thought of as ‘personal narratives’ or ‘choice biographies’ rather than ‘collective narratives’ or ‘normal biographies’ (Cieslik & Simpson, 2013, p. 42). In other words, youth today are more commonly navigating their lives in which they can choose their personal paths rather than following pre-structured paths determined by the traditions of their parents’ culture(s). The transition from child to adult is less structured than in previous generations and instead has become more fluid. Such foundational changes have allowed youth more freedom while also simultaneously opening them up to unique challenges and risks.

Considering the context surrounding today’s youth, specifically the freedoms and risks of globalization, consumerism and neo-liberalism, “[t]he main tendency in current sociological theories of youth is… an increase in critical approaches that take to task the negative effects of globalization, capitalism, patriarchy and racism, as interrelated phenomena” (Helve & Holm, 2005, p. 10). When considering the relationship that youth have with the natural world, and specifically with water (although these relationships have not yet received much attention in the literature), these contexts are noteworthy.

Bearing these aforementioned challenges in mind, I also acknowledge the positive impacts of technological advancements and globalization for youth in today's world with respects to water. The ability to communicate and collaborate with wider networks around the world is creating a youth movement more equipped than previous generations to share information and knowledge as well as to work together on larger-scale issues. In global forums, acknowledging youth involvement has become a significant determinant, for example, *Local Agenda 21*[5] underlines the importance of youth involvement in the progress of sustainable development efforts (ICLEI, 1996), a commitment that was reaffirmed at the most recent 2012 Rio+20 Earth Summit (Rio+20 - United Nations Conference on Sustainable Development, 2012). Several youth organizations have used this framework to increase youth capacity and agency, for example, the organization Learning for a Sustainable Future has produced a *Canadian Youth Action Guide for Agenda 21* which reiterates the significant role of youth as agents of change for social and environmental justice, in addition to the significance of Indigenous youth (UNESCO, 2001).

Specific to dealing with global water issues, it has been acknowledged that, "young people bring a fresh perspective. This fresh perspective is required to deal creatively with water issues" (van der Helm, 2003, p. 267). An example of an international organization existing to harvest these fresh perspectives is that of the Young Water Action Team (YWAT), The YWAT exists in over 33 countries, comprised of youth between the ages of 18 and 25 involved in water-related work from scientific-based to grassroots to both government and non-governmental organizations. "The deeply committed membership, which works on a volunteer basis to achieve a sustainable water future, gives hope that, indeed, the youth are a strong unit capable of playing a significant role in solving the world's water problems" (Araya & Kabakian, 2004, p. 608).

A specific demographic of youth whose challenging realities are generally amplified even further include Indigenous youth. Not only are Indigenous youth exposed to the contexts described above, but they also commonly have cultural traditions that offer ways of knowing and ways of being, that are significantly different from the dominant mainstream Western-settler society as described in *Section 2.1.2: Relations to Indigenous knowledge*. For many Indigenous people, while navigating within the dissimilarity of cultures, it is frequently the Western dominant culture that trumps over Indigenous culture and reinforces colonial mentality (Alfred, 1999; Ferrara, 2004). In effect, what oftentimes results for Indigenous youth is that they find themselves in a conceptual labyrinth where

[5] Local Agenda 21 was created at the 1992 Earth Summit (The United Nations Conference on Sustainable Development) to act as a roadmap to guide humanity towards sustainable development, and international political leaders. Including youth in planning processes was deemed crucial to the sustainability of our common future.

traditional conceptual frameworks are suppressed leaving them vulnerable to their bi-cultural hybrid reality and dominant Western forces.

Furthermore, the dominant Western culture in Canada, which generally moves at rapid rates driven by forces of globalization, consumerism and neo-liberal capitalism (McGregor, 2014), increases feelings of puzzlement for Indigenous youth and can cultivate conflicted relationships. Impacts can include relationships that are no longer rooted as strongly in their traditional well-defined practices as they were for generations before them (Ferrara, 2004). For many Cree youth their sense of self is destabilized because their “newer” Euro-Canadian identity is not grounded in a set of well-defined practices” (p. 45). Conflicted relationships can therefore arise between Indigenous youth within themselves related to their own identities and value systems, between Indigenous youth and their own culture, and between Indigenous youth and the dominant mainstream.

Consequently, common to many Indigenous people, particularly youth who are struggling with conflicting worldviews, is the phenomena of *splitting*. To understand splitting, "imagine two ways of thinking and to hold both in our minds at once" (Yeoman, 2012, p. 43). In effect, splitting can create new ways of knowing and new realities which can open Indigenous youth up to both opportunities and threats. Sometimes by holding two ways of thinking in our minds at once, an individual can involuntarily exclude aspects of their cultural paradigm(s). Consequently this can cut the thought patterns from significant relationality and context. In other words, by mentally and emotionally juggling two ways of thinking in our minds at once we can sever links from important influences that form our understanding of the world, like from the natural world in the case of some Indigenous youth in some circumstances for example. As a result, splitting can contribute to new ideas, innovations, inspiration and excitement. Alternatively, splitting can contribute to conditions for doubt, lack of trust, and anxiety (Williams, 2013) and thereby contribute to alienation, social unease, school dropouts, and illness, which are struggles common to Indigenous people (Heart, 2003; Garrett et al, 2014; Ferarra, 2004; Scharper, 2013).

An analogy that has been applied to the phenomena being experienced by many Indigenous Peoples, including Indigenous youth, due to impacts of residential schools and colonialism is that of *hoquotist* (Mack, 2010). Hoquotist is a word and concept from the Nuu-chah-nulth people, the Indigenous group of people living on the Northwest coast of Vancouver Island in British Columbia that describes the state of a person after falling out of a canoe when they remain unsettled in the water with an overturned boat. Author Johnny Mack states that, “Hoquotist as a metaphor captures

our disoriented state more eloquently and precisely than any English word I know" (p. 295) and involves recognizing cultural disruption and disorientation.

The concept of hoquotist has more specifically been used to describe the disconnection from the deeper significance of cultural legends and codes, whereby, as described by Mack (2010), "our stories are still with us, but they are not in working order… we have become disconnected from the perceptual orientation and responsibilities that flowed from those stories" (p. 295). This disorientation and disconnection is believed to lead to what Little Bear (2000) describes as "fragmentary worldviews" and/or "jagged worldviews" (p. 84). He explains that:

> By force, terror, and educational policy, it [colonization] attempted to destroy the Aboriginal worldview – but it failed. Instead, colonization left a heritage of jagged worldviews among Indigenous peoples. They no longer had an Aboriginal worldview, nor did they adopt a Eurocentric worldview. (Little Bear, 2000, p. 84)

Smith (1999) testifies that, "we [Indigenous Peoples] constantly collide with dominant views… This means struggling to make sense of our own world while also attempting to transform what counts as important in the world of the powerful" (p. 40). What results is "Their consciousness became a random puzzle, a jigsaw puzzle that each person has to attempt to understand" (Little Bear, 2000, p. 84).

For some Indigenous youth, efforts to understand and/or navigate this puzzle, whether conscious or subconscious efforts, can lead to serious challenges, termed by some as *historical trauma responses* (Heart, 2003). Garrett et al. (2014) explain that, "[t]he constellation of features in reaction to this trauma that may include substance abuse (a vehicle for numbing the pain associated with trauma), and other types of self-destructive behavior, suicidal thoughts and gestures, depression, anxiety, low self-esteem, anger, and difficulty recognizing and expressing emotions" (p. 477). Furthermore, due to these heavy, challenging, and multifaceted contexts, Indigenous youth tend to be more susceptible than youth of other ethnicities to "substance abuse, suicide, accidental death, violence, and mental health problems" (p. 471).

Colonialism must be reiterated again here as being largely responsible for the manifestation of these responses. Consequently, in communities and social structures affected by colonialism, Indigenous youth experience difficulties understanding that they could be agents of change (Goulet et al., 2009). Considering youth capacities in the contexts of their traditional cultural ways as well

as within contemporary Western culture, questions arise related to the need for healing processes, cultural reappropriation and pride, as well as capacity building. To address these areas, activists and scholars are advocating for *decolonialization* efforts (Smith, 1999; Stocek, 2013, Wilson, 2008). A concrete step made towards decolonization by the Canadian government recently was the Truth and Reconciliation Commission (2015) which existed to raise awareness related to the impacts of residential schools, in addition to promote and foster reconciliation and healing actions. The executive summary of the report states that in reference to the impacts of residential schools;

> Although Aboriginal peoples and cultures have been badly damaged, they continue to exist. Aboriginal people have refused to surrender their identity… The Survivors acted with courage and determination. We should do no less. It is time to commit to a process of reconciliation. By establishing a new and respectful relationship, we restore what must be restored, repair what must be repaired, and return what must be returned. (p. 6)

The *Idle No More*[6] movement (Butler, 2014; Graveline, 2012; Wotherspoon & Hansen, 2013) has also brought much attention to the challenges faced by Indigenous people, specifically youth in communities like Attawapiskat (Western James Bay, Ontario) and has also created opportunities for Indigenous Peoples and their allies across Canada to join forces in organizing, capacity building, and practicing acts of reconciliation. The movement offers Indigenous youth an example of their collective pan-Indigenous culture working together to develop allies, networks, systems, and cultural pride.

In addition to Idle No More, Indigenous-led actions include numerous environmental justice actions covered in mainstream news such as the Cree Youth Walk Against Uranium Mining (CBC News, 2014) and songs and speeches from Ta'Kaiya Blaney, a young member of Tla A'min Nation known for her powerful songs and speeches promoting environmental and Indigenous rights (Hagan, 2015). In many communities youth are making efforts to learn and/or practice their traditional languages; “As an aboriginal youth of this generation, we’re saying culture, language has to be on the forefront of our approach to exercising our rights, the healing that needs to happen” (Murphy, 2015, n.p.).

[6] *Idle No More* has been described as “a recent protest movement initiated to draw attention to concerns by Indigenous people and allies about changes in Canada's environment and economic policies” (Wotherspoon & Hansen, 2013). Actions began in late 2012 and have included teach-ins, walks, hunger strikes, rallies, social media campaigns, requests to meet with government officials, and policy recommendations.

Again not covered in academic literature but present in the grey literature and crucial to this study is the subject of contemporary role models for Indigenous youth. These role models, movements, and actions can influence Indigenous youth development related to the relationships they develop with themselves, with their culture, with others, and with the world around them. In an article about Indigenous youth activism in *The Guardian*, a 26-year old Squamish Indigenous artist and educator is quoted stating that "our people [are] starting to feel proud of ourselves again and becoming more visible and becoming stronger and becoming more active" (Murphy, 2015, n.p.). In the words of Jim Warne, professional football player;

> I think it's good for Indian kids to have Indian role models, because they have that identification… I think it helps to have some folks from your own culture out they're doing things that we can look up to. (Harwood, 2014, n.p.)

In the grey literature there are many news sources, blogs, and social media outlets that are laden with examples of Indigenous youth role models in music, sports, and activism. For example, within the music industry there are many Indigenous youth artists winning awards and being recognized for their talent (Aboriginal Music Manitoba, 2016; Turtle Island Native Network, 2015). To name a few of many: Samian, a 32-year old[7] Algonquin and French rapper, known for his socio-political lyrics; Ali Fontaine, a 21-year old Anishinaabe singer/songwriter from Sagkeeng First Nation who has earned Best New Artist and Best Country CD at the 2011 Aboriginal Peoples Choice Music Awards; Drezus (also known as Jeremiah Manitopyes), a 33-year old Plains Cree- Saulteaux man and hip-hop rapper who won Indigenous Entertainer of the Year at the 2015 Indigenous Music Awards; Kelly Fraser, a 21-year-old young woman from Sanikiluaq, Nunavut known for her pop music and for covering well-known English pop songs (like Rihanna's "Diamonds") in Inuktitut Taimantitut; and Classic Roots (also known as Joshua Deperry), a 28-year old young man won Best Pop album at the 2015 Indigenous Music Awards.

Grey literature coverage on a few of many professional Indigenous athletes (Joseph, 2014) includes: Carey Price, a 28-year old member of the Ulkatcho First Nation and professional hockey goalie; Jesse Cockney, a 26-year old Inuvialuk young man and Olympic cross country skier; Spencer O'Brien, a 28-year old young woman of Haida/Kwakwakw'wakw ancestry and Olympic snowboarder; Mark Vincent Perkins, a 34-year old Métis man and professional baseball pitcher; Mary Spencer, a 31-year old member of the Cape Croker First Nation and Olympic boxer; and Cody Jamieson, a 28-year old Iroquois man and professional lacrosse player.

[7] All ages listed here are as of May 25, 2016.

These abovementioned role models and examples of socio-enviro-political actions can stand as inspiration for Indigenous youth whose collective culture is experiencing a sort of hybrid Indigenous-Western culture.

In relation to water specifically, as introduced in *Section 2.1.2: Relations to Indigenous knowledge*, the relationship that Indigenous Peoples have with water has drastically changed through time. Given the changing lifestyles, people rely less directly on water for means of transportation (like canoeing) and rather interact with it via less direct channels (like receiving it through pipes in their homes). What was once a more holistic and sustainable relationship with water is now a relationship grown out of different influences and contexts. As explained by McGregor (2014), "[t]he context for realizing relationships and responsibilities with water that have ensured sustainability for generations has changed dramatically" (p. 496). For example, "In some cases, due to ongoing contamination of the waters in Canada, some First Nations people have even come to fear water, as it is no longer the source of health and life that it once was" (p. 496).

Having a relationship of fear rather than one of appreciation and respect for water has very different dynamics and manifestations of how people interact with water. Fear may scare people aware from wanting to learn about something as well as recognizing reciprocal intimate connections and responsibilities. How we know water contributes to shaping our water ethics. The following section relates to cultural ways of knowing to provide framing for the cultural influences that contribute to water ethics held by an individual or a group of people.

2.2 Foundations of water ethics

2.2.1 Rooted in cultural ways of knowing

A person or group's water ethic depends on how they know water, and how we know water is based on our ingrained ways of knowing. Ludwik Fleck's theory of *thought styles* examines the underlying assumptions "for understanding different knowledge claims, for making informed evaluations of knowledge, and for integrating knowledge" (Bartlett, Marshall & Marshall, 2012, p.337). Theodore Roszak similarly writes about *master ideas* (Ray, 2005) which he explains are "too true to warrant discussion... This kind of information... is never made explicit [and] furnishes the stable background on which more coherent meanings are based" (Douglas, 1975, p. 4 as cited in Ray, 2005, p. 160). Passed through culture, these ideas mold our thinking and compose the

foundations of our reasoning and unquestioned assumptions; generally we remain unaware of these ideas as they are so implicit in our conceptual frameworks. Little Bear (2000) phrases it that;

> Every society has many deep-rooted and implicit assumptions about what life and reality are all about. These assumptions are the guidelines for interpreting laws, rules, customs, and actions. It is deep-rooted and implicit assumptions upon which attitudes are based and that make a person say "This is the way it is." It is these assumptions that make it hard for a person to appreciate an alternative way of thinking and behaving." (p. 82-83)

Thought styles and master ideas are related to water ethics as they contribute to shaping the conceptual frameworks in which a person or group's values and ethics are formed, and act as the reasoning and set of moral principles for how we ought to be in this world. The youth period in one's life is particularly relevant, as it is when reasoning (and therefore thought styles and master ideas) are largely developed. For example, "[b]oth Plato and his student Aristotle framed adolescence as extending between the ages of fourteen and twenty-one and both also felt it was the stage in life 'in which the capacity for reason first developed' (Arnett, 2009: 5)" (Cieslik & Simpson, 2013, p. 45).

Turnbull (2000) guides us to question our presuppositions and to question the origin of certain ideas that we accept without realizing and/or without scrutinizing. Learning the ways of another culture can act as a catalyst to become conscious of our own unquestioned norms. Such an approach can work two ways in the sense that learning about another culture's way of knowing can help us better understand our own, and also, becoming more aware of our own can increase our ability to understand others.

Underlying assumptions in the dominant Western ways of knowing are generally rooted in Western scientific thought, rationality, and the search for empirical proof (which is understood to be truth). Systems are believed to be composed of parts, and Western science practices dissecting the parts in efforts to analyze how they work together. Generally, knowledge is created though data collection, and model and theory creation (Marshall & Bartlett, 2010). Specific to the values in Western ways of knowing, "One can summarize the value system of Western Europeans as being linear and singular, static, and objective" (Little Bear, 2000, p. 82).

Western ways of knowing tend to value independence over dependence in terms of understanding one's role in the world (Ray, 2005) and "...they [individuals engaged in modernist thinking who use

increasingly use rational methods for problem solving] come to see themselves, not their community, as the source of moral authority" (p. 162). Interestingly, in Western culture, thought styles and master ideas related to morality and ethical frameworks are not necessarily embedded in one's collective culture; "John Livingstone argues that 'conventional moral philosophy and ethics are... prosthetic devices'" (p. 168) implying that we can don them when appropriate and we can also remove them from our reasoning when convenient. In other words, Western Scientific ways of knowing the world and morality are not ingrained in one another but are rather separable phenomena.

The ability of Western knowledge to spread, along with its corresponding ways of knowing and master ideas, because of its expression via written word has allowed it to gain hegemonic power internationally across cultures. In effect, when knowledge moves, it builds knowledge systems; Turnbull states that "...it is having the capacity for movement that enables local knowledge to constitute part of a knowledge system" (Turnbull, 2000, p.20). Since the advent of the written word, humans have over time decreased communication with the land, for example like the practice of communicating intimately with animals. Abram (1996) describes that, "The senses that engaged or participated with this new writing found themselves locked within a discourse that had become exclusively human. Only thus, with the advent and spread of phonetic writing, did the rest of nature begin to lose its voice" (p. 138). Not hearing nature's voice has profound effects on our relationship with the natural world, distancing ourselves further from it. "...in Descartes' words, [~~that~~] humans were the 'masters and possessors of nature'" (Ray, 2005, p. 161). As 'masters and possessors of nature' we can furthermore deduct that "One important master idea that undergrids modern thought is that because the universe is impersonal and mechanistic – as opposed, principally, to something more organic and divine – it can and should be mastered and controlled for human purposes" (p. 160). Mastering and controlling nature, water in this case, for human wellbeing is rooted in an anthropocentric water ethic, contrary to more ecocentric ways of knowing and thinking common to traditional Indigenous ethics.

Traditionally, Indigenous ways of knowing are inseparable from a strong sense of respect, trust and interconnectivity with the natural world (Marshall & Bartlett, 2010) along with an implicit sense of reciprocity. For example, as related to water, "fundamental to the traditional ways of many Indigenous peoples is that the use of water by humans is governed by a relationship of mutual responsibility. Water looks after us, so we look after water" (Sandford & Phare, 2011, p. 6).

Indigenous knowledge and its thought styles are traditionally understood as not belonging to individual people but rather "seen as belonging to the cosmos of which we are a part" (Wilson, 2008, p. 38). It is characterized as being rooted in a naturalist paradigm which functions on holism and relationality (Hart, 2007; Kovach, 2010; Wilson, 2008), contrary to practices of separating parts and dividing knowledge into disciplines (Swanson, 2003).

Stories and myths are considered valid ways of learning and ways of knowing, as they are understood as gifts that offer opportunities for experiential learning. Stories and myths guide the receiver to experience insight on how to make sense of the world and our positioning within it (Ferrara, 2004). "The stories remind us that our relationships are not centred exclusively on people, but are shared among all our relations... We learn that the sun, the waters, the fish, etc., also have responsibilities to sustain life on earth. We are not to disrupt these relationships and responsibilities, our stories say, as they are essential to ensuring life continues" (McGregor, 2014, p. 495).

Morality and ethical behavior, particularly related to respect, are imbedded in traditional culture and in *relationality*, which include a sense of *relational accountability* (Wilson, 2008). For example, "Relationships and responsibilities form the basis of this understanding: it is not enough just to know; one has to "do something" or "act responsibly" in relation to the knowledge. In many respects, it is about "conduct": the way we conduct ourselves in our relationships and responsibilities" (McGregor, 2014, p. 495). Master ideas related to 'respect' are different in Indigenous cultures than in Western cultures where it tends to be a moral value. "Instead [according to Indigenous ways of knowing], it [respect] is an acknowledgement that the self is inextricably implicated in the surrounding world, be it physical or social; harming others or the environment is harming oneself" (Ferrara, 2004, p. 62).

In recent times, forces external to traditional Indigenous culture have had effects on multiple aspects of Indigenous Peoples' thinking, including these elements of relationality and respect that compose much of their traditional experiential knowledge practices and ways of knowing.

> In the past, experience and knowledge were handed down from generation to generation, providing understanding and guidance to sustain life in a profoundly respected environment. Today's Elders try to continue this tradition but, in their lifetime, they have experienced *outsiders* taking control of almost every aspect of their lives – including their children's education, their economy, lands, rivers, and the way they can hunt, trap, and use

> the animals. They see their next generation trying to deal with cross-cultural problems stemming from two very different views of the environment. Contaminants, hydroelectric utilities, roads, logging, mining, and land and wildlife management are all provoking problems that underscore the fundamental need for a renewed sense of cultural and ecological security. (McDonald, Arragutainaq, & Novalinga, 1997, p. 63)

For such reasons, Indigenous ways of knowing are now understood as involving cultural loss (Grayshield & Mihecoby, 2010; Garrett et al, 2014) and a growing loss of connection to the natural world. “The values taught in the Euro-Canadian schools contribute to alienation and the isolation of the person within his/her environment, according to the Crees” (Ferrara, 2004, p. 61). The current ways of knowing held by Indigenous Peoples are therefore complex. Little Bear (2000) explains it as:

> “…all colonial people, both the colonizer and the colonized, have shared or collected views of the world embedded in their languages, stories, or narratives. It is collective because it is shared among a family or group. However, this shared worldview is always contested, and this paradox is part of what it means to be colonized. Everyone attempts to understand these different ways of viewing the world and to make choices about how to live his or her life. No one has a pure worldview that is 100 percent Indigenous or Eurocentric; rather everyone has an integrated mind, a fluxing and ambidextrous consciousness, a precolonized consciousness that flows into a colonized consciousness and back again. It is this clash of worldviews that is at the heart of many current difficulties with effective means of social control in postcolonial North America. It is also this clash that suppresses diversity in choices and denies Aboriginal people harmony in their daily lives.” (p. 85)

Colonial dynamics are therefore a vital consideration when disussing ways of knowing, worldviews, and ethics (water ethics in this case) of Indigenous Peoples, especially among youth who are inheriting past and current forces of colonial influence and control. Reiterating Little Bear’s words, “No one has a pure worldview that is 100 percent Indigenous or Eurocentric”, it is important to remember this point when working with Indigenous Peoples, and particularly when exploring the ways of knowing and the water ethics of Cree youth and the relevant colonial influence of the dominant Western water ethics.

Building upon cultural ways of knowing and master ideas, it is also relevant to understand the conceptual roots from which the current field of water ethics has grown as described in the following section.

2.2.2 Evolution from environmental ethics.

The field of water ethics has grown out of the field of environmental ethics[8]. Environmental ethics is understood as "a discipline that systematically studies the moral relationship of human beings to and the value and moral status of the environment and other species" (Klenk & Brown, 2007, p. 61). It recognizes the concept of *biophilia* which suggests that human beings are innately linked to all other life forms and require connection with them for well-being (Wilson, 1984).

Much of the knowledge related environmental ethics corresponds with knowledge that has been evident to, and operational for, many Indigenous Peoples and their traditional Indigenous ethics (Callicott, 1989; Groenfeldt, 2013; McGregor, 2005; Sandford & Phare, 2011). Bearing this point in mind, it is imperative to note that both of the modern fields of water ethics and environmental ethics within Western knowledge have grown from a period in time when the dominant systemic ethical frameworks have lacked acknowledgement of biophilia, or of the interdependent links that humans have with natural world (Brown, 2014; Merchant, 1995; Postel, 2010). The dominant mainstream has thus inherited a sense of Cartesian dualism of Western scientific paradigm or what is more commonly referred to as an illusion of separation (Hutchins, 2014; Plumwood, 2000; Wilson, 1984) from the natural environment. This illusion of separation has consequently positioned humans conceptually at the top of a hierarchy of all life forms (Macy & Brown, 2014; Michell, 2011). In effect, "[t]he modern / industrial worldview emphasizes persons' separation from other members of the biotic community, reduces their sense of interconnectedness with them, and lessens a sense of moral obligation to them" (Ray, 2005, p. 162). The sense of moral obligation relates directly to ethics as it defines the nature of a person or group's relationship with something, in this case with water.

Furthermore, since the Industrial Revolution, the hegemonic relationship that humans have had with the earth is one where "[t]he land-relation is still strictly economic, entailing privileges but no obligations" as described by Aldo Leopold (1966, p. 239). Leopold, renowned father of the *land ethic,* the theoretical ethic foundational to the current day field of Environmental Ethics, explained that if humanity is to foster a sustainable relationship with the natural environment, we must adopt a land ethic. Such an ethic "changes the role of *Homo sapiens* from conquerors of the land-

[8] In this thesis, the term 'environmental ethics' is synonymous with 'ecological ethics'.

community [including soils, waters, plants and animals] to plain member and citizen of it" (p. 240). This distinction between conqueror and plain member / citizen is pertinent to the principle points in this thesis; the type of relationship that humans have with the larger eco-community determines the ways we think of the land and water and the respect we hold in varying degrees (including disrespect) for the elements that sustain all life. Leopold (1966) elaborates on the formerly mentioned point by stating that a transition from conqueror to plain member / citizen "implies respect for his fellow members, and also respect for the community as such" (p. 240).

Luna Leopold, who was the biological and academic son of Aldo Leopold, followed his father's school of thought, extending it even further to promote an ethic based on reverence for water. As a trained hydrologist, he explored how the land ethic could relate to water, claiming that "[t]he health of our waters is the principal measure of how we live on the land" (Meine, 2013, p. 248) and that we need to integrate a reverence for water into our water management paradigms (Barnett, 2011; Leopold, 1977). It is interesting to note that Luna Leopold was in his youth period when he began his work on river reverence; he was likely experiencing the stage of socialization (passively adopting influences from adult culture) during which he was heavily influenced by the work of his father.

In addition to the influence Aldo Leopold had on his son, it is interesting to note the impacts he has had in the field of water ethics and in literature related to water. Groenfeldt (2013) credits his book *Water Ethics: A Values Approach to Solving the Water Crisis* to both Leopolds; he writes, "The intellectual ancestry that I would like to claim for this book includes Aldo Leopold, [and] his son, Luna Leopold..." (p. 8). Later in the foundational book he uses Leopold's thinking to frame his own ideas on people working as water protection advocates stating that, "We are the people Aldo Leopold imagined!" (p. 178). With respects to water management in academic literature, the influence of Aldo Leopold is less recognized. Wilkinson (1989) writes that;

> Aldo Leopold's name has seldom appeared in the annals of water law and policy. This omission makes a powerful statement about the essential nature of the classic doctrine because Leopold is so preeminent in natural resources policy and philosophy… Although most of Leopold's work did not deal with water management policy per se, his advocacy of a land ethic - a comprehensive ecological approach to natural resources management and land-use practices - expressly encompasses water. Leopold's thinking is directly applicable to water management reform. (p. 19)

Although Leopold's guiding principles are applicable to water management, we see (from the above quote and the following *Section 2.3: Critique of the dominant Western water ethic* that they have not been adopted nor integrated into the dominant Western water ethic.

2.3 Critique of the dominant Western water ethic

The dominant water ethic identified in Canada is rooted in European-descending 'Western' culture (Brown, 2014; Merchant, 1995) and has been classified as "exploitive" (McGregor, 2014) and "a one-way relationship that is out of balance and ultimately destructive and unsustainable: I take and water gives" (Sandford & Phare, 2011, p.6-7). Such an ethic corresponds to utilitarianism, or the maximum wellbeing for the maximum number of people (Groenfeldt & Schmidt, 2013), which perpetrates the idea that human beings are separate from nature, rather than being part of it. The human – nature binary contributes to a relationship where humans try (whether explicitly or implicitly) to dominate water (Berkes, 2012; Brown & Schmidt, 2010; Groenfeldt, 2003; Sandford & Phare, 2011). "As humans come to see themselves as separate from the world, estranged from an experience of its sacredness, mystery, and intimacy, it becomes possible for them to subordinate the natural world to their will" (Ray, 2005, p. 161). As expressed by McGregor (2014), in Western culture, water is "conceptualized as a resource, a commodity to be bought and sold" (p. 496).

For example, the 19th and early 20th centuries brought the building of dams, canals, levies, and large-scale urban plumbing and sewer systems. It was a period dominated by "command-and-control" water management style (Groenfeldt & Schmidt, 2013) and/or conqueror-type thinking (Leopold, 1966), both which are rooted in an anthropocentric water ethic (Merchant, 1995; Brown & Schmidt, 2010). This thought style is led by values of efficiency and economic benefit and ones by which "water should be tightly controlled in order to direct its service to a 'stream' of economic benefits" (Groenfeldt, 2010, p. 576). In Canada, in total, there are over 600 large-scale dams, and world-wide over 45,000. These dams have consequently rerouted numerous rivers, demonstrating the *era of hydro-structuralism* (Sandford & Phare, 2011) whereby mainstream water management by humans has exerted control over natural water systems for human advancement. In effect this exhibits a sense of hierarchy where master ideas imply that human beings are conceptually positioned above other life forms and are understood as existing separately from nature and superior to it (Barlow, 2013; Brown & Schmidt, 2010; Linton, 2010; Merchant, 2010; Sandford & Phare, 2011).

For example, the decision to build hydroelectric dams in Northern Quebec exhibits the dominant ethic that reinforces the illusion of separation from nature, including water. Desbiens (2004) wrote

of *detached spectatorship* and related it to Southern Quebecois (generally the white politically powerful Quebecois) and how they see Northern Quebec and its rivers (from this detached vantage point). In their view, as Desbiens describes, the Indigenous populations and their sacred relationship with water are barely seen. Groenfeldt (2003) questions: "Did Hydro-Quebec respect the Cree view of the animals they hunted as sacred beings?" He continues to state that "It is probably safe to say that a position of 'appreciation' of indigenous spirituality is easier for Westerners to adopt than is genuine 'respect'. *Appreciation* of the river spirit means that the dam can still be built, while *respect* for the spirit implies that dam might not be built" (p. 9). This is an interesting distinction between appreciation and respect as it is tied to the point of whether or not water is seen as being a 'means' or an 'end'. "If thought of as a means, it is easy to see water as a factor of production and in utilitarian terms [and therefore we can appreciate it]. But as an end, water often takes on a sanctity and value beyond utilitarian exchange [and we can therefore respect it]" (Delli Priscoli, 2000, p. 635). This returns us to the idea that the Indigenous thought style related to respect implies an inseparability between the self and the environment (physical or social) and that "harming others or the environment is harming oneself" (Ferrara, 2004, p. 62).

The 1980s and 90s brought an awareness, in rhetoric mostly, about global water pollution and climate change, however one significant consequence of increased awareness about climate change is the further pressing sense of urgency to develop even more powerful technological fixes (Groenfeldt, 2010). For example, technological fixes related to geo-engineering whereby engineers strive to modify the Earth's natural planetary systems, amplify the dominant management approach to control water.

It is important to note that embedded in this tendency to dominate nature is often the thought style that it is the responsible option, as it acts out of consideration for utilitarianism, or in other words, for the protection and wellbeing of humans (humans in comparison to all life forms). Often efforts to protect the wellbeing of humans are enacted through technological fixes; for example, "Canadian governments are focused primarily on scientific and technological approaches to resolving water quality issues" (McGregor, 2014, p. 493) and, "Choosing not to recover the resource, electing to not utilize the potential benefits of the resource, is considered to be wasteful and in this sense, even sinful" (Groenfedlt, 2003, p. 2).

Another example of increased awareness yet restriction to a neo-liberal economic domain is that of thinking of water and nature as *ecosystem services* (Muller & Burkhard, 2012) whereby a price is put on various natural 'resources', so an economic value of what the 'service' is worth for human

consumption, framed by a utilitarian anthropocentric paradigm. What results is a sense of commodification whereby we view nature as a 'resource' for our use (Groenfeldt, 2003; McGregor, 2014). In fact, in 1992, in the *Dublin Statement on water and sustainable development*, global experts in *Integrated Water Resource Management* (the current dominant water management model) defined water to be a "scarce resource with an economic value in all of its competing uses" (Groenfeldt & Schmidt, 2013, p. 16). In effect, what results is the understanding that a river is understood to be valuable because we can harness it for electricity and economic profit, compared to understanding it as valuable for sacred notions or for its contributions to ecological wellbeing. As described by Swatuk, Huffman, Ott, and Masayesva (2008), "We reduce water to its use value to humans. Commodification reduces everything to capital, including humans. Water is not water; it is natural capital, with an economic value" (p. 18). In the grey literature, recently in the Globe and Mail, in a week-long special feature on water, the first sentence on day one of the series stated, "One *commodity* [italic added for emphasis] occupies a central place in the day-to-day lives of Canadians more than any other, and though it's assumed to be in unfettered abundance, water is a *resource* [italic added for emphasis] that cannot be taken for granted" (Globe Staff, 2015, n.p.).

Youth, as previously mentioned, inherit culture from previous generations and their surroundings (Hayes, 1998). Unless equipped with highly developed critical thinking skills, they inadvertently adopt these ways of thinking about water as described above. Accepting these mainstream water ethics is amplified when considering the illusion of separation (Plumwood, 2000; Wilson, 1984) from nature combined with a widespread increase in individualism (Hutchins, 2014). For example, "Youth researchers have documented the deleterious effects of global social change on youth cultures and social identities. Though technological innovations offer new opportunities many studies point to how the Internet and mobile phone use can promote new inward looking, individualistic and narcissistic culture and lifestyles" (Cieslik & Simpson, 2013, p. 156). The combination of looking inward, decreased abilities to think critically, and being heavily influenced by the dominant capitalist system proliferates the desire to dominate nature through actions of harnessing, managing, and containing it. In effect, such a relationship alienates humans from a deep connection with water. Scharper (2013) explains:

> ...it's part and parcel of a kind of technocratic modern self understanding. In the modern period our role became to master and dominate, to control nature... To use it as an instrument for human advancement, rather than a life wave for us to be connected to, as just plain members and citizens. And so I think what it did was give us a false sense of superiority. And it made us think that somehow we were no longer deeply interpenetrated

> with water and with nature and I think this has been a huge loss to the Canadian psyche. And we're seeing the consequences environmentally, spiritually, in many ways. (n.p.)

Ultimately, the current literature in the field of water ethics, considering the points in this section, concludes that the current dominant Western water ethic is unsustainable.

2.4 Transitioning towards a new water ethic

2.4.1 The need for a new water ethic.

Due to the unsustainability of the present dominant water ethic, numerous Water Ethicists, academics and water activists argue that humanity needs a deep-seated shift in its dominant ways of thinking and subsequently call for a new dominant water ethic (Armstrong, 2009; Barlow, 2013; Brown & Schmidt, 2010; Delli Priscoli, 2000; Groenfeldt, 2013a; Linton, 2010; Sandford & Phare, 2011; West, 2007). Indigenous youth may be able to play a role in the development of a more sustainable water ethic, as advocates prescribe that it encompasses the following characteristics common to traditional Indigenous water ethics as described in *Section 2.1.2: Relations to Indigenous knowledge*:

- holistic thinking (Armstrong, 2009; McGregor, 2014; Sandford & Phare, 2011; Swanson, 2003);
- an acknowledgement of and understanding of the context of climate change (Groenfeldt, 2010) which recognizes ecological and existential connections of all life forms (Sandford & Phare, 2011; Wilson, 2008);
- humility on the part of humans (Brown & Schmidt, 2010);
- a reverence for water (Leopold, 1977);
- an understanding of continual change and life and its interaction with other relations functioning in nonlinear ways (Gunderson & Holling, 2002); and
- "a new harmony between the sacred and utilitarian in water, between the rational and the emotional" (Jennings et al., 2009, p. 27).

These prescriptions support what Luna Leopold (1977) called for in the 1970s when he claimed we;

> must pay heed to the fact that the hydrological system is a highly interconnected plumbing network. Changes made in one part of the system have influences downstream. The continued functioning of the system is of great importance. To test whether the system is

> operating satisfactorily by economic and legal criteria alone will not guarantee its continued health. What is needed is some deeper feeling. (p. 430)

Indigenous worldviews and knowledge related to water can offer an alternative worldview that responds to these abovementioned qualities, from which holders of the dominant Western water ethic can learn. Groenfeldt (2003) explains that;

> The ethical perspective embedded in indigenous views about nature and water is largely missing from the Western toolkit on water management, and we Westerners need to acquire some ethical tools. It is in everyone's interest that Western society learn from indigenous peoples what it means to feel a kinship with the earth, with the land, and especially, with the water. (p. 10)

Specifically, concepts related to reciprocity and respect for water which are common to Indigenous water ethics, are being sought by Western Water Ethicists desiring to evolve the current dominant water ethic (Sandford & Phare, 2011). Formally, at the 1992 UN Conference on Environment and Development, the significant role of Indigenous Peoples worldwide and their Indigenous Knowledge systems were acknowledged in the signing of the *Convention on Biological Diversity* (McGregor, 2014). Additionally, the 2007 UN *Declaration on the Rights of Indigenous Peoples* has underlined the valuable role of Traditional Knowledge in environmental governance (United Nations General Assembly [UNGA], 2007 as cited in McGregor, 2014). With the recognition in international forums comes the call to create opportunities locally and nationally to learn from our country's Indigenous Peoples and their relationships with the land and waters, and hence integrate their insights into a new water ethic based on more sustainable thinking and acting.

These aforementioned characteristics relate to Indigenous water ethics to offer other perspectives to the dominant Western water ethic to rise to the call to deal with contemporary water issues in Canada. Specifically, "[m]any scholars, activists, scientists and First Nations in Canada have observed that "water governance in Canada is in a state of *crisis* (in the true sense of the word)" (Bakker, 2007, p. xv). Simply put, "Current Canadian water policy is not working" (Walkem, 2007, p. 309)" (McGregor, 2014, p. 499) for its capitalist nature "has become painfully obvious, humanity's relationship with the environment, particularly in contemporary times, are exploitive" (McGregor, 2014, p. 495).

Although capitalism has had many impacts deemed as unsustainable for the planet and as promoting greed and other disrespectful desires, according to Groenfeldt the capitalist approach is not wrong, it is just inadequate to address the whole of the complexities of water challenges. He states “commodifying nature is dangerous: not because it is “wrong” but because it promotes complacency with a woefully incomplete understanding of what nature is” (Groenfeldt, 2015, blog post). McGregor (2014) supports this by explaining that “First Nations peoples regard current Western water management approaches as limited” and that “alternative perspectives are required in an effort to address such challenges” (p. 499). Her reasoning stems from the argument that “Western science and technology are not the only legitimate ways to understand and resolve environmental challenges” (p. 498).

Fikret Berkes (2012), who is known for his work on environmental change, Indigenous ways of knowing, and combining science with Indigenous knowledge, advocates for the expansion of Western scientific thought related to ecology to include more holistic perspectives that include all of nature and comprise broader ethical, social, political and spiritual significance. He argues that such elements are missing from the Western scientific worldview and respective ecological management of resources and that there is consequently a need to focus on and include in the worldview a notion of reciprocity between humans and nature as well as an attitude of gratitude for the land.

The dominant water ethic needs to shift to a system of thinking including master ideas whereby humans are understood as being members of an ecological community partaking in the complex webs of interdependent interactions whereby reciprocal relationships are recognized and respected (Brown & Schmidt, 2010; Groenfeldt, 2003; Leopold, 1966; Sandford & Phare, 2011).

Recognizing that water ethics are rooted in cultural narratives and that the current dominant narrative of Western culture contributes to a paradigm considered broken (Hutchins, 2014), Merchant (1995) expresses the call as the need for “a new narrative”. She subsequently advocates for new stories and understandings that encompass holistic and relevant perspectives of interdependent relationships. She promotes perspectives that illustrate the complex system of relationships between the Earth and all of its life and life-supporting forms in order to rewrite the current “destructive dichotomising narrative of Western Enlightenment thought” (Johnson & Murton, 2007, p. 126). Considering that Indigenous youth are descendants of cultural narratives that encompass these qualities, and they are also exposed to Western narratives they therefore

may hold a sort of hybrid-narrative fostering a form of integrative knowledge (CWN, 2014) which may be able to contribute to this call for a new more-sustainable dominant water ethic.

2.4.2 Integrative knowledge.

Integrative knowledge is the idea that different knowledge systems are brought together; one is not integrated into the other, rather they are integrated together and valued equally (CWN, 2014). Integrative knowledge can occur naturally as is the case with many Indigenous youth as described above whereby their passive and automatic absorption of different cultures merge aspects from both. It can also be intentionally fostered by weaving together different worldviews and ethics and promoting an understanding of the combined knowledge systems (for example, in research, presenting quantitative data with accompanying stories about various characteristics related to the quantitative data). In terms of the relationships people have with water, both routes can lead to the development of new water ethics. Some believe that youth should be guided in the development of their worldviews and knowledge and that in today's world neither cultural knowledge nor scientific knowledge alone stands as complete or suffice to address the wicked problems (Rittel & Webber, 1973; Bastien & Holmarsdottir, 2015). For example, "[c]ultural or scientific education in isolation does not serve current or future leaders. It is our responsibility to create educational systems that do not fail our youth" (Cohn, 2005, p. 4). An integrative approach to knowledge can offer youth and the world a more complete, more holistic way of thinking, one in which there is a diversity of viewpoints.

Acknowledgement that humanity functions in more than one knowledge system (Berkes, 2012; Cajete, 2000; Johnson & Murton, 2007; Turnbull, 2000) justifies attempts to consciously integrate Indigenous knowledge and Western knowledge (Bartlett, Marshall & Marshall, 2012). Valuing a diversity of views is congruent with several cooperation theories; as outlined by *Principles of Working Together,* "[d]ifferent points of view can lead to new understanding, new approaches, and effective solutions" (Ayres & Silvis, 2011, p.162).

One possible guiding course for fostering integrative knowledge is the approach of *two-eyed seeing,* which is defined as "learning to see from one eye with the strengths of Indigenous knowledges and ways of knowing, and from the other eye with the strengths of Western knowledges and ways of knowing, and to using both these eyes together, for the benefit of all" (Bartlett, Bartlett & Marshall, 2012, p.335). The approach is gaining in popularity and is being used by government Ministries in Ontario, Nova Scotia and Nunavut to promote intercultural understanding and cooperation, as well as by several independent organisations and research

bodies in doing intercultural and/or interdisciplinary work, specifically in the domain of natural resource management.

A key benefit of two-eyed seeing is being able to draw upon knowledge from each of the cultural ways depending on a situation's circumstances. This would allow us to use Western Science when appropriate and in other cases, for example, where a more global holistic view is appropriate, draw from Indigenous knowledge; such a practice seems fitting given the quickly changing characteristics of the world in today's complex age. With increasing recognition of the interdependent nature of the world's systems and beings, interdisciplinary techniques and practices are increasingly being called upon. Elder Josephine Mandamin, also known as the Anishanaabe Grandmother Water Walker, states (in McGregor, 2014) that;

> Scientists need to sit down with us and to understand where we come from. We have intricate knowledge of medicines, animals, and flow. Anishinaabek live in the environment, know the elements, and know how to take care of ourselves. Many scientists have come to terms that traditional knowledge is as important as science and there needs to be a balance between science and traditional knowledge. We have to work together towards balance. (p. 498)

One of the 'Lessons Learned' from two-eyed seeing practices (as outlined by Bartlett, Marshall and Marshall, 2012) is the importance of members from Western culture and Indigenous cultures to acknowledge the need for one another. By doing so they can foster respect for one other and "engage in meaningful colearning" (p.334). Learning from other cultures, and in effect integrating aspects of ways of knowing and ethics from the other, can foster the manifestation of cooperation in ways that promote mutual respect and sharing.

Globally, integrative knowledge (CWN, 2014) among youth who are naturally integrating knowledges from cultures world-wide (due to social media and easy sharing of cultural messages, priorities, knowledge, etc.) is contributing to youth-led social and environmental justice movements. Subsequently, there are many examples of youth-led power dynamic shifts, such as the *Occupy Wall Street movement*. "Shifting power requires a new way of thinking, and breaking down some old walls to create different spaces and places" (Blanchet-Cohen as cited in Linds, Goulet & Sammuel, 2010, p. xii). These new ways of thinking and behaving are emerging as interdisciplinary and intercultural approaches are furthermore being adopted in an array of arenas and infrastructures including academia, business and politics.

Grey literature recognizes that the most recent Canadian federal election and swearing-in of Ministers brought a record-breaking ten Indigenous Members of Parliament (elected by Canadians) as well as two Indigenous Ministers (appointed to the cabinet by Prime Minister Justin Trudeau). Similarly, Trudeau appointed a record- breaking number of female Ministers and Ministers of visible minorities. His reasoning for a more diverse cabinet (which likely echoes the rationale of Canadian voters) is that it is time for a government that represents the intercultural nature of the Canadian population. Furthermore, with a more diverse government the array of worldviews and knowledge bases should make for greater collective intelligence. "Prime Minister Justin Trudeau delivered the message that Aboriginal Canadians are significant intellectual contributors to Canada's political discourse" (Trahant, 2016, n.p.). Furthermore, the same article covers the Assembly of First Nations' Chief Perry Bellegarde expressing that the changes should have positive impacts on relationship building and inter-cultural collaboration. He is quoted stated;

> I was very impressed with the opening ceremony, but even more impressed that out of eight aboriginal members of Parliament that were elected, two have made it into cabinet… It sends a powerful statement about inclusion and it sends a powerful statement about the reconciliation that is going to be required in rebuilding a new relationship between Canada and Indigenous Peoples. (n.p.)

Building relationships between Canada and Indigenous Peoples, inclusion, and reconciliation are all possible outcomes of promoting and practicing different forms of integrative knowledge and forming new master ideas and thought styles. Also noteworthy is Trudeau's implementation of a Ministry of Youth, in effect exhibiting the importance of youth and the value that youth leadership can offer our country.

Within the domain of water specifically, Trudeau's efforts to link water protection with greater Indigenous leadership; for example, the Minister appointed to the Ministry of Fisheries, Oceans and the Canadian Coast Guard, is Hunter Tootoo, an Inuit man from Rankin Inlet. Within academia, the majority of the water-related conferences I attended throughout my Master's degree promoted steps towards adopting *integrative knowledge* practices. The 2015 *Water Ethics Conference*[9] specifically included many examples of integrative approaches, interdisciplinary presentations, and intercultural cooperation; there was a strong focus on Indigenous knowledge, ceremonies and insight into water issues locally and globally. As per principles of the two-eyed seeing approach, the collective conversations at the conference exhibited the practice and "[t]he

[9] Held at Viterbo University, Wisconsin, in April 2015

advantage... that you are always fine tuning your mind into different places at once, you are always looking for another perspective and better way of doing things" (Bartlett, Marshall & Marshall, 2012, p.336). At another conference, a week-long workshop offered by the Canadian Water Network (CWN, 2014) integrative knowledge was featured, with the title of the workshop being *Paddling Together: Integrative Traditional and Western Water Knowledge.* The week was spent exploring and actively promoting conscious and respectful steps towards fostering integrative water knowledge.

It should be noted that although processes of integrative knowledge are occurring (both intentionally and organically), coverage related to it in academic literature remains minimal.

Returning the focus to youth, and to the points that youth worldwide are naturally acquiring a sort of integrative knowledge, and that they are also more open than most adults to adopting new ways of thinking, they are an interesting demographic to work with when considering integrative knowledge and encouraging new narratives, thought styles and master ideas. Each generation has their own narratives that are unique to their period in time, and considering Merchant's (1995) call for transitioning to a new narrative on which to base our ethics and ways of thinking, youth may be the group to respond to this call (van der Helm, 2003). Merchant claims we need new stories and new understandings that encompass holistic and relevant perspectives of interdependent relationships between the Earth and all of its life and life-supporting systems in order to rewrite the current "destructive dichotomising narrative [of humans being separate from nature] of Western Enlightenment thought" (Johnson & Murton, 2007, p. 126).

Indigenous youth may - or may not - be appropriate people to - deliberately or unintentionally - respond to Merchant's proposition that "if such a story can be rewritten or experienced, it would be the product of many new voices and would have a complex plot and a different ending" (p.158-159). In entertaining this idea, it is relevant to remember the preposition that, as mentioned earlier, many of today's youth may not have the capacities to fulfil such a role (Cieslik & Simpson, 2013) and that especially many Indigenous youth often have difficulties seeing themselves as agents of change (Goulet et al., 2009). However, for other Indigenous youth, as explained by 21-year old Youth Council Representative for the Assembly of First Nations, Quinn Meawasige (in Murphy, 2015), there is "a wave of young people… who want to contribute to Western society but also make sure they're rooted and grounded in their culture." Considering the Indigenous traditional knowledge that is available to Indigenous youth, which encompasses the prescribed ethics for a more sustainable water ethic, given fertile conditions, Indigenous youth may be adept to

contributing to the call to compose this new narrative. As Meawasige says he is “far from alone among young indigenous Canadians who are forging a new path paved with old traditions” and in his life it’s like he has “one foot in a moccasin and one foot in a sneaker” (n.p.).

2.5 Conclusion

To summarize this literature review, there exists little research related to Indigenous youth and water, and no case study directly related to research with Cree youth and water. However there exists elaborate knowledge related to the individual areas of youth, water ethics and Indigenous studies that set the stage for the case study featured in this thesis: *Water Ethics: Exploring Cree youth’s relationship with water in Eeyou Istchee.*

Considering that youth are the inheritors of the planet and its water, and that Cree youth have a significant relationship with water, their perspectives and worldviews are important to inform these related fields. Doing research with youth can offer innovative ideas that may reveal valuable knowledge and influence formative trajectories for the future of the world (Altrichter & Posch, 2009). As discussed, the current reality in which youth are living is complex and challenging as the world faces predicaments of global climate change and a hegemonic culture argued to be promoting unsustainable actions and ethics. Considering that water is necessary for all life to survive and that the human relationship with water is very intimate, it is worthy of scrutiny particularly focusing on the roots and manifestations of the water ethics held by different cultures. Within the field of Water Ethics, the current call is to learn from the water ethic held by Indigenous Peoples which is the inspiration behind much of this study. In doing so, bearing in mind the systemic colonial legacy and its impacts is complex and sheds light on much relevant insight to explicate current conditions shaping humanity’s relationship with the substance all life cannot live without.

In exploring the water ethic of any group, it is fundamental to note the context and influences that contribute to their relationship with water. Therefore, in efforts to explore these untapped areas of potential, my research thus poses the question ‘*What characterizes the relationship that Cree youth in Eeyou Istchee have with water?’* In *Section 3: Methodology* which follows, I will describe the process of how I addressed this question.

CHAPTER 3: Methodology

3.1 Introduction to methodology

Considering the call for a new water ethic and a new dominant paradigm, it is of interest to understand what and how Indigenous youth can contribute to influencing new ways of knowing, new ways of being, and new ethical frameworks. To entertain this objective, the research question '*What characterizes the relationship that Cree youth in Eeyou Istchee have with water?* can provide insight into what and how Cree youth may (or not) be able to contribute. These youth have grown from a culture in which water is considered extremely important; traditionally people of Eeyou Istchee travelled by canoe, they are people of inland freshwaters and coastal seawaters, and the development of major hydroelectric dams in nearby territories has inspired much reflection on water and how Cree culture relates to it. In the following chapter, *Section 4: Case Study Context: Cree youth water ethics* I present relevant background information to frame my research findings; they will describe water ethics specific to the Crees of Eeyou Istchee.

Considering that Cree youth find themselves in a complex world I chose to apply a contemporary research approach that promotes flexibility, and I combined it with an established methodology that offers recognized conceptual frameworks and analytical strategies. Thus, the ecosystem approach (Sharpe, 2011) characterizes the flow of this study, and the case study methodology (Johansson, 2003; Yin, 2009) provides the guiding structures. Furthermore, Indigenous methodologies (Hart, 2007; Kovach, 2010; Smith, 1999; Wilson, 2008) acted as an underlying code for how to conduct myself and my research. These three theoretical frameworks are described below as they emerged from a journey of exploring various options.

3.2 Evolution of methodology

Before understanding and situating my research as a case study project (Johansson, 2003; Yin, 2009), I considered other methodologies that were significant to the research process. I will briefly explain the process to provide context for why I adopted an approach (the ecosystem approach (Sharpe, 2011)) to guide the course of finding a fitting methodology.

Originally I aspired to conduct my research using methodologies of *community-based participatory research (CBPR)* (Castleden, Morgan & Lamb, 2012; Castleden & Garvin, 2008) and/or *action research* (Altrichter & Posch, 2009; Klein, 2012; McNiff, 2013; Schmuck, 2006). Considering that practicing respectful relationships and culturally-relevant activities were a priority, my rationale for wanting to work within a framework of CBPR related to the following point; "Indigenous peoples

have been justifiably sceptical and reluctant to become the subjects of academic research. Community-Based Participatory Research (CBPR) is an attempt to develop culturally relevant research models that address issues of injustice, inequality, and exploitation" (Castleden, Garvin & Huu-ay-aht First Nation, 2008). Similarly, with action research, a researcher can honour principles common to both Indigenous methodologies and "action research... [which] enhances the lives of all participants. This collaborative approach to inquiry seeks to build positive working relationships" as stated by Stringer (as stated in Schmuck, 2006).

Many researchers, including Cieslik and Simpson (2013) promote participatory methodologies while working with youth in efforts to empower them. However "while there has been support for such a move in theory (Clark, 2004), developing such methodologies has been described as 'a struggle' and it raises several 'challenges' (p. 37). With my research I experienced many challenges in attempting to do participatory research, including inadequate time to develop elaborate-enough relationships, and social norms discouraging informal relationship building between youth and myself as an older researcher.

Throughout the process of becoming familiar with the realities of working with Cree youth, I thus learned that in order to effectively and respectfully engage in CBPR and/or action research, a researcher must have well-established relationships that are built on a strong base of comfort, connection, and trust. Developing such a base would have required more time and lived experiences than what the scope of my Masters research allowed.

Prior to, and along with, the research methods that finally emerged as effective, I attempted several other activities including: talking circles (around a campfire during the annual youth canoe expedition that I participated in, to be explained in more detail throughout the following sections), mapping activities (also during the canoe expedition), making and discussing mini birch bark canoes (while at their annual traditional gathering on *Old Factory Island*, a sacred cultural site 25 kilometres south of the community), running a water Olympics event (at the local Youth Centre), writing and recording songs about water (with a well-known musician who works with Cree youth), and having youth conduct interviews with Elders in the community. For reasons discussed in *Section 5: Case Study Findings*, including language barriers as well as insecurities youth hold related to their relationship with Elders, these aforementioned activities contributed to the research process in terms of relationship building, as per principles of the Ecosystem Approach (Sharpe, 2011). Additionally, I needed to adapt on several occasions due to the simultaneity of my intended

activities with other community events like holidays, celebrations, and occurrences such as funerals, lack of time, and limited budget[10].

Despite numerous interactions (of differing degrees) with community youth over the course of three visits to Wemindji (in July/August 2014, October/November 2014, and March 2015), for a sum of 11 weeks, I still felt I had not achieved adequate levels of comfort, connection, and trust to pursue activities congruent with CBPR and/or action research. I experientially learned what Heather Castleden (2014) advised at a conference workshop[11] which was that in the vast majority of cases, CBPR should not be performed by Masters students as they have not yet had the opportunity to develop deep trusting relationships with their research community. She encourages the CBPR methodology to be used only after extensive experience in/with a community after a strong foundation of trusting relationships has been established[12]. Similarly, action research requires these trusting relationships and also requires shared interest in issues/actions in addition to time to collectively organize activities. These prerequisites require more elaborate interactions with the community's youth than I was able to achieve.

3.3 Ecosystem approach

Unsure at first of my methodology, I therefore adopted the ecosystem approach which is a model commonly used in research conducted with youth. It "places equal emphasis on process and outcome" and "does not overburden young people with structure and routine... research [is] fun and provide[s] opportunities for creative and critical thinking" (Sharpe, 2011, p. 167). Additionally, this new research approach complements the new trend in youth research which uses;

> an ecological model in which contextual factors and social settings are viewed as major sources of influence on developmental processes in a young person's life. As a result, increasing attention is focusing on the ways in which social and cultural factors in the environment of today's youth exacerbate or soften sources of stress and disruption that influence biological, behavioural, and developmental processes. (Beatty & Chalk, 2006, p. 13)

[10] Youth expected to be paid amounts beyond my budget to engage in activities beyond the ones finally executed. For interviews between myself and the youth I did offer a $20 payment as per research norms in the community.
[11] A workshop that I attended in the context of research related to water and Indigenous Peoples, at Queens University in May 2014.
[12] I now strive to continue fostering my relationships with Cree youth in hopes of conducting CBPR and/or Action Research with them via a PhD. With further opportunities to involve myself further in the community and therefore get to know the youth better, I can continue to foster the relationships over a longer term.

Youth realities are complex, and are interdependent with innumerable factors. These points are considered in today's youth research trends as per the remark immediately above, and furthermore which are recognized by the ecosystem approach to research.

Furthermore, considering that I was a newcomer entering the community of Cree youth, I felt the need to adopt an approach that was conducive to continual adaptation; on several occasions I had to shift my methodology, abandon certain ideas for activities, and adopt other ones. The ecosystem approach, which promotes flexibility and innovation, "is more able than other research approaches to accommodate a variety of different research strategies" (Sharpe, 2011, p.169). This last point regarding research that is 'exploratory, descriptive or explanatory' links well to case study methodology (Johansson, 2003; Yin, 2009) as further explained in the following subsection.

The opportunity to constantly adapt, like one part of a living ecosystem that is dependent on the other parts, allowed me to focus both on the process with my research participants as well as on the outcomes. Such an approach was helpful to build a base upon which to build relationships. Relationship building is extremely important in both case study methodology and Indigenous methodologies (see below) as a foundation and constant practice. The ecosystem approach was appropriate in being conducive to allow me to concentrate on building relationships which in turn allowed me to comfortably experiment with different activities, processes, and methodologies to journey through the evolution of methodologies as explained below.

3.4 Case study methodology

Considering that the objectives of both CBPR and action research are to contribute to positive change in local communities and/or on global scales, an understanding of what we aim to change and/or what we hope to learn from, in addition to an understanding of the context of the research participants as potential agents of change, is rudimentary. Such understanding can be gained through the applications of case study methodology (Johansson, 2003; Yin, 2009). My work can be explained through a framework of qualitative, single-case, case study research.

The four main purposes of case study research include *explaining* links in situations, *describing* phenomena in real-life contexts, *illustrating* topics, and *enlightening* situations that lack clear outcomes (Yin, 2009). For future research endeavours[13], a case study research study such as this one can act as an important stepping stone.

[13] Future endeavours that involve greater participation of the community and more activist-like activities with intended outcomes (to possibly be pursed via doctoral research).

Specifically for research that is complex in its socio-political-environmental context, such as (in the case of this research) where both water and the relationship with water act as both the phenomenon **and** the context, a case study is an appropriate methodology for the following reason. A case study acts as "an empirical inquiry that... investigates a contemporary phenomenon in depth and within its real-life context, especially when... the boundaries between phenomenon and context are not clearly evident" (Yin, 2009, p. 18). Or, in other words, as Johansson (2003) explains, “[a] case study and, normally, history focus on one case, but simultaneously take account of the context, and so encompass many variables and qualities” (p. 5). Furthermore he states that the case study focuses on a particular case, which although there exists debate related to how to define a ‘case’, “at a minimum, a case is a phenomenon *specific to time and space”* (p. 5).

The time and space related to the youth period in one’s life is an incredibly monumental and impactful phase, one worth learning more about, and case study methodology offers an appropriate means in which to do so because it allows for descriptions of complexities and nuances (Yin, 2009). For example, the following nuances are significant in youth research;

> …they are the first generation to grow up in a world characterized by instantaneous global communication and the threats of both AIDS [and even more recently, cancer] and the widespread use of terrorism as a political weapon. They will be the first generation to fully compete in a global economy and the first generation of whom the majority will spend at least part of their childhood in a single-parent household. (Beatty & Chalk, 2006, p. 5)

Case study research promotes presenting a real life context even when it is messy and complex (a real life context, for example, as portrayed by the previous quote), rather than a formulated, categorized, calculated conclusion. It is conducive for a “distinctive situation in which there will be many more variables of interest than data points, and as one result... relies on multiple sources of evidence" (Yin, 2009, p. 18).

Considering that there are multiple influences working on youth that affect their relationship with water, and that these different influences vary based on many other influences, the aforementioned description of case study research is fitting. As Yin (2009) states, a statement that fits with my research intentions is that, "you would use the case study method because you wanted to understand a real-life phenomenon in depth, but such understanding encompassed important contextual conditions - because they were highly pertinent to your phenomenon of study" (p. 18).

In this research study, the contexts of colonialism, residential school impacts, and globalization are important and relevant conditions to understand. Furthermore, the internal context of youth development presents significant conditions of:

> complex interactions among multiple influences. The combination of an incompletely developed capacity for decision making, the impulsiveness and stimulation-seeking characteristic of teenagers, their heightened sensory impulses, and their relative emotional volatility—all occur in the context of a culture that is replete with enticing portrayals of risky behavior and other sources of risk for young people. (Beatty & Chalk, 2006, p. 15)

The conditions, influences, and complexities are substantial, and suitably some theorists claim that case study research tends to produce a 'thick description' of a phenomenon (Tucker in Bradford & Cullen, 2012). Examining water ethics in the context of Cree youth is a 'thick' topic as the context and characteristics of each of the three merged subjects[14] could warrant its own thesis, thereby equating a 'thick description' when the three are weaved together. The methods related to case study research allow for gathering relevant data to paint this 'thick' story. Explained by Tucker (as cited in Bradford & Cullen, 2012);

> The 'thick description' produced is likely to be based on various conversations, social interactions, and so on. Therefore, the research methods employed need to be able to capture such forms of data. Two particular methods are highly relevant here – *interviews* and *observations.*" (p. 33 - 34)

More about these two research methods (interviews and observations), in addition to two others, are discussed in *Section 3.9: Research Methods*.

Like the ecological approach (Sharpe, 2011), the case study methodology allows for adaptation throughout the research process to account for the aforementioned complexities and nuances. "It is characteristic of case study methodology that the boundaries, and often even the focus of the case, change through the research process" (Johansson, 2003, p. 5). As explained above in *Section 3.2: Evolution of methodology*, throughout the process of learning and experiencing more and more, I modified my plans multiple times throughout my field work visits. Historical contexts (for example, present-day colonial dynamics due to historical events, notably residential school

[14] The three being: 1) water ethics and the characteristics that contribute to a group's relationship with water; 2) Cree and broader Indigenous contexts in Canada; and 3) youth and youth contexts.

impacts) played a role in the evolution of my research which fits into the characteristic of case study methodology that pays attention to history (Johansson, 2003).

Furthermore, case study methodology includes the researcher's involvement in a community, however not necessarily to the same degree required for CBPR and/or action research. I was fortunate to have been able to participate in community activities like the annual youth canoe expedition (in the summer) and annual snowshoe expedition (in the winter), as well as events and sleepovers at the culture camp and during the annual Old Factory Island visit (their summertime week-long cultural celebration at their traditional cultural gathering site). I was also involved in working at the community school and pool as well as involved in some community events in town.

Considering the interdisciplinary nature of my research, a case study methodology is appropriate as it is used across many disciplines. "Such methodology is applied not only in the social sciences, such as psychology, sociology, anthropology, and economics, but also in practice-oriented fields such as environmental studies, social work, education, and business studies" (Johansson, 2003, p. 2). My research involves, directly or indirectly, all of these listed fields of study[15]. Including applications from several of these fields of study contributes to the relevance of case study research which is supported by the triangulation of data (Johansson, 2003; Yin, 2009). Furthermore, my research data emerges from four methods (described in *Section 3.9: Research Methods*). It also includes perspectives not only from the youth themselves but also from adults in the community as well as a small group of 8-year old children, therefore not only triangulating between disciplinary frameworks, but also between methods, and between community demographics.

3.4.2 Youth research.

Aside from its relation to water, the past 40 years have carved a place for 'youth research' as a distinct field in the research world (Helve & Holm, 2005). Perspectives on youth have evolved away from the 'stages of life' type thinking suggested by 20th century theorists like Piaget and

[15] For example my research includes data related to: psychology (how Cree youth think of themselves and of water); sociology (how the community organizes to ensuring proper drinking and waste water functions); anthropology (how Cree legends relate to water); economics (how the community benefits financially from water via the Hydro Quebec dams); environmental studies (how the increase of mercury in waterways and bioaccumulation of mercury in fish affects Cree people); social work (how youth issues relate to peer pressure, bullying, drugs, alcohol, suicide, online gaming and pop culture influences); education (how ways of knowing relate to Cree Knowledge and the formal Western-style education and the effect they have on Cree youth); and, business studies (how youth ideas relate to making money from water and their participation in the market economy).

Erickson, having now evolved closer to the *positive youth development approach* (Beatty & Chalk, 2006).

> The positive youth development approach represents a significant departure from earlier conceptions of adolescence... to the current conception of development as a process in which multiple levels of organization—ranging from the inner biological through the psychological to the physical, ecological, sociocultural, and historical—all play a role. (p. 28)

Furthermore, youth research and its corresponding theories have evolved away from understanding youth as troubled and troublesome (understood formerly on the rationale that youth are going through the stage of "storm and stress" as described by Denesi, Cote and Allahar, and Jones and Wallace (as cited in Helve & Holm, 2005, p. 5) to instead understanding youth as potential agents of change who offer value to the present and future (Beatty & Chalk, 2006; Cieslik & Simpson, 2013; Helve & Holm, 2005). Not only can youth research benefit the world, but it can also benefit youth cultures themselves. Participating in youth research offers young people opportunities to explore their own thoughts and values, express themselves, gain skills in critical thinking, and be active in their communities as described by Delago (as cited in Sharpe, 2011); "[b]y involving young people in research we encourage a shift in consciousness, confidence in young people, and a sense of having control over their projects while being supported" (p.172). To meet these new approaches related to thinking about youth;

> ...new research designs and measures are necessary... while also taking into account such factors as generation and historical change... race, ethnicity, and religion; and such contexts as family, community, culture, and urban/rural setting... could help researchers capture the complexity of the adolescent experience. (Beatty & Chalk, 2006, p. 29)

Therefore, in doing youth research, researchers should consider that the lives of youth are not straightforward, and therefore researchers should avoid approaches to youth research that are straightforward (Sharpe, 2011). Research with youth calls for innovative and creative methods (Heath & Walker, 2011) whereby such methods are combined with traditional methodologies (Sharpe, 2011). This combination of methods for youth research is conducive to fitting the aforementioned characteristics of the ecosystem approach (Sharpe, 2011) and case study methodology (Johansson, 2003; Yin, 2009).

From the one article found in my literature search related to Indigenous youth and water (related to youth water education rather than specifically to youth research and water), researchers claim that, “Engaging youth in learning about the importance of water requires long term investment in relationship building” (Sachatello-Sawyer & Cohn, 2005, p.1). Returning to the points outlined in *Section 3.2: Evolution of methodology,* I identified this (long term investment in relationship building) as a significant challenge. Particularly with Cree youth where “oppression is and continues to be a very real experience for Native people, and has an impact on the lives of Native youth” (Garrett et al., 2014, p. 477), it is important to acknowledge this profoundly impactful context and to make space to address and honour it. In addressing and honouring it, it is important to allow for time and to not rush processes (of building relationships, trust, etc.) in efforts of achieving desired outcomes. It is also interesting to note that often the desired outcome for a researcher is to obtain verbal descriptions from research participants about the respective research subject.

In the context of working with Cree youth, obtaining verbal descriptions can be challenging. Experience shows that “Cree people are generally very careful about expressing emotions, especially when the interaction is with non-Native observers. Silence among the Cree is often an appropriate response (Ferrara, 1994; Brant 1990; Darnell, 1981) to emotionally tense situations” (Ferrara, 2004, p. 53). Considering that life in general is ‘emotionally tense’ for most youth, the outcome of obtaining verbal descriptions relies heavily on having well-established relationships in order to understand key characteristics such as silence not being interpreted by Western notions of awkwardness (and therefore not needing to be filled with chatter to avoid feeling awkward). Furthermore, meaningful verbal exchanges with Cree youth may entail fostering shared experiences over longer periods of time than processes involving non-Cree youth. Furthermore, in working with Cree youth, it is significant to note (as stated earlier in this thesis) that, “First Nations youth who are embedded in community and family systems damaged by colonialism find it difficult to see themselves as agents of change” as noted by Goulet et al. (as cited in Yuen et al., 2013, p. 270). Therefore holding expectations that Cree youth are interested, able, and comfortable with being thought of as agents of change may be unrealistic in some cases.

In this vein, although it is optimistic to root youth research in a positive youth development approach (Beatty & Chalk, 2006), such a paradigm may not be applicable to all cases of youth research. For, “despite the transformations of late modernity there are continuities with the past, with the young in recent times still often portrayed as ‘troublesome’ or ‘at risk’” (Cieslik & Simpson, 2013, p. 47). However, it may not be the youth themselves who are ‘troublesome’ per se but rather their surrounding context that is troublesome, a concept that would be supported by the ecological

model (Sharpe, 2011) which is common to youth research (as stated above in *Section 3.3: Ecosystem Approach*) whereby “contextual factors and social settings are viewed as major sources of influence on developmental processes in a young person’s life” (Beatty & Chalk, 2006, p. 13). The characteristic of case study research to allow for a ‘thick description’ as described by Tucker (as cited in Bradford & Cullen, 2012) of phenomena in real-life contexts (Yin, 2009) could apply in such situations. Furthermore, the intersections of case study methodology with the ecosystem approach with youth research together contribute to the web of understanding the methodologies that act as currents for this study. The final current in the fusion of research philosophies, which is pertinent to Cree youth, is the consideration of Indigenous methodologies (Hart, 2007; Kovach, 2010; Smith, 1999; Wilson, 2008) as described below.

3.5 Indigenous methodologies

My research interactions and processes were additionally informed by Indigenous methodologies (Hart, 2007; Kovach, 2010; Smith, 1999; Wilson, 2008), and their corresponding priorities to build connections and to foster links and relations. These priorities navigated the nature of my research and acted as a guide for how I conducted myself as a person doing research with Indigenous people. Fostering relationships and focusing on process was therefore at the heart of my research journey. An appropriate analogy is “[a]n Indigenous research framework acts as a nest, encompassing the range of qualities influencing the process and content of the research journey” (Kovach, 2010, p. 42) which is analogous to the ecosystem approach (Sharpe, 2011) where the process is as important as the content/outcomes. Furthermore, because case study methodology (Johansson, 2003; Yin, 2009) accounts for historical context, and in Canada the historical context of Indigenous Peoples is of critical concern when taking into account their present day realities, understanding methods promoted by Indigenous people themselves can support the relevance and ethical considerations of this research.

A specific aspect of Indigenous methodologies is recognizing colonialism and residential school impacts and their lingering effects on relationships (Hart, 2007; Kovach, 2010; Smith, 1999; Wilson, 2008). Attentiveness to such context, as it is foundational to Indigenous methodologies, provides content for the characteristic of case study methodology which “allows investigators to retain the holistic and meaningful characteristics of real-life events" (Yin, 2009, p. 4). Keeping this in mind subsequently contributes to building mutually beneficial bridges between different cultures, their different respective knowledges, their ways of knowing, and their ethics.

In the case of my work which involves learning about Cree knowledge and Cree ethics, to effectively carry out these endeavours described above, a researcher entering a community from the outside must commit time and prolonged social interactions to *do the relational work* (Kovach, 2010). The politics of knowledge must be addressed; for example, which knowledge is privileged within Indigenous and non-Indigenous collaborations? Decolonizing analysis shows that Indigenous knowledges have been repeatedly marginalized (Kovach, 2010; Stocek, 2013) and that an understanding of worldviews can facilitate an understanding of the values we hold which can aid decolonization processes (as well as guide different cultures to work together in solving water challenges (Groenfeldt, 2013a)). In other words;

> [E]ngagement with Indigenous knowledges means engagement with Indigenous peoples, communities and cultures... Without this work, they [Westerners] will never have a full sense of the knowledges and culture, and they will perpetually be confused as to how to engage with Indigenous knowledges. Those who try to sidestep the relational work will be forever frustrated by Indigenous knowledges, research, and methodologies. (Kovach, 2010, p. 172)

Before delving further into Indigenous methodologies, it should be noted that mainstream Western-style academia and its history of scholarly research are partly responsible for the replication of colonialist structures and behaviours. As stated on the first page of the book entitled *Decolonizing Methodologies: Research and Indigenous Peoples*, to many Indigenous people, 'research' is one of the dirtiest words they know; a history of studying Indigenous Peoples reveals countless episodes of treating Indigenous individuals and communities as less than human and of perpetrating stories that reflect such ideas (Smith, 1999).

However, Indigenous research has been growing and it has methodologies and frameworks unique to Indigenous Peoples that reflect their worldviews and ways of life (Kovach, 2010; Smith, 1999; Yeoman, 2012; Wilson, 2008). Generally speaking, as Wilson (2008) explains, contrary to Western tradition which teaches students to "separate our head from our heart and our spirit as well" (p.119), Indigenous methodologies are based on building connections and fostering links and relations. He specifies that;

> ...the epistemology includes entire systems of knowledge and relationships. These relationships are with the cosmos around us, as well as with concepts. They thus include interpersonal, intrapersonal, environmental and spiritual relationships, and relationships

> with ideas. Indigenous epistemology is our cultures, our worldviews, our times, our languages, our histories, our spiritualties and our places in the cosmos. Indigenous epistemology is our systems of knowledge in their context, or in relationship. (p. 74)

As presented in *Section 2: Literature Review*, the concept of relationality (Wilson, 2008) determines our relationships and how we relate to things and ideas, and how we situate the relationships, things, and ideas relative to one other. This concept is a significant characteristic of Indigenous ways of knowing and of Indigenous methodologies. Given that case study methodology "retain[s] the holistic and meaningful characteristics of real-life events" (Yin, 2009, p. 4), we can deduct that by examining a holistic and meaningful phenomenon, we are subsequently and implicitly examining connections and relationships. An example that describes relationality in practical terms is how many objects are named in several Cree dialects. A chair for example, when translated, is called 'the thing you sit on' which calls the object in terms of one's relationship with it. Such thought patterns of seeing objects in terms of relationality is also applicable to ideas and concepts. "The concepts or ideas are not as important as the relationships that went into forming them. Again, an Indigenous epistemology has systems of knowledge built upon relationships between things, rather than on the things themselves" (Wilson, 2008, p.74). Therefore, throughout my research process from planning, to data gathering, to analysis, to writing, I have tried to remain mindful of the importance of relationships, as per Indigenous methodologies, in all of my interactions and work.

Like the Ecosystem Approach (Sharpe, 2011), frameworks for Indigenous methodologies are described as being flexible. Flexibility allows for people to honour connections with, and lessons from, the natural environment and focus on knowledge beyond human individuality. It allows for research to be open to mental, physical, and/or spiritual understandings and interpretations (Cole, 2006). Such frameworks allow for spiritual expression, connection to ancestors and dreams, awareness of relationality, engagement with the cosmos, and responsiveness to intuitive understandings which are all forms of fostering relationships (Hart, 2007; Cajete, 2007; Williams, 2013).

Finally, a way to think about Indigenous research is as "a life changing ceremony" (Wilson, 2008, p.61); ceremonies exist to connect people, places, things and ideas, and all steps of the process are important (not solely the outcomes). It is the relationships that allow a ceremony to happen, and it is not the things that are most important but rather the relationships created or strengthened by or with the things. Furthermore, ceremonies and research exist "to improve the reality of the

people you are working with" (p. 155). A strong focus of my research experience was therefore to build connections and foster my personal and professional relationship with Cree youth in hopes that our relationship would not only benefit my life but improve their reality as well. Finally, given that my research looks at the human relationship with water and not just at water itself, it is important to consider methodologies that are framed by relationships.

3.6 Positioning as a researcher

As discussed above, an important component of this research project includes acknowledging colonial context in Canada and its effect on Indigenous Peoples as well as the effect on interactions between Indigenous Peoples and the colonial cultures. As a white woman working with Indigenous youth, I recognize that in situating myself as a white researcher in a broader socio-political context, as Bishop (1998) suggests, in many cases, white researchers 'researching' Indigenous people perpetrates a form of neo-colonialism. This systemic form of neo-colonialism is one in which I do not wish to partake. Hence, a purposeful strategy during my research was to remain conscious of how I could deliberately and naturally try to avoid using colonizing behaviour and discourse to the best of my awareness and abilities while interacting with my research community and while analyzing and writing about it later. Considering that research is a source of knowledge, and that drawing observations or 'findings' from research contributes to knowledge creation and therefore to our cultural worldviews, being aware of colonialist behaviour, relationality, and discourse was of utmost importance throughout my research process. I do not claim to have been completely successful at this endeavour, however I certainly tried with utmost intent.

Bearing in mind that the French definition of 'research' translates to 'to travel through while searching' (Linds, 1999), I thought of my research process as a travelling endeavour (literally and figuratively), constantly aware of actions and reactions, efforts and impacts, and of my personal searching and learning. It was a true journey (physically, socially, spiritually, and intellectually) and one that brought me awareness of the relationality of myself as a researcher with my work with my research community.

Yeoman (2012) writes of the common challenges of understanding across cultures and she looks particularly at that space between cultures where ideas are translated which can also be seen as a space for editing. In acts of translation we often edit out what we do not understand or what is irrelevant for our own (or our audience's) context. Such editing processes also contribute to neo-colonialist structures and relationships, for they can inhibit the essence of the original culture once translated into their new context. A key part of decolonization processes is being aware of when

this may happen and allowing the space for the Indigenous knowledge to remain intact in its new arena. For this reason, throughout several subsections related to Indigenous ways of knowing, knowledge, ethics, etc. in the *Literature Review,* as well as throughout *my Case Study Findings*, I include many quotes rather than consistently paraphrase their points.

I also tried consistently to remain aware of cultural norms, and specifically how my credibility in the community as a researcher[16] related to these norms. I was presented with some challenges in this area due to the nature of youth and working with youth. For example, although it could have contributed valuably to my research, I restrained from my interest to informally 'hang out' with many of the community's youth (who tended to gather in the evenings and/or at night in areas known to be of lower reputation in the community where they were supposedly often drinking or doing drugs, which are activities with which I did not wish to associate myself). I therefore had to adapt to find other creative ways to gather with youth and refrain from practicing the community development tactic of going to where the people (youth in this case) naturally gather themselves.

Another challenge in working with young people in Wemindji (as well as during the expeditions) was the custom in Wemindji for people to affiliate mostly with others of their own age; for example, youth associate mostly with youth, adults with adults, and Elders with Elders. Unless it was a part of an organized activity (of which there were several in which I participated[17]), it was a challenge to spend time with youth informally in casual settings outside the Youth Centre (for example, in people's homes or at the baseball diamond at night which is a common place for youth to hang out)[18]. Even during the canoe expedition, usually in the evenings the youth would sit with the youth and the adults would sit with the adults in a separate area. On some occasions during the canoe trip I specifically went and sat with the youth although I must admit it seemed like my initiative to do so was outside their social norm. However, a few of the youth were receptive to welcoming my company and I grew to know some of them quite well. With one youth in particular, four months after the canoe expedition during my second visit to Wemindji, he offered to take me hunting and to set up rabbit snares on his family's traditional hunting grounds. I understood this offer to be a great honour and a valuable learning opportunity. After spending about five hours out on his land during which the sentiment was one of comfort and appreciation, when we walked back into the

[16] and an ambassador of Concordia University and those individuals and institutions that I represent.
[17] Activities included the annual youth canoe expedition, events at the Youth Centre, practices with the youth girls' basketball team, the visit to Old Factory Island, the winter snowshoe expedition, culture camp activities including a youth sleep over, teaching at the high school, and lifeguarding at the pool.
[18] I could add here that I have developed an understanding (based on my previous experience with youth over eight years working with Canada World Youth) that the ability to develop quality relationships with youth is much more organic and richer during informal moments and spaces as compared to during formally organized activities.

community and passed by other people, he grew tense. In response to a truck driver who was obviously staring at us while driving by, the youth made comments like 'people here really like to stare and tell stories'. My interpretation of his comments was that it was outside of the social norm for an 18 year old male (him) to be walking around with a white woman in her mid-thirties (me). Instances like this one made me realize it would be challenging to connect with youth in ways that correspond to social norms, thus creating a tricky situation for my research whereby a significant part of my objective was to connect with youth. It was therefore a challenge to foster quality relationships of comfort, connection and trust with youth in the community in ways that seemed to fit community norms.

As mentioned in the previous section, relationality is central to Indigenous methodologies, and it is also extremely important to consider while examining the relationships between Indigenous methodologies and the surrounding context of neo-colonialism in academia. Even well-intentioned efforts from allies of Indigenous people who are actively trying to integrate Indigenous knowledge into mainstream education are often "problematic because the non-Indigenous majority are adept at forgetting this country's colonial history, thus maintaining its reproduction" (Kovach, 2010, p. 76). We therefore need to consistently consider the politics of knowledge, and the power structures.

Throughout my research process there were many instances where I explicitly needed to consider and interact with the politics of power structures, and therefore was engaged in relational work (Kovach, 2010). Especially in working with youth, I found it very important to 'do the relational work'. In one particular instance, while on the canoe expedition, I asked a 16-year old young man if there were Cree legends about the river on which we were paddling. His response was snappy, telling me that there used to be, but that because of the white man and residential schools, his people had lost those stories in addition to losing much of their culture. He directly confronted me, in an oppositional tone, stating "You know about residential schools, right? Do you know that our people were punished for speaking our own language?" I responded yes, and then due to being taken aback by his indictment and being unsure of what to say, I remained silent for a while. After some time I paddled over to him and told him that although it wasn't him and I as individuals who were involved in residential schools, that I as a white woman was deeply sorry and regretful for the actions that my culture has committed and continues to commit upon his people. I said that I recognize that effects of residential schools remain alive and impactful today, and that the harmful impacts are unfairly still suffered by members of his culture. I spoke about how the residential school era was a disgraceful period in history and that part of the reason I was doing my research with Cree people was to hopefully shed some light on, and break down, some of the barriers that

were built up during this period, while also recognizing that similar systemic oppressions still remain today. He shrugged off my response, paddled away and we thus continued to paddle at our own rhythms at a distance from one another. I grew aware that the remainder of that expedition may have continued laden with the explicit gap between our cultural realities and with tensions between us as individuals. However he surprised me later that evening when he came and sat beside me (while I was sitting with the adults) and he said to me, "I remembered, I do know one story about the river..." and he proudly continued to tell me a Cree legend about a mermaid. We have since grown to become friends and occasionally we address Indigenous-White tensions and I believe our conversations have had lasting impacts on each of us, particularly because of our interactions and our efforts, despite occasional discomforts, to 'do the relational work'.

In efforts to remain conscious of what has been discussed in this sub-section and the sub-section above on Indigenous methodologie*s*, prior to doing my field research, I created the following *Researcher's Creed and Ethics*[19]. I read it regularly while in Wemindji to remind myself of my research intents and personal commitments.

Researcher's Creed and Ethics:

- I will remember the context of colonial power dynamics;
- I will think of my research as ceremony, acknowledging that the entire process is important (Wilson, 2008);
- I will try my best to embody (rather than just superficially advocate for) a worldview based on relationships of profound connection while remaining aware of my filters of prior knowledge, feelings, and institutions and how to situate myself accordingly (as per Bishop's (1998) insights);
- I will adopt a lens of relational accountability in order to keep alive the idea that relationships are the defining lines of accountability and the purpose of research is to improve connections and relationships which in turn improves lives and communities (Wilson, 2008).

3.7 Research ethics

Required ethical approval for this research was sought from, and given by, Concordia's Human Research Ethics Committee. All activities related to this research adhered to the Tri-Council Policy guidelines for research in Canada, particularly to the guidelines laid out in the section *Research involving the first nations, Inuit and Métis peoples of Canada* (Chapter 9). Approval to conduct this research was additionally received from the Council of the Cree Nation of Wemindji. Participating

[19] I created it during a reading course (as part of my Masters course work) that was customized in efforts to familiarize me as a researcher with relevant considerations and contexts. This is a condensed version.

youth and community members all gave written consent to participate in the research and in doing so understood that their individual identities would remain confidential and that they could withdraw themselves from any research activity at any time without consequence.

3.8 Participants

In exploring the research question '*What characterizes the relationship that Cree youth in Eeyou Istchee have with water?'* the majority of research participants were Cree youth from the Nation of Wemindji. As mentioned previously, and also as explained in *Section 4: Case Study Context,* youth in Wemindji make for interesting research participants because of their geo-physical proximity with multiple sources of water (including inland rivers, lakes and water holes, as well as coastal seawaters), in addition to their culture's tradition of canoeing and seasonal gatherings on an island, and finally because of the nearby construction of hydroelectric dams.

The involved youth were between the ages of 15 and 24 which is the age category of youth as defined by the United Nations' (2011) Youth Report. Two key youth who were of pivotal support were the Community Youth Chief, and the Youth Program Coordinator at the local Youth Centre. These two individuals acted as bridges between my work and many of the community's youth.

The community of Wemindji hosts an annual summer Youth Canoe Expedition in addition to an annual winter Snowshoe Expedition. I was fortunate to have been able to participate in both of these activities as part of my research activities (which will be described in more detail later in this chapter). While involved with Cree youth on the annual 2014 canoe expedition and the 2015 snowshoe expedition, as well as during other community activities, I was able to gather data through *participant observation* (Bradford & Cullen, 2012; Zieman, 2012) and *observant participation* (Moeran, 2009; Schmuck, 2006) while interacting with a dozen youth and their adult guides. Furthermore, I conducted *semi-structured interviews* (Bradford & Cullen, 2012; McMillan, 2008; Sagor, 2010) with ten youth, five of whom were male and five of whom were female. Seven additional youth (four male and three female) participated in *visual methods* (Heath & Walker, 2011; Snee, 2011), specifically a *video-elicitation* activity (Bradford & Cullen, 2012) held at the Youth Centre. (One of the ten youth interviewed also participated in the Youth Centre activity, so there was a total of eight youth for the Youth Centre activity). Further information on these research methods is explained below in *Section 3.9: Research Methods*.

Additional research participants, who participated in semi-structured interviews, included five selected adults, all of whom work with youth and/or with water in the community. These non-youth participants included:

- a guide from the annual youth canoe expedition (who has guided the trip many times);
- the local Youth Recreation Assistant;
- the local Representative for Wemindji with Hydro Development (and father of three youth);
- the local Director of Environment (responsible for drinking and waste water systems); and,
- the community Lifeguard and Swim Instructor.

Finally, and supplementary, a small group of three 8-year old children participated in a research activity at the Wemindji Summer Science Camp. The visual methods / video-elicitation activity was similar to the one I conducted at the Youth Centre with the eight youth (as mentioned above, and as explained in more detail below in *Section 3.9: Research Methods*).

Although not a central focus of my research, the question of gender and how it relates to water should be mentioned, as for some Indigenous nations gender roles related to caring for water is of utmost significance. As mentioned later in *Section 5: Case Study Findings*, this research did not find explicit observations related to how young men and young women differ in relation to their relationship with water. However, with respects to research methodology and methods, it is notable that young women tended to be shyer and consequently more hesitant to accept to participating in interviews and research activities. Interestingly, the young women who did participate in interviews were all women who had either spent at least one year away from their community; three of the five young women interviewed spent their childhoods in other communities and moved to Wemindji in their adolescent years. The five young men interviewed have spent their whole lives thus far in Wemindji (with exceptions of short trips (nothing longer than a month) outside the community). Research related to the role that gender plays in the relationship with water among youth would be an interesting endeavour for future studies.

Also, for future research (as it was not within the scope of this work), it would also be relevant to include other key players in the pool of research participants, including community Elders as well as teachers and other employers from the school who work with the youth. Their perspectives could offer insight related to the degree to which cultural messages (whether originating from Cree tradition or Western influences) play into knowledge transmission and how that shapes the worldviews of Cree youth and how it manifests in their relationships with water.

Representation from different age groups and generations proved interesting to obtain an understanding of perspectives related to youth from the non-youth in the community, to contribute to triangulation of data sources (Yin, 2009), as well as to note changes associated with the relationship over time that Cree people in Wemindji have with water. These changes are referred to briefly in *Section 5: Case Study Findings*. An additional group of people who could add more to the overall picture would be adults in the phase of becoming Elders; their experience of being the generation growing into the role of knowledge keepers and knowledge transmitters could offer significant perspectives related to the changes, disruptions and/or loss of cultural practices and stories. In effect, they could offer additional relevant context related to their own relationship with water and how it might impact the relationship Cree youth have with water.

3.9 Research methods

Over the course of my research I visited the community of Wemindji three times, including seven weeks in the summer of 2014, three weeks in the Fall of 2014, and two weeks in the Winter of 2015. Considering the evolution of my research process, framed by the flexibility of an ecosystem approach (Sharpe, 2011), the following four activities permitted me to fulfil case study research (Johansson, 2003; Yin, 2009) to learn about Cree youth's relationship with water.

3.9.1 Participant observation.

I practiced *participant observation* (Bradford & Cullen, 2012; Zieman, 2012) while on the annual youth canoe expedition and snowshoe trip, and additionally on occasions where I worked at the community pool and school. Furthermore, I observed youth while visiting the Youth Centre on several occasions as well as during organized activities like their annual youth general assembly, a video dance party, as well as a traditional sleepover at the local culture camp. In concrete terms, I observed through causal and organized activities along with informal conversations. As per theory related to participant observation stated by Emerson, Fretz, and Shaw (as cited in Holley, 2013), I was able to;

> seek[s] a deeper immersion in others' worlds in order to grasp what they experience as meaningful and important. With immersion, the field researcher sees from the inside how people lead their lives, how they carry out their daily rounds of activities, what they find meaningful and how they do so. In this way immersion gives the field-worker access to the fluidity of others' lives and enhances his sensitivity to interpretation and process. (p. 644)

This method of data collection allowed me to adapt to their schedules and ways of being, while learning about their priorities, concerns and lifestyles both in general and also specifically in reference to water. For example, I was able to see how youth interacted with river water while on the canoe expedition, like how they spoke about the river in relation to animals and fishing, and how they filtered the river water using a cloth before drinking it, as well as observe their comfort levels while swimming. I experientially learned that, "participant observation, [is] so important to understanding youth cultural meanings and practices" (Eglinton, 2013, p. 33). Data collected via participant observation included notes that I took while on the expeditions with the youth and while spending time in Wemindji.

3.9.2 Observant participation.

Observant participation (Moeran, 2009; Schmuck, 2006) differs from participant observation (Bradford & Cullen, 2012; Zieman, 2012) in the sense that "You are not curious visitors; you are participating members" (Schmuck, 2006, p.50). By being a participating member of the annual youth canoe and snowshoe expeditions I was able to experientially learn about components of the relationship with water that youth must adopt while part of such activities, including for example drinking water from the river in the summer and melting snow to get water in the winter. By, in a sense, being one of the youth I was able to see 'back stage' as explained by Erving Goffman (as cited in Moeran, 2009, p. 147) in order "to see beyond the social front that informants present to strangers in their everyday lives" (p. 147). With my research topic in mind I was able to continually analyze the behaviours of the group (with my own behaviours included) to learn about how we as humans beings, in certain contexts, interact with water. Thus, my own experiential reflections while participating in activities with Cree youth also allowed me to gain insight into the relationship that they have with water.

Furthermore, my observant participation fostered my relationships with youth involved in my research and allowed for subsequent activities and interviews to happen with greater ease and comfort. Having shared experiences on and around water helped to prompt conversations in addition to provide me with concrete examples to which I could refer to during interviews. Having shared experiences from observant participation "brings a much needed humaneness" (Moeran, 2009, p. 154) to research. For example, the ten days spent canoeing and living with the group of youth certainly fostered a sense of humane collaboration and relationship building. Additionally, learning about Cree culture in such contexts contributed to shared interests, relationships, familiarity, partnerships, and trust.

The observant participation while lifeguarding at the community pool (and interacting with swimmers) allowed me to talk about the water that was right there in front of us in practical immediate terms as an experience we were sharing together, rather than as an abstract or indirect concept foreign to our shared entity. The substitute teaching I did at the local high school (interacting with youth), and observantly participating in a youth sleepover at the community's culture camp, allowed me to partake in informal discussions with youth outside of an interview or formal research activity context. Understanding this 'back stage' (in addition to the 'front stage') while collecting data, "is immensely helpful in terms of the quality of research that you, as a fieldworker, are able to conduct and, therefore the quality of analysis that follows" (Moeran, 2009, p. 148).

Additionally, a fellow researcher and I co-wrote a reflection piece that was published as an article in the Spring 2015 Wemindji newsletter; it was about our experience and reflections while on the snowshoe expedition. We wrote about our impressions of Cree tradition and about our positive observations on the relationship between Cree Elders and youth. I feel that writing and sharing our reflections with the entire community was a clear act of observant participation in community practices, one that aided my reflection and analysis on understanding the 'back stage' while engaged in field work. Data collected for my research from the method of observant participation consisted of notes that I took while documenting my experiences and reflections.

3.9.3 Semi-structured interviews.

I conducted semi-structured interviews (Bradford & Cullen, 2012; McMillan, 2008; Sagor, 2010) with 15 people in total. Ten were with youth and five were with adult community members who work with youth and/or with water. Interviews were formally arranged in the sense that a focused space was created in a specific pre-determined location at a pre-determined time. The interviews were semi-structured, providing flexibility related to which questions I asked depending on the flow and interests of the interviewee. For a list of guiding questions I used in the interviews, please see *Appendix 1: Guiding questions for semi-structured interviews.*

Many of the interviews involved interviewees telling me stories. Storytelling is a common methodology used in Indigenous research as it is an effective way to learn about relationality (Wilson, 2008) in a culture (Kovach, 2010; Smith, 1999; Yeoman, 2012). Smith (1999) lists twenty-five "Indigenous Projects" which include several different forms of storytelling which she lists as "claiming", "testimonials", and "storytelling". Furthermore, she writes about the colonization of knowledge and explains that "Part of the exercise [for Indigenous people to reclaim their culture

and knowledge] is about recovering our own stories of the past... It is also about reconciling what is really important about the past with what is important about the present, and reprioritizing accordingly" (p. 40). By telling stories a person can situate themselves and important ideas within a web of relationships, and considering that this research is about the relationship Cree youth have with water, hearing their stories proved to demonstrate how they relate with water (whether it be by surviving after falling through ice, or about their habits swimming at the pool for example).

Semi-structured interviews proved effective with the 15 people interviewed, however multiple youth (with whom I would have loved to have interviewed) declined my request. Their reasons included fear of being put on the spot as well as the idea that there were right and wrong responses and that they might possibly get them wrong (despite my attempts to reassure them that there were no 'right or wrong' answers and that the interview would rather be a conversation where all responses would be valid and appreciated). For this reason, having other methods of data collection (such as participant observation where I could have informal random conversations about water with youth) proved complementary.

Data from the semi-structured interviews included recordings that I first transcribed and then coded in themes that emerged as common and/or relevant themes in addressing my research question. Notably, much of the data generated from the interviews is congruent with the data that came out of participant observation and observant participation, as well as with the following activity.

3.9.4 Visual methods and video elicitation methods.

The use of visual methods (Heath & Walker, 2011; Murray, 2012; Rose, 2014; Snee, 2011) has experienced a sudden increase in popularity as a research method over the past two decades (Murray, 2012; Rose, 2014). "The term 'visual methods' is often used to describe projects where researchers make use of visual materials (such as film, photography or drawing) in the research process, either to generate data or as a form of data itself" as explained by Allan (as cited in Bradford & Cullen, 2012, p. 77). In the case of my research, visual methods were used as catalysts to generate data. I conducted a visual methods activity by means of video elicitation (Bradford & Cullen, 2012) where two groups[20] watched videos related to water that I had pre-selected. The plan for the activity can be found in *Appendix 2: "Wemindji's Got Water" project activity*.

To explain the activity briefly, I selected five video clips, each approximately two minutes in length, with each one showing a different dimension of a person's or community's relationship with water.

[20] I conducted the activity with a group of eight youth (aged 15 – 24) at the Youth Centre, and conducted a modified version of the activity with a small group of three 8-year olds at the Summer Science Camp.

For example, one video clip displays how water is fundamental to the production of goods and services and promotes an economically-minded water ethic; another shows a cultural water ethic (about how water connects present-day humans with their ancestors and with future generations); and another shows a Western scientifically-rooted ethic (explaining water in terms of H_2O and providing multiple facts about the physical properties of water). I organized watching the video clips as part of a fun competition (with a trophy (made of ice!) for the winning team), as my participant observations (Bradford & Cullen, 2012; Zieman, 2012) taught me that the community of Wemindji loves competitions, and the literature related to youth research promotes using fun and engaging activities (Sharpe, 2011). For the activity, after watching each video clip, I asked the youth to try to explain the worldview or attitude or priority or idea that the video depicted by writing down a word or phrase on a small piece of paper. I then asked them to determine whether or not their own opinions were in line with what they had written on their paper. In efforts to make the activity fun and engaging (Sharpe, 2011) and linking it to something relevant to them, I related components of the activity to features from Facebook. I labeled three different boxes using the categories that Facebook uses to describe a person's relationship status, and I asked the youth to physically place the pieces of paper (upon which they had written their responses) into the box that best represented their relationship with what they had written. The first box was labelled '*In a relationship'* indicating that a specific idea resonated with them and that their own perspectives and/or value system are in agreement with it. The second box was labelled *'Single'* meaning that they did not agree with the respective perspective written on the piece of paper. A third box was labelled *'It's complicated'* which meant that they were not sure and/or that it was not as simple as agreeing or disagreeing with the water ethic portrayed. This allowed them to practice one of Allan's three ways of analysing images (as cited in Bradford & Cullen, 2012), which were video images (and their corresponding discourse) in the case of this research activity. The analysing technique is that of being "in relation to the audience (in terms of meanings that are given to them by different groups of people)" (p. 82).

Data from this activity consisted of the youth's reactions to the water ethics displayed in the videos (as per participant observation (Zieman, 2012) which was significant here), the descriptions they wrote on the pieces of papers related to the various water ethics they saw in the video clips, as well as how they categorized their responses and personal comments related to whether or not their own perceptions corresponded with the identified water ethic categories, or if they were unsure.

The activity was unique in its method as it was developed from my acquired knowledge of what might work with these particular youth after having spent time learning what would not work (as per *Section 3.2: Evolution of methodology*). I learned that the youth love competitions, they enjoy watching videos on YouTube, and they spend a lot of time on Facebook (and take the relationship status categories seriously), so I integrated those features into the activity. This visual methods / video elicitation method attests to the descriptions of the Ecosystem Approach whereby I was adaptive and creative (Sharpe, 2011). Furthermore the activity attests to the idea that "there is no one way in which to approach visual research and that there can be no 'blueprints' or simple recipes for success. However, we argue that these approaches have considerable promise for youth research and for researcher-practitioners researching young people's worlds" as promoted by Allan (as cited in Bradford & Cullen, 2012, p. 81).

I witnessed that watching the films resonated with the youth in ways that differed from their reactions to any of the other methods stated above. I found it to be methodologically rich in the sense that they directly reacted to viewing an array of water ethics. Additionally, it was rich because I was able to integrate it with the other methods. Specifically, my involvement through observant participation (Moeran, 2009; Schmuck, 2006) at the Youth Centre on several occasions during several events allowed me to later run my activity there. Also, while watching the films and in casual discussion afterwards, I practiced participant observation and took mental notes related their reactions to the films (which I then wrote down as written notes immediately following the activity). Moreover, in semi-structured interviews that I held later I sometimes referred to the films, and in fact, in three of the interviews I showed a few of the video clips to stimulate conversation about them. There was one video clip in particular which was filmed in Wemindji, about Cree culture, which very much resonated with the youth. The clip shows their ancestors in canoes and other boats as well as ancestors discussing (in Cree with English subtitles) going skating in the community as well as about the water available to them. Understanding that the youth felt a connection with their own people (and their traditional Cree culture's relationship with water), more so than with the video portraying an economic or scientific water ethic, is telling of ways in which the youth connect with water, which will be discussed further in the *Section 4: Case Study Context* and *Section 5: Case Study Findings*.

3.10 Analysis

In efforts to analyse and triangulate effectively, my *analytic strategy* (Yin, 2009) was to transfer all of my data (in the form of field notes (hand written and electronically written on various devices), notes from activity results, and voice recordings) into typed printed notes as well as to write some

concepts onto post-it notes. As Yin suggests, I then practiced “playing with the data” (p. 129) as I physically cut the printed notes into sections and organized them, along with key concepts written on post-it notes, on my floor and wall to build conceptual maps to draw links and create categories for coding. I sketched diagrams on how different ideas related to one another, and I drafted descriptive frameworks. I created a list of codes and then electronically grouped all of my notes according to the codes (for example, some codes included: changes over time (both general changes, and changes related to the Cree’s relationships with water), perspectives on youth, Cree Knowledge, comments related to drinking water, and perspectives on the Hydro Quebec dams to list a few of many). Throughout this practice I exercised three of Yin’s (2009) *five analytic techniques* of: *pattern matching*, *explanation building*, and *logic model* sketching. (I did not exercise the remaining two of *time-series analysis* nor *cross-case synthesis* as they were less applicable to my work.) Once my post-it notes and relevant quotes were organized in logical synthesized patterned categories, I began writing about my findings and I witnessed the story emerge.

Throughout writing, brainstorming new logic models helped me to understand relevant connections further, thereby revealing the case and its story further. However I was challenged with how to frame it theoretically. I was offered some insight during a *Water Ethics Conference* in Wisconsin in April 2015 where I recounted the preliminary analysis of my findings to a professor who has co-edited a book on Water Ethics as well as published several articles on the subject. He introduced me to the concept of the hoquotist (Mack, 2010). I found it resonated well with parts of my findings and I therefore include it in discussions throughout this thesis.

I found it resonated well with parts of my findings and I therefore include it in discussions throughout this thesis.

As explained by Johansson (2003), findings from a case study can be generalized when supported by one of, or a combination of, *deductive, inductive* and *abductive* principles (Johansson, 2003). It is significant to note that with case study methodology, “Generalisations from cases are not statistical, they are analytical. They are based on reasoning” (p. 8). The principles of reasoning are described in the following paragraphs.

Deductive generalizing is about testing a hypothesis to validate a theory. I came to my research with a hypothesis based on my previous life experiences and work. I hypothesized that Cree youth could act as a figurative bridge between traditional Indigenous and Western ways related to water,

and therefore could act as agents of change in contributing to enhancing water education in Canada. However, as described in *Section 5: Case Study Findings*, the context and nuances are complex, and they offer a reality different from that of my hypothesis. This led my analytical reasoning to a further form of generalizing principles.

Inductive generalizing involves generating theories. Through my research analysis I have come to theorize that the current influences that compose the context in which Cree youth are living have created a state explained in *Section 5: Case Study Findings*. Briefly, it is a state whereby the collective water ethic of Cree youth is complex with possible feelings of disorientation based on a hybrid-narrative.

Abductive generalizing results from comparing an actual problem to other cases. In various ways, I conducted abductive generalizing, by comparing the generalized traditional Indigenous water ethic with the mainstream Western water ethic (as both presented in *Section 2: Literature Review*) and indirectly with the relationship Cree youth have with water. However this comparison is not the guiding approach to my work, yet it is notable as a subtle and broader generalizing technique.

Conventionally, methodologies related to case study research have focused on one of the three aforementioned generalizing principles. However growing interest proves that case study researchers are increasingly using a combination of two or three of them as per the *adaptive theory approach* promoted by Layder (as cited in Johansson, 2003). Using three of them supports further the triangulation of my work while in turn increases the relevance of the findings described in *Section 5: Case Study Findings.*

CHAPTER 4: Case Study Context

4.1 Introduction to case study

To address the research question '*What characterizes the relationship that Cree youth in Eeyou Istchee have with water?',* this section explores the case study context in which Cree youth are situated. As per case study methodology (Johannson, 2003; Yin, 2009), youth research (Beatty & Chalk, 2006; Cieslik & Simpson, 2013; Helve & Holm, 2005; Sharpe, 2011) and Indigenous methodologies (Hart, 2007; Kovach, 2010; Smith, 1999; Wilson, 2008), acknowledging relevant context is essential. First I present the culture in which Cree youth are growing up as members of Eeyou Istchee, in addition to discussing the culture's corresponding water ethics. Then, in recognizing that context at the Cree Nation level also affects youth and impacts their perspectives, and to further situate this research, I describe the broader tensions felt, and efforts being made, at the level of the Cree Nation to both preserve Cree knowledge and to safeguard water.

Important to note here is that many of the points mentioned in this section, unless specifically stipulated, are from Cree adults, Elders and their allies (academic partners, etc.). For example, the documents referred to later in this chapter, including those published by the *Canadian Arctic Resources Committee* (McDonald, Arragutainaq, & Novalinga, 1997) and the *Grand Council of the Crees* (1999), as well as the *Core Values Diagram* (Stocek, 2013) created by the Elders of the Nation of Wemindji, were all composed by Cree adults, Elders and their allies. They do not necessarily represent the perspectives held by Cree youth. The relationship with water described here is pertinent in understanding the foundations of the relationships Cree youth have with water to frame the findings.

4.2 Crees of Eeyou Istchee

The Crees of Eeyou Istchee comprise approximately 12,000 people living in Northern Quebec in ten communities on the east side of James Bay. The Cree Nation of Wemindji, with a population of approximately 1300 residents, is located on the shoreline half-way up James Bay where the Bay meets the mouth of the Maquatua River. The name Wemindji means "Red Ochre Mountain" and the settled community was established in 1959. Traditionally, prior to this period, the Cree lived a more semi-nomadic lifestyle and settled temporarily at Old Factory Island, the site of a Hudson Bay trading post, located 25 kilometres south of Wemindji, accessible only by water or helicopter. Old Factory Island however began to be increasingly difficult to access by boat due to increasingly shallower waters around the island. It was deemed too difficult to permanently supply with adequate amounts of fresh water and too small an area to establish a school. Furthermore,

concerns grew related to sanitation on and around the island. Hence the move to Wemindji's current location was made. Every summer numerous Cree people from Wemindji gather on Old Factory Island to engage in activities to commemorate the site and their cultural traditions.

4.2.1 Rapid changes.

Over the past 40 years, Cree culture has experienced rapid change including the aforementioned community settlement and transition from seasonal nomadic hunting and trapping lifestyles to more sedentary routines. There is diversity among lifestyles in Wemindji whereby many people practice traditional hunting and fishing to meet their sustenance needs, many are committed to wage-work, and others are pursuing educational and professional opportunities (Stocek, 2013). Christianity has permeated the community and is welcomed for its values of respect, sharing, love and kinship (Ferrara, 2004; Niezen, 2009). However, despite the similar values held by Christianity and Cree culture, a difference that Ferrara (2004) points out is that in Cree culture ""[r]espect"...is not a moral value as it is among Euro-Canadians. Instead, it is an acknowledgement that the self is inextricably implicated in the surrounding world, be it physical or social; harming others or the environment is harming oneself" (p. 62). I was told (and I noticed) that although people are very accepting of Christianity, they generally do not like to talk about the disappearing traditional Cree spiritual practices such as the formerly popular shamanistic activities and 'shaking tent' rituals (Preston, 2002).

Amongst other influences, according to the Cree, the major cultural and lifestyle changes result from the building of the Hydro Quebec dams. The quick changes and their impacts are summarized by Elder Edward Tapiatic (in McDonald, Arragutainaq, & Novalinga, 1997);

> They [Hydro Quebec] dammed the river. A lot of work. So suddenly it hurt a lot of our Elders. The lifestyle changed. The health changed. All these new things: civilization, money – lots of it. We could buy anything: food from the store, skidoos to go anywhere you want to go, cars, the pleasures of life – go on holidays. We didn't know what we were doing. We couldn't even go inland on the lakes or rivers like before. Everything was motorized. We couldn't walk. We'd walk a few feet and take a rest. We got lazy. Spoiled. That's how it is now. Our health is gone. But we're slowly bringing it back to our kids. (p. 26)

Although many negative consequences of the dams are acknowledged such as the points just mentioned above and the flooding of traditional hunting grounds (Richardson, 1991; Salisbury, 1986; Tanner, 1999), it must be noted that so are many benefits. "The Cree people's ability to

negotiate and adjust to subsequent repercussions testifies to their activism as well as their ability to accommodate rapid social change with a sense of order and continuity" (Ferrara, 2004, p. 35). Subsequently, Cree people gain financially from the dams (Kulchyski, 2004; Salisbury, 1986) which allows the communities to provide modern infrastructures and an array of services to their residents. The building of the dams also brought the construction of the James Bay Highway which links Northern and Southern Quebec. In 1995 an access road was built to join Wemindji to the highway. Having access to the highway has connected residents by land with previously remote locations, as well as to the populations and resources of 'the South' (Salisbury, 1986) in cities like Val D'Or, Moose Factory, Ottawa, and Montreal. Groups of people from Wemindji often travel southbound for visiting purposes, work, shopping trips, business meetings, and entertainment events. The road also subsequently connects Wemindji by road to other Cree communities, strengthening the larger Cree social network. The road additionally provides access for non-Cree people from the South with other Northern Cree territories to participate in hunting, fishing, and tourism activities (Niezen, 1993; Salisbury, 1986). Increasing access to these Northern territories to non-Cree people, specifically hunters, has caused some conflict due to different ways of interacting with and treating the land and animals.

Considering economic development, Wemindji is attractive to commercial investors. The community is therefore actively creating business partnerships while simultaneously ensuring the preservation of the community's cultural interests. In effect, they are deliberately working to capitalize on employment prospects while simultaneously remaining true to Cree values (Stocek, 2013). As explained by Elder Edward Georgekish (as cited in Bussieres, 2005);

> We're now in the economic world, everyone wants to be a part of the job market, and it's understandable, especially for young people. ... You need money in today's society. You need to pay for the gas, you have to pay for your house, you have to pay for your truck and your skidoo, your transportation, the dogs, we don't use the dogs, like in the sixties. ... Things, life has changed, drastically. ... We want to prosper like everybody else... So if we just sit back and do nothing, we won't get anywhere. We want to be part of it... we want to take a piece of the pie, instead of being exploited. (p. 95-96)

However, despite the conscious efforts to honour Cree heritage, there is concern that, as Finger and Asún (2001) explain, "Northern-style development is being imposed in its technological, cultural and political dimensions. Through this fundamentally colonial process, peoples' endogenous knowledge is being or has already been destroyed, and replaced by Northern expert

knowledge and corresponding Northern technologies, world-views and power structures" (p. 91). Considering Finger and Asún's point, the gap in Wemindji between the Elders (holding the 'endogenous knowledge') and youth (rapidly acquiring 'Northern expert knowledge and corresponding Northern technologies, world-views and power structures') is acknowledged by community members, as covered in *Section 5: Case Study Findings*.

4.2.2 Preserving Cree knowledge.

Despite concerns regarding the increasing generational gap due to the influences of economic development, the desire to bridge the gap is growing. Preserving knowledge is important to Cree people, for as stated by Stocek (2013) who studied cultural preservation and values;

> Indigenous knowledge [(IK)] is not so much about a return to the past as it is about staking a claim in determining Indigenous people's future, a future based on their origins, spirituality, and worldviews. IK has inspired a decolonization of knowledge hierarchies as it asserts its location in language and place, spirituality, and relationality. (p. 173)

Thus, particular attention is being put on documenting Cree knowledge through projects such as establishing a culture camp with traditional buildings on the outskirts of the community (started in the Fall of 2014 and currently under continued construction), as well as building a knowledge centre museum near the community school.

Despite the many rapid changes, and considering the conscious efforts to create opportunities for practicing traditional activities, many Cree people continue to regularly visit their family hunting grounds to hunt and fish, reflecting their connections to the land and natural surroundings. The term *miyupimaatisiiun* in Cree means "being alive well" and incorporates the belief that values are inseparable from practices, and that life in the bush contributes to this state of being alive well (Adelson, 2000). Cree cosmology promotes thinking that the natural world and time spent in the bush offers 'restorative and curative powers' (Niezen, 2009). Being connected to life in the bush is considered important to Cree people and also plays a strong role in their sense of identity (Ferrara, 2004). In many cases, technology such as snowmobiles, pickup trucks, and more powerful firearms have allowed them easier access to hunting and fishing. Many traditional activities remain as priorities and are now performed in different, more modern, ways. Transmission of traditional knowledge related to traditional activities is viewed to be a responsibility held by the Elders to be passed on to the youth.

This responsibility that is traditionally held by Elders to be the knowledge keepers and transmitters is a role that bears concern for some adults who are moving into the life phase nearing Elderhood. Many of these Cree adults, who will soon be recognized as Elders, worry that they do not bear sufficient Cree knowledge to pass on to coming generations; much of their language and many of their cultural stories and practices were lost during the disruptive residential school era as well as due to the competing and increasing forces of Western culture's neoliberal systems, worldviews and institutions. Despite the apprehension of stepping into Elder roles and responsibilities having less familiarity with tradition and Cree knowledge as previous generations, intentional efforts are being made by all Cree communities in Eeyou Istchee to support their populations with healing and capacity building initiatives. For example, in 2015 Wemindji hosted its first annual Healing Conference / Camp where Cree adults and Elders came from several other Eeyou Istchee communities to gather and participate in circles, conferences, and activities to heal together and share cultural ways in efforts to strengthen themselves as Cree people, individually and collectively. Additionally, the community is investing in services, programs, and educational projects such as the culture camp and the Wemindji knowledge centre to equip the population with tools to transmit cultural traditions and Cree knowledge.

4.2.3 The youth stage in Cree life.

Traditionally in Cree, the word that describes the youth period in one's life is known as *Kaa uschipimaatisiito* meaning "the ones who are living new" (James, 1993, p. 44, as cited in Hayes, 1998). Historically, this stage in life was not linked to an age category but rather involved a series of rites of passage such as hunting accomplishments (James, 1993, p. 15 as cited in Hayes, 1998). Traditionally, Cree adolescents were recognized as adults at puberty, for boys when they became routinely involved in hunting practices, particularly upon their first kill of key animals, and for girls when they showed abilities to sew and make moccasins, mittens and snowshoes as well as exhibit abilities to prepare pelts. Although neither the division of labour according to gender, nor the difference in gender roles and how they shape a youth's relationship with water, are primary focuses of this research study, it is interesting to note the historical differences between the genders. Additionally it is interesting to consider how traditional gender roles may impact present-day ideas and functions within Cree culture and interesting to take into account whether or not (and if so how) these roles would influence the relationship that Cree youth have with water.

Preston (1979), explains that the recognition of a youth period in Cree culture is a result of the residential school days in the 1960's when children returning from school became less involved in family hunting units and rather associated more with their peer-groups. He also commented on

how economic development is partly responsible for expanding the youth category, as it has led youth away from traditional communal bush-life practices and lifestyles that would otherwise bring them sooner to the conception of adulthood as per traditional hunting socialisation practices. Since this time, the concept of 'youth' has increased in use, amplified by imposed Western education systems (Hayes, 1998), and it is currently widely acknowledged in Cree culture visible from the establishment of youth centres, youth councils, and Youth Chiefs in every Eeyou Istchee community.

4.3 The Crees of Eeyou Istchee and water

The Cree Nation of Eeyou Istchee is situated in a geographical area plentiful with waterways including, but not limited to, an oceanic bay, major rivers, smaller rivers, inland lakes, underground streams, and springs. Traditionally, water was the principle 'highway' used for transportation, as the Cree people practiced seasonal movement between the coast (in summer months) and inland (in winter months) and used canoe-travel on the many rivers for survival and migration with the animals for hunting and trapping purposes. Additionally, rivers were used to transport pelts during the contact period to trade with the visiting Europeans. Cree Elders therefore understand the value of rivers and see their benefit to human health and futures, and as described by Elder George Diamond (in McDonald, Arragutainaq, & Novalinga, 1997), "Rivers and lakes contribute a lot to the well-being of people. You cannot make a decent living from land that has no water on it" (p. 64).

Furthermore, Cree culture generally understands the critical role that water plays in the overall web of life. A true understanding of this requires profound knowledge of river systems and the role that rivers play in greater interdependencies of life-supporting systems. Damming a river has an impact on the larger system, as Fred Beardy (in McDonald, Arragutainaq, & Novalinga, 1997) explains;

> It is very important to know how the river functions. When we bother the river we destroy it and divert the ecosystem. It is contrary to how we were told to use the river. When we dam the system, the fish are destroyed. They are no good. They are inedible. They swim far into the muskeg. They become poisoned and tainted with pollutants. Other living things in this ecosystem are affected and destroyed by damming rivers. We should not allow the river system to be changed. (p. 52)

Instead of changing the rivers, Cree people hope that the rivers will be enjoyed by future generations as they are currently. Henry Stewart, whose family hunting grounds includes the *Old Factory Lake* which is upstream to the *Paakumshumwaau (Old Factory) River*, welcomes other

families, and particularly youth, to visit the lake to enjoy it and learn from it. He states (as cited in Bussieres, 2005), “I have a dream. I’d like to see people come down and into the lake to go fishing… I would like to see the continuation of that canoeing, with camping and hiking and going around” (p. 96). For these reasons of cultural heritage, along with inherent respect for the land and waters;

> It was repeatedly suggested that “[t]he water, the land and the river, the way of life of the people, too” should be protected, to use the words of Fred Asquabaneskum. The Cree relationship to the land is intimately linked to ideas and practices centred on environmental protection. Two overarching values shaped this relationship: respect and reciprocity. (Bussieres, 2005, p. 54)

4.3.1 Interactions with Hydro Quebec.

As previously mentioned, the Cree communities of Eeyou Istchee have spent many years dealing with Hydro Quebec negotiating agreements related to the building of large-scale hydroelectric dams on some of the large virgin rivers that run through Cree hunting grounds. In recent decades, collaborations have been peaceful and cooperative between the Cree and Hydro Quebec, however from my research findings I understood that some mistrust and suspicion has developed among Cree youth towards “Hydro” and/or “the French”. Helen Atkinson (as cited in McDonald, Arragutainaq, & Novalinga, 1997) describes some of the effects of the Hydro development;

> So what the development has done is to make hunting territories smaller by flooding a lot of land, and opening up the territory to sport hunters. The environment is damaged. The animals are sick. The animals are changing their patterns. That’s bad in and of itself, but when they [Hydro Quebec] don’t understand our lifestyle, and that we need our way of life, it’s a slap in the face. (p. 49)

Related to youth, Ferrara (2004) explains that “The mega-hydro-electric project continues to affect the younger generation” (p. 34). As one of her adolescent patients explained;

> ...“This [traditional way of life] is what Hydro is trying to destroy, but they can’t because the bush is part of who we are.”...He was emphatic in expressing how disastrous this project has been for his people... [he continues] “The whiteman tried to take the bush away from my people, but they can’t – it is our way of life and will always be”... (p. 34)

His sentence exhibits his Cree values of maintaining bush lifestyles and family and social traditions, in the face of feeling threatened. Some of the corresponding tensions between Hydro and the Cree are rooted in the reality that the different cultures hold different worldviews, which consequently foster different types of relationships with water and therefore cultivate different priorities.

Desbiens (2004) writes about the cultural variances and explains that the relationship the White Southern Quebecois have with the rivers is one of *detached spectatorship*. In other words, they view Northern Quebec and its rivers from a detached vantage point (rather than from a viewpoint of being actively involved and integrated within the river systems). From their state of detached spectatorship, they barely see the Indigenous populations and their intimate relationships with water. They do not see or understand that to the Cree, as expressed by Elder Donald Saunders (as cited in McDonald, Arragutainaq, & Novalinga, 1997), “Taking away the land and water takes away our pride, dignity, and ability to survive” (p. 5).

The water ethic of the Southern Quebecois (who manage the hydroelectric projects) is congruent with the dominant Western water ethic which values water as an economic commodity for human advancement. Notably, they have only considered human advancement by their own definition as per the dominant Western water ethic. We could classify Hydro Quebec’s water ethic as anthropocentric (prioritizes human beings as a society), and potentially egocentric (prioritizes the individual, if we apply it to the individuals of a specific culture) (Merchant, 2010). Furthermore, the construction of large-scale dams displays a water ethic rooted in *Dominion and the human claim to water* (Brown & Schmidt, 2010) exhibiting control and command style management where humans dominate nature.

> The floodings in Quebec for example, massive floodings, and massive dams that Hydro Quebec says will last as long as the pyramids. But when all that organic matter was flooded, so many life waves have been affected. Not only of the Cree and in some cases of the Inuit, but also of the fish and of the trees and of the biocommunity. This was not foreseen because we had this hubris that we could control nature and deal with any after effects that could arise. (Scharper, 2013)

Effects of the massive dams, in addition to the logging and mining practices occurring in the region, have contributed to altering patterns of the annual geese migration routes. Waterfowl, and particularly the goose, are considered some of the most significant animals to the Cree. Goose is a

popular favourite food and the animal represents profound cultural meaning, in fact the emblem of Wemindji is an image of a goose flying in front of a red sun. However, the geese who previously favoured flying through channels in the forest cut by Cree hunters, are now instead flying along channels created by recently-built roads. In effect this brings the waterfowl to inland lakes and farther from the coastal waters of the Bay where they traditionally returned year after year (Sayles & Mulrennan, 2010) and where hunters were accustomed to finding them.

In efforts to attract and protect geese populations, in addition to other conservation practices, a protected biodiversity reserve called the *Paakumshumwaau-Maatuuskaau Biodiversity Reserve* was established (Wemindji Protected Area Partnership, n.d.) in May 2008. The area is comprised of Wemindji and its surroundings which includes two of the region's major rivers**.** In addition to this protected area, the Cree communities of Eeyou Istchee are taking steps to establish a marine protected area, proposed as the Tawich (Marine) Conservation Area (Mulrennan, Boussieres & Scott, 2009) in partnership with the Grand Council of the Crees, the Wemindji - McGill Protected Areas Project, and Parks Canada. Efforts towards instituting these two protected areas shows commitment on the part of the community and its partners to defend and care for their surrounding lands and waters, displaying the importance of the land and water to the Cree people.

4.3.2 Exploring the water ethic.

Due to the vast experience with water management, the Cree people have had the opportunity to cultivate a well-developed collective reflection on their relationship with water. In a document directed at Quebec's Commission on Water Management, the Grand Council of the Crees (1999) clearly outlines their values related to water and their expectations for water management in their territory. For example:

> In terms of our history, culture and survival, *neebee* [water] has always been, and continues to be, of crucial significance to Cree individuals, Cree communities and the James Bay Cree Nation. *Neebee* is vital to the well-being of our traditional territory and its flora and fauna, and to the integrity of our sub-Arctic environment as a whole. Since we view ourselves as an integral part of our natural environment, the importance of *neebee* to us has profound and diverse dimensions. (p.91)

By examining documents related to water-sharing and/or testimonials related to water, we can obtain a sense of a community or region's water ethic (West, 2007). My analysis of the

abovementioned document and its many declarations related to water shows that the water ethic of the Crees of Eeyou Istchee includes the following acknowledgements:

- Water is diverse in its forms and dimensions;
- Water is life-giving;
- Humans are part of nature which includes water;
- Water must be respected; and,
- Humans should commit to safeguarding water for future generations.

The document clearly depicts an understanding of, and respect for, complex relationships and the notion that the Cree people are a part of the environment, in addition to recognizing the integral and interdependent natures of the environment's different parts. As explained,

> The indivisible, interdependent and interrelated nature of our human rights complements and reinforces our perspective of the integrity of the environment and resources of *Eeyou Istchee* [the Cree people and land]. The environment and its resources and ecosystems – of which we are part – are also integral and interdependent in nature. These complex relationships must be respected and preserved in any new water policy for *Eeyou Istchee*. (Grand Council of the Crees, 1999, p. 34)

Furthermore, an article including testimonies from The Great Whale Environmental Impact Assessment (GWEIA) from Cree individuals gathered in community consultations with multiple Cree communities includes the citation, "My trapline [hunting grounds] is important, but the river will always be the most important part of my life" (as cited in Desbiens, 2007, p. 265). This quote tells of how highly valued and important the river is to this Cree man indicating that we can add to the list of acknowledgements above that: Water is a priority.

Another document that can add to our ability to understand the Cree's water ethic is that of their *Core Values Diagram*. In the community of Wemindji, Christine Stocek (2013) and then-Chief Rodney Mark worked with a group of Elders for over five years to design the following image and selected words (see *Figure 1: Core Values Diagram*):

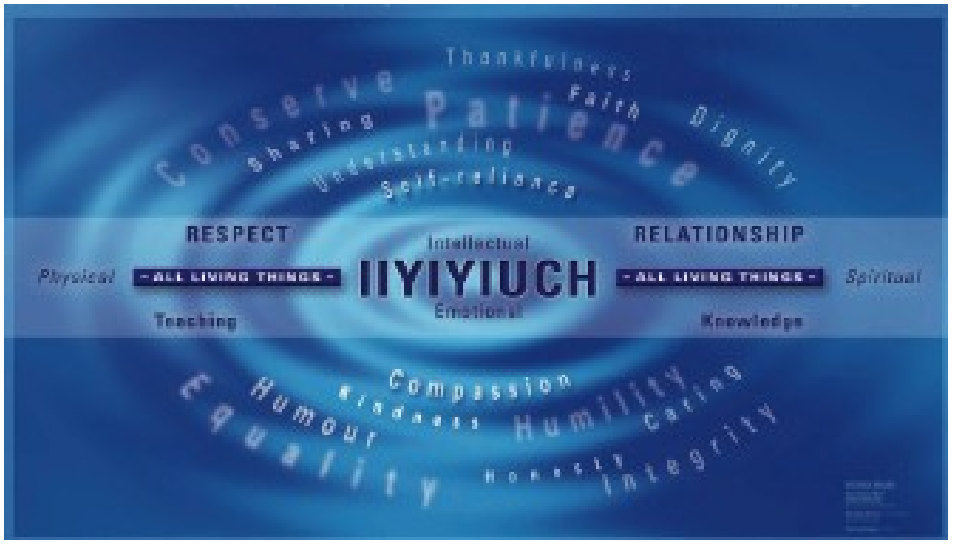

Figure 1: Core Values Diagram (Stocek, 2013)[21]

The concepts, written in single words (such as 'Humility' and 'Equality') are described by then-Chief Rodney Mark as being "all interconnected and interdependent. When a value is not active, the balance at our core shifts; in an infinite, never-ending variety of ways, these values all work hand-in-hand. Life is understood as challenging; how we respond to the events in our life provides ample opportunity to achieve this balance" (p. 180). He also explains that the horizontal band in the image depicts this balance representing how the core values combine to work together. In carefully selecting the words for the diagram, the Elders expressed the importance of fostering fulfilling relationships, meaning "relationships that permeate one's existence, interconnected with the environment" (p. 183).

In constructing this diagram, over seven different symbols were intently considered (including symbols of geese and balance scales). Finally the symbol that was chosen, as we see in the diagram, was that of rippling water. The Elders explained that they chose water because it is a powerful element from nature that is understood by everyone, and is also a symbol that expresses relationality (Wilson, 2008) which is important to them (Stocek, 2013).

[21] This *Core Values Diagram* was created in part to familiarize the growing number of non-Cree collaborators visiting Wemindji (like researchers, medical clinic professionals, teachers, etc.) with the values of the community. The word at the centre of the diagram "Iiyiyiuch" would be translated to 'self' in English; in the local Cree dialect it means "people of the land" (Stocek, 2013, p. 178).

4.3.3 The role of relationality.

This concept of relationality (Wilson, 2008), as described in *Section 2: Literature Review*, is extremely pertinent in Indigenous ontology. Niezen (2009) quotes a Cree man who tells of his interactions with the La Grande River:

> This river here was once a might river, a very powerful river. [The place] where the rapids used to start from, that water was so powerful that you could cure yourself with it... Hydro wants to get that power, use it in a different way; but we, as indigenous people, have always respected that power in the water... When you want to go on the land, connect yourself with the rapids, the fresh water, not the water you take from the reservoir; it's not going to give you any effects at all. But if you go off the reservoir and on to my territory, there's a lot of rapids there. And if you want to cure yourself with the water, go there, take some, and boil yourself some tea. Then you will notice the texture, the taste, because it's powerful. I usually go there during my time in the bush. I go there just to watch the rapids. (p. 21)

This man exhibits an apparent reverence for the river and clearly has a deeply engrained relationship with the water and its characteristics and powers and his relationality with them. Linking this example to a broader scale, relationality is an integral element of the collective global Indigenous water ethic. As self-identified in the Indigenous Peoples' Kyoto Water Declaration (2003) at the Third World Water Forum,

> Our relationship with our lands, territories and water is the fundamental physical, cultural and spiritual basis for our existence. This relationship to our Mother Earth requires us to conserve our freshwaters and oceans for the survival of present and future generations... (n.p.)

This above declaration statement extends beyond the concept of relationality to include an implicit sense of stewardship and reciprocity. Sandford and Phare (2011) speak to the principle of reciprocity by stating that "fundamental to the traditional ways of many Indigenous peoples is that the use of water by humans is governed by a relationship of mutual responsibility. Water looks after us, so we look after water" (p. 6).

These characteristics of traditional Cree water ethics present the context for understanding the foundations of key influences working upon Cree youth and their respective water ethics. The

following section, *Section 5: Case Study Findings,* reports on my research findings, which are focused on Cree youth specifically, in efforts to explore the current case of Cree water ethics in a contemporary youth reality. Subsequently and in the broader objective, the following section provides findings to respond in part to the broader question of how Cree youth might be able to contribute to informing processes of fostering more sustainable mainstream water ethics in Canada (which is then discussed in *Section 6: Discussion of this thesis*).

CHAPTER 5: Case Study Findings: Cree youth water ethics

5.1 Introduction to research findings

The guiding research question for this study is '*What characterizes the relationship that Cree youth in Eeyou Istchee have with water?'* The text that follows presents myriad influences working upon Cree youth as a group, while linking their current context to describe how it shapes their connection with water. In this *Case Study Findings* section, I will present and briefly explain seven key influences on youth that have emerged from these research findings. These influences contribute to the myriad that make up relevant geographic, cultural, and sociopolitical contexts, and include:

- Physical interactions with water;
- Cree culture;
- Western-laden institutions;
- Technology and indoor comforts;
- Contemporary youth culture;
- Pan-Indigenous movement; and
- Perceptions related to Cree youth.

These influences compose a puzzle in which Cree youth are involuntarily navigating themselves and in which they oftentimes experience a sense of disorientation. This disorientated state can lead them to adopt their own unique set of customized values, behaviours, and ethics which is a process that in turn influences their relationship with water.

From these research findings, as explained throughout this section, several Cree youth claim that they are pulled in different directions stemming from different cultural forces, and that they oftentimes find themselves unsure of how to navigate their thoughts and decisions when it comes to lifestyles and worldviews. A component of the summary of these findings attests that the Cree youth involved in this research value their traditional Cree ways and generally show a deep interest in 'being Cree' and keeping Cree knowledge alive (along with their culture's corresponding water ethics), however they express that this is a difficult task given the multitude of contemporary allures such as wage work and pop culture which are competing for their attention and identity. Such testimonies are presented in this section via quotes and summations of conversations. I should reinforce that these observations do not apply to all Cree youth but represent a synopsis of the findings based on the perspectives of the Cree youth who participated in this research.

During my first visit to Wemindji in July 2014, a youth from the community told me that the relationship Cree youth have with water is very different from that of their grandparents. His statement has since been validated by the findings of this research which show that the water ethics of Cree youth are shaped by their complex positioning of being connected with their culture's traditional ways in addition to being connected with the reality of being actively involved in Western mainstream contemporary systems. The relationship that Cree youth have with water is telling of the overwhelming diversity of values and ethics that surround them.

Considering the multifaceted context presented in this *Case Study Findings* section, the personal and collective water ethics of Cree youth do not fit smoothly into the current frameworks of polarized water ethics as presented in much of the literature, corresponding neither with the well-defined 'Western water ethic' nor with that of the distinctive 'Indigenous water ethic'. They therefore offer the literature related to Water Ethics a case study laden with nuances. The state in which Cree youth find themselves, which could be considered conflicted, inevitably influences the water ethics they hold. An analogy that might be relevant to their current state of being, as presented in *Section 2: Literature Review*, is that of the *hoquotist* (Mack, 2010) which describes the disorientation when a person falls out of their canoe.

I asked a Cree woman if there exists a comparable word or concept in Cree to which she replied that *ku-ti-pi-uu* means when a person tips in their canoe and *wiin-h-pi-uu* means lost directions. She said there is likely one concept or word for those two ideas together but that she was unaware of it. On my next visit to Wemindji I will ask Elders and/or adults and youth who are well versed in Cree language in efforts to learn about possible similar concepts in Cree, and also to ask if it would, in their perspective, be an appropriate analogy to use for the context in which Cree youth find themselves.

Worth mentioning here for the sake of framing these findings is the point that among Cree youth, lifestyles and influences vary greatly. Some youth spend much more time on the land practicing traditional activities and others remain mostly in town where they have little connection to living on the land without electricity and without in-town conveniences. Throughout these findings I strive to display commonalities among the Cree youth involved in this research while also illustrating the diversity among them. Recognizing the differentiation among Cree youth is congruent with the recent assertion in the scholarly literature which includes the idea that research shows that "...recent academic literature underscores the importance of moving away from the notion that

communities are internally homogeneous in terms of interests, values, [and] knowledge" (Bussieres, 2005, p. 107).

5.2 Cree youth's relationship with water

5.2.1 Physical interactions with water.

The physical interactions that youth have with water are likely the most apparent factor when exploring the relationship they have with water, as these interactions are the clearest to see, speak about, and understand. Additionally, the physical interactions that Cree youth have with water not only influence their relationship with water but also act as a manifestation of the other influences in the sense that they show how the other influences reveal themselves.

To understand the wider geo-physical context, Cree youth in the town of Wemindji are physically bordered by water on two sides with salt water on one bank and fresh water on the other. Within their personal lives, the majority of Cree youth regularly practice water-related activities like fishing, canoeing, swimming, and snowmobiling (on frozen water), and they explicitly relate water to activities like fishing and boating. However many of them did not relate playing hockey to water; in several cases another youth or myself pointed out the fact that the ice they skate on is frozen water, and it was a revelation to some, especially with respects to the indoor ice rink at the arena.

Several of the youth spoke about how their ancestors spent a lot of time on the water, using it for transportation by canoe, but that now the relationship with canoeing is not one of need but rather one of leisure, sport, and/or cultural heritage. One youth described it like, "A long time ago water was their best friend, they could travel anywhere on water with canoes. And today people don't really use the water as highways I guess you could say. They just drive in their vehicles." I wonder if, for Cree youth, these changes have conceptually turned water into being more like a commodity for recreation rather than a living being that requires care and work while interacting with it for survival. If so, the relationship many Cree youth have with water might be shifting towards an understanding that humans can control water within our human-made systems. Subsequently this might be moving the youths' relationship with water farther away from one where they interact with water in the wild where it is free-flowing and where humans need to direct ourselves, rather than direct the water, to engage with it.

The majority of the Cree youth with whom I spoke and interacted showed a decreasing interest in water-related activities in the wild and instead showed preference for water-related activities in

controlled spaces, and/or ones that involve controllable devices such as motors. For example, they seemed to favour hockey (in an indoor arena) to snowshoeing outdoors, and they swim more often in the pool (in the indoor sports complex) than in the river, and they are frequently using motorized boats rather than paddling canoes. Their preferences might indicate that relationships with water based on controlling the water (or controlling their navigation on the water) trump activities that go with the flow or water and have less drastic effects on changing natural waters patterns.

One notable water-related activity is the annual youth canoe expedition on the *Paakumshumwaau (Old Factory) River*. The motive of running the expedition is to offer youth the opportunity to travel through their culture's traditional canoe routes, tracing the path that their ancestors used to relocate seasonally, follow animals, and bring pelts to James Bay for trade with the Europeans. As described by an informant in the research of Bussieres (2005);

> [T]he Old Factory River is a historical route. Many families used it. My grandfather used to always tell me stories about paddling down and portaging along the Old Factory. Yes, most of the stories were about paddling and portaging from the lake to the bay. This river is really a historical route that was used by more than one family. (p. 58-59)

Participating in the canoe expedition offers youth the opportunity not only to connect with their cultural traditions and Cree ways of life, but also to connect with the water by navigating through raging rapids, drinking water from the river, fishing and hunting water fowl, and camping in the rain. In the words of one 18-year old young man, "that river is beautiful. I've seen people be changed by it. When I went down the river I've seen some of the McGill students seen life a little differently from before they went down the river". The Youth Chief, who led the 2014 canoe expedition, made a comparison to youth being in town and youth being on the river; "In town they don't really play with the water like they do on the canoe expedition where you can go swim whenever you want, go down rapids. They're in a better relationship when they're on the river."

Being in relationship with water links again to the idea of relationality (Wilson, 2008). Thus, in exploring the relationship that Cree youth have with water, the following indicators are significant: how they relate to water; how they use water; how they learn about water; how they think water should be treated; what distracts them from learning about or interacting with water; the images of water they see; and the way they relate to stories about water. The most comprehensible, and obvious to the youth, application of the relationship they have with water is visible in the relationship they have with drinking water.

Drinking water was most certainly the most common theme arising in interviews with youth about water (rather than possible themes such as the Hydro Quebec dams, changes in natural bodies of water, etc.), illustrating that the most explicit aspect of Cree youth's relationship with water is related to the substance they intake directly through the intimate act of drinking.

The principle preoccupation with water among those interviewed was whether their drinking water was 'good water' or not, which applied to both tap water, river water, and spring water. A synonym for 'good water' that was often used by the youth is that of 'fresh water'.

Many youth made reference to the idea that their ancestors used to have to work hard to get their drinking water and that youth today can now get it so easily. What is interesting to note about this is that Cree people used to travel to the water, but now people have constructed systems and infrastructure to have the water travel to them. One 15-year old young man said that "Their [the Elders'] access to cleaner water was more difficult than ours. I remember my Grandma telling me that in the winter she's go get snow and they'd put it in the bucket and put it over the fire and turn it into water, like melt it. And then drink it like that. I remember they'd go through all the trouble to get it. And there's us, we just walk over and flick the tap open and we've got water".

Acts of consuming water (via pipes, taps, toilets, wash machines, etc.) in homes and buildings are therefore significantly more convenient than they used to be. The effort required, or in other words the individual personal work involved in acquiring water for consumption, for the majority of Cree people and certainly for the youth, has decreased, which subsequently impacts the relationship Cree youth have with water. Potential impacts include decreasing the affiliation, since they invest little effort into working for it, and therefore possibly a decreased sense of appreciation and respect they have for water.

Another impact of the reduced interaction with collecting water from natural sources, as attested by several Cree youth, is that the youth now understand less about the water than their previous generations because they are not obliged to interact with the natural living world to access it. There is less knowledge related to how rivers flow, how snow behaves, how other animals interact with water, and how ice characteristics reflect its quality and quantity. Youth spoke about how the Elders and Cree knowledge used to know when to trust rivers, snow, and ice because they would have to consider safety and natural systems when fetching it. Two of the adult interviewees made reference to climate change and its likely effects on how natural systems and patterns (such as

annual ice thickness) are changing, however none of the youth made reference to it (as a concept understood as, or related to, ‘climate change’ or ‘global warming’). The majority of the interviewed youth did speak about changes over time however the changes they spoke about were more related to Cree peoples’ daily interactions with the natural world rather than the biophysical changes of the non-human world on a broader systemic bio-geographical level.

Eight of ten youth interviewees commented on how the Elders still trust the river water but do not trust the tap water. Although most youth interviewed expressed their preference for tap water, some youth (those who seemingly spend more time on the land) indicated preference for natural sources of water. One 20-year old young woman described that;

> I can see people being hesitant to trust the water if it was tap because they don’t really know where that water comes from or what chemicals they put in to it, if there is any chemicals put into. But if it was something like Old Factory Lake water, or river water, I can see how people would easily trust that because that’s what our people have been drinking for years... what I used to do was grab a bottle and drink straight out of it. And I didn’t care because I knew it was clean water, I was able to drink it, even though there was so many animals probably pooping and peeing in there. I still drank it.

Trusting or distrusting the drinking water was a common theme. When I asked Cree youth what it means to trust the water, their answers related back to the idea of water being ‘good’ or ‘fresh’, indicating that it means it is safe for their consumption.

An interesting point brought up by a 20-year old young woman, while discussing how they learn about the hydrological cycle in school, is that the diagram they see in textbooks shows water cycling and changing forms yet it does not account for changes in water quality nor human’s physical interactions with it. She thought of an idea to show how the water relates to humans and how to show learners that water changes not only in form but also in condition. She stated that:

> I think they should have someone drinking it. They should have different scenarios where someone is taking the water from the lake and drinking it, whereas if it was a dammed lake they wouldn’t be drinking it. Something like that. Just to show the difference between good drinking water and bad drinking water. Because just to show that some of the water, most of the water in the world now, aren’t drinkable water.

Ideas related to ‘good’ or ‘fresh’ versus ‘bad’ water has roots in traditional cultural beliefs, in believing that water can be alive and healthy when flowing, or dead and unhealthy when stagnant, and how these ideas relate to survival. Specifically with reference to the dams, the youth are aware that the dams are making more ‘bad water’ than ever before. The generations of their parents and grandparents witnessed the damming of several significant rivers, and the youth are aware that many of their traditional hunting grounds have been flooded because they cannot physically interact with them. The youth therefore experience the loss of interactions with these major rivers as they can no longer be used for physical cultural activities. They experience warnings of increased levels of mercury infiltrating their in-land water ways, polluting many of the fish that they and their families have been eating for centuries. They therefore specifically avoid eating certain types of fish known to be higher in mercury, in addition to lowering their overall intake of fish.

Generally the youth accept that the dams are present as physical structures impacting their lives and they understand that they gain economically from them. However many youth also harbour opposition to them and resistance against the idea that the actions of Hydro Quebec may be consequentially weakening their Cree culture and the relationship people have with water. One anonymous youth, during the video-elicitation activity at the Youth Centre activity wrote that “Wemindji has a lot of water but we are wasting it because of the hydro”. Another wrote “Power is wasting our water. We need water”. Collectively, and within themselves individually, the youth showed conflicting thoughts related to the hydropower developments. Furthermore they understand that the presence of the dams, and the consequences of no longer being able to paddle on several of their territory’s culturally-significant rivers, including the Eastmain River (near the community of Eastmain) and La Grande River (near the community of Chisasibi), has affected Cree traditions and Cree knowledge and in effect their culture’s intimate connection with the land and waters.

5.2.2 Cree Culture.

5.2.2.1 Elders and Cree knowledge.

In traditional Cree culture, a person’s connection with water is inherently rooted in one’s connection with the land and within Cree knowledge. Subsequently, exploring the relationship that Cree youth have with Cree knowledge is important.

Elders are highly honoured and respected in the community as holders of Cree knowledge, and they are called upon for advice on practical and philosophical questions. Nine of the ten youth

interviewees recommended that I interview the Elders with the logic that, as described by one 16-year old young man, “Probably Elders know more about water than the youth today” and by an 18-year old young woman, “You should interview the Elders, they know about that stuff”. When I asked the youth if they would like to be the ones to interview the Elders, there was most often a similar reaction amongst them that they would love to (in principle) but that they were however hesitant to do so in practice. Some of them even suggested that it be other youth (rather than themselves personally) who conduct interviews with the Elders. Reasons for their hesitations included being shy to speak Cree for fear of not being good enough to show adequate respect to the Elders. Also some youth indicated that asking Elders questions might seem disrespectful, insinuating it might possibly be contrary to traditional protocols of Elders offering knowledge to youth when deemed appropriate by the Elders. Many Cree youth told me about a self-conscious sensitivity they have about not feeling deserving of being considered true Cree (a sense explained further in *Section 6: Discussion*) and therefore not ready to receive elements of Cree knowledge. This makes me question if perhaps this is an insecurity that might contribute to why many youth are not spending much time with Elders and instead spend so much time playing video games or browsing online and on Facebook.

I personally engaged in significant conversation with one Elder while on the snowshoe expedition and with another while on the canoe expedition. (Both forums were conducive to discussing water informally.) However I too, like the youth, was hesitant to attempt to engage with other Elders in fear of being disrespectful or unsure of proper protocols. I too was uncertain of my own earned privilege (or lack thereof) to receive their knowledge. Thus, considering that the focus of my research was on Cree youth, I remained focused on the youth perspectives and the Cree knowledge held by Cree youth. With that being stated however, the role of Elders being honoured as knowledge holders and transmitters is recognized as highly important and valued amongst Cree youth and future work engaging Elders would be beneficial to understanding a broader perception of Cree water ethics.

Although there is widespread recognition in the community that traditional protocol suggests that Elders transfer knowledge to youth, several youth commented about how it is difficult to actually communicate with and learn from them. Even one of the Elders himself, during the snowshoe expedition said, “I need to be there. It’s hard for young people to find old people to take them on the land and teach them but the young people want to”. At the 2015 Youth General Assembly, youth requested that the Youth Centre offer demonstrations of traditional activities like setting up fish nets and rabbit snares, in addition to the “usual activities like summer camp” (a week long

camp held every summer on Old Factory Lake where youth fish, make bannock in a teepee, make fires, possibly hunt, etc.). Hence, the transfer of knowledge that is occurring is significantly less than the desire or potential. With that being said, multiple activities are organized with the specific mandate of preserving Cree traditions, and elements of Cree knowledge are being transmitted to the youth. Some examples of Cree knowledge that are less sensory and rather more concrete which were shared by Cree youth during interviews and informal conversations include the following:

> Water has to be one of the most important things I've learned. Especially like for [building] a fire, you have to know where is the least wet. But you need fresh water so you gotta make a fire and the best place to make a fire is near fresh water, before you can get a pot and just boil it.
>
> If you've ever looked at a lake, like really looked at a lake, and it's calm and you look closely you might see a layer on top and it could be pollen or dust which is why our people don't take it from the top. One of the Elders... had concerns about when they [Hydro Quebec contractors doing water monitoring] did the water sampling because they took the water from the top and he wanted them to do it from the bottom where the fish are because the water affects the fish. But nope, they just took the water from the top.
>
> You have to dig deep in the snow to get the clean snow. You have to make a fire to melt the snow to get water. Especially when you can't find any good snow, like a water source, you need to know your way around, like how to clean your water. I think that's the most important thing, is to know how to get clean water, to drink water."... [paraphrased] When getting water from melting snow, it is important to note the different layers of snow, and to take it from the bottom layer because it contains the most water, which economizes energy spent on getting water. Additionally, there is less debris and chemicals in bottom layers, so there is less material to remove before using/drinking it.
>
> There's also the freshwater ice out on the bay that people could use away from mainland ice is from precipitation, [if they are] able to differentiate between salt water ice and fresh water ice.

In addition to specific practical tips like those stated above, Cree knowledge is about adapting to change. When I asked two youth about the difference between learning about water at school and

learning about it on the land, one 19-year old young man explained to me that, “Well on the land, you never know what’s going to happen for sure. Especially up here, the weather changes just like that [snap of his fingers]”. On the land they learn how to be adaptive to water’s changing nature, and learning about water in the context of an adaptive relationship, rather than learning from a sedentary textbook that there is a fixed water cycle that does routine cyclical behaviours, fosters a more thorough understanding of relationality (Wilson, 2008) in addition to practicing more sustainable skills that can account for possible changes. Recognizing these changes and understanding the relationality between humans and elements of the water cycle inadvertently brings an awareness of connections with the land and water, and with survival.

5.2.2.2 Survival and cultural connections with the land.

A principle factor influencing the water ethic of Cree youth is a profound understanding that water is directly linked to survival; nine of ten youth interviewees acknowledged this. One 19-year old young man testified that, “I see it [water] as very important, a very very important thing to have for survival. During the winter especially.” Another young man, an 18-year old stated that, “for one, we are mostly made of water. In fact, it is one of the most vital. We need it most. It's in everything. It’s pretty significant. If we didn't have water we wouldn't survive”. They understand that not only do we need water to drink to remain hydrated but also that water is directly related to food in the sense that the animals are always near water so for hunting purposes, bodies of water are important. “Back in the old days water meant that you’d have food for the summer because of the fish and in the spring it would be where the geese would land so that would be a hunting spot”.

Many of the Cree youth expressed the pride they hold of knowing how to survive and they insinuated that it is linked innately to their identity as Cree people. One 19-year old man passionately described that “It’s what I learned when I was a kid that tradition’s important. It’s because it’s what you have, it’s in your blood. It’s in your blood to survive”. Another youth, a 16-year old young man explained that as Cree people, “We have natural skills, we live off the land. We're born with all these natural skills. We build teepees and know how to make fire. We’d have our own personal shelters out here if anything ever happened. We’d just go into the woods and make a teepee or something. We’re using the land, to use the ground for warmth”. One youth in an interview, and a few others while on the canoe expedition, explained perspectives like “that might be our advantage, that we're more adaptable to drinking that lake water” meaning they didn’t need to filter it whereas visitors to the region did, based on experience from previous years. One 16-year old young man insisted that the “lake water is perfectly fine… there’s nothing wrong with the water”.

During one interview however, peers challenged each other about their survival abilities. After one 15 year old said “I can make a fire with a snare and a piece of wood” and his colleague (older by four years) stated, “I need to see that!” insinuating that he didn’t believe his peer was capable of such a skill. Amongst the youth, although there is a collective pride that Cree people hold the knowledge to survive in the bush, there is also doubt among the youth that the majority of their youth peers would actually be able to do so. When I asked one 20-year old (who regularly goes canoeing and hunting) if he thinks other youth understand water in the ways that he does, he replied, “Not so much. There are youth here that never really go hunting”. Without ever really going hunting, the knowledge related to hunting and water and survival cannot be experientially learned. The same youth who commented on how youth never really going hunting later explained that although about half of the youth spend time on the land that their experiences may not be extensive enough to offer opportunities for deeply learning about the land or water and how it relates to survival. He explained that, “I think 60% of the youth, for sure, they’ve spent time on the land. But I don’t think, like from their stories, I’ve never heard of them like tipping over into the water [out of their canoe] like we did. They just sit there like where the plants are [meaning on the shore], like staying in the safety zone”. Experiences are a significant indicator of opportunities to acquire Cree knowledge related to the land and to survival. One 19-year old young man told me about survival related to water and how his grandfather fell through the ice while snowmobiling and died. He shared that, “experiences like that [his grandfather falling through the ice] and hearing other peoples’ experiences I think it’s important to know that water is one of the elements you need to know about, for sure. Survival, like water and earth are the most important things to know about”.

Experience requires time and focus specifically to be able to absorb the sensory knowledge that composes much of Cree knowledge and its connection with the land. For example, having experienced many times that a certain feeling in the air means rain is coming, or that a certain sound in the woods means a specific animal is nearby, are learnings that can only come with being familiar with a specific area. Considering that youth are spending increasing amounts of time in town indoors rather than out on the land, the opportunities to absorb these experiential and sensory learnings are decreased therefore contributing to the decline of Cree knowledge.

During the canoe expedition, after exiting the river while camping on an island in James Bay, one of the 16-year olds went to get drinking water upon being told to do so by one of the adults. He returned with a bucket of bay water (salt water) because he did not realize the difference between

the rain water in the puddles on the island and the salt water from the oceanic bay. An older man, who accompanied the youth on the canoe expedition referred to it later during an interview when he made the point that, "when he went to get water for the tea he went to get salt water. He learned." What is most interesting is the statement 'he learned' because it overtly illustrates learning survival knowledge related to water via experiential learning.

Learning deeply about the land via experiential learning is an actuality for a minority of Cree youth, as most youth do not spend much time outside the town. Youth that participated in the snowshoe expedition, however, illustrated knowledge of the land and an ability to connect with elements of traditional Cree knowledge. While on the expedition, I noticed that all of the Cree people (including the youth) were wearing moccasins and that myself and one other Western researcher had on *Sorrel* heavy duty (petroleum-based) winter boots. I wondered and asked two Cree youth if their feet ever got cold or injured because of the thin moccasins. They responded that no they did not get cold nor injured and that by wearing moccasins their feet could feel the characteristics of the snow and ice, like when it felt thick and secure and when it felt crunchy and potentially dangerous. They explained that they have a better (more informative) connection with water (albeit it frozen) by wearing moccasins rather than boots[22]. This concrete example acts as a testimony of Cree knowledge, applied while on the land. An additional interesting point is that never while in town did I see a youth wearing moccasins; in town, according to my participant observations, they all wore heavy duty boots.

Learning about water while on the land and while in town are considered significantly different. For example, according to one 15-year old young man;

> ...Like they're not going to teach you how to fetch a pail of water at school. That's something you're going to learn off the land. I remember having like a bunch of water containers and standing at the lake and picking up water. You have to be really careful about it so the sand wouldn't get into it. So we filtered it out anyway using a rag, like a dish rag and just poured it through. We made sure it was clean obviously. And we poured it through and we'd do it twice sometimes just to make sure. It had a bit of a colour but that was perfectly normal, natural.

Generally, youth express interest in preserving important parts of their traditional Cree identity including familiarity with knowing how to live in the bush and how life in the bush relates to water.

[22] At that point I realized I could not feel the snow and wondered about my own lack of connection with the land/water.

As proudly shared by one 18-year old young man, “out in the bush the food is natural, the food is clean. Because where the animals are there’s a lot of water resources and because it’s fresh. That’s what I learned as a little kid”.

An Elder on the snowshoe expedition explained that Cree knowledge is survival knowledge where skills and values are inseparable. He reinforced that it is the Elders’ role to pass on the Cree knowledge because the young people are unfamiliar with the area so it is the Elders who need to train them. However he described how it is challenging to train them in today’s age because they now have minds of their own and make decisions that Cree youth in the past would not have made. For example, he explained how on the canoe trip sometimes youth run rapids that they are not supposed to. For reasons of safety and respect they should follow the portage rather than run the more challenging rapids. He also said that the youth should wear life jackets while on the water because many of them do not. Additionally when the youth ask the Elders why the Elders do not wear lifejackets, the youth show that they do not understand that (as per the Elder) “the old people never wore them [lifejackets] and still don’t need to wear them, because they’re professionals and can read the water, the rapids. It’s Cree knowledge knowing the waters. Youth are only starting to read the water, it takes many times going down the river. The water is often different, like year to year the water level is different so it takes a lot of experience.” It is important to reiterate that last line, that ‘it takes a lot of experience’ to understand the water and land, and to foster a strong relationship with them. Subsequently, it takes a lot of experience to intimately learn how to respect it, and to truly understand and embody Cree knowledge and its corresponding inseparable skills and values.

5.2.2.3 Creespect.

Several of the youth made reference to *Creespect*, particularly at the Youth Centre, with the motive to promote respect among Cree youth, for it is a recognized value important to their Cree culture. Related to water, when asked about what it means to respect water, many youth gave responses similar to “keeping it clean”. I asked many of the youth if they think they personally, and their peers, respect water; the responses were varied. One 19-year old young woman described her interpretation of how youth respect water;

> Some people they go down the river, or they probably look at it and talk to the water… Some people talk to the water and I guess if it’s clean water then they drink from it. Or they pray for the water. Or they go swimming. Or they respect the water and are treating it well and measure it to see it stays fresh.

An interesting comparison is the responses between an Elder (who has participated several times in the canoe expedition) and a well-reputed 20-year old young man when I asked about respectful behaviour towards water while on the canoe trip. The Elder replied that it is disrespectful to swim and/or bathe in the river because it is dangerous for the person, and also disrespectful to the river in the sense that people put their dirt and soapy chemicals directly into the river. He suggested people instead take water from the river and sponge bathe on the land where they are safe and so that the dirty water is filtered by the land prior to it returning to the river. The youth replied to my mention of this saying, “We used to have to go into the river to bathe. It’s not disrespectful to swim in the water”.

Respect can be both an influence as well as an outcome of other identified factors that evoke understandings or emotions such as fear and/or appreciation for its beauty. Cree youth certainly understand the dangers of water, and understand how important it is to the point that, “sooner or later there will be wars for water”. They are aware of its life nourishing characteristics, visible from several indications similar to “Without water we have no food” and “Water is life. Keeps us alive”. For all these reasons they claim it should be respected. Furthermore they recognize the beautiful aesthetic value of water and its healing effects. Cree youth understand that being around water has an effect on a person. One young woman participated in the canoe expedition to spend time on the water to absorb healing impacts of the water to help her heal from the grief of recently losing her father. The Youth Chief attested that, “I’ve heard a lot of youth say that when they have a hard time with life with drugs and alcohol, being on the river on the canoe expedition helped them a lot. I think it’s... being on the expedition with a group of people and being on the river seeing how beautiful God’s creation is.” Another Cree youth, an 18-year old young man, explained his appreciation for sitting by water; “It's relaxing. On a calm day it's nice to see the reflection from the surface, and you get this nice little image”.

When asked how a sense of respect can by fostered by Cree youth, one 19-year old woman responded;

> ...to really take a learning into it. To try to experience it. For water specifically just sit down on the bank of a shore on any body of water and just sit and listen to everything you hear. I guarantee you’re going to hear animals, you’re going to hear waves, you’ll hear everything. And then once you’re deeper into thought you’re going to hear your heart and you’re going to hear it pounding and remember that blood is made of water as well.

A 21-year old young woman working at the Youth Centre recognized that “Respect is the biggest thing that we need from today’s generation. Not just for people but for the land itself and everything on it, and under it, and beside it.” However some youth felt that a sense of respect is missing among their peers. Related comments include:

> Kids nowadays have no respect at all.
>
> A lot of the youth disrespect the water here. Sometimes they go swimming, peeing, throw beer cans and garbage.
>
> I see a lot of people [youth] wasting tap water.
>
> The Cree tradition, it’s more like respect, you know… It’s about respecting the land and the water... Nowadays our tradition is suppose to be about respect, people, animals, land, water. But what I see nowadays is becoming less and less and less and less.

A 20-year old young woman working at the Youth Centre, who acknowledged these sentiments, reinforced that respect is a core Cree value and explained that;

> Yes, I think they all have it [respect], but they just have trouble expressing it like verbally because in our culture we are always taught our Cree values like respect, love, honesty, so on and so forth. And with respect and honour you have to respect everything that is around you. To be a Cree person you have to learn how to connect yourself with different aspects of life whether it be the trees or the water and understand that the Creator put it on this earth to help you survive. So I think it’s common knowledge and just that people word it differently.

A father of three youth linked respect to knowing and understanding something which he linked to appreciation which he explained can be fostered through experience; in reference to the river while youth are on the canoe expedition, he said, “once you experience it, then you appreciate it. Once you appreciate it you’ll know it and you’ll get to understand it. That’s it”.

5.2.2.4 Cultural stories / legends.

The stories of a culture can offer insight into their local knowledge as well as into their ethics, and into values like respect in the case of the Cree. As stated by Ferrara (2004), "Narratives expressed in mythic form become experiential knowledge, which is retained because the narratives are meaningful... As exemplified in Cree narration, narratives are fundamental to one's conception of the world and one's sense of place within it" (p. 79-80).

Five of the ten youth interviewees and two of the five adult interviewees, along with other Cree informants during informal conversations, told me that they would be able to explain something in Cree but could not in English because there exists no adequate translation. It is possible that much of the deeper meanings of stories has also been lost in translation, certainly between the Cree and myself as a Western outsider, but also between the generations of Cree people themselves, for example from Elders to youth, as the youth's knowledge of Cree language is declining.

As mentioned in *Section 3: Methodology*, while on the canoe expedition I asked a 16-year old young man about Cree legends related to the river we were paddling on. He responded saying that he was not familiar with any because previous Cree generations while at residential school were not allowed to speak Cree and therefore their stories were lost, although he later returned and told me segments of 'the mermaid legend'. However it should be noted here that his version, along with the versions told to me by most other youth, did not include the meanings nor the details of the story. For example, only one youth included the meaning of the folded clothes as described in the story below. This version of the mermaid legend is the most elaborate account I heard, from a 20-year old young woman:

> This goes way back, on the Waskaganish River. He [a young Cree man] was by himself and all of a sudden he heard a knock underneath his canoe. He looked down and it was a mermaid. She took him and he went missing. His uncle went looking for him and he went to an island and saw his canoe flipped over. On top of it was the boy's folded clothes. The uncle went to see a shaman who did a shaking tent and he said that the boy fell in love with the mermaid. And he can't return back to our world, that he's with the mermaid and he'll spend the rest of eternity there, because in our culture mermaids live forever. They live until the world ends.... The symbolism of folding your clothes means you're ok. If they're neatly folded and put away it means you're ok. Mermaids can put you under a spell. Most legends about mermaids are female mermaids enticing males to come into their world. Sometimes

they are evil like they make you tip if they don't like you. Honestly we don't know if they're good or not. Personally I think they're like humans, like there are a few bad apples.

Other stories, legends or myths told to me include the following;

(Many people told me of this taboo and they said the bad luck transfers into wind and bad winds will come.) What I've heard is when you go out on the Bay, never to point at the island, it's bad luck.

Sealdogs, it's bad luck to see one. And if you kill one it's bad luck.

(This following legend was told by a man who occasionally works with youth, specifically on the canoe expedition; however he was the only person who told it to me. The youth seem to be unaware of it. What is interesting to note is the detailed description of the meaning of the legend after he tells it:) I don't think I heard water legends. Now I remember... I think it's about the four seasons, there's a water there that burns. There's this guy and his mother, what do you call the robin there, his grandmother. Then the young guy made two arrows and I think they had small brothers. The guy made two arrows and when the arrow landed on the land it burned. When he shot the other one it landed in the water and the water burned. I think I saw a video about that. The young boy made a circle, that's where he kept his brothers and mother and that's when his mother turned into a robin. Every spring we see a robin on the lawn and that's how we know it's spring. All the birds come back. Even in the springtime when the other birds come, the ocean birds come, drizzle, that's what we call them... [he at this point spoke some words in Cree]... This month it's going to be drizzle, the animals need the water for their feathers to grown, that's important, very important. If you go down the river now some of the birds will be starting to fly. Some of the geese will be starting. I guess they're flying south now the small birds, the swallows. The young ones are starting to fly, they're flying already. Summer's half way now. Oh yes even the berries are going to be ready. Berries need the water to grow. To be ready to be picked and need water, that's important too. The vegetation needs the water. The bears need the berries, even the animals need the berries, it's all connected like that – water, vegetation, bears – like the bears getting ready for the winter, like a circle that's turning every year, even the earth is turning every year, every day, every year every second. Same thing with life. and the water too. We need water all the time. The young and old, need water all the time. They say babies when they grow, circle of life they call it, child, parents, adults, child, adults, Elders, and the Elders are like a child again.

An interesting element related to the legends is where the youth learned them from. For example, one 16-year old young woman said, “I don’t know any Cree legends” and then after a pause where she was actively thinking she added, “I used to watch all of the videos. You know *Dab Eeyou* [a video about Cree culture], I think they talk about water”. Another youth told me that they read about the mermaid legend in a book. Not one youth indicated that they learned any legends from the Elders. Another notable observation is the knowledge related to legends and stories as it changes across age groups of youth. Adults and the 19 and 20 year olds knew and told me some Cree legends and myths; the 15 to 18 year olds knew only briefly about the mermaid legend but could not think of any other Cree legend related to water. One 16-year old young woman referred to “God flooded the land a long time ago” and then proceeded to express her worry that there will likely be a similar flood in the years to come, and linked it to prophecies told by the Elders. She said, “But what if the bridge [that secures the hydro dam] breaks? All of this town would be gone. It would flood Chisasibi first and then it would come here [to Wemindji]. It would be big water. It’s going to happen someday. That’s what people, Elders, are saying”. This relates to a point presented in the *Literature Review* whereby people are increasingly fearing water which consequently changes the nature of the relationship they have with it. The 8-year olds told me that rain is God’s tears and pee, and they spoke about Noah’s ark and the giant flood caused by God, demonstrating a relationship with water that is largely framed by a Christian religious perspective.

5.2.3 Western-laden institutions.

5.2.3.1 The church / religion / spirituality.

Youth seem to have different personal ties with religion and spirituality. For example, one 20-year old, after being asked if she trusts the rain water, stated that “Ya, it came from God”. Furthermore, she expressed that “the Creator created everything. The Creator created everything to help man survive and to work and to do anything”. From a different perspective, a 19 year old young man explained that, “I’m not religious [but]… my family is very religious. And they all believe in God. If I said something against God they would just go ape-shit. But I was taken to a confirmation class when I was thirteen and the other kids that were born in a Christian home, or Catholic home. But really that didn’t make sense to me.” From a more neutral standpoint, a 21-year woman explained that, “I don’t really think about the Creator.” It is interesting to note that although she claims to not think about the Creator, she still acknowledges the Creator in her comment rather than denying his/her/their/its existence.

I noticed that on the part of most people in the community, including the youth, there was great resistance to talk about traditional religious practices like shamans and shaking tent ceremonies. Unless I was extremely comfortable with a person I felt it disrespectful (as if too personal or undeserving) to even ask about. One youth with whom I had a strong tie said one night;

> I've heard this from an Elder who I think is from Chisasibi, that you can practice shaking tent and sweat lodge and stuff like that but there's only certain types of people that can see these things and these people, way back, they didn't believe in religion or anything like that. They didn't believe in a man, like that a man controls and that he made you and loves you and stuff like that. The person told me that when you're born you're born with a spirit and sometimes the spirits roam around and only certain people get to see them because they were you in the past and – I'm trying to translate in Cree but I can't really say it.

Another young woman, a 20-year old, stated that;

> For me, my spirituality is trying to figure out things for myself. For other people they believe whatever they believe but for me it's kinda different. Like I believe that there is a spirit, I believe that we do have a Creator. But I can't really say that I'm tied down to one religion. Everything is connected in some way and everything's meant to happen.

Another young man told me that;

> When that person [a friend of his who is very religious] tells me like 'I respect you and I love you because God made you', I think, why would you want to worship someone? It's like you're not free. That's what I think about religion anyway. And I don't see any connection to water except holy water… I don't really believe in holy water or anything like that. To me it's just plain old water, tap water.

Specific to water, a few youth, when asked if they think there is a spiritual component related to water had responses such as "Ya, I'd say so" however most of them could not elaborate further. One 20-year old young woman said, "I think water with spirituality, it's one of the four of nature's elements. And I do believe that it has something spiritual to it. I just, I haven't figured it out yet." Many of the youth credit God / the Creator for providing humans with water. "God gave us this land, water, all of this stuff to take care of. And I think sometimes we don't do a good job… All of us

as people we need I don't know to start caring about more what's we need to start caring about water cuz water gives us life".

In response to watching a video of an Indigenous man explaining how water carries memories with it, a 16-year old young man replied, "Water holds memories because God flooded the land a long time ago, maybe that's what he's [the narrator] talking about." Furthermore, in three separate interviews with youth, when on the topic of flooding from the Hydro Quebec dams, youth referred to the biblical story of Noah's ark when God flooded the land. It was clear from the group of 8-year old girls that Christianity is a strong influence impacting them, visible from their comments related to why we have water inside the human body. One girl told me that, "[b]efore they made us they put water in us" to which I asked her "Who is they?" She replied:

> God. God and Jesus. and the Earth. Jesus and God are from mom and dad. We're all sisters and brothers.... I know why is water in our bodies. Because when we cry water comes out. When you drink. I think I know how water gets in your body, when you drink I think I know how water goes in your body, like when you drink milk. But then you pee... [laughing]... when there's a storm and it rains, it's God's pee, that's why you never want to be out when it rains [more laughing].

It was interesting that for these 8-year old girls water was strongly connected to the Christian God, even when speaking in comical ways. I deduct that they learned about their anecdotes from church, or from a combination of church and school and possibly from the home. The source of learning about water is an interesting one, however most youth were unable to identify exactly where they learned about water, with the exception of some clear accounts from learning on the land, and learning about the water cycle from school and/or camp.

5.2.3.2 School and home.

Institutions in the community like the school, summer camps, and the homes, also contribute to shaping Cree youth's water ethics. Several of the youth made reference to occasions they have learned about water in school, whether it was in science, social studies, or geography class. In most cases they learned about water in relation to the hydrological cycle, however one 16-year old young woman talked about how she learned about water shortages in Africa. Related to more local issues, another 16-year old young woman said, "one of the geography teachers was talking about the dams and said, 'What if the dam breaks, what are we going to do?'". A 19-year old young man showed his perspective on learning from school and how he thinks it is more valuable to learn

about water from being on the land. He told how, “All I learned about water from school is basically not really that much. I’ve learned just the oceans, how to boil water, I don’t know…I remember my little cousins showing me their homework, the water cycle. The water goes up to the air or something, basically what we see at the lake all the time”.

Although only attended by a small percentage of the community’s children, notable is the fact that there are two different science camps that run during the summer, one at the school and one at the Youth Centre. For the sake of organization, in this thesis I consider the learning at the summer camp as similar to the learning that occurs in a classroom setting, as the camps follow a structure similar to that of elementary school, with topics and lessons using books and controlled activities and experiments. Furthermore, the camp counselors were non-Cree Westerners brought in from outside to facilitate the camp, as is the case with the majority of the teachers at the school.

Both camps (to different degrees) include learning about water in their programming. The activity that I did with the four 8-year olds at the Youth Centre Science Camp conveniently occurred two weeks after they had spent a day focused on the theme of water. When I asked the 8-year old girls what they learned about water, they were proud to display their newly-acquired knowledge about the water cycle as being similar to the description given earlier by the 20-year old young woman telling about the one they learn about in school. They described it as a routine cycling of predictable water flows that does not account for changes nor the need for humans to adapt. It is congruent with a static Western education approach, one which is highly criticized by numerous theorists including Ferrara (2004) who claims that, “The values taught in the Euro-Canadian schools contribute to alienation and the isolation of the person within his/her environment, according to the Crees” (p. 61). The point about being alienated from the environment is pertinent in this study. One 19-year old young man provides an appropriate explanation in saying that, “You can learn a lot from school for sure. But there’s a difference on the land because you’re taught with your hands right? Instead of just reading out of books. You get to be taught that you’re taught what this feels like so you’re like ‘oh ok, this material is dry’ or ‘the dead tree thing, if it’s near the water so you can see that it’s still fresh so it doesn’t burn as well’”. In summary, the youths’ comments on learning about water from school differed; some valued it, and others compared it to learning from the land expressing that learning about water from school was less valuable.

Surprisingly when I asked youth how they learn about water, none of them mentioned from their home. However, one father of three youth made the link that, “there’s the home. Like when people use water, when they shower too long or leave the tap on, or when they flush the toilet, things like

that, they learn about that. When they drink, when they leave drinks unfinished, they sit there. Like even water will go bad". It is interesting to note that although Cree youth illustrated drinking water as the most obvious way they relate to water, and although drinking water frequently happens in the home, none of them explicitly made that link. They identified learning about water from either school or being on the land.

A significant point about the home is that permanent houses, like those now in Wemindji, are relatively new on the timeline of Cree residential establishment. The community of Wemindji was established in 1959 and I was unable to find out what year or time period indoor plumbing became prevalent. For the youth however in their lifetime the houses have always been there. Although some of those I interviewed and informally conversed with spend great amounts of time on the land, they all have a house they call home in the community where they have easy access to running water and subsequently, even if unaware of it, they learn about water.

5.2.3.3 Wage-work.

With globalization and capitalism as increasing forces worldwide, increasing numbers of youth all over the planet are seeking wage-work, and Cree youth are no exception. From many of the youth's comments, it is clear that they consider making money as an important factor in their life. One 19-year old young man rationalized that "I could either work here [in town], or work at the mine which I could make four times more probably…The amount of money I could make is a lot. And what I want to do with that money is a lot".

Past traditions of being involved in the fur trade, and decades of negotiating with Hydro Quebec, have engaged Cree people in commerce and an appreciation for economic exchange. Water, particularly the rivers and principally the Paakumshumwaau (Old Factory) River enabled the Cree to involve themselves in trade during the contact period, for with the furs they procured inland, they were able to paddle down the river(s) to offer them for exchange with Europeans where the river meets James Bay.

Nowadays, as beneficiaries of the JBNQA, the Cree council and community yield large sums of financial capital annually from the income generated by the large hydroelectric dams in Northern Quebec. Additionally, at present, many industries and trades are investing businesses in the community, providing employment opportunities. Researchers and other Western involvement are also prevalent in the community, fostering further connections with prospects for Cree people to make links with the outside world and engage in forms of wage-work.

Many of the youth who work in town have commitments and responsibilities to remain in town most of the time. Several youth are also showing interest to work for the nearby industries and mines and are therefore spending less time in both the community and the bush with Elders and hunters. Without time on the land or interaction with Elders, traditional Cree knowledge, and an intimate understanding and appreciation of the natural environment, is difficult to acquire. In Ontario, Swanson (2003) has noted the following, which seems to also be an appropriate description of the youth in Wemindji as well:

> The integration of Aboriginal people into the wage-earning economy has virtually eliminated the interest in traditional teachings and ultimately done away with the need and respect once afforded the Elders. Traditional knowledge transmitted from one generation to the next through example and oral storytelling has declined. (p.65)

In a conversation with an 18-year old young man, I asked him about the belief common to some Indigenous nations and their traditional knowledge whereby damming a river can be seen as cutting off or redirecting the blood flow of the planet, like blocking or rerouting Mother Nature's blood. He responded "that's how I used to think" but went on to explain that with the pressures of needing to work, and if he someday wanted to support a family, that he now thinks differently. He explained that "I want to have a good job and Hydro pays good. It also gives us cheap electricity which is nice. I dunno. It's a trade off I guess".

Related to water, increasing numbers of Cree youth are taking training courses offered by the Board of Compensation to quality them for jobs with Hydro Quebec. A 20-year old young man explained that taking these courses and then being employed with Hydro Quebec is often more appealing to youth because it means gaining income sooner in life (rather than spending years in post-secondary school outside the community). Additionally, working for Hydro means working a two-weeks-on-two-weeks-off schedule which means "they don't really have to leave the community for a long period of time like going down south going into a college… cuz it's hard to come back to family when you're in Montreal or in Ottawa". It is interesting to note that considering the alternatives, getting a job with Hydro might allow for youth to remain better connected with family and culture. However, according to informal discussions and participant observation, when employees return to the community after their two-week shift, they often remain in their homes resting and socializing with friends and family rather than going out in the bush to live / work / hunt / survive / experience the land. With an income, they see less necessity to be on the land and

prefer the comforts and conveniences of a settled home with electricity, consequently decreasing their connections with traditional Cree practices on the land.

5.2.4 Technology and indoor comforts.

One 21-year old young woman, shy in character, at one point during an interview with her and one other youth, while talking about why youth participation in land activities is declining, blurted out, “Technology has taken over”. The strength of her comment portrays the reference to technology (in one form or another) that every youth made in every one of the interviews I conducted. Most interviewees also explained that technology such as computers, television, smartphones and video games, are keeping youth inside more than ever before. Consequentially this trend decreases the time they spend outside on the land. Several youth attested to this trend and it was reinforced through participant observations (Bradford & Cullen, 2012; Zieman, 2012), indicating that the role of technology has great implications to this research study. A few of several related statements include the following;

> I think most people [referring to youth] nowadays are lazy to even try to go to the land and do traditional stuff. They just want to be comfortable in their living rooms, Facebooking.

> I don't really see my other friends here [at the Youth Centre]. They like to stay at home. I don’t really see them outside that much.

> Youth in general... a lot of the youth have just months old babies to 5 year olds they just watch Treehouse and they’re learning English instead of Cree. And what I’ve noticed is most of those kids tend to stay at home… All I see from them is what they could do with the internet really and the tv… most of these kids nowadays… they’re all stuck inside, brainwashed.

One 19-year old young man directly related the influence of technology to losing culture; “It’s more like we’re losing our culture... It’s because we stay in the community. We’re all hooked on ipods, tvs, satellite radio, the internet, stuff like that. We’re not focusing on tradition, tradition like to do with water especially.” Since the youth are spending more time inside engaged with technological devices and less time out on the land near natural water sources, their opportunities to learn experientially about water are decreasing. The time they spend relating to water and interacting with water is declining. Their relationship with natural sources of water is weakening.

5.2.5 Youth culture.

5.2.5.1 The Youth Centre.

The local Youth Centre works with the community's youth to engage them in activities, and additionally offers them a safe space where they can gather to just be together. Aside from programmed activities, youth often get together to play video games, watch movies, surf online, and chat. The centre's programmed activities include occasional music and film workshops, along with regular sporting events (soccer baseball is a favourite), social events (like dances), career training events (like practicing interview skills and writing a CV), personal development exercises (like self-esteem workshops) and cultural activities (such as the autumn moose hunting camp). Of notable interest was the desire expressed at the annual youth general assembly in March 2015 for the Youth Centre to run an "acceptance campaign" based on Creespect. The youth spoke about how this campaign should promote acceptance of oneself, of others, and of property, and furthermore to accept differences among people, in line with the principles of the Youth Centre.

Water is not an explicit topic focused on at the Youth Centre, however they occasionally organize swimming outings, and they play an active role organizing the annual youth canoe expedition. Additionally, they were supportive in welcoming the water-related research activities that I conducted with some of the youth at the centre. With further pursuit of water activities, the employees and youth at the centre seemed open to integrating more awareness actions about water. Two employees suggested that the centre could possibly organize a trip for the youth to visit the community's drinking water facilities and water treatment plant. They also thought of creating videos that promote water conservation (taking shorter showers, fixing leaks in homes, etc.) as well as videos highlighting the annual canoe expedition in hopes of increasing participation so that more youth will learn experientially about the river that is so important to their cultural heritage and to foster a sense of respect for it.

5.2.5.2 Pop culture.

Technology has allowed youth in Wemindji to connect with pop culture and through participant observations (Bradford & Cullen, 2012; Zieman, 2012), particularly while at the Youth Centre, I saw numerous examples of youth engaged in pop culture consumption. They spent multiple hours a week watching pop music videos on You Tube, following Hollywood news on Facebook, browsing websites endorsing brand name products, and playing videogames featuring car racing and car theft. A video dance party at Youth Centre featured hours of pop videos showing pop stars promoting hyper-sexualized, materialistic, and high-consumption lifestyles. During the hour and a half that I was there, the references of water displayed in the music videos (of water in its obvious

form; not considering water contained in human bodies, plants, etc.) included wealthy-looking people splashing around in a luxurious swimming pool, bartenders putting ice cubes in drinks, and people spraying each other with water from a garden hose. All scenes featuring water displayed it contained by human structures for human use. There were no examples of natural bodies of water or precipitation shown in the videos (with the one exception of human sweat dripping down dancing bodies). Although the link of pop culture to the relationship with Cree youth and water is indirect and less substantial in terms of showing impacts, I feel it nonetheless worthy of noting due to the intensity of the nature of pop culture and its profound impacts of what is considered 'cool' on the overall development of adolescents and young adults. The brief displays of water are subtle yet could have deep lasting impressions on how youth perceive and relate to water.

5.2.5.3 Peer influence and pressure.

During interviews and informal conversations, some youth spoke about how in their small town everyone knows everyone's business and this consequently places great amounts of pressure on youth to avoid falling victim to negative gossip, particularly among their own peer group. During the interviews a few youth spoke about bullying, and through participant observation I saw that it is a widespread topic in the community and a real stress and fear for many youth. I heard sad stories about bullying that occurred while I was in the community. A year earlier there was a community-wide anti-bullying campaign which clearly resonated with everyone, as I heard about it many times from various sources. Remnants like pens and notepads adorned with anti-bullying messages were still lingering around the Youth Centre and at the school.

Peer pressure plays a considerable role in shaping the way Cree youth think, what their beliefs are, and in defining their interests and behaviours. One 20-year old said "I've noticed a lot of youth actually, I don't know, I think it's like what their friends believe and like that's what they want to believe, just like any other teenager". A father of three youth reiterated the same message, "What I would be concerned with is what they choose to be connected with; peer pressure plays a role in them being interested in certain things". With respects to the interest in traditional activities, one adult woman explained that for the youth, "The [traditional] way of life, they don't want to do it because they're afraid of being teased or that they won't get it right".

Some stories related to peer-influence showed positive effects, as per the youth. For example a 20-year old young woman told me about how she had not spent much time on the land before meeting her boyfriend and because of him it is now an essential part of her identity and pride in her culture; she could now never imagine not participating in outdoor traditional activities, and she

appreciates them extensively. Another example was at a culture camp youth sleepover where a 14-year old girl told me that she had not been 'in the bush' since she was a baby but that she came to the culture camp sleepover because her friend (who was also there) convinced her to come and that she was happy about it. Related to water, similarly, while on the canoe expedition one young woman mentioned that she would not have come on the trip if her cousin had not convinced her to do so. Another young man mentioned that he enjoys going to the pool with his friends and that he likely would not go on his own. I do not have data specifically related to the influence on how peers influence each other specific to which form of drinking water they consume (tap, bottled, or directly from the spring or river) or their thoughts on the hydroelectric dams, however these could be points for future consideration.

5.2.6 Pan-Indigenous movement.

The Cree are unique from many other Indigenous nations in Canada in the sense that they have the James Bay Northern Quebec Agreement (JBNQA) and therefore greater self-governance as compared to other nations in other provinces and in Southern Quebec who are governed by the department of *Indigenous and Northern Affairs Canada (INAC)*, and *The Indian Act*. However among Cree youth there is certainly a sense of being part of an Indigenous identity beyond being Cree. One 19-year old young woman, throughout the entire canoe expedition, proudly wore a baseball cap with the text "Native Pride" printed on it. I saw a group of Cree youth drawing medicine wheels and making earrings in the shapes of dream-catchers, both of which are Indigenous symbols not historically part of the culture of the Crees of Eeyou Istchee.

Having Indigenous artists from nations other than Eeyou Istchee, who visit Wemindji and promote 'Indigenous culture', fosters an identity among Cree youth of being 'Indigenous', 'Aboriginal', 'First Nations' or 'Native' and encourages this sense of Pan-Indigenousness. Indigenous artists from outside Eeyou Istchee who visited the community while I was there included Joshua DePerry (Anishinaabe from Ontario), David Hart (Innu) and Black Stone (Moose Cree) to name a few. Several of these musicians are working for cultural preservation and social change, like J-Lyfe for example, who actively promoted opposition to the Plan Nord and to the Hydro Quebec dams for reasons of land and water protection. During his concert for Wemindji's 55th anniversary in July 2014, he made reference to how the land and water need care, respect, and protection, and there was an obvious supporting response via applause and cheering from the audience, many of whom were youth.

Rapper-Songwriter David Hodges and his project 'Notre Home' (Hodges, 2014) visited Wemindji earlier that year to work with the youth on writing and recording songs. The project guided youth to explore their perspectives on Cree culture and on their collective meanings of community and home. Wemindji youth have now recorded three songs which are available on itunes. Youth from the other Cree communities have also recorded songs, enough to complete an album with a compilation of songs from the different Cree communities in Quebec. Although none of the current songs speak explicitly about water, there are several that speak about the land which innately includes the water in the traditional Cree worldview. Additionally, some of the music videos featuring the songs are filmed by water, indicating the appreciation for its beauty and its relevance to their sense of home[23].

Other similar projects, like bringing in a film maker to teach youth how to record and edit videos, are becoming regular activities in Wemindji. Additionally, DJ Classic Roots (of Indigenous heritage) visited to help youth mix and record music during the Wemindji Youth Appreciation Week in March 2015. Although these projects showed no direct connection to water, they act as capacity building activities for youth to express themselves which, if the youth desire, could act as vehicles to promote awareness about water-related issues and the Cree relationship with water.

In witnessing youth's attendance at such concerts and their participation in such workshop-type activities, I saw that many of Wemindji's youth harbour the desire to work for change and act as artists and/or activists, however it also seems that they lack opportunities, experience and formulated perspectives to guide them in doing so. Skill-building activities, organized by the Youth Centre, and promoted by the Cree Nation of Wemindji in efforts to reinforce Cree culture and competence are offering opportunities for youth to be engaged and build their personal and collective capacities.

One Cree youth from the community, along with other Cree youth from neighbouring communities (like Eastmain) participated in a 1500 kilometre walk in February and March 2013 from Northern Quebec to Ottawa to support Idle No More (Butler, 2014; Graveline, 2012; Wotherspoon & Hansen, 2013) efforts, a pan-Indigenous movement in Canada. A principle focus of the Idle No More movement is to bring safe drinking water to all Indigenous communities across Canada as well as to protect the natural water sources in Canada and beyond. Although some Cree youth

[23] In discussions with David Hodges and with some of the youth, they showed interest in recording a song specifically about water; however the timing to bring him to the community during my research period did not materialize. The proposition might occur for future studies as they all agreed it could be an interesting methodology to explore their relationship with water.

participated in the Idle No More walk, others expressed their discomfort with it. One 19-year old young man explained that the movement is about demanding improved living conditions for First Nations however that the Crees of Eeyou Istchee, because of the JBNQA, already have living conditions that far exceed those of other Indigenous nations in Canada. For this reason he said he would feel guilty participating in Idle No More actions and additionally he fears that other Indigenous nations would criticize the Cree for demanding more when they already have it so good.

Interestingly, the interview that I conducted with him (the 19-year old young man mentioned just above) also involved a young woman of mixed Inuit – white heritage. The two are good friends and the dynamics were such that they could speak openly with each other and challenge each other on sensitive topics. For example, at one point, the young woman directly addressed her Cree friend saying;

> A lot of the other reserves in Canada are bankrupt, they're living in poverty, they don't have water, they don't have houses, they don't have proper education, they don't have winter clothes, and they don't have the treaties, they don't have the land that you guys have. So you guys, the Cree culture, are so privileged, compared to the average Canadian. Like average wages up here, you don't pay taxes, you have all this land, you're getting millions of dollars, you don't have the government. Like why be so selfish and unrealistic without thinking about how the rest of the world is?

Her comments reinforced the fear the young Cree man expressed about being criticized for engaging in actions like Idle No More activities. Many of the reasons the Crees of Eeyou Istchee find themselves better off than other nations is directly and indirectly linked to water. Being geographically situated on the coast of James Bay and close to major rivers allowed the Cree to involve themselves in the fur trade, providing opportunities to benefit from the exchange. For the past four decades, because of the Hydro Quebec dams (and the JBNQA), Cree benefit economically from the generation of hydroelectricity. Furthermore, the community is adequately supplied with drinkable tap water in addition to accessible nearby fresh water springs, which is far from the reality of many Indigenous communities who have regular boil-water advisories.

Thus, although there is a growing affiliation on the part of Cree youth with the pan-Indigenous identity, Cree youth are also aware that in many ways they and their living conditions are unique compared to other Indigenous nations in Canada, setting them apart from other nations

contributing to the complex dynamics of relationships with the self and culture and consequentially also with the world.

5.2.7 Perceptions on Cree youth.

Typical to the youth stage of development is the characteristic that individuals are sensitive to the ideas that people in the community have about them, whether it is their peers, their parents, the children, and/or the Elders. The perception that others have about them is therefore an important consideration related to influences working upon the youth. We could raise the question here about the impact that reputations and expectations have on teenagers and young adults and how these predispositions sometimes act as self-fulfilling prophecies.

In the community, the perspectives people hold related to the youth are diverse. In response to questions about how youth contribute positively to the community, many people were unable to provide an answer. I deduct that they did not want to speak negatively of their youth, yet that they could not think of positive responses; I heard many awkward replies like “I don’t know what to say” as stated by the Youth Recreation Assistant.

During one of my visits to the community, late one night, a group of youth broke into the Fitness Centre, smashing the entrance glass doors. For days afterwards I heard community members speak of youth in negative ways. Rarely did I hear adults or kids speak of youth in positive ways, unless it was at the Youth Centre or while on the canoe or snowshoe expedition which were specific venues that naturally attract the more active and engaged youth.

In a more positive light, some adults and Elders who work directly with youth had affirmative comments such as “the youth, they’re the future” and “youth are good with technology and are imaginative”. One Elder on the snowshoe expedition, who for many years led the canoe expedition, consistently made it clear to me how he trusts the youth. Verbally, he repeated “I trust the youth” several times throughout our conversation (possibly implying that many other people do not). He displayed his trust in the youth by asking them to get water when it was needed, and of great symbolism on several occasions, he asked youth to walk at the front of the group to lead while snowshoeing.

From the perspective of the youth themselves, the community’s Youth Chief proclaimed, “Our generation is starting to get smarter… Our generations now have a lot of education, I know they’re capable of protecting the land, water...”. One 18-year old claimed that “We have a better sense of

technology and that's a valuable asset. Most kids know how to browse the internet. In case they need something quick".

Interestingly, one characteristic commonly related to youth is that they 'have it easy'. Several different youth admitted to this, including one 15-year old youn man who explained how he thinks the Elders think of youth:

> I think they [the Elders] think we have it easy. I think they think we have it too easy and that it should be harder for us, and it bugs them sometimes, because it was more of a struggle in their day. That's what my Gramma keeps telling me. She keeps telling me, 'you have it easy. You can just go out and work, shovel driveways, and get money instantly'. She had to work for it and would get like a dollar an hour. I can just go out and work for 15 minutes and get like 20 bucks.

After him stating this, I asked him what he personally thinks of himself and his fellow youth, to which he reiterated that he too agrees that "we got it easy". Another male youth, a 20-year old in a separate interview, confirmed this idea in the context of the relationship that youth have with water; "the Elders, some of the Elders sometimes talk about the water and how they had to carry a bucket for like seven kilometres. Kids nowadays, well us, we have it easy. A lot of people take it for granted."

For the most part, the youth themselves tend to show agreement with how one 18-year old young man described his peers when he said, "I find that the behaviour of kids in Wemindji varies. I find a lot of nice kids hang out here [at the Youth Centre]. The ones considered scoundrels, they don't really come hang out here, the trouble makers, you know. I guess there's a balance between the good kids and the bad kids." Recognizing the different types of youth in the community, it is important to reiterate here that there exists great differentiation among Cree youth in terms of lifestyles and experiences. For example, one 19-year old young man, known to be a great hunter (coming from a family of great hunters), told me that he thinks differently from a lot of his peers and that he and his comments do not represent the majority of Cree youth.

These two above depictions in the previous paragraph, related to how the youth differ in terms of behaviour, is congruent with how they differ in terms of their water ethics. The differences reflect the deeper findings which show that the youth are collectively living a reality which they find challenging due to the complex context surrounding them. The majority of interviewed youth and/or

those who participated in research activities expressed that their perspectives were unformulated related to water, that they did not know or did not show that they cared about water issues. This inspires questions related to internal conflict residing within this area of Cree youth development today, as explained in the next section.

5.3 State of hybrid-culture

5.3.1 Rapid change.

Youth have many influences working upon them, many of which are working at rapid paces, particularly those driven by technology, pop culture, and economic incentives like wage work. These findings show that for the most part, youth want to keep their Cree culture and knowledge alive, however they find it challenging to do so considering the fast paced influences working on them. Specific to water, a change that many youth testified to (as well as adults) was the recent change in drinking water preference. In the past, and in many cases still today, Elders would get their drinking water directly from the river or from one of the two natural springs located near the community. However youth today mostly favour water from the tap and/or bottled water from the store. One 20-year old young woman provided insight into this particular transition and linked it to colonialism and external pressures imposed on her people;

> I think it has to do with somewhat of colonization. Because everything that's happened to us in the past 40 years has been quick, it's been sudden, and like everything we need time to adjust and learn how to trust these new technologies coming so for most people tap water is fairly new. Like on the community time line basis where before we used to just get water from these watering holes... It's been quick... like it's only been a few generations ago that they didn't even have tap water. They just had to get water through pails. So it's a fairly new concept, tap water... Whereas with the river it's as old as time and we know, we kind of have an idea of what goes on with it and how it affects our body. It's more connecting with our old roots.

However many Cree youth testify that the connections to the old roots of their peer group is minimal. One 19-year old young man explains it as;

> What I know now, it's been passed on generation to generation of what we did, but obviously it's changed. But we're trying to keep it alive. Nowadays our tradition is supposed

> to be about respect, people, animals, land, water. But what I see nowadays is becoming less and less and less and less.

A concrete example about how their relationship with water has changed relates to fishing, as many Cree people are avid fishers. The community is concerned with the increased levels of mercury in the water and in the fish; most interviewees commented on it, showing it as a widespread preoccupation. “In Chisasibi [the Cree community north of Wemindji] my family and people there can’t go fishing on the big river lake, La Grande, because of the mercury. So the mercury in the fish aren’t good and if the fish are no good then the water is probably no good” explained a 16-year old young woman.

Widespread belief that the water can be “no good” is also something new to Cree people. One older man, a father of three teenage youth described how water can “go bad” and that there is more bad water now than there was in the past. A 19-year old young man showed *relationality* (Wilson, 2008) by linking good and bad water to the respect humans have for water. “It’s about respecting the land and the water. It’s because what is feeding the land is water and if there’s bad water what happens to the food that the animals eat, if it’s contaminated, if it’s dirty, if it’s all diseased or something.”

This young man and a few others attributed the increased mercury (and other chemicals in their water making it ‘bad’) to the nearby hydroelectric dams. Although these dams were constructed prior to the birth of today’s youth (meaning the youth have experienced this particular change less drastically than their parents and grandparents because they have not known differently), the youth undoubtedly recognize the damming as a significant change in recent history with respect to their people’s relationship with water. Comments from youth on this subject include the following:

> About the graves... [at] la Grande, they didn’t even tell the Crees that they were going to make the dams right? And there’s a lot of animals that had to relocate, and there’s a lot of animals that vanished, and traplines [hunting grounds].

> They [ancestors] lost their camping grounds, where their families were buried. Some people lost half of their trapline [hunting ground], half of it is under water so they can only hunt on half. The rest has a lot of mercury so they can’t really eat anything from it. So that’s why they weren’t happy with it.

> There are a lot more Crees working for Hydro than there were before. I don't know if it was because our people weren't educated or that the people were too pissed off with Hydro at first but I think a lot of people have just accepted that they have to adapt to what the world has in store for us I guess.

Perspectives on the large-scale hydroelectric dams varies among the youth, as some showed outright opposition to the development, and others expressed the necessity for generating hydroelectricity and indicated appreciation for the wage-work that the dams provide. Many of the youth expressed confusion when asked about their perspectives on the subject and some held either no opinion or expressed an unformulated confused view stating that they did not know their personal perspectives on the infrastructure and the corresponding impacts. For example, one 16-year old young woman said, "I think whatever they're doing [with the giant dams] is completely wrong. Or maybe they're right. I don't know. Never mind".

Most youth showed an awareness of the negative impacts on their culture and family hunting grounds however they also acknowledged the multiple benefits to the community in terms of economic wellbeing, easy access to low-cost electricity, increased opportunities for education and travel, and increased access to modern health care.

Related to other water-related topics, youth also seemed puzzled and seemed to harbour unformulated perspectives. One 18-year old young woman, to whom I asked what she would change about how the community interacts with water, replied;

> Probably for us we'd go up the road and get water from there [from the natural springs near the community] instead of going to the store. Because it's more fresher up the road, getting water up the road. But at the same time water bottled is also good. I don't know. So I don't really know.

It seems that many of the youth don't know how to think about issues related to water nor about their relationship with water, or that the issues are complex and conducive to having mixed feelings about.

Having a swimming pool built in town in 2004 has also had an effect on the youth's relationship with water. More of the children and youth are learning to swim and learning about water safety while in a controlled environment. One 18-year old young woman told me that, referring to the

river, “You never might know what could be in the water, like fish or bees or stuff like that, those little tiny bugs. Especially fish. Or there could be a lot of things... I think it’s weird to go swimming with a fish”. I proceeded to ask her if she ever swims at the pool to which she replied, “yep, ever since it’s been open, every Friday.” Another youth, a young man of 20-years old, shared that, “Water here in Wemindji is not the same as it used to be. I used to go swimming in the river when I was a kid, before the swimming pool, because there’s mercury.”

For youth, both drinking treated water from a tap (or from a bottle from the store) and swimming in a pool, rather than drinking water from a river and swimming in a lake as common to previous generations, makes treated and chlorinated water their norm and contributes to decreasing their experiences and knowledge related to natural bodies of water. In effect, such changes contribute to the decrease in their collective Cree knowledge related to natural sources of water and therefore in their collective Cree water ethic.

5.3.2 Challenges to the relationship.

Today there is a general consensus that traditional Cree knowledge is declining in Cree culture; several youth made reference to it in interviews and informal conversations. This decline in culture is a determinant as well as an impact of the challenges that exist in the relationship between Cree youth and water. A 19-year old young man stated that it is, “like we’re losing our culture a little bit more and more... We’re not focusing on tradition, tradition like to do with water especially”. Although some of the points in this section do not relate to water directly, they do implicitly as the relationship Cree youth have with themselves, their identity, and their community consequently affect their relationship with water.

The response of the 16-year old who told me that he did not know any of his culture’s stories due to residential school impacts, is an example illustrating the state of hoqoutist when people still know their stories but are detached from the deeper corresponding moral codes and messages behind them. As Mack (2010) wrote, “We are hoquotist. Our canoe is tipped over” (p. 295). Mack later explained more thoroughly the situation as it is with his people, which also appears to apply with Cree youth with respects to cultural stories; “Although we remain somewhat connected to our stories, we have also come to share those of the settlers. We have thus become constituted by a series of radically different storied traditions that do not coexist harmoniously. As a result we, as a collective and as individuals, come to understand the world through a set of confusing and contradictory lenses” (p. 295).

With the disruption in the transmission of language and stories and the decline of respect, along with the influx of outsiders entering the community (many of whom are educators at the school), traditional Cree culture is being diluted by the strong influences of the Western world. In the words of Cree Elder Gabriel Fireman (as cited in McDonald, Arragutainaq, & Novalinga, 1997);

> It is a very powerful imposition having a different culture imposed upon you because when our children went to school they lost the importance of hunting which is why we have lost the old traditional way of our culture. Education, itself, has slowly destroyed our culture. (p. 51)

Furthermore, students in Wemindji do not receive homework so those in the home (like parents and other family members) do not have the opportunity to help the students with their homework, and are likely less aware of what the students are learning. For example, when the youth learn about the water cycle, the families are probably unaware of this and therefore do not have the opportunity to add complementary knowledge about water related to Cree experiences on the land. A possible impact of this is that contributes to alienation between the generations and their respective realities, decreasing their opportunities to share daily learnings and knowledge.

It has been mentioned several times already, yet worth stating again that the newer realities in which youth are living are drastically different than those of their Elders. The generation gap is amplified by the trauma lingering from the days of residential schools. Youth spoke about fostering intergenerational links at events like the Old Factory Island; they described this event as a particularly good occasion to bridge generations because there is no access to internet, eliminating Facebook as a distraction for youth (as self-proclaimed).

However, although youth themselves expressed that, as one 20-year old young woman articulated, "We need to bridge the gap. We need to keep our culture alive", there are many activities that compete with occasions to connect with older generations. Youth often frequent other activities like fitness challenges, dances, parties, and seasonal celebrations like the annual Halloween haunted house and Thanksgiving party. From participant observations (Bradford & Cullen, 2012; Zieman, 2012), I saw that only about 25 youth went to the Old Factory Island visit in 2014. Many who did not attend said that they were unable to get time off work, they were too tired, and/or they did not want to leave technology. (With that being said, to accurately portray these observations and explain related context, that particular year was the 55th anniversary of Wemindji and there were numerous activities held in town the week prior to the Old Factory Island visit. Event organizers said that everyone, not just the youth, was exhausted from the week of celebration and many

chose to stay home because of that factor. An organizer told me that it was an all-time low in participation rates for that 2014 Old Factory visit. It was also organized differently whereby the visit did not coincide with the arrival of the canoe expedition youth as it usually does; the youth canoe expedition was instead timed to arrive a week earlier, in the community during the in-town festivities. Such context likely played a factor in the low participation of youth at the visit that particular year.) However with that context aside, it seemed nevertheless as a missed opportunity for generations to connect while living in more traditional ways, by the water.

The generation gap between Elders and youth is exemplified further with language challenges. The youth are schooled in English in a Western-style school system, and for the most part, their parents speak to them in English as they (the parents) themselves were schooled in English either in the community or away at residential schools where they were punished for speaking Cree. (Although the community school is run by the Cree School Board, the direction and teaching staff are currently composed of, for the vast majority, white English-speaking teachers. I witnessed this through observant participation (Moeran, 2009; Schmuck, 2006) while substitute teaching at the school.) Consequently, Cree youth do not have many opportunities to speak Cree and therefore many of them feel shy or inadequate to try. One woman in the community who often works with youth explained that, “I’m sure a lot of the youth understand more water words in English than in Cree like if I say it in Cree the youth might say what is that?... Like steam, they probably won’t understand if I say in Cree... or fog.” In effect, this further severs the links between Cree youth and the Elders in the community, many whom speak very limited English, therefore making it more challenging to transmit Cree knowledge related to water. The annual youth canoe expedition and other traditional activities, however are an opportunity for youth to practice, as organizers/guides/Elders make intentional efforts to speak to the youth in Cree.

However, the language divide along with the imposition of Western culture through education, business, and politics, has influenced the culture’s ways of knowing and approaches to education. Swanson (2003) explains a situation that seems also applicable to Cree context;

> The wholistic approach to teaching is usually not supported by the Western school system... [which] uses an analytical rather than a wholistic approach to situations. The residential school system did not support the wholistic approach to teaching. Instead, it tried to assimilate and teach by exercising total control... (p. 64)

Although the Cree School Board promotes Cree culture and valuing its traditional ways, from my participant observations and observant participation, I saw that Cree math students preferred completing worksheets from a book over participating in activities to experientially apply geometrical concepts. (It should be stated that there may be reasons beyond my limited understanding of this observation responsible for the expression of their preference here.) Regardless, with these forces of analytical learning and control type teaching, the practice of experiential learning seems to be declining. With Cree knowledge, which is not only transferred from Elders to youth, but also via land-based experiences, there are less opportunities for youth to experientially learn about water. Learning experientially, and learning Cree knowledge, requires an openness to do so as it involves sensory learning that can only occur through experience. Considering also, as mentioned previously, that youth are spending more time indoors interacting with technology, they devote less time, attention, and patience to be available to receive Cree knowledge. One father described how he strategically engaged his three adolescent children in experiential learning about water;

> We went to look for a spring and I had my kids help to excavate it. And that's where we get our water. And it flows throughout the year. The only time we can't get it is in the winter time. But we usually use snow. Along the way at kilometre 12. The kids appreciate knowing that they've helped. So when we say 'oh I'm going to go get water' they say 'oh can I come?' They're enthusiastic, so being involved. Something like that really helps.

When asked about the canoe expedition, youth all acknowledged that it is about the experience. The Youth Chief explained that it is "for them to experience more about water and the river. And I guess to... for them to experience... or to ask, why is the water like this today?"

Although youth are encouraged to ask that question, 'why is the water like this today?', they show little familiarity with global water issues. In interviews, the community adults spoke of "pollution", "acid rain" and "global warming" related to how water and land have changed throughout the last few decades. Yet not one of the youth mentioned any of these words nor related words or concepts. Most of the youth mentioned increased mercury in the water and that there have been changes in the ice and snow but without giving details or displaying experience with more elaborate understanding. One adult (and father of three teenagers) explained that the ice in the bay used to be eight feet thick but that his good friend, an Inuit man who moved to Wemindji decades ago (who is known to be the person in the community with the best understanding of ice due to his experiences further north), told him (which he recounted to me) that:

> I can't travel like I used to because the ice is so thin, less than 24 inches. We're talking about six feet difference… when I first came here the snowflakes would be huge. They would be huge snowflakes that fall and today they're like powder. That's the difference in the formation of the snow. And that impacts the ice, the formation of the ice.

He also spoke about the isostatic rebound (how the water line is moving farther away from the land), giving the impression that the land is growing and the bay is shrinking which affects where the salt and fresh water line meet at the mouths of rivers draining into the bay. None of the youth I asked had any knowledge about this. Another negative change in water that this adult spoke about, but of which none of the youth mentioned, is that there are now "heavier levels of uranium in liquid form in the spring in the water" which is why, he said, the community needs to get its water from the reservoir (river water) rather than the small springs (ground water).

Thus, certain members of the community are well versed in significant local and regional water issues and are involved in community consultations about them, however, none of the youth I spoke with were aware of these issues nor are involved in these consultations. Involvement in the consultations could be an opportune place for youth to learn and experience. Considering that the youth will soon be the adults and future community leaders, building their capacity as well as hearing their perspectives could be a valuable asset to advancing further reflections on water governance in and around their community and to fostering the youth relationship with water.

One particular youth who I think could contribute significantly to community consultations told me about the importance of experiential learning related to water. One of his stories described when he was young and how his uncle's boat capsized plunging the two of them into the freezing waters of the bay. Because of this experience, he knew what to do later in life when he and his cousin capsized;

> I knew how important it was because it was ice cold water, I knew how important hypothermia was, just get home quickly even if your boots are soaked. What I did when I got home to the cabin was got some warm water, put it on my feet, wrapped some warm cloth on my legs and then just got a warm blanket. There are a lot of things you can do with water but that I think one of the best ways that I ever got tips from my uncle, like what I learned, was because that actually happened.

However, again, returning to the point about youth spending less time on the land and therefore allowing less opportunities for water-related interactions to occur, the father of three youth gave his perspective. He provided the context saying that with respect to connections youth can make with water today that we should recognize that youth are living in a time where the pace is so quick that they are “too busy and end up having to stay in places for such a short time”. Not having extended periods of time near water, he felt, limited them from developing deep relationships with it.

5.3.3 Paddling on.

Given the findings outlined above, the Nation of Wemindji is actively striving to respond to the contemporary needs of Cree youth. Although water is not an explicit focus for most of the community, it is embedded in and inseparable from cultural traditions.

At the community level, all Band Council departments are making deliberate efforts to reinforce connections with traditional Cree culture and Cree knowledge. Jobs such as the Culture Coordinator have been created, and all positions paid by the Band Council have job descriptions that include responsibilities to actively contribute to the preservation of Cree culture. Employees are allocated a number of ‘culture days’ whereby the expectation is that they use these days off work to spend time on the land practicing traditional activities.

In the domain of formal education, the local school closes for two weeks in May, known as ‘Goose Break’, so that youth can partake in the annual goose hunt with their families, and recently the Cree School Board approved a recent request by Rodney Mark (the former Chief of Wemindji) for youth to receive high school credits for participating in the youth canoe expedition. This modification in curriculum allowances shows efforts to include traditional-type experiential learning in the youth’s formal schooling.

The experience of participating in the canoe expedition offers youth seven to ten days (depending on the year, on weather, on the group’s skills levels, etc.) of travelling on the water, on calm waters and through roaring rapids. The trip runs down a historically important river upon which Cree youth can strengthen their relationships with themselves, with water, and with their culture. For individual skills and confidence, the water offers a chance for youth to push themselves to new limits and to develop competencies, for example from the experience of navigating down rapids. The feeling of accomplishment that comes with completing a successful run can contribute to reinforcing a positive relationship with oneself. Furthermore, the youth recognized that water can have healing

effects on their overall sense of wellbeing, which is in line with the rationale explained by Mary Thomas, a Secwepemc Elder from BC (in Blackstock, 2001);

> ...when we're weighted down with a lot of grief, your life is becoming unmanageable, or you're going through a lot of pain, the first thing our grandmother and my aunt and my mother would say, "go to the water." Water is powerful and yet it can be so gentle. (p. 4)

The canoe expedition offers youth the opportunity to interact directly and regularly with different types of natural water – fresh water in the lake and river, salt water in the bay, rain, sweat from their human bodies, and sometimes even tears. They learn about how other life forms (particularly birds, fish and plants) interact with the water. Skills are learned for navigating rapids, fetching and straining water for drinking, and dealing with rain (sometimes capturing it for drinking or washing). Particularly for youth whose family hunting grounds intersect with areas passed through while on the expedition, the experience offers them the chance to act as ambassadors for the water running through their family's territories. In the words of one 16-year old young man, in reference to the river while travelling through his family's land, "It's my f**king water and it's f**king clean!"

The journey also connects youth with their Cree culture in many ways, including learning language (as the guides and Elders speak to the youth in Cree) and learning survival skills while on the land. Specific to water, the canoe expedition offers youth the experiential opportunity to understand what it may have been like for their ancestors to voyage on that exact river, and to realize how their ancestors were intimately connected with the river and subsequently with other nearby water sources.

The canoe expedition, along with other cultural activities, is contributing to facilitate a transition to reappropriate traditional Cree practices that have been dormant or marginalized during recent decades. It should be noted that organizing these activities requires significant planning and work, financial investment, and efforts to encourage youth to participate. It is a process and a transition to adopt these traditional activities in new ways, given the multitude of contemporary demands and contexts. For example, on the canoe expedition, some youth now bring solar charger packs to charge their electronic devices like cameras and ipods. GPS devices are used to track the route and to later connect with electronic mapping systems. The transition is easier for some than others and leadership in the community is trying to foster a sense of enthusiasm among community members to participate in these cultural activities. As expressed by the community lifeguard:

> So the canoe expedition… they make it such a huge thing, like [said with emphasis] '*THE canoe expedition'*. The advertising, and so much money is put towards it. So I think that's another good thing. It's because the community's still evolving and they're still learning how to budget and how to plan so it doesn't know everything so it's like it's in the stage, in the transition, of ya everyone can do it but now we have to try to make it more exciting so that more people can do it again. I think they're trying to do the transition, like THE canoe expedition, THE fishing derby, then like thousands and thousands and thousands of dollars are spent on the fishing derby but that's tradition. But they try to make it more fun, but they spend so much money on that event, it's a transition.

The Youth Centre is playing an active role in this transition to reappropriate Cree cultural practices and traditions to pass on Cree knowledge. In the fall of 2014, the centre launched its inaugural moose hunting camp where youth spent time on the land hunting and learning the traditional techniques of cleaning and caring for moose meat and moose hide. In the words of The Youth Centre Coordinator, "we're trying, really hard... It's in all of our job descriptions to incorporate cultural aspects to the things we plan whether it be actual cultural activities or just the values of it. So we're trying". I asked her if she thinks it is possible to have a balance of the two worlds to which she replied, "That's what we've been trying to figure out for the past 40 years".

In terms of socio-enviro-political activism, Cree youth are showing examples of involving themselves. For example, in 2013 several Cree youth walked in from Whapmagoostui to Ottawa in support of Idle No More efforts (which amongst other objectives strives to raise awareness about, and demand political action related to, the many cases of unsafe drinking water in Indigenous communities across Canada). Also in 2013, groups of Cree youth across Eeyou Istchee participated in song production activities with musician David Hodges; the lyrics of many of their songs, written by Cree youth, explore what it means for them to be Cree, and they often relate their identity to the land (which inherently includes water). In 2014 another group of Cree youth walked from Mistissini to Montreal in opposition of uranium mining (to protest, amongst other consequences, the water pollution that would likely result if uranium mining is approved in Quebec). Again in 2014, a group of high school students, from Wemindji specifically, went to Nicaragua to contribute to international community development (and along with building a school, they learned about challenges related to water quality and systems in the local impoverished community). Just recently, in May 2016, youth at the Wemindji Youth Centre collected donations and wrote letters of hope to send to Attawapiskat to show support for Cree youth living in disadvantaged conditions in Ontario (Wapachee, 2016), which is located almost directly across

James Bay from Wemindji, just across this body of water that holds such great significance to the Crees of Eeyou Istchee. These above examples, which each in part touches on water, act as testimonies that show Cree youth involving themselves in causes they care about, as well as showing community efforts guiding Cree youth in capacity building processes. Examples like these can provide inspiration for further efforts and actions related to water leadership and water protection (whether direct or indirect) among Cree youth.

5.5 Conclusion

Findings from this study show that the collective water ethic of the Wemindji youth involved in this research is rooted in a web composed of both traditional cultural experiences spent surviving on the land, as well as combined with the realities of living in a settled community where they are constantly connected to modern technologies, infrastructures and institutions. However it is a challenge to generalize a collective water ethic that represents Cree youth as diverse as they are, as among them, their lifestyles and life experiences can be drastically different. For example, there is a vast difference between the life experience, and therefore the water ethic, of a Cree youth who spends vast amounts of time in the bush with his or her grandparents participating in traditional hunting and fishing activities, and another Cree youth who leaves the community to go South to school in a large city and then returns to work in town immersed in modern conveniences, advanced technologies and Western pop culture influences. Corresponding water ethics of these two examples are significantly different, yet representative of the current realities related to Cree youth today.

CHAPTER 6: Discussion

6.1 Introduction to discussion

In this *Discussion* section I situate this study within the field of water ethics and explain further some of the points made in *Section 5: Case Study Findings* by linking them to concepts presented in *Section 2: Literature Review*, particularly to the concept of integrative knowledge (CWN, 2014) and what I've termed *integrative water ethics*. Specifically, I elaborate on some of the challenges of integrative water ethics of Cree youth, discussing the state of disorientation that many Cree youth may be feeling and how this state relates to lost stories, *splitting* (Yeoman, 2012), and disengagement. I then explore opportunities related to their integrative water ethics and share recommendations from the perspectives of Cree youth for what they think is important to learn and to teach about water. Furthermore I propose ideas for how to provide experiences that encourage their interest in water protection, using an approach called the *Cycle of Learning* (Hill, 1999). Looking forward, I describe how this research might be useful for the community of Wemindji, and I propose future research with specifications for how to work appropriately with Cree youth.

6.2 Integrative Cree youth water ethics

As described in *Section 2: Literature Review*, water ethics in a Canadian context are illustrated as being on a spectrum with a generalized Indigenous water ethic and a generalized Euro-descending Western water ethic at opposite ends (Sandford & Phare, 2011). Although there have likely always been cases where individuals, and sometimes groups of people, hold characteristics from both Western and Indigenous water ethics, it is likely that the mixing and merging of water ethics is becoming more and more common with increasing forces of globalization, growing access to social media from around the world, and exposure to other cultures' ways. Hence the reality is not as simple nor as dualistic as the literature presents related to Western and Indigenous water ethics.

Some academics who write about water ethics state that Indigenous water ethics offer a 'counter narrative' to Western ethics (Groenfeldt, 2013b; Sandford & Phare, 2011). However my findings suggest that Cree youth water ethics do not offer a 'counter narrative' to those of the Western mainstream but rather a 'hybrid narrative' or an 'integrated narrative' with significant nuances, combining both Western materialism and Indigenous traditional ethics in which relationality (Wilson, 2008) plays an important role.

Specifically in Eeyou Istchee, during the early contact period with European traders, interactions between the Cree and the Westerners resulted in some sharing of cultural practices and

viewpoints. Ermine (2007) might refer to this as *ethical space,* which he explains as "a theoretical space between cultures and worldviews" (p. 193). His writings are not specific to water-related contexts, but refer to Indigenous and Western relations and how dominant forces of Western culture have had, and continue to have, powerful impacts on the worldviews of Indigenous peoples. He acknowledges that, "[m]ore recently, Indigenous peoples experienced a forced reengagement into mainstream Canadian culture" (p. 197). Nowadays, for Cree youth, exposure to Western practices and ethics is more powerful than ever, therefore meaning that Cree youth are in a zone where characteristics from the different water ethics are actively meeting and merging; they could be considered upshots of this area of ethical space.

What this case study therefore presents is that water ethics are not necessarily on a spectrum as per the description above, but rather that they intersect and can form a sort of hybrid water ethic based on what I would consider *integrative water ethics*, related to integrative knowledge (CWY, 2014). Integrative knowledge is a way to describe when Indigenous knowledge and Western knowledge come together (CWN, 2014) and what Little Bear (2000) would classify as a *shared worldview* which is a worldview composed of more than one traditional worldview. Reiterating his words, as previously presented in *Section 2: Literature Review*, it is important to consider that:

> No one has a pure worldview that is 100 percent Indigenous or Eurocentric; rather everyone has an integrated mind, a fluxing and ambidextrous consciousness a precolonized consciousness that flows into a colonized consciousness and back again. It is this clash of worldviews that is at the heart of many current difficulties with effective means of social control in postcolonial North America. (p. 85)

Given this explanation, the integrative water ethic carried by the collectivity of Cree youth is one that is a complex and possibly sometimes a conflicting mesh of Indigenous traditional ethics with Western ethics (as per concepts like hoquotist (Mack, 2010), colonial mentality (Alfred, 1999; Ferrara, 2004), and splitting). Generally speaking, their water ethic recognizes that water has the power to both sustain and destroy us. It accounts for a vast world of underwater life that is unfamiliar to humans, yet respected. However most respect (or Creespect) for water is gained through experiential learning of Cree knowledge related to water, based on relationality. The integrative water ethic shows that youth relate consciously with water principally in ways that they use it (drinking it, showering in it, fishing in it, etc.). They display a diversity of opinions and feelings related to using water for economic benefit with some youth outright opposing it, some harbouring confused or unformulated perspectives, and others supporting it. The conflicted areas might relate

to how cultural identity is explicitly linked to water in some cases but not others, and also in the realm of responsibility and stewardship for water which seems to be inherent for youth with family hunting grounds that have large lakes or rivers, however not apparent for youth without family hunting grounds nor natural bodies of water.

The context framing this integrative water ethic is explained by the community lifeguard (of Inuit / European descent herself), who had been living in Wemindji for two years at the time of the interview. Her perspective is that the Cree culture is undergoing a transition phase whereby they are working hard to engage Cree people, especially the youth, in traditional activities. She explained that it is not just the youth who are going through a particularly intense transition period, but also the whole community and all of Cree culture, for it is a transition for all Cree community members to embrace cultural activities in contemporary ways.

Another significant transition, according to several interviewees and informal informants, is that it seems that there is more cooperation today than in previous decades between Hydro Quebec and the Cree people. One youth explained that in relation to the changes brought about by Hydro Quebec that (already stated but reiterated for emphasis), “I think a lot of [Cree] people have just accepted that they have to adapt to what the world has in store for us I guess”. He affirmed that there is now more cooperation between the two parties. A community Tallyman (responsible for his family’s hunting grounds) who has been interviewed several times by Hydro Quebec shared his perspective that:

> They’re also learning from their mistakes. I think they’re listening to Crees now… They’re looking after the environment too. Like the fish… Hydro Quebec has all kinds of programs I guess. They’re starting to listen to us. They’re starting to listen to the Cree. Maybe they should clean the water, all the water that’s going out to the bay and stuff.

The community, and particularly the youth, are therefore defining new norms and subsequently adopting altered ethics. These newer ways are not only about keeping the past but also moving forward in the current world and creating feasible futures. Ferrara (2004) concludes that "As Adelson also notes, the Cree people “are not so much ‘revisiting the past’ as they are negotiating and constructing a new sense of themselves as Aboriginal Canadians” in a new, strange, and menacing political context (2001, 298)” (p. 38-39). The ethics of Cree youth simultaneously and inadvertently ‘are negotiating and constructing a new sense of themselves’ in their shared worldview. One 20-year old young man testified that;

> From growing up here I've noticed like when I was a kid, I noticed that the youth have been influenced by technology sooner, more at a younger age, but the more they grow up, the more mature they get, they change their beliefs. You know there are a lot more people supporting Idle No More. A lot more people are changing their beliefs.

His comments support the idea that Cree youth are carving out their own sense of who they are and how they relate in the world, and through this study we see this relevant to their water ethics as well as their overall state of being.

6.3 Challenges to integrative youth water ethics

As shown in *Section 5: Case Study Findings*, Cree youth are navigating a web of ethics rooted in both traditional Cree and contemporary Western ethics, what I am now referring to here as integrative water ethics. It is a navigation process that comes with some challenges, particularly the loss of many cultural stories, the phenomena of splitting, and the habit of youth disengagement. It seems that the concept of hoquotist (Mack, 2010) might offer an appropriate analogy to the state in which Cree youth find themselves. As introduced in *Section 2: Literature Review,* the concept describes when a person falls out of their canoe and is in the water trying to orient themselves amidst rapids, currents, and waves. In a similar vein, Cree youth may be (consciously or subconsciously) trying to navigate through, and orient themselves within, the seven identified key contributors that shape their collective water ethic. These contributing influences include: their physical interactions with water; Cree culture; Western-laden institutions; technology and indoor comforts; contemporary youth culture; the pan-Indigenous movement; and perceptions related to Cree youth.

6.3.1 Lost stories and splitting.

A key finding in this study, as described in *Section 5: Case Study Findings,* is that many cultural stories were lost to the grandparents and parents of Cree youth during the residential school era, and also therefore lost to the youth. Considering that in traditional Indigenous practices the role of stories was to offer codes for moral conduct, we might be able to deduce that Cree youth may therefore, as per the description of hoquotist, be "disconnected from the perceptual orientation and responsibilities that flowed from those stories" (Mack, 2010, p. 295). Stories allowed for narrative manifestations of relationality, illustrating roles and responsibilities to guide people and their moral codes in relationships so that they can effectively practice Cree values and skills. As per McGregor (2014);

> Relationships and responsibilities form the basis of this understanding: it is not enough just to know; one has to "do something", or "act responsibly" in relation to the knowledge. In many respects, it is about "conduct": the way we behave, the way we act upon our knowledge, the way we conduct ourselves in our relationships and responsibilities. (p. 495)

Again, it was stories that offered that know-how for conducting oneself in relationships and responsibilities. For example, with the legend of the mermaid (as told in *Section 5: Case Study Findings*), several youth were able to tell me extracts of the story yet only one youth relayed the significance of certain parts of it. Apparently the element of the story that has the man's clothes folded neatly on the canoe means that he conducted himself with composure, ensuring that attention was paid to how he interacted with the world. In effect, the folded clothes indicated that he was safe and that he did not die in a state of panic nor emergency, but rather that the water and its life-giving forces (including the mermaid) took care of him and allowed him to leave a sign to communicate that all was in functioning order. The few adults I interviewed elaborated on this deeper significance however the youth (with one exception) did not.

One adult on the canoe expedition told me a story about a coyote who ran to the water; in fact this man was later involved in making a movie about this legend. However, when I asked youth about the legend, none of them recognized it. The act of making it into a movie however shows further efforts to preserve and share Cree culture and its stories. A question that remains is how effective the film will be at portraying the deeper meanings and codes underlying this story.

When I asked Cree youth about Cree legends related to water, their level of interest was seemingly high and they were generally eager to think of ones to share. Overall it appeared like they knew water-related stories existed, and that they possibly knew some, however beyond the mermaid legend they were unable to recount others. Oftentimes upon realizing this they expressed feelings of disappointment, frustration, regret or sadness. As mentioned in *Section 5: Case Study Findings*, there were youth as well as the group of 8-year olds who told me Christian stories such as Noah's Ark and the Great Flood. These instances might be examples of colonial mentality when Western influences dominate over traditional Indigenous ones, or simply that they just do not know, or could not remember the Cree stories.

Furthermore with respects to Cree stories unrelated to water, the youth were able to recount some. However many of the youth admitted that they learned these stories from books or from watching films about Cree culture. Reading about cultural stories or watching films about them rather than

experiencing them first-hand by having them transferred directly from the Elders has likely created a detachment from the experiential learning component of transmitting Cree knowledge through stories as well as the deeper significance of the cultural legends and codes.

The Elder who accompanied the snowshoe expedition explained that Cree knowledge consists of both skills and values that are inseparable from one another. This notion of inseparability is an integral concept to this research as it provokes questioning related to whether youth today hold skills without corresponding values. Or vice versa, might Cree youth today hold traditional values but not the skills to apply them? Or there might be the possibility that they hold both values and skills yet the inseparability might be severed and they hold the two separate from one another? Or, might they possibility hold a diminishing version both? How does this play a role in what Ferrara (2004) describes as Cree youth's ""newer" Euro-Canadian identity [which] is not grounded in a set of well-defined practices" (p. 45)[24]?

This claim by Ferrara (2004) that this ""newer" Euro-Canadian identity is not grounded in a set of well-defined practices" can be applied to the analysis of the relationship that Indigenous youth have with water. For example, if the relationship youth have with rivers is now comprised of working at a hydroelectric dam (and adopting the narratives that not damming the river would be wasteful conduct (as described in *Section 2: Literature Review*)) rather than participating in frequent canoe trips on that same river (and hearing and experiencing traditional stories about that river), their understanding of the river will differ. In this example, their relationship with water would likely become one built on ideas of blocking and controlling water (and in effect contributing to the disappearance of rapids and long-standing river structures and corresponding ecosystems). In effect, the relationship becomes one of *controlling the river* rather than one of *controlling oneself* as a human being (a necessary skill for navigating the rapids while canoeing and recognizing the river as holding vibrant dynamics itself). To use the words of Leopold (1966), this type of situation would encourage a relationship where humans would be "conquerors of the land-community [including soils, waters, plants and animals]" rather than "plain member and citizen of it" (p. 240). For Cree youth, whose cultural traditions have generations earlier promoted ideas of being a member of the larger ecological community (Preston, 2002), these newer practices and ways of knowing are less

[24] At this point I find it important to include the following questions to recognize perspective in greater youth context and also to address potential biases: Do other non-Cree youth have identities grounded in sets of well-defined practices? What precisely is the traditional 'set of well-defined practices'? How does it relate to the codes and ethics underlying traditional stories? Do I as a researcher, and/or does research in general, have a value bias insinuating that not having a 'set of well-grounded practices' makes life more challenging and/or that the youth are less competent because of this possible trait?

well-defined, as so much of the wide context surrounding them (including the realities of their grandparents and parents) is also in a process of adapting to the new structures and systems.

Applied to their water ethics, having narratives from both cultures could make it challenging for Cree youth to navigate the menu of ethical frameworks available to them. As stated previously, they are living a reality that is unique to them in which they are living in a time of rapid change, particularly coming from the dominant Western culture, which is extremely different from the realities in which their great-grandparents, grandparents, and parents grew up. Specifically their grandparents, who were primary impacted as residential school students, lived through significant disruption and endured drastic changes in lifestyle and decreased time on the land.

Furthermore, for many Indigenous Peoples, oftentimes the transmission of knowledge related to parenting was disrupted during the residential school era, creating unique contexts where family traditions and practices were no longer available for them to learn from. Thus, currently, many of the adults on the brink of Elderhood are experiencing insecurities of possibly being ill-equipped to become the next generation of Elders, as they have not had the same experiences with, nor exposure to, their traditional cultural practices and lifestyles as Elders before them. It makes it challenging for this generation of adults to guide the ethical development of children and youth within traditions and contexts they themselves are unfamiliar. They are needing to develop new ways, new narratives, for how to function as community members (of the ecological community as well as the Cree nation community) and as family members.

One Cree mother told me that “my son is not growing up Cree; he’s growing up white”. This statement is a powerful one because not only does it touch on issues of parenting and general youth context related to Western education and influences, but it also attests to the definitions that Cree people hold about being Cree, or lack there of. Identity is a significant factor when exploring what Cree youth are going through and how it relates to their integrative ethics. Ferrara (2004) wrote about how:

> Individuals struggle to come to grips with a definition – “Cree” – that was not part of “tradition” and that is politicized in such a way that it has little resonance on the local and individual level. Cree indigenous or “traditional” definitions of what it means to be human are no longer fully functional. The school system bombards the Crees with images of self and collectivity that are Euro-Canadian rather than Cree. Formal schooling opens up new options, yet many of these

> options are hard to operationalize because many Crees feel that the system forces them to polarize their lives. (Ferrara, 2004, p. 37)

A psychological phenomena that might apply to the experience of having lives be polarized (at varying degrees among many Cree youth) is that of splitting. As introduced in *Section 2: Literature Review*, splitting occurs when people have two ways of thinking in their mind at the same time, sometimes with ways being mutually exclusive. A concrete example related to water is that many youth expressed that they do not agree with using water to gain financially (like with damming the rivers for hydroelectricity). However these same youth also expressed their gratitude for the education bursaries and high level of health care they receive (which are funded by the money generated by the hydroelectric production, as per the James Bay Northern Quebec Agreement). Additionally the same youth became excited when they shared ideas about desalinating water from James Bay to sell both water and salt in bulk to profit financially. One Youth Centre Facilitator responded to the youth's business suggestion with the following; "Just imagine. Lots of salt. And you can take the salt and season your chicken for dinner. Here's my water, I separate it and I have salt… sea salt… James Bay sea salt… you guys could make a killing off it!"

Callicott (1989) might contribute to the discussion here with the following rationale: A culture inherently promotes a certain ethic which is based on guiding principles, which does not always manifest into a constant set of practices upheld by all members of the culture, for people's behaviour can stray from the behaviour norms while still maintaining an underlying ethic of respect. It is the underlying ethic of respect at the base of traditional Indigenous water ethics that provides the ethical framework that people adhere to or stray from. For example, one 15-year old young man described that, "I think nowadays kids take it [water] for granted... like little kids, they just spill water all the time, they just flush it, just leave it on for the dishes and just keep it going." It is interesting to note that his comment is in reflection of a water ethic that understands what it means to value water and/or to take it for granted, and one which recognizes how much water is being used relative to how much water is actually needed. Of further interest was the response to this comment by the youth's 16-year old male peer who explained that when he sees kids behaving like this he tells them, "Do not waste water, it's the traditional way". At the base this shows that that youth understand the traditional codes of not wasting water as a framework from which to evaluate peoples' interactions with water and how they practice (or do not practice) actions responding to the traditional code of ethics. Holding the social codes / thought styles / master ideas / ethics but not being motivated to put them into practice could be due to a plethora of reasons, one of which may be splitting.

With splitting, oftentimes by holding the two ways of thinking in our minds at once we modify the context and the relationality of the knowledge and consequently can exclude aspects from one or both of the cultural paradigms. In effect this can create new ways of knowing and thinking and accompanying shared worldviews, returning back to the ideas of integrative knowledge and integrative ethics.

One 20-year old young man said that for him, “When I was a kid I always thought about how it would be if I had both worlds, you know. I felt like I had a choice when I was a kid: either the tradition or just go to school and then go to college. And somehow I managed to do both”. Yet although many Cree youth are able to participate in both worlds so seamlessly, as there can be a sense of incompleteness among some when immersed in one or the other worlds. For example, the Youth Chief explained that, “life is a combination of being in the bush and in the community” and continued to describe his personal situation, which resonates with many other youth that “I miss technology while in the bush and I miss the bush while in the community”.

The concept of *jagged worldviews* could be appropriate here to further the understanding of splitting, when fundamental concepts composing a person’s paradigm sometimes include contradictory, or conflicting, ideas. Little Bear (2000) explains that conditions with “jagged worldviews colliding” lead to the state of hoquotist, which again might apply. The situation for youth experiencing this means that their understanding of the world, as described by an 18-year old young woman, “is tricky”, referring to the beliefs that youth hold today compared to the beliefs of their Elders, implying that it is in fact a puzzle for youth in present times.

For some youth, this puzzle brings high levels of psychological stress, as rates of depression, suicide and substance abuse are high (Ferrara, 2004), likely resulting from *historical trauma responses* (Heart, 2003). The youth generally have the impression that these phenomena of depression, suicide and substance abuse are relatively new issues for Cree communities. One 19-year old young man told me that, in reference to his ancestors prior to the hydro damming developments;

> People were happier back then. I read in this study where people asked Elders about suicide, if they ever had suicidal thoughts while growing and while living their life while they were younger. And they said no. [They said] we were always busy, we always had something to do, we were always happy around family. They had that unity and that bond.

> And ever since being sedentary I think that we don't really have that bond now. So in my opinion the damming wasn't a good thing because we lost so much. We gained a lot but we lost too much.

Another 19-year old young man, who is clinically diagnosed as living with depression, expressed that it can be very difficult to try to conform to certain newer societal norms while harbouring traditional beliefs deep inside that he rarely shares with his peers (yet exercises them while out on the land with his grandparents). He explained how when he is out on the land his thoughts make sense to him however when in town with friends they seem to be awkward and not fit, like in a sense he does not believe the same thoughts while in town. Also, the priorities that seem important and how he views the world while in town seems absurd to him while out on the land. He said it sometimes causes pain in his head because it seems contradictory. This is possibly a form of splitting and potentially caused in part by the condition of "increased hybridity and fragmentation of youth culture" (Eglinton, 2013, p.9). This challenge of mentally and emotionally juggling or flip-flopping back and forth between two foundational ways of thinking can cause anxiety, doubt, and lack of trust (Williams, 2013). Furthermore it impacts their sense of identity and self-image, oftentimes in negative ways (Ferrara, 2004) and shaped by feelings of inadequacy. For example, as a young Cree woman stated in Wemindji stated during one of my interviews with her;

> We're always comparing ourselves to our ancestors right? So in a way we feel like we never measure up to how great they were. So we're always, like for our egos, we can never feel like we're real true Crees because we can't have the real old experiences back and I don't see that ever happening again.

All of these points suggest that identity for Cree youth may be complex and that combining newer and traditional practices for some youth may be challenging and they may harbour insecurities or regrets about losing part of their traditional Cree culture. As per the quote above which shows discomfort in her self-confidence (or ego as she describes it), feelings of insecurity or regret may play a role in why many community members and youth commented that youth are disengaged, an observation that is described in the following subsection.

6.3.2 Disengagement.

In my research experiences, a challenge that I encountered while working with Cree youth and trying to engage them in activities included their disengaged attitudes and behaviours. I questioned whether their general lack of engagement in my research activities was because my activities were

uninteresting to them. Alternatively I wondered if it may have been due to socio-personal dynamics considering that I was an unknown white outsider. Furthermore I wondered if the disengagement related to feelings of disempowerment. A few conversations provided further insight on the matter. One older woman told me that the youth would rather hang out at home with friends than do any sort of community activity. She said that youth expected to be paid for their participation in any type of optional organized group activity (including research activities) and furthermore that they expected to be financially compensated for 'volunteering' even for activities such as attending a dinner with Elders (and she emphasized that they therefore do not understand the concept of volunteering). Furthermore, through interviews and participant observation (Bradford & Cullen, 2012; Zieman, 2012) it was apparent that youth are generally disinterested in knowing or caring about the source of their drinking water (whether it was from the river, tap, or bottles from the store); overall they showed preference for whichever source of water was the least effort to obtain.

An employee from the Youth Centre commented on the general lack of motivation on the part of most youth. On the topic of youth's participation in traditional cultural activities, she said "Certain things are dying out, like the winter [snowshoe] walk… People have lost interest". Her colleague continued to explain by saying that, "People [referring to the youth] like the idea, like in their minds they want to do it. They just never act on it. They don't have any motivation to actually do it. The interest is there but the motivation to do it isn't." She continued explaining that Cree youth have therefore adopted a habit of being apathetic and uninvolved. From the perspective of one 19-year old young man, "I know that almost anybody could paddle down the canoe expedition, anybody, but they're all lazy". Again, as stated above, such statements do not apply to all Cree youth as there are some actively engaged in traditional activities on the land and/or involved in community engagement, however participant observations and interview notes suggest that such deductions are common to many of them.

The above observations might relate to the findings from other research studies done with Indigenous youth, particularly Goulet et al.'s study (2009) which showed Indigenous youth affected by colonial impacts have difficult times believing in themselves as agents of change. Therefore, lingering questions include: Are many Cree youth disengaged because they feel disempowered? Might it be because they are overwhelmed? Is it because they have options that are easier and more comfortable and they therefore choose ease and comfort over other activities involving more effort? Has it simply become an acquired habit to disengage? With respects to water, are Cree youth adopting characteristics of Desbiens' (2004) description of detached spectatorship, considering they are less intimately engaged with water (as they are spending more time inside

surrounded by human-made structures and products in contrast from being surrounded by non-human made nature) and are therefore 'detached' from natural sources of water and are 'spectators' of natural sources of water rather than directly engaging with it as their ancestors did? Is it possible to have an integral sense of relational accountability (Wilson, 2008) when we have detached spectatorship and or disengagement? Are Cree youth feeling disempowered with respects to water leadership because they are not involved in community action related to water and therefore do not have the opportunity to feel that their voices are important? Are they feeling that their culture has lost so much (in terms of culture), while at the same time gained so much (in terms of financial wealth compared to many other Indigenous communities in Canada) that they don't feel like they deserve to be agents of change?

This topic of youth engagement, and possibly youth disempowerment is one worthy of further attention, as greater insight could inform and improve supports for youth. However, although relevant to this study, elaborate exploration of it remains outside the scope of this research.

To conclude this topic, I once again need to stipulate that these observations do not apply to all Cree youth, as there are numerous examples of active Cree youth engaged in leadership roles in their community. For example, those working at the Youth Centre, those participating in activities like the canoe expedition and other cultural activities, those involved in sports and representing Wemindji at regional tournaments, students at the school who are involved in extra-curricular projects and trips, and youth getting involved in socio-enviro-political causes[25]. However, although it does not apply to all Cree youth, the issue of disengagement remains a significant concern for many adults, and for some youth, in the community and consequently has impacts on the relationships that Cree youth have with themselves, with others, and within the context of this research with water.

6.4 Opportunities for integrative youth water ethics

Although there exist serious challenges related to Cree youth integrative water ethics, there are also great opportunities. With two main ways of thinking coming together, also comes the possibility of new ways of thinking and being. As documented by The Canadian Arctic Resources Committee, "Elders have encouraged younger generations to bring together the best from both cultures" (McDonald, Arragutainaq & Novalinga, 1997, p. 63), like with two-eyed seeing (Bartlett, Marshall and Marshall, 2012) and integrative knowledge. In this section I therefore present some of

[25] Details on these actions can be found in *Section 5.3.3: Paddling on* and *Section 2.1.3: Youth Phase as opportunities and threats.*

the manifestations of how this integrative knowledge can offer opportunities. I share messages from Cree youth, and also share reflections on how to contribute "to make young people want to learn the importance of water, before it is too late and our information is lost forever" (Rosebud Sioux Elder as cited in Sachatello-Sawyer & Cohn, 2005, p.1).

To frame this section I draw your attention back to many of the points outlined in *Section 5.3.3: Paddling on* that give examples of youth involving themselves in causes they care about and of the community supporting them with their challenges. The examples include youth involvement in local and international development projects, participation in socio-enviro-political actions, and the many activities offered by the community to aid in transmitting Cree knowledge as well as foster capacity building for youth.

6.4.1 Counsel from Cree youth.

Recognizing that Cree youth do have potential to offer important messages to the world about water, in all of my interviews I asked one or both of the following questions: '*What can Cree youth teach non-Cree people about water?'* and *'Someday if you have children, what would you like to teach them about water?'* Below is a summary of the recommendations from Cree youth themselves; these findings could be significant as a foundation to understand what might strike youths' interest related to water. If I or other researchers pursue future action research (Altrichter & Posch, 2009; Klein, 2012; McNiff, 2013; Schmuck, 2006) and/or community-based participatory research (Castleden, Morgan & Lamb, 2012; Castleden & Garvin, 2008), these points could act as material to inspire research questions and activities as inspired by youth community members.

- *Water is life-giving and means survival:* An important concept repeatedly mentioned by the youth is that of the relation between water and the survival of all life, most notably from their comments, human life. For hunting, water is a sign that there should be animals nearby and therefore food and therefore survival. Every youth acknowledged that we need water for drinking (and therefore for survival).
- *Water can take life:* Many of the youth spoke about flooding and showed an understanding that flooding can take the lives of animals and human communities. On the canoe expedition there was a mild yet constant undertone of understanding that water can be dangerous (while running rapids particularly) and that it has the force to take life and/or cause injury.
- *We should keep water clean (or "fresh") and not waste it:* Most of the youth commented that we need to keep our water clean (or "fresh") and that we should not waste it. They

specifically said that we should not throw garbage in the river and that we should not let taps run unnecessarily in our homes; two youth insinuated that water is being wasted by Hydro Quebec and the large-scale dams.

- *Water is beautiful and can contribute to healing:* Many youth spoke about the aesthetic value of water and its healing and calming effects. Whether dealing with the loss of a loved one or struggling with drugs and/or other challenges common to youth, they acknowledged which that being on or around the water provides them with perspectives and a sense of peace they believe to be healthy, and in effect helpful for them to cope with pains and struggles.
- *We are deeply connected with water:* One young woman mentioned in particular that blood is made of water, showing an awareness of the intimate connections between humans and water. Two other young women proposed an idea to add human beings to instructional illustrations of the planet's hydrological cycle. Doing so would not only show the hydrological patterns of evaporation, precipitation, etc. but would also include human beings consuming and excreting water as a part of the cycle. From the literature we can relate this to Ferrara's (2004) explanation that in Cree culture the human self is inseparable from the rest of the natural world, which implicitly includes water. Important is also the relation that this point (of intimate connection with the natural world) is linked intrinsically to the Cree concept of respect which leads us to the final teaching point.
- *We should respect water:* This important lesson about water encompasses all of the other points above, most pertinently the previous point above about being deeply connected with water. A summary of all of the responses can be encapsulated by the following phrase, from the voice of a 19-year old young man in reference to important lessons related to water, "I think it's more about the Cree tradition. It's more like respect, you know."

Although these points could stand as a powerful manifesto related to water, the question of bridging intention with practice remains. To leverage these messages and foster conditions conducive for Cree youth to 'walk the talk', as community efforts already show, Cree youth require additional supports and opportunities for them to practice this respectful water ethic that they speak of. We can then ask the questions: *What experiences or conditions would encourage Cree youth's interest and action related to water protection?* and for those disengaged or disinterested youth, *What are ways to encourage youth to want to learn about the importance of water?* The following subsection proposes an approach that might offer response to these questions.

6.4.2 Fostering a respectful water ethic.

In addressing questions related to fostering a respectful water ethic among Cree youth, it is important to remember the fundamental point that in Cree knowledge, skills and values are inseparable. For this reason a holistic approach to learning, and subsequently in engaging Cree youth in water protection, is appropriate and justifies why I propose applying Hill's (1999) *Learning Cycle*, as shown below in *Figure 2: Hill's Learning Cycle* (p. 100).

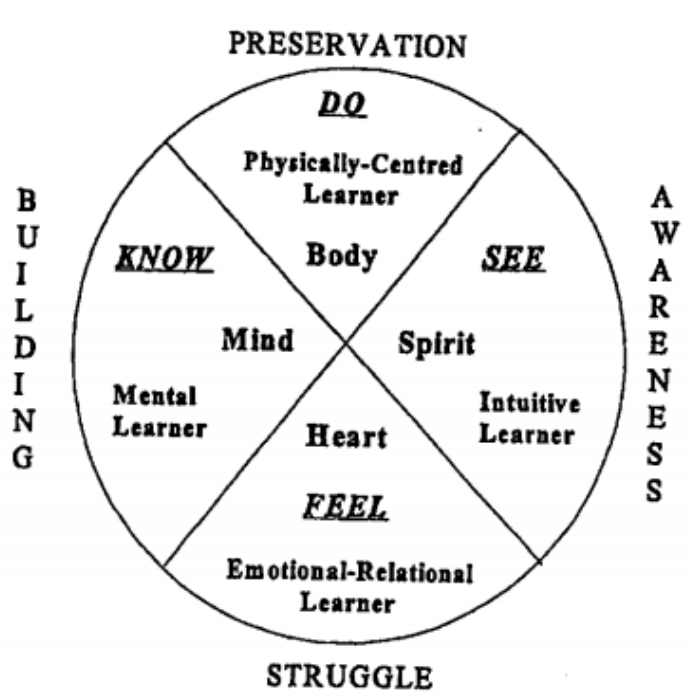

Figure 2: Hill's Learning Cycle (Hill, 1999, p. 100)

The model is based on an Indigenous culturally-relevant learning approach, using principles related to holism, to engage the multiple areas of a whole person in learning. Hill explains that;

> In Aboriginal thought a whole person consists of spirit, heart, mind and body – the capacity to see, feel, know, and do. Therefore, in the learning process, a whole person engages his or her physical, mental, emotional, and spiritual capacities in receiving data or information for the brain to process. (p. 100)

Hill's cycle is similar to that of the well-known Kolb's (1984) four-stage *Experiential Learning Cycle* and accompanying *Learning Styles*; Kolb's models demonstrate that "[l]earning is the process whereby knowledge is created through the transformation of experience" (p. 38). Hill's model is based on a parallel idea, however she has designed hers specifically for Indigenous learners; this

is not to say that Kolb's would not apply in the case of this thesis, however in recognizing the different ways of knowing, and subsequently the different ways of learning, I choose to apply Hill's model to acknowledge the distinctive qualities of Indigenous holistic learning. Also, her category of *struggle* (as outlined below) seems fitting to acknowledge the colonial mentality that is held by many Indigenous youth which is not apparent in Kolb's.

Hill's approach consists of the following four categories of experiential learning of Indigenous youth: *awareness* (learning about others and the world around themselves), *struggle* (to feel new problems and information)*, building* (knowledge), and *preservation* (of a new sense of one's self)*,* which correspond respectively to the actions of seeing, feeling, knowing and doing.

The approach is appropriate as it suggests learning from multiple sources within the human being, which we could consider to be transdisciplinary. As Bastien and Holmarsdottir (2015) explain; "…Such wicked problems will not only require a transdisciplinary approach" and they elaborate to involve youth specifically by saying that we "will also need to include current and future stakeholders and leaders, many of whom are today's youth" (p. 4).

Applied to Cree youth, for Hill's category of awareness, the community can continue to organize and run experiential, land-based programs (such as the canoe expedition) where Elders are present. Building on practicing these traditional ways, Elders or key group leaders can reinforce the importance of water to youth and also how intimately it is related to Cree culture and identity (such as traditional canoe routes, fishing (all year), and economic benefits from the Hydro Quebec dams). In this awareness category also comes the idea of learning from others. For example, on the canoe expedition there are often visitors from outside the community (such as myself, and many other researchers and students who have joined a trip). At one point I asked the Community Youth Chief, and organizer of the expedition, if having external people might hinder the comfort level of the youth. He replied that they appreciate outsiders participating because it allows the youth to learn about different ways and to also share their culture with others, which is a powerful awareness-raising exercise. Although I did not realize it at the time, I now understand this as a microcosm for practicing integrative knowledge (CWN, 2014) whereby we learn from others and subtly exercise the presuppositions and/or assumptions we have that we may not be aware of.

Related to water ethics, Groenfeldt (2013a) explains, "I use the term water ethics to denote the underlying principles influencing our own water behavior and our reaction to other peoples' behavoirs" (p. 1). Reacting to other peoples' behaviour is a way that we can begin to make water

ethics explicit (Groenfeldt, 2012) and making water ethics explicit can enhance opportunities for youth to acquire relevant awareness to augment their capacities in future reflections related to water.

The category of struggle relates to survival, in which many Cree youth are already well versed, and in which other youth are at least aware that the ability to survive on the land was a widespread skill among their ancestors (and still currently among some community members). Additionally they can struggle with speaking Cree with Elders and also struggle with detaching from in-town comforts in efforts to welcome the learning and practicing of traditional Cree ways. At the heart of struggling is experiencing something, and as explored in several places in this thesis, experiential learning is essential for learning Cree knowledge and its corresponding skills and values.

By 're-engaging' with water and experiencing water-related experiences (like canoeing, swimming, and fishing) youth can deepen their relationship with water and therefore develop a more intimate relationship with it. For example, during the canoe expedition there were multiple moments of struggle – personal emotional struggles like dealing with recent losses of loved ones (in the case of two youth on the trip) and other existential conundrums. Physically, struggling occurred while running rapids, while wet and cold from the rain, and while portaging heavy gear to bypass roaring rapids too dangerous to run. By engaging with water, youth likely relate to it and find it more interesting than if they remained distant from it, if they feared it, and/or if they understood it as a static 'resource' or 'commodity'. As explained by Swanson (2003), "Learners are more likely to be motivated when they are engaged in tasks they find interesting" (p. 66).

This again brings up the question related to motivation and youth interest in wanting to participate in such activities and endeavours. Incentives to promote youth engagement in activities, as suggested by some of the older youth who are working to preserve traditional cultural practices, include: giving certificates that acknowledge their participation; giving clothing (like jackets) with embroidered logos of the activity so youth can wear them and show them off (like a sort of trophy); peer pressure; financial awards; and bragging rights like posting photos on Facebook.

The category of building can include physically building shelters, fires, hunting devices etc. in addition to building knowledge. As noted in *Section 5.2.2.1: Elders and Cree knowledge*, an important finding from this research is that Cree youth are interested in acquiring Cree knowledge however the actuality of it happening is significantly less than the desire or potential. However, elaborate efforts are already in place to assist Cree youth in building Cree knowledge within

themselves, specifically driven by the Cree School Board and many community initiatives such as the culture camp and cultural knowledge museum. The mission statement of the Cree School Board (2016) is:

> To provide for life-long learning while instilling the Cree identity in partnership with our communities to allow each student to attain the qualifications and competencies to become a successful contributor to the Cree Nation and society at large. (n.p.)

Building Cree identity is inherently linked to building Cree knowledge. The school board promotes building both Cree identity and knowledge via in-class learning in their Cree culture and language classes and additionally by providing breaks from school at pivotal points like Goose Break in the spring so families can spend time on the land and practice the traditional spring hunt.

As stated previously, the Youth Centre runs many cultural activities including a fall moose camp where youth can learn to hunt, clean and prepare moose. At the youth general assembly they also planned to run activities such as net-fishing and visits to Old Factory Lake to practice traditional living to build Cree identity and knowledge. As mentioned previously, Cree community members are also creating channels for transmitting their knowledge including through video and music productions. Continued practice of these community-led and school-led initiatives can build interest and engagement in Cree youth.

Finally, in the preservation category, the hybrid-culture Cree youth are experiencing can relate to adopting an integral sense of respect (or ‘Creespect’) and responsibility for water. The co-learning described above by learning about one’s own culture in reflection of another, and exercising what Hill calls the ‘intuitive learner’, can foster links between explicit and implicit learning. These furthermore promote seeing links between relationships and relationality (Wilson, 2008) whether the relationships are with one’s self, with the Elders, with their culture, and/or with the world around them. Preservation in the sense of cultural preservation is relevant here especially when considering phenomena of splitting (Yeoman, 2012) and in trying to heal those areas of mental and emotional contention of colonial mentality (Albert, 1999; Ferrara, 2004).

An overall learning of this research and making recommendations for strengthening, and in some sense healing, peoples’ relationship with water is that many people (in this case, Cree youth) would likely benefit from strengthening and/or healing relationships within themselves. As mentioned several times throughout this thesis, relationality is an important lens from which to view

and try to understand the world and particularly in this case, our human relationships with water. Using an interdisciplinary approach such as Hill's Cycle of Learning can offer a way to promote holistically learning, specifically about how we learn and subsequently about our ways of knowing and affiliated ethics.

6.5 Looking forward

6.5.1 Implications for the community.

For the people of Wemindji, this case study could offer benefits of awareness, capacity building, and adding a sense of legitimacy. For awareness, this thesis presents much of the context in which youth are living. This profile could offer community members a glimpse into the challenges and supports for youth and inform decisions for where to possibly invest time, energy and money to address the threats and leverage the supports. Such awareness could act as a catalyst to take action in many areas, specifically relevant for this study, to possibly inspire future actors in water leadership for the community. As today's youth are growing into leadership roles, messages from this thesis could possibly act an introduction for water activism. Remembering the reactions from the youth as they watched the short videos during my video-elicitation exercise at the Youth Centre assures me that participating in my research activities has made an impact, even if small, on some of the youth and the level of awareness they have regarding their relationship with water, and about water issues and water protection.

Members of the Wemindji community, both adults and youth, could use parts of this thesis to build capacity. Using some of the youth quotes, whether possibly on posters or in documents for official or promotional use, could boost confidence among the youth that their voices are significant in the community. Furthermore, observations presented in this thesis could act as a benchmark for their understanding of, and interest and involvement in, how to guide more sustainable practices and educational initiatives related to water. Now that certain youth have had an introduction to thinking about their generation's relationship with water, they may be better equipped to contribute to facilitating progress in developing tools for water education and/or water activism, facilitating presentations related to water, and including awareness about water protection into other projects. Insight from the youth (as presented in *Section 6.4.1: Counsel from Cree youth*) could be used in a future water-awareness campaign and/or in informal or formal educational curriculum at the school, at the summer camps, and/or in Youth Centre activities.

Additionally, having this study done could add legitimacy related to the importance of water, the relationship that people have with water, and the role that youth could play in water leadership.

Points from the thesis could offer material to support community efforts to implement the Tawich (Marine) Conservation Area and/or other community actions related to water protection. It could legitimize possibly involving youth in such projects. It could possibly be helpful in efforts to address water sanitation concerns at Old Factory Island during the annual Old Factory visit and/or concerns related to mercury in the inland rivers and fish. Finally, it could offer Cree youth chances to connect with networks and endeavours in areas such as academia to which they might otherwise not be privy, in effect providing opportunities for them to learn and acquire new skills.

Furthermore, this case study can contribute to recognizing that Indigenous water ethics are not homogenous across different nations, nor within nations. It can stand as an example that displays numerous nuances involved in exploring water ethics of a particular group of people, particularly a group of Indigenous People, in Canada. In effect this case study could offer knowledge to the current collective academic understanding of Water Ethics (which simplifies the characteristics of Western and Indigenous water ethics as being polarized on a spectrum) in efforts to inform the field to reflect more accurate and insightful literature.

6.5.2 Future research.

As mentioned previously, the current literature in the field of Water Ethics remains in its infancy stage and therefore remains simplistic, whereby it presents polarized water ethics with those held by traditional Indigenous cultures at one end of the spectrum, and those held by the dominant mainstream Euro-descending cultures at the other end (Bartlett, Marshall & Marshall, 2012; Sandford & Phare, 2011). Additionally, recognition of the nuances between different Indigenous nations and their unique knowledges is limited, as the literature tends to present a blanketed view of Indigenous Peoples without recognizing that, for example, Cree knowledge is different from Ojibwa knowledge. Furthermore, several minority cultures within the dominant Western culture, such as permaculturists[26] and deep-ecologists[27], may hold water ethics similar to those of many Indigenous traditional conceptual frameworks, based on naturalist paradigms (Groenfeldt, 2003) encompassing holistic and long-term thinking, as well as the promotion of respect and reverence for water. For future research, I therefore recommend addressing these points and exploring the unique socio-political-environmental contexts influencing the water ethics of various Indigenous groups and selected minority Western groups in Canada.

[26] people who use creative building design inspired by whole-systems thinking to mimic patterns found in nature

[27] people who believe in naturalist thoughts like *metaphysical holism, biocentrism, and that all lifeforms are connected and interdependent* (Callicott & Frodeman, 2008).

Additionally, a question worthy of future research might be related to applying the concept of hoquotist (Mack, 2010) directly to this concept of inseparability between skills and values that composes Cree knowledge, as well as knowledge from other Indigenous groups and Western minority cultures. One other relevant consideration is that of gender. Exploring how the different genders in a culture interact with, and understand, water in addition to their roles and responsibilities and corresponding skills and values related to water, would be interesting.

The research in this Master's research thesis focused on youth, and although youth water ethics are relevant to the discussion, they are only a part of the larger picture. I therefore recommend that for future research, a broader focus is adopted to work with other players in the respective communities to expand the focus from being principally on youth to include Elders, the school board, teachers, policy makers, leadership bodies like band councils, health boards and other community adults. As methodology, for future work I strive to engage in action research (Altrichter & Posch, 2009; Klein, 2012; McNiff, 2013; Schmuck, 2006) and/or community-based participatory research (Castleden, Morgan & Lamb, 2012; Castleden & Garvin, 2008) to be able to practice the points related to research benefitting communities as mentioned in *Section 3: Methodology*.

6.5.3 Working with Cree youth.

In terms of continuing to work with Cree youth, there are some key learnings from this study that I would apply in future endeavours. Inspired by recommendations offered in an article entitled *Will young people solve the water problems?* (van der Helm, 2003), I have created suggestions for consideration if I or other researchers look to involve Cree youth in contributing to the development of a new water ethic or other initiatives related to water protection. I recommend practicing the following four points and intentionally allowing space to address them in interactions and expectations:

- Foster and maintain ongoing and trusting relationships (that acknowledge colonial dynamics and socio-political relations);
- Understand that Cree youth need opportunities, time, and support to develop relevant capacities (like critical thinking and organization skills) to become effective research partners and/or participants;
- Understand that Cree youth need the space and permission to perform tasks, make decisions etc. in ways that may differ than from how we might approach something; and
- Recognize that there is diversity among Cree youth and they cannot be expected to have one unanimous "Cree youth voice" or one respective homogeneous "Indigenous youth water ethic".

Honouring these recommendations could offer a form of support to youth to encourage the potential they harbour (as seen in the summary in *Section 6.4.1 Counsel from Cree youth)* to provide a process that offers opportunities for them to become interested in water wellbeing and possibly engage in water protection related initiatives.

6.6 Conclusion

Wilson (2008) tells researchers that "if research hasn't changed you as a person, then you haven't done it right" (p. 135). I cannot claim to have done it right, but I can most certainly attest that this research has changed me as a person, by expanding my perspectives, adding nuances to my ideas about the world, and inviting me to think more critically. Experiencing some of the 'back stage' of the lives of Cree youth, as related to observant participation (Moeran, 2009; Schmuck, 2006), and having participated in processes that resonate with Hill's (1999) Learning Cycle (involving awareness, building, struggle and preservation), I recognize myself engaged in a process of personal paradigm changes; I see it manifest in conversations I have with old friends. Observing these changes in myself offers me hope that a paradigm shift is possible within the dominant Western worldview, and its respective mainstream water ethic.

However, the stresses of wicked problems (Rittel & Webber, 1973; Bastien & Holmarsdottir, 2015), risk society (Beck, 1992; Giddens, 1991; Cieslik & Simpson, 2013), and increasing Nature Deficit Disorder (Louv, 2008), along with the forces of globalisation and consumer capitalism, make facilitating a paradigm shift a tall call. With the added context related to youth, especially Indigenous youth, relying on them to contribute to the transition towards a more sustainable society comes with some hesitation. In effect this asks the question: Are youth, especially Indigenous youth, equipped to deal with the challenges currently facing humanity and the planet?

By offering Cree youth support in areas where they may be experiencing challenges (like with possible jagged worldviews colliding (Little Bear, 2000), splitting (Yeoman, 2012), and detached spectatorship (Desbiens, 2004)), and by offering them opportunities to inherit invaluable traditional Cree knowledge, they may grow to become more involved in water protection efforts. In effect they might be able to contribute intentionally and/or indirectly to a new and more sustainable water ethic via integrative knowledge (CWN, 2014) and/or integrative water ethics, and two-eyed seeing (Bartlett, Marshall and Marshall, 2012). Again, as stated previously, as quoted by 21-year old Youth Council Representative for the Assembly of First Nations, Quinn Meawasige (in Murphy, 2015), there is "a wave of young [Indigenous] people… who want to contribute to Western society

but also make sure they're rooted and grounded in their culture." Considering the Indigenous traditional knowledge that is available to Indigenous youth, which encompasses the prescribed ethics for a more sustainable water ethic, given fertile conditions, Indigenous youth may be adept to contributing to the call to compose this new narrative. As Meawasige says he is "far from alone among young indigenous Canadians who are forging a new path paved with old traditions" and for many Indigenous youth like him, they will move forward and contribute to society with "one foot in a moccasin and one foot in a sneaker" (n.p.).

Thank you. Miigwech.

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APPENDICES

Appendix 1: Guiding questions for semi-structured interviews

Introduce self

- Obviously I'm a white woman; both sides of my family have had roots in Canada for over seven generations (which is longer than most non-native people here, however a very short ancestry in Canada compared to your people).
- I situate myself as an ally with Native people.
- I'm here to learn more about Cree culture, and share elements of my culture, and to do research about water and people's relationship with water – so how we think about water, how we have learned about water, what we think it important about water, etc.. My specific focus is on youth.
- I am fortunate to have joined the 2014 youth canoe expedition where I was introduced to Cree culture and some of your traditional ways. [Tell a couple short stories about time on canoe trip – the water bottle story, and the rescue.]

Guiding Questions

General / Intro:

- According to you, is water important? Why?
    - Why is it important to you personally?
    - Why is it important in general?
- What water-related activities do you like doing?
    - If you like swimming, do you have a preference for swimming in the pool or in the river?
- Is there a difference between the concepts of "water" and "neebee"?

Learning about water:

- How have you learned about water? / Who and/or what in your life has taught you about water?
    - Do you know any Cree legends related to water? Do they teach lessons about water?
    - Do you learn anything about water in school? (What are your thoughts on how it's taught?)

    - (If they've been on canoe expedition): What have you learned about water from the canoe expedition? What are your thoughts on how it's taught?
- How do people learn about respect for water?
    - What does respect for water mean?

Water issues / concerns:

- What sorts of concerns does your community have related to water?
- What do you think of the Hydro dams?
- Where does your drinking water come from?
- What do you think is the difference between drinking tap water, bottled water, and water from the river?
- What do you think of bottled water?
- What are you impressions on the state of water around the world?

Water worldviews / water ethics:

- Do you think the people working for Hydro think differently about water than Cree people? How?
- What could the Hydro people learn from the Cree about water?
- What could the Cree learn from the Hydro people?
- Would you say that your thoughts on water are similar to those of your friends?

Changes over time:

- Have ideas about water changed from generation to generation?
- How has water in the community changed in your lifetime? What about your parents' and grandparents' lifetimes?
- Do you think it's possible to have a balance between Cree traditional lifestyle and Western lifestyle?

Water knowledge:

- Can Cree youth teach other youth (non-native youth) certain lessons or things about water?
- If you have kids someday, what do you think will be important to teach them about water?
- Are there things about water that you want to learn more about? (for example, if you were to do research about water)
- According to you, what is the difference between fresh water and salt water?

Youth:

- Do youth have a role to play in learning or teaching about water? And/or in water protection?
- What are the youth like in the community? How do people think of them?
- What is unique for Cree youth today that wasn't the case when your parents or grandparents were youth?
- What is important to Cree youth? In general? With respects to water?

More abstract questions (to use only if appropriate):

- What is water?
- How do you describe your community's relationship with water?
- How do you think other communities or cultures think about water differently?

Appendix 2: "Wemindji's Got Water" project activity

Game plan for ***"Wemindji's got water"*** (like "Canada's Got Talent" show)				
Time	**Activity**	**Instructions**	**Materials needed / Notes**	**Data collection**
5 min	**Intro & explanation**	-introduce myself and judges -describe activities and points	-flipchart with simple plan on it	n/a
5 min	**Set up**	-divide group into teams (ideally 4) -each team chooses a name that relates to why water is important		-names they decide on (why water is important)
20 min	**First activity: water tasting**	-water bottles are numbered -each person tastes both of them and guesses which one is which.	-bottled water -tap water -cups -flipcharts that say "water 1" "water 2" etc. -flipchart with list of options on it -flipcharts that say bottled water; tap water	-Flipcharts with their comments related to bottled water, tap water, polluted water)
1 min	**Judges announcement of points**			
30 min	**Second activity: Water obstacle course**	1. **Water carry** Who can bring the most water from one side to the other with the containers with holes in them (each team gets 2 containers) and then with wet towels. 2. **Melt the ice:** Give each team an icecube and time how long it takes to melt it. 3. **Pass water balloon:** from neck to neck; knees to knees. 4. **Water balloon piñatas** (points for breaking balloon and extra points if the person remains dry)	-8 yogurt containers (2 per team) -4 dishclothes -4 bigger containers -4 water bottles -4 icecubes -balloons -string to hang water piñatas -bat -judges -have a photographer	-Observations of how youth interact with water -Photos of people interacting with water
1 min	**Judges announcement of points**			
30min	Watching videos and recording water worldviews and water education	-every person in group has same colour pen or marker and a stack of papers -play videos and while watching take note of the water worldview and/or relationship with water -at the end of each video get up and put them in the appropriate box of "single" "in a relationship" or "it's complicated" -1 point is given to each answer of quality (and will be given to the colour team of the ink) -extra points may be given for clever answers and points may be taken away for nonsense answers	-computer -links to videos -speakers -projector -papers -pens (in colours) -boxes **1.https://www.youtube.com/watch?v=YMTLkDrcr28** **[watch until 3:17]** **-"Water" scientific description of water sandwich & hydrophobic materials** **-shows a scientific type worldview** 2.https://www.youtube.com/watch?v=keRf2	-messages on papers

		-judges read and score the answers from one video while the youth are watching the next video	_Dc0No [watch to 2:20] -Water is life – Indigenous perspectives on life (from Seven Generations Fund) -talks about how destroying land & water is destroying life 3. http://vimeo.com/31151769 [video is 4 and a bit min long] -vimeo on Blue Economy 4. https://www.youtube.com/watch?v=fp-6olT0i2A **[watch to 3 min]** WATER JOURNEY TRAILER: Ojibwa Grandmother Josephine Mandamin, water warrior. This story follows one womans quest to raise awareness about water's fragile existence. **5.https://www.youtube.com/watch?v=DEj25xY5YJo** **[watch to 2 min]** **Ta'Kaiya Blaney: Sliammon First Nation. Shallow waters with lyrics** 6.https://www.youtube.com/watch?v=UTdkeMRVJHA [2 min long] How does water education impact the world's water? Project WET is Water Education for Teachers...but what exactly is water education? Find out what water education is and why it's important in this short video. 7.https://www.youtube.com/watch?v=fXTFQu1U81s [watch until 3:10] Wemindji rocks; video of 50th anniversary	
1 min	**Judges announcement of points**			
20min	**TV commercial activity**	-each team takes one paper from each box and gets to choose one of them to make a tv commercial to promote a message related to water (and after the rest of the group guesses whether it's a water worldview the tv commercial team agrees with or not). The teams have 5 min to prep, then present.	-boxes with papers inside -have a photographer / videographer	-Videos of their messages
1 min	**Kristy's closing**	-thank you for your participation in this activity and research -if anyone is interested in doing an interview about water (you can do it in pairs), let me know. It pays $20.		
3 min	**Judges announcement of points and winning team and delivery of trophy (made of ice)!**			