

Perceptions of Water among the Inuit Community in Iqaluit, Nunavut: An Anti-Colonialist,
Feminist Political Ecology

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Abstract

Water is an essential part of everyday life. In Iqaluit, residents receive their water through either utilidor or trucked water delivery, which is an integral system for everyday life in the North. For Inuit residents, gathering water from the land is also an essential source of drinking water. Based on fieldwork results from 2016, this thesis argues that perceptions of municipal water in Iqaluit are a source of added stress to daily life, and that gathering water from the land is an important part of Inuit identity that can be a source of healing. Both experiences with municipal water and water from the land are emotional and embodied. Specific results will be discussed with regard to age and gender. Using principles from Indigenous methodologies with feminist political ecology, data was collected through participant observation and a series of twenty-one semi-structured interviews with Inuit community members.

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Chapter One: Introduction

Water is an essential part of everyday life. In Iqaluit, residents receive their municipal water either through utilidor, a utility corridor that carries drinking water in, and greywater and sewage out, or through water truck. For those who are on trucked water service, a municipal water truck delivers water from Lake Geraldine, Iqaluit's water reservoir, to a tank inside the home. For Inuit residents, gathering water from the land is also an essential source of drinking water. Perceptions of the municipal water system are varied. This research looks at Inuit perceptions municipal water in Iqaluit, and the importance of using water from the land for physical, emotional, and sometimes spiritual benefits.

Currently, there is much physical geography research on water being conducted in Northern communities; however, more social science research is needed to better understand impacts on community health and well-being. There is also a need for research in both physical and human geographies that focuses on the perspectives of Indigenous people. This research works to address this gap by prioritizing Inuit voices, and by providing information regarding the social impacts of changing water availability. This information may be used to support water policy development for Nunavut, as the Department of Health works towards establishing a territorial water strategy.

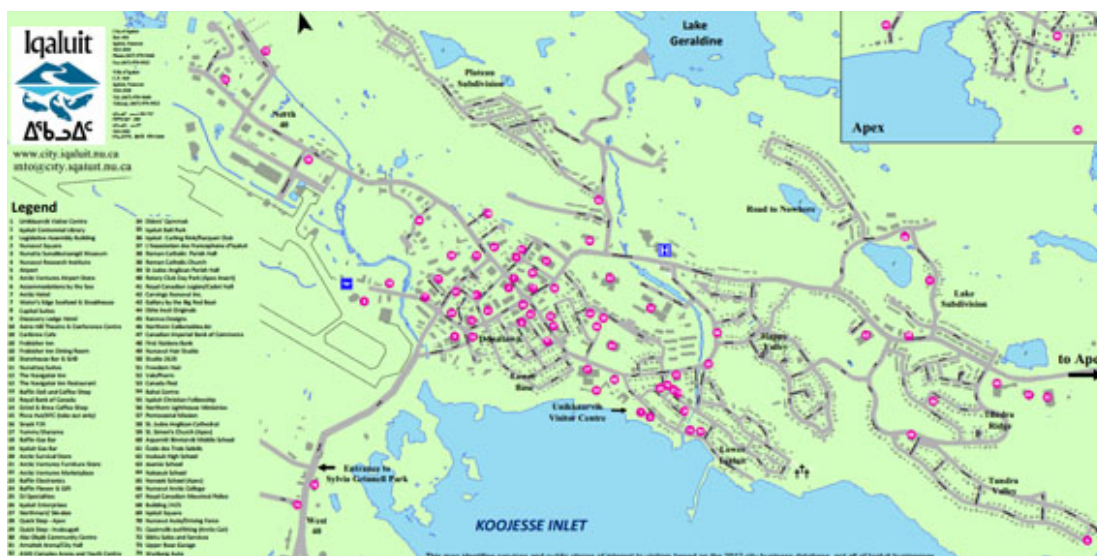


Figure 1: City of Iqaluit Map (City of Iqaluit Photo 2014)

The findings of my research show that perceptions and experiences with municipal water in Iqaluit are a source of added stress to daily life. Municipal water service interruptions can be due to infrastructure problems, weather preventing water trucks from completing deliveries, and water shortage due to running out of tanked water. The research shows that these are emotional, embodied experiences that can have an impact on health and well-being. Although everyone will have different perceptions of municipal water, four subthemes emerge from the stories of the research participants in this study: stress from concerns of municipal water quality, stress from municipal water shortage, stress of anticipating municipal water shortage, and stress from the financial strain of water. Using principles from feminist political ecology, these four main themes are discussed with special attention paid to how factors such as age, gender, socio-economic status, and housing status impact how people feel about municipal water sources. The second part of this study examines how gathering water from the land is an important part of Inuit culture, and for the people included in this study, is often a preferred source of drinking water. People report the physical, emotional, and spiritual benefits of gathering water from the land, and the role of this water in healing and reconnecting with Inuit identity. Gathering water

from sources including lakes, the Sylvia Grinnell river, and icebergs is an important part of everyday life for many Inuit people.

This chapter begins with a context section. Details are provided regarding technical specificities of how the municipal water system in Iqaluit is operated, and how water governance structures on both a community and territorial level are implemented. Next is an overview of the methodology used for this project. Indigenous methodologies are central in this project design. Because of the emotional and intersectional nature of this work, using emotional geographies with a feminist political ecology framework that builds upon the work of Sultana (2011) allows for these lived experiences not only to be honoured, but to contribute to diverse and varied research findings. Therefore, I build upon Latulippe's (2015) treaty methodology and use a mixed methodological approach that brings together principles from Indigenous methodologies with emotional geographies of resource access and feminist political ecology. Through this collaboration, the research is more decolonized, grounded in place, accurate, and beneficial for the community. This chapter concludes with an outline of how I implemented these methodologies in my fieldwork.

In this thesis, I define 'colonialism' as any of the events, processes, and associated people that had and still have an impact on the experiences of Indigenous people, due to the colonization of their territory by European powers, Canadian governments, religious organizations, and settlers. I use 'Western' to refer to any people, processes, or dominant knowledge structures that are commonplace in North American and European society. It should also be recognized that the term 'Indigenous' encompasses diverse peoples. This term will be used in this thesis to reflect the terminology in current discourses regarding decolonizing research practices that provide much of the information for this work, and not to make broad generalizations. As defined by the

Tri-Council Policy Statement for Research with Aboriginal Communities, a community is defined as “a collectivity with shared identity or interests, that has the capacity to act or express itself as a collective” (Panel on Research Ethics 2015). Throughout this thesis, I make reference to the concept of ‘stress’. I use the word stress to encompass experiences of increased physical or emotional discomfort and strain from perceptions or experiences with water. The Qikiqtani Truth Commission explains that Inuit health knowledge is holistic and tied to a person’s identity, with interconnections between a person’s psychological, physical, and social needs (Qikiqtani Inuit Association 2014a). When having discussions about experiences of ‘stress’ with people, it is critical to keep in mind that the Western understanding of stress is different than an Inuit understanding of stress. In this context, the concept of ‘stress’ refers to an interconnected experience that can impact not only health, but also identity.

Throughout the thesis, research participants are cited using a code to protect their anonymity. The code consists of the date they were interviewed, and a letter to distinguish between participants if more than one person was interviewed on the same day.

Context:

Water Infrastructure

Located in the Qikiqtaaluk region, Iqaluit is the capital city of Nunavut, and at close to 8000 residents, the largest city in the territory. In Iqaluit, municipal water is supplied by Lake Geraldine, a water reservoir that is filled entirely by runoff¹. From the reservoir, water is pumped to the treatment plant where it is treated with UV, sand filter, chlorination, and a fluoride treatment. Using the UV sanitation first is unique to Iqaluit, as usually this is done after sand filtration. However, because the incoming water is so clear of debris, this is done first. A model

¹ The Apex River, adjacent to Lake Geraldine, is fed solely by rain, not by perennial snow or permafrost thaw (Bakaic et al. 2017). More research is needed to confirm if Lake Geraldine is also fed solely by rain.

of this sand filtration system can be seen in Image 1. Bacteria tests are taken daily. From the treatment plant, water is pumped to two temporary storage tanks, with a combined capacity of 4.5 million litres of water. Generally, the water supply is drawn down upon during the day and resupplied at night. Water is distributed through a network of pipes that are insulated and buried in the permafrost. Prior to the 1980s, most of the utilidor system was above ground². Today, new pipes are placed underground alongside sewage pipes, and there are only a few remnants of the above ground utilidor that still remain. Iqaluit's water system is kept in a loop rather than a network, so that there are no dead ends in the system. The water system is gravity fed, and there are two booster stations in town to increase pressure where it is needed (IQJune29/16AandB).



Image 1: A model of the sand filtration system used to filter Iqaluit's water (Photograph by Victoria Watson)

² The exact date of when the utilidor was installed seems to be unknown. The city refers to its inception around the 1980s.

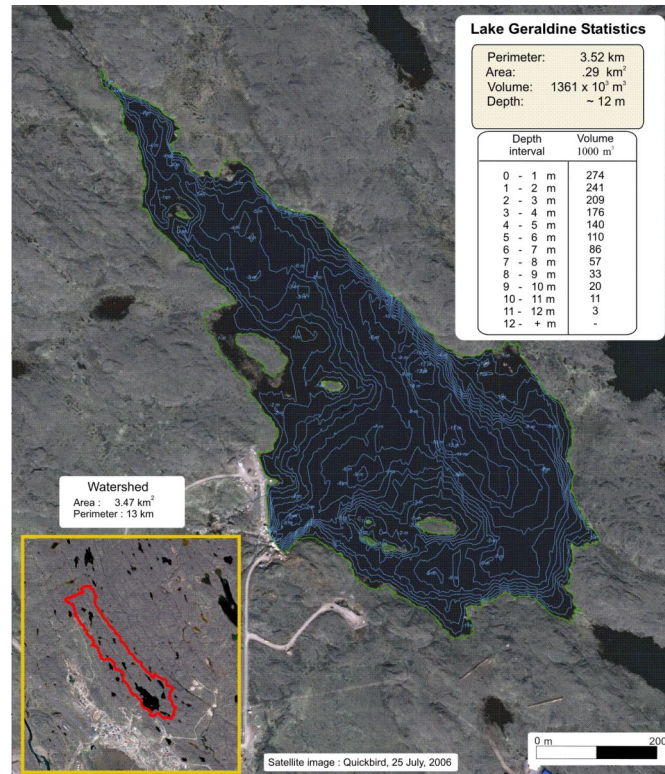


Figure 2: Bathymetric contour lines of Lake Geraldine (Budkewitsch et al. 2011)

Most residents in Iqaluit are on the utilidor system. However, 11% of all the litres of municipal water go to the trucking services, and are delivered to people with water tanks rather than utilidor service. Apex, Tundra Valley, and Tundra Ridge are the neighbourhoods still on trucked water, in addition to a scattering of businesses throughout town. Switching residents from the trucked water delivery system to the utilidor system requires digging into permafrost and is expensive (IQJune29/16AandB). However, the advantage of being on the utilidor system is that residents are not limited in their water usage to the finite amount of water in their water tanks. This is especially useful for people with large families.

A utilidor shutdown is generally for one of two reasons: performing regular maintenance, or for an emergency repair. Maintenance repairs are usually not a significant service interruption, and may take a few hours. An emergency repair could take much longer, and last for several days or weeks. A shutdown for emergency repair would usually be to mend a break in the main.

Water mains are six to twelve inch lines operating at 150psi, so when a break happens water can shoot up like a geyser (IQJune29/16AandB). For example, in the summer of 2015 in Iqaluit a pipe froze and shattered. The pipe was broken but held together by the active layer. When the active layer melted, it exposed the broken pipe causing water to burst forth. In this situation the water was rerouted, and back feeding was used to isolate the broken section. However, sometimes the valves do not hold against the pressure, so more and more pipe needs to be isolated in order to complete the repair. This means that more and more people have their utilidor service interrupted. For example, in the summer of 2015, 300 homes had to be isolated for five days. During this time municipal water trucks delivered water to people who were affected by the shutoff, into pots and jugs supplied by individual homeowners. The city also worked with Public Health to help educate people about water conservation. As seen in Image 2, while the city attempted to fill buckets with water for residents, it was not enough for many of the homes housing more than one family (Rohner 2015).



Need water? In Iqaluit you can leave your containers by the side of the road to be filled by City of Iqaluit workers if you're still in the area without water since Aug. 8. (PHOTO COURTESY OF JANET ARMSTRONG)

Image 2: A city worker filling pots left outside a resident's home, to provide residents with water during a water service interruption (Rohner 2015)

During these times of water shortage, bottled water is not an option for many households due to its price. A recent report from the Huffington Post reveals that a case of thirty-five 500ml bottles of water costs over \$84 in the Northmart store in Iqaluit (The Huffington Post Canada 2014). During my fieldwork in July 2016, I noticed that both grocery stores were actually sold out of cases of bottled water. One litre bottles were available at \$7.99 per bottle, compared to prices of approximately \$1-2 in Southern Canada.

Some parts of the water system in Iqaluit are at least thirty years old, and there is a lack of preventative maintenance, which means that valves often break cutting more and more people off from water while it is being repaired (IQJune29/16AandB). The high turnover rate of staff also makes it difficult to perform preventative maintenance on water infrastructure. For example, there might be a manager in town who is working hard to ensure that maintenance and preventative care is being completed, but then they leave (IQJune29/16AandB). This is a common challenge for Nunavut. Much of Iqaluit's water system is run on "learned knowledge", but the city is in the process of creating more written documents so that if a staff member leaves, other people can continue the work effectively (IQJune29/16AandB). How often a pipe needs to be repaired is also dependent on how old it is.

Lake Geraldine can service a population of up to 12 500 people, and the useable volume of water will last twenty to thirty years. This human-made reservoir was originally built in 1958, and was raised to have a larger capacity in 1985, 1995, and 2006 (IQJune29/16AandB). It was originally constructed by the US military while it was in Iqaluit to install DEW lines during the Cold War. In the long term, there will not be enough water in Lake Geraldine to service the growing population, so the city is also looking to pump water from the Apex River. Currently, the city must complete a fish study to examine potential harm that this could cause for fish in the

river, and to create harm mitigation strategies. The Apex River was chosen over the Sylvia Grinnell River because the Sylvia Grinnell River is used more by people for recreational purposes.

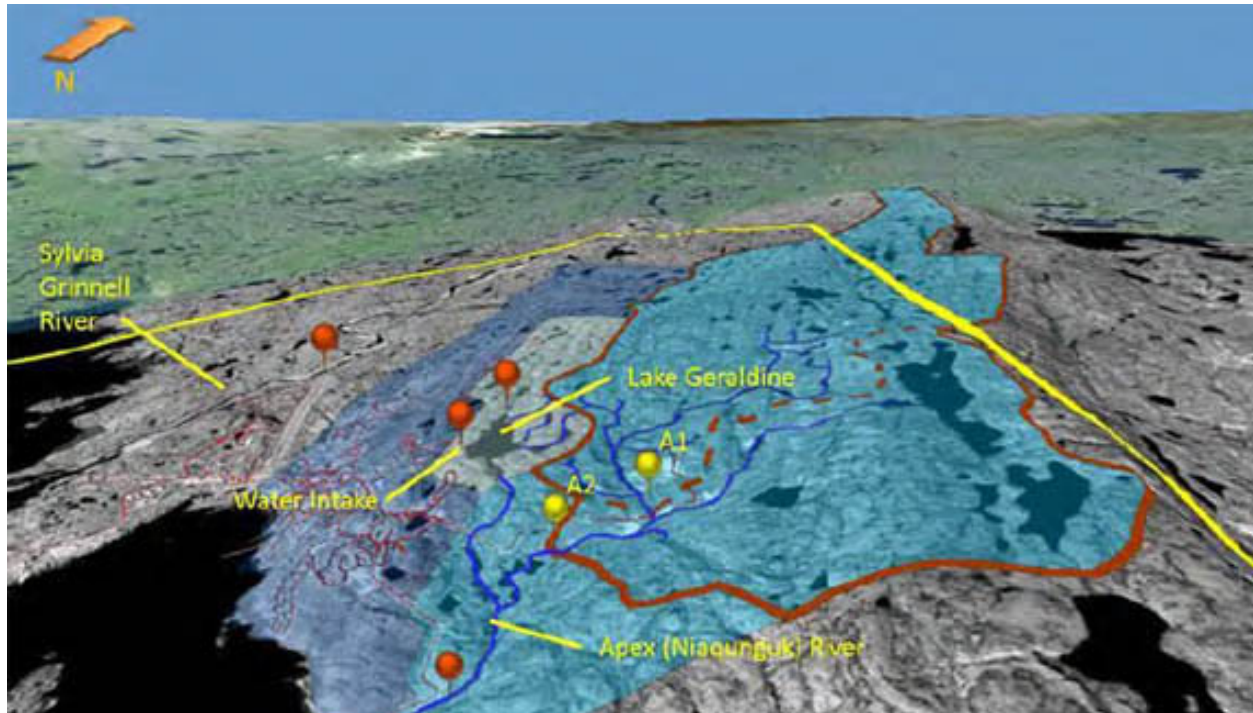


Figure 3: A map showing Lake Geraldine in proximity to the Apex and Sylvia Grinnell rivers (Rogers 2017)

Water Governance

In Nunavut, the federal government retains the primary stewardship of water, through Aboriginal Affairs and Northern Development Canada (AANDC), which is responsible for the management of water resources, and the development, implementation, and interpretation of legislation and policy relating to its responsibilities for water management (National Collaborating Centre for Environmental Health 2014). According to the Department of Indian Affairs and Northern Development (DIAND) Act, the department has provincial-type responsibilities for the North, although the federal government has ownership of the water and other natural resources in Nunavut (National Collaborating Centre for Environmental Health

2014). In collaboration with the Nunavut Planning Commission, Nunavut Impact Review Board, the Nunavut Water Board, the Government of Nunavut, and Nunavut Tunngavik Incorporated, and regulatory agencies such as Environment Canada, Fisheries and Oceans Canada, and Health Canada, the AANDC has a responsibility to prevent the degradation and contamination of source waters from activities such as highway construction, mining, and logging (National Collaborating Centre for Environmental Health 2014). However, responsibility for the provision of safe drinking water has devolved to the territorial government. At this time, Nunavut lacks a territory-wide water management policy framework. Individual municipalities operate their own water infrastructure and treatment systems, while maintenance is provided by the Department of Community and Government Services (CGS) of the Government of Nunavut (GN). Water use is licensed by a territorial licensing board, the Nunavut Water Board.

The Nunavut Water Board (NWB) provides permits to draw water, and licenses to use water for any activity that could have an impact on source water quality. In the exercising of that licensing power, the board is required to take any detrimental effects of the potential uses of water into account, and when appropriate, to hold public hearings (Nunavut Water Board 2016). Operating at arm's length from the government, the NWB is part of a larger management system and holds responsibilities and powers over the use, management, and regulation of inland water in Nunavut (National Collaborating Centre for Environmental Health 2014). However, the NWB mandate is limited, and the Government of Nunavut has no specific agency who is responsible for freshwater resource policy or management, leaving much of this to regional offices. Therefore, this makes the consideration of broader, cumulative impacts of changing water availability difficult. This, combined with Iqaluit's aging water infrastructure, creates unique challenges for the city.

Methodology:*Methodological Summary*

Research with Inuit people has a colonial history of being invasive, damaging, extractive, and inaccurate (Nickels et al. 2007). In order to produce research that is not damaging and instead beneficial for the Inuit community in Iqaluit, I strived to make this a community-based project. I used principles from Indigenous methodologies to be more decolonized in my approach, and to facilitate a respectful and mutually beneficial research process.

Indigenous research methodologies, as discussed by scholars such as Shawn Wilson, Margaret Kovach, Linda Tuhiwai Smith, and Renee Pualani Louis greatly informed the design and execution of this research. However, Indigenous Research Paradigms (IRP) are lived experiences, and as both a non-Indigenous researcher and non-resident of the North, it is important to question the extent that I can participate in these. One scholar to do this is Nicole Latulippe (2015), who uses what she calls a treaty methodology to bridge the epistemic differences between Indigenous research and non-Indigenous research. Building upon this strategy, I use a mixed methodology to account for these ontological and epistemic differences, and to produce research that is grounded in place, respectful, and useful to the Inuit community in Iqaluit.

Different people experience water in different ways. Class and socio-economic status are certainly factors in rendering people able or unable to purchase expensive bottled water in a time of water shortage. In Inuit culture, water is life. This means that water, whether it is municipal water or water from a traditional source is not just a resource, but an embodied, emotional experience that is a key factor in physical, emotional, and spiritual well-being. Because of the emotional and intersectional nature of this work, using emotional geographies of resource access

with a feminist political ecology framework allows for these lived experiences not only to be honoured, but to contribute to diverse and varied research findings (Sultana 2011; Elmhirst 2011).

Drawing on the Indigenous scholars above, I argue that there are five key themes of Indigenous methodologies that are important in my own work: understanding colonial histories, self-location as the researcher, collaborative research strategies, story as methodology, and practicing relational accountability. First, having an extensive understanding of the colonial history of Iqaluit is critical because it is an important truth that must be recognized in order to present research that tells the whole story. Iqaluit experienced the imposition of Southern water management and governance strategies as a result of colonialism, and because of this, this colonial history must not be ignored. Second, practicing self-location as the researcher is crucial because as a non-Inuit person, there will be epistemological and ontological differences in the way that I understand this research in relation to the Inuit community members I am working alongside. In order to be a good ally, I must understand my own positionality and the privileges that I hold. Using collaborative research strategies is also integral in Indigenous methodologies. In my own project, I worked with staff members at the Nunavut Research Institute to help design a project that would be most beneficial for the community. Fourth, Indigenous methodologies stress the importance of using story as methodology. While I did end up having to use questions to get conversations started, I always tried to leave interviews as open ended as possible to allow for people to share the stories that they felt were most important. Finally, practicing relational accountability is central in my research design. Research must be transparent and accessible to the community. To ensure transparency and to aid in knowledge mobilization, I travelled back to

Iqaluit in May of 2017 to share the research results with the community, seek input, and confirm findings.

Recent scholarship in emotional geographies emphasizes that emotions are dynamic, process oriented, and relationally produced between people and places (Sultana 2011; Anderson 2013; Jayne et al. 2010). Anderson (2013) furthers this discussion by adding that emotions are collective in that they emerge from and express ways in which life takes place and is organized. It is important to study emotion in geography because emotions are attached to all parts of life, and can often guide actions (Anderson 2013). Sultana (2011) argues that emotions matter in water struggles because they influence the outcomes of the practices and processes of resource access and use, and ultimately shape how water resources are managed and experienced in the everyday (Sultana 2011). Therefore, emotional geographies of resource access provide a framework with which to examine how current water policies and practices in Iqaluit shape peoples' lives.

Using feminist political ecology adds to this project because it creates a framework in which the relationship between the complex intersections of identity, power structures, and the built environment can be explored. Intersectionality studies operate with the main assumption that different oppressive structures are interconnected, and cannot be examined separately.

The identities of Inuit living in Iqaluit interconnect in and through particular spaces, to systematically reproduce inequalities. This helped guide my research questions as I approached the community as a place with diverse people who will experience water in different ways.

Through the use of emotional geographies of resource access and feminist political ecology, the true interconnectedness of the factors influencing water precarity in Iqaluit can be conceptualized. It is not enough to look at water security through a top-down, hierarchical

perspective. The lived experiences of people struggling with water access are deeply rooted in place, and affected by identity, the reciprocal influence between structure and place, and the emotions felt in the everyday. Using emotional geographies highlights how structural inequalities have an emotional impact on people. These theories actively influenced my fieldwork, as the notion of ‘community’ was deconstructed to mean not just a singular, homogenous group, but people with differences, who experience the emotional impact of water emergencies and shortage in unique ways.

Fieldwork

In the summer of 2016, I travelled to Iqaluit for a two-and-a-half-month period to conduct fieldwork for this project. After approximately a month of being in Iqaluit, I was able to connect with Elisha Kilabuk, a local man from Iqaluit. He works in Iqaluit as an interpreter, and contributed crucially to this project. Through word of mouth, Elisha helped gather over half of the research participants that we interviewed. Working with Elisha was absolutely key to the success of the research gathered, as he not only helped to find participants and interpret in Inuktitut, but as a local Inuk man, he also made participants feel more comfortable during the conversations. As an outsider who is new to the area, I was also grateful for Elisha’s vast cultural knowledge. His stories and teachings helped to increase my cultural understanding and knowledge base.

Over the course of my time in Iqaluit, Elisha and I interviewed twenty-one Inuit and seven non-Inuit people for this project. However, the interviews with Inuit community members are highlighted in this thesis in order to prioritize Inuit concerns and experiences. Of the twenty-one Inuit we spoke with, fourteen are female and seven are male. Some researchers get their research participants to fill out a demographic information sheet before the interview begins,

with questions about age, occupation, and how many children they have. This can be useful in the data analysis stage; however, I chose not to do this for several reasons. As a Southerner who has never done research in Iqaluit before, I had concerns that asking people to share this personal information with me via a survey before the interview started would create an environment where the interview felt extractive or overly invasive. Given the history of colonial research in the North, I wanted to work to create as welcoming an environment as I could. This was especially important for this particular project, as this was my first time in the North and I did not already have rapport with the community. Therefore, I did not ask people to disclose their age. Based on pieces of information they told me in the interview, I know that nine research participants were under the age of fifty, with four of those participants young enough to be considered “youth” (under the age of thirty). Twelve of the research participants were over the age of fifty, with four of those twelve being considered community Elders.

Most interviews were conducted in English. Three interviews were conducted solely in Inuktitut, with Elisha interpreting between the interview participant and myself. Elisha was present for approximately half of the interviews. During some of the English interviews, research participants had difficulty understanding either some of the English words I was using, or the way I had phrased a question. If Elisha was present, he would reword the question or interpret that specific sentence in Inuktitut so that the participant could understand. For example, I asked one participant if they thought having a municipal water service interruption impacted men and women differently. Elisha interpreted that question for them, and they answered that they thought women were impacted more (IQAugust10/16D).

For those who consented to be recorded, the interviews were audio-recorded on my iPhone, and then imported into my computer where I then transcribed the interviews word for

word. Some people did not want to be audio-recorded. In these cases, I wrote detailed hand-written notes during the interview. In a few cases I chose not to record the interview participant because background noise would have made it impossible to hear on a recording.

I chose to use NVivo software to aid in the data analysis. NVivo is a qualitative data analysis tool, designed to help researchers analyze very text-rich data. NVivo is beneficial for this project because of the large volume of data collected. Using NVivo software, passages from transcribed interviews can be coded at ‘nodes’, which are labels that I created to help find patterns. There are 85 nodes coded from the interviews gathered this summer. Nodes with similar themes were combined into families for organizational purposes, ultimately forming the four main themes of stress that are discussed in this thesis. I started by immediately grouping nodes with very similar themes together. For example, “gender roles” and “gendered water usage” were grouped because of the very similar nature of their content. Next, I started looking for broader patterns present throughout the data, where I noticed that stress generally fell into four main areas, which eventually became the four themes of stress that I will discuss in this thesis. I used the same technique when examining themes relating to traditional water preference. After this grouping, there were many nodes left over that did not fit into my assigned groups. I combed through the data coded at each node to ensure there was nothing I had missed, and either re-categorized that information to fit into one of my existing nodes, or did not use it. There was a large volume of data for this project, and while it is all useful in terms of providing greater context, not everything will be discussed in this thesis.

Thesis Outline:

Chapter Two of this thesis provides a detailed context of Iqaluit’s colonial history. Understanding colonial histories is not only important in decolonized research practices, but also

critical in policy design. Policy in Iqaluit has not always been created with Inuit needs at the forefront. Therefore, highlighting how colonialism has had and continues to have a large influence on how people experience water is critical in producing policy that is more well-informed and beneficial for Inuit residents in Iqaluit. Chapter Three examines my methodology in more depth, exploring how a methodological collaboration between Indigenous methodologies, and feminist and emotional geographies informed my work. This chapter also discusses how I conducted my fieldwork. Chapter Four examines the data and results from the research collected in the summer of 2016. Finally, Chapter Five provides a summary and conclusion, highlighting areas where more research is needed and providing suggestions for improvement regarding municipal water services and policy in Iqaluit. Chapter Five also provides greater detail about the feedback received from my second trip to Iqaluit in May 2017.

Chapter Two: Context

Introduction:

Nunavut was created with the 1993 Nunavut Land Claims Agreement and the formal establishment of Nunavut territory on April 1, 1999. Despite many positive achievements, there are many challenges facing the territory, including high suicide rates, low Inuit representation in the Government of Nunavut, and deep social inequalities (Qikiqtani Inuit Association 2014g; Aarluk Consulting 2008). Many of the struggles faced today are a result of colonialism. This history cannot be ignored. Having a better understanding of this history is integral in my research because it provides insight into what shaped modern-day Iqaluit, and could lend insight into the perceptions of municipal water sources experienced by Inuit residents. Iqaluit's history reveals that government decisions have not been made in the best interest of the Inuit residents. These decisions have a history of being disruptive and damaging, and contribute significantly to the many social and structural inequalities that are experienced by Inuit residents today. For example, according to 2006 census data, non-Inuit residents of Iqaluit are employed at a rate of 86.7%, while Inuit residents have a 46.8% employment rate (Statistics Canada 2008).

Highlighting this colonial history and the challenges it continues to cause is even more important when this research will be used for policy, because this history remains part of the everyday experiences of Inuit in Iqaluit. Without an accurate cultural understanding, new policies have the potential to perpetuate violent colonial relations and reinforce cultural damage. Therefore, this chapter will provide an extensive overview of Iqaluit's colonial history, to provide an essential foundation for respectful and beneficial research and potential policy development.

The first part of this chapter will outline Nunavut's colonial history, examining the role of forced permanent settlement, residential schooling, missionary work, the killing of Inuit sled dogs, the name tagging system, forced removal for medical treatment, and cumulative health impacts. When possible, this history will be specific to the Qikiqtaaluk (Baffin) Region, where Iqaluit is located. Much of this information comes from reports published by the Qikiqtani Truth Commission. This was a project that took place from 2007 to 2010, which interviewed almost 350 people during public hearings, reviewed 130 interviews recorded by the Qikiqtani Inuit Association, and examined historical data about the relationships between Inuit and the government from 1950 to 1975. This project documents many of the consequences of the social and economic transformation of Qikiqtaaluk after the 1950s, when more Qallunaat southerners moved into the region.

In order to facilitate the delivery of government services, the federal government established sedentary villages along the coast in the 1950s and 1960s (Légaré 2013). As result of this colonialism, Inuit communities became increasingly dependent on government social services as they were forced to give up their own systems of governing (Légaré 2013). Colonialism was occurring long before this time period. However, beginning in the 1950s, there was a surge of forced resettlement and intense social transformations in Qikiqtaaluk after the Second World War, and therefore, this chapter will focus on the time period following 1950. Rather than paraphrasing, whole quotes from the Qikiqtani Truth Commission will be used where possible, to preserve the integrity of the stories that were shared, and to minimize risk that stories are decontextualized from the teller. Honouring this colonial history is the first step in producing research that is more decolonized in its approach, because it helps to ensure that the research produced from this project is telling the whole truth.

The second part of this chapter relates this to emotional ecologies of resource access, and examines how some of the colonial actions of the government had embodied, emotional impacts for the community, including a changing sense of place. This chapter concludes with examining what exactly this means for water in Iqaluit.

Colonial History:

This section examines the colonialism experienced by Inuit in Qikiqtaaluk between 1950 and 1975.

Forced Permanent Settlement

The forced permanent settlement of Inuit families had devastating and lasting impacts for Inuit living in Iqaluit. For the twenty-five-year period between 1950 and 1975, Qikiqtaaluk, where Iqaluit is located, was seen by Canadian officials as an “isolated, underdeveloped, and problematic area that they wanted to incorporate economically, socially, and politically into the rest of Canada” (Qikiqtani Inuit Association 2014d, 9). Decisions were usually made by Qallunaat from Southern Canada with little or no experience of the North. The Qikiqtani Truth Commission also reveals that officials with knowledge of life in the North were usually less inclined to apply Southern ways of life to the North, but they were overruled by officials with less experience and more power, which led to these decisions being made (Qikiqtani Inuit Association 2014d). Between 1950 and 1975, there were three main issues on the federal agenda: planning for economic development with the exploitation of oils and minerals, welfare problems concerning health and the scarcity of game animals available for hunting, and the thought that Inuit needed retraining to fit into the industrial economy (Qikiqtani Inuit Association 2014d, 11). Consultation with Inuit about these concerns was either non-existent or not well executed. For the federal government, the least expensive way to expose Inuit to modernizing trends and to

provide services like healthcare and schooling was to force them to move to several chosen places for the convenience of the government (Qikiqtani Inuit Association 2014d). Prior to 1950, Inuit did not live in permanent settlements but instead moved around the Qikiqtaaluk region with the seasonal cycle of harvesting. Between 1950 and 1975, the government supported or directed relocations, and moves continue to have a large impact on Inuit communities today.

According to the Qikiqtani Truth Commission (QTC), these moves can be characterized in one of three ways: relocation, which is the planned movement of people chosen by an external agent, migration, the moves carried out by Inuit themselves either voluntarily or through enticements as motivation, and dislocation, which describes the coerced moves by Inuit who were being pressured by Qallunaat (Qikiqtani Inuit Association 2014c, 10). Cross-cultural challenges between Inuit and the federal government affected the ability of Inuit to give consent to these moves, and as a result, officials often thought that a pressured move was voluntary (Qikiqtani Inuit Association 2014c). There is a psychological concept that Inuit call *ilira*, which can be explained as a “powerful social fear or inhibition caused by inequality in power” (Qikiqtani Inuit Association 2014c, 11). This means that for some of the older generations of Inuit, challenging a Qallunaat person’s authority or acting in defiance against them was unthinkable.

The forced moves of Inuit by the Canadian government greatly affected kinship in Inuit communities. For Inuit, families are people who are combined together by birth, circumstance, and choice, and kinship in these relationships has very practical implications for security, emotional well-being, food, and education (Qikiqtani Inuit Association 2014c). The ability to move freely over the land while following animals to hunt allowed for a very intimate experience of place, however Qallunaat government officials often mistook this nomadic lifestyle to mean

that Inuit did not have any attachments to place (Qikiqtani Inuit Association 2014c). Being forced to reside in permanent settlements impacted family dynamics. By 1975, almost all Nunavummiut were relocated to the present day twelve hamlets and one city. With this move, Inuit were not able to make movements with the seasons across the land, which were a deep part of Inuit culture until the 1950s (Qikiqtani Inuit Association 2014c). Many Inuit were also relocated from the Qikiqtaaluk region to the High Arctic, with harsher climates and in some cases fewer animals available for hunting, so that the federal government could establish greater sovereignty over those lands. The following is a quote from one of the testimonies during the Qikiqtani Truth Commission, and it demonstrates the extreme emotional pain that accompanied these forced migrations:

They were living in Arctic Bay when they were moved to Devon Island. Then they got used to Devon Island. After a while they were happy there as a family. When they moved back to Arctic Bay, the families were dying off even while they were living here. There is a saying in Inuktitut that they “cut off the life” so I feel that they were cut short in their life. My mother used to say that. [Interviewee too emotional to talk] My mother was never happy because she always spoke about being homesick for Devon Island. (Qikiqtani Inuit Association 2014c, 19).

Another testimony by Tagoona Qavavouq showed the impact that these relocations had on some of the Elders. She explained that her mother-in-law “went “insane” after the relocations and died prematurely” (Qikiqtani Inuit Association 2014c, 19). The forced relocations of Inuit in the Qikiqtaaluk Region had profound and lasting impacts on way of life, health, and emotional well-being. These effects are often still felt today.

Residential Schooling

The North also has a deep history with the residential school system. The Canadian residential school system was part of a plan to assimilate Indigenous children into Euro-Canadian culture, by separating them from their families to disrupt the parenting process in Indigenous communities (Milloy 1999). Morgensen (2011) purports that the residential school system was an educative mode of disciplinary power, where all Indigenous peoples were situated as children so that the government could exert power (67). These schooling operations by the government forcibly relocated Indigenous children to sites where they were either killed by neglect or disease, or lived to be assimilated into settler society by erasure of community ties (Morgensen 2011). Directing Indigenous children to live in an institutionalized setting is an attempt to control the population on a biopolitical level, because the decision was made to control an entire population based on race. By attempting to separate children from their Indigenous heritages and assimilate them into Western culture, the federal government could hope to erase Indigenous identity, and thus attempt to eliminate Indigenous peoples altogether. The treatments for common diseases such as tuberculosis did exist, but many children were left untreated and died from their illnesses.

In her work on British Columbia's residential school system, Sarah De Leeuw (2007) explains that colonial action requires an ideological framework of rationalization and explanation. Put differently, even the possibility of engaging in a colonial act requires the demarcation of an 'other', over which colonists reconstructed themselves as dominant (De Leeuw 2007). The resulting suicide, alcoholism, and transmission of trauma to children of the next generation was so prolific that Ward Churchill (2004) calls residential schooling an act of genocide (n.p.). As stated by the Truth and Reconciliation Commission, the residential school

experience in the North “disrupted the intergenerational transmission of values and skills and imparted few if any of the skills needed for employment” (Truth and Reconciliation Commission of Canada 2015, 187).

In the context of the Qikiqtaaluk Region, the provision of a school or school hostel in government established settlements was a way for the government to take the responsibility of teaching children away from parents and Elders, and allowed the government to make another move towards acculturation (Qikiqtani Inuit Association 2014b). This decision from the federal government to start schooling programs in Qikiqtaaluk was the result of the Supreme Court of Canada’s ruling in 1939 that Inuit were to be officially treated as “Indians” under the Indian Act (Qikiqtani Inuit Association 2014b).

Before Inuit children attended government schools, they learned through observation, practices, and everyday experiences, and young couples usually lived with one of their parents for a few years until they were self-sufficient and ready to live on their own (Qikiqtani Inuit Association 2014b). Until the 1950s, education provided by Qallunaat had been inconsistent. Missionaries came to teach people how to read and write in Inuktitut syllabics, a writing system designed by missionaries stationed in the Arctic so that they could teach Inuit how to read the bible. When the government created plans for a more formal Northern education program, it “lacked the essential ingredients of its southern counterparts: a reliable local funding base, equal opportunity for all students to attend schools, adequately prepared teachers, and elected school boards made up of local residents who could speak to the unique needs of the communities” (Qikiqtani Inuit Association 2014b, 11). This resulted in a forced education that ignored Inuit realities and left a lasting legacy of damage. There were two kinds of residential schools in the Qikiqtaaluk Region: small hostels that could accommodate approximately twelve students and

situated close to where their families hunted, and larger hostels designed to house eighty students from a larger geographical base. However, these larger hostels were not available in Qikiqtaaluk until 1971, which meant that children were often sent to Chesterfield Inlet or to the Churchill Vocational Centre, both of which are over 1000 kilometres away from Iqaluit.

In 1971, the Gordon Robertson Education Centre (GREC) opened in Iqaluit, a large hostel that would accommodate students from other areas. Priests, RCMP, or teachers selected students for residential schooling, and this caused anxiety for parents because there was no consent given for their children to be taken far away to residential schools (Qikiqtani Inuit Association 2014b). At this time, “Iqaluit had a poor reputation among Inuit as a disorderly community, with problems with violence, drugs, alcohol, and other abuses” (Qikiqtani Inuit Association 2014b, 23). Parents worried about exposing their children to these problems.

In addition, the federal government selected a small number of Inuit students who were gifted academically to be taken from their communities and sent to school in southern Canada. This move was marketed by the Canadian government as giving students an opportunity to further their education and to test themselves against their Southern Canadian classmates, however this move had detrimental outcomes for the students (Qikiqtani Inuit Association 2014b). The Qikiqtani Truth Commission includes the story of Jeannie Mike, who was seven when she was sent to school in Nova Scotia. She describes her pain and suffering in her testimony:

Finding out that it was the federal government who had sent us there made me very angry...The hardest part of it was re-integrating back into Inuit society...I came back thinking more like a Qallunaat than an Inuk and people noticed that. I remember being in my teens and feeling very isolated because...I didn't feel Inuk

among the Inuit, and because I looked [Inuk] so I was not accepted by the Qallunaat...It was always like trying to walk a fine line between both worlds...They might as well have sent me to the moon, because the environment, the culture was so different...Sometimes I really wish, I dream of the day that I can sit across from some policymaker within the Government of Canada and say “Here, this is what your policy, and your decision has done to my life.” (Qikiqtani Inuit Association 2014b, 25).

Thomas Kublu, another community member who gave a testimony to the Qikiqtani Truth Commission, speaks to the physical and mental health effects that residential schooling had on his brother:

My younger brother Paul Quuliit attended the residential school in Chesterfield Inlet from 1955 for three years until 1958. He forgot the family values, Inuit culture, and family ties and responsibilities in the family system. He was a stranger by then. He was detached and had no sense of family or Inuit values...He no longer had a clear identity or a sense of belonging. Being caught up in the two cultures, neither of which he was comfortable in or could call his own, he became an alcoholic. He died of a massive heart attack in September 1987...The three younger ones went through the educational system and the colonizers’ attempts to kill the Inuk in them and make them like the Qallunaat was too difficult for them emotionally, mentally and spiritually. Physical illnesses in the end killed them when they too should have enjoyed living longer, like me. I would be alive with them today had they not been forced into the school

system...I regret that my younger siblings died so early in life; the educational system killed them. (Qikiqtani Inuit Association 2014a, 46).

From the evidence provided by the Qikiqtani Truth Commission, it is clear that the residential school system had and continues to have long lasting and devastating impacts for Inuit and their communities. The decisions made by the Canadian government on behalf of Inuit were coercive and inappropriate, and had a significant impact on the lives of Inuit living in the Qikiqtaaluk region.

Missionary Work

When Anglican and Roman Catholic missionaries arrived in Qikiqtaaluk in the early twentieth century, they developed a system of Inuktitut syllabics to teach Inuit how to read and write, because Inuktitut was traditionally an oral language (Qikiqtani Inuit Association 2014b). However, the missionaries' goal was not to educate about math and science, but rather to educate about religion, and to educate converts about Western moral codes (Qikiqtani Inuit Association 2014b). The missionaries influenced many Inuit practices. For example, during a cultural workshop about throat singing that I attended, it was mentioned that when missionaries first saw two women throat singing together, they thought it was sexual and forbade it.

The missionaries also had a large influence on the belief systems held by Inuit in Iqaluit today, which in turn has had an impact on identity and lived experience. For example, some Inuit believe that homosexuality is not a part of Inuit culture traditionally, leaving many LGBTQ young people feeling isolated and alone (Woods and Yerxa 2016). The history of LGBTQ people in Iqaluit is far more complex than this. A 2016 documentary titled "Two Soft Things, Two Hard Things" about LGBTQ Inuit in Iqaluit gives insight into the complexities of queer identities and experiences in the North. While I was in Iqaluit I was able to attend an event for this

documentary, which consisted of a screening of the film, and then a question and answer period after with audience members and the some of the people featured in the film. According to the film, some Elders will say that homosexuality is not in Inuit culture. However, others argue that queer experiences or relationships may have in fact been a part of traditional life at one time, but upon the arrival of missionaries, a strict Christian belief system that condemned homosexuality was imposed upon Inuit (Woods and Yerxa 2016).

Alethea Arnaquq-Baril is an Inuk filmmaker who in 2014 made a short film about an Inuit lesbian romance, and was also featured in “Two Soft Things, Two Hard Things”. She spoke of the fact that traditionally, it was not uncommon for a husband to have two wives, or a wife to have two husbands, and she wondered if that was what a same-sex relationship would have looked like in traditional Inuit culture (Arnaquq-Baril 2016). She said that each family needed a hunter and a seamstress, so same-sex couples could not really be together alone. However, by having a polyamorous relationship, she thought that this might have been a way for same-sex couples to stay together (Arnaquq-Baril 2016). In addition, Arnaquq-Baril said that she once talked with an Elder who was very definite about the fact that queer sexual experiences did occur historically (Arnaquq-Baril 2016). The shame today that is experienced with regard to LGBTQ identity in the North could largely be due to missionary influence and the imposition of Christian ideals.

During this event, it was stated that in Inuktitut, names do not have genders associated with them, and there are no gendered pronouns. Laakkuluk Williamson Bathory is an Inuk artist and scholar. Previously published under Laakkuluk Jessen Williamson, she states that “traditionally, Inuit men and women were defined by what they did” (Williamson 2006, 53). Although Bathory (Williamson) is originally from Greenland, and much of her work is based in

Greenlandic Inuit traditional knowledge, academic information about Inuit gender and sexuality is very scarce, and information about the Qikiqtaaluk region specifically does not exist.

Therefore, I have included this section because it provides one of the only sources of insights into Inuit gender and sexuality.

Generally, women maintained the household while men hunted, working symbiotically for the survival and development of identity and culture (Williamson 2006). These roles were different, but equal. In traditional Inuit society, gender roles were flexible and not always strictly held. If a woman wanted to hunt or was forced to hunt by necessity, it was acceptable for her to do so, and conversely, if a man preferred to tend to household duties it was acceptable for him to do so (Williamson 2006). She writes of an old Greenlandic story where a woman decided to live as a hunter, eventually becoming a man, marrying another woman, and having a child together (Williamson 2006). There have also been instances where children have been brought up “as though they were the opposite sex, because of unusual spiritual circumstances such as the divination that the child was born with the wrong sex, the need to disguise the child from evil spirits, to communicate with a namesake, or to strengthen the child from an ailment” (Williamson 2006, 54). These examples show the often fluid nature of gender and sexuality in traditional Inuit culture. Bathory (Williamson) states that through performing a Greenlandic Inuit mask dance called *uaajeereq* based on Greenlandic traditional knowledge, she has come to her own understanding of the basics that underlie Inuit philosophy on gender and sexuality:

Humanity is built from one common duality. Within every man there is something womanly, and within every woman there is something manly. In other words, both genders share common space within one person, but one is projected more than the other. A person's essential character does not change because of the

superficial confines of sex. Men and women are never only heterosexual, homosexual or bisexual; most lie somewhere along a continuum. (Williamson 2006, 55).

Through the teachings of Bathory (Williamson) and Arnaquq-Baril, it is clear that traditionally, Inuit gender and sexuality was more fluid in nature. Through missionary influence and the imposition of Christianity, this fluidity was condemned, and has had lasting negative impacts on the lived experiences of LGBTQ people today.

The Killing of Qimmiit

For centuries, Inuit sled dogs were an integral part of life in Qikiqtaaluk. Qimmiit (the plural form of qimmiq, which is a sled dog) provided the sole means of winter transportation, carried packs in summer months, helped avoid cracks in the ice in darkness and fog, sought out seal holes, and either warded off polar bears or surrounded them and kept them in one place so the hunter could harpoon them (Qikiqtani Inuit Association 2014f, 9). These were the only animals to which Inuit gave individual names. They also played an important role in masculinity, as Inuk boys were considered men once they had a small team of their own (Qikiqtani Inuit Association 2014f). Pauloosie Veevee explains that an Inuk man's masculinity was measured by how healthy and fast his dogs were, because if the dogs were healthy they would be able to take him great distances which would aid his independence, and therefore masculinity (Qikiqtani Inuit Association 2014f, 9).

Until the 1960s, qimmiit were an essential part of the Inuit economy, as they were used for transportation and hunting, but could also serve as food and clothing in times of extreme famine (Qikiqtani Inuit Association 2014f). In a part of the world where being killed by a polar bear is a very real possibility, qimmiit also provided essential protection. As Zahara and Hird

(2015) write, sled dogs and Inuit had an inseparable bond, and both worked together for mutual survival. Sheila Watt-Cloutier also writes about this integral relationship, calling the sled dogs life-savers. Watt-Cloutier is an Inuit activist and was the International Chair for the Inuit Circumpolar Council from 2002 to 2006. Although she is not originally from the Qikiqtaaluk Region, excerpts from her book “The Right to Be Cold” have been included in some sections to provide clarity and further details. She explains that Inuit sled dogs have been known to pull hunters from freezing water after they had fallen through the ice. She also details an account of a sled dog uncovering buried snow houses after a blizzard, saving the family inside from a fate of suffocation and starvation (Watt-Cloutier 2015, 71). Therefore, Inuit sled dogs played an integral role not only in gathering food for Inuit families, but also on a deeper level of companionship and survival.

Qimmiit also play a central role in Inuit mythology. Some stories tell of the origins of Inuit and Qallunaat. Others tell how Sedna, Inua of the sea mammals came to be. Therefore, it is clear to see that qimmiit are integral to Inuit life. As Jimmy “Flash” Kilabuk (Nowdluk) explains, his “father would treat his dogs like he would treat individuals” (Qikiqtani Inuit Association 2014f, 15).

On January 20, 1949, the Government of the Northwest Territories legally passed the *Ordinance Respecting Sled Dogs*, a law that both prohibited sled dogs from running freely in Inuit communities, and allowed RCMP officers to destroy any dog that was not tied up (Watt-Cloutier 2015, 181). These Inuit communities were faced with a situation where any outcome would result in loss. To leave the dogs tied up would mean that the dogs would not be able to hunt for food and would starve to death, and yet to let the dogs run free would result in death by the RCMP. This was a law that was created without any regard to Inuit practice. Furthermore,

few rules of the Ordinance were actually followed. This allowed authorities to move more quickly to reduce the number of qimmiit in Qikiqtaaluk (Qikiqtani Inuit Association 2014f). As Zahara and Hird (2015) express, “when a hunter’s *qimmit* [sled dog] team was killed, hunting became impossible, and many Inuit were literally trapped in government communities” (182, emphasis original). What becomes apparent in these examples is that control of the sled dog is also a means of control of the Inuit body. What I mean by this is that sled dogs were so integral to Inuit survival and traditional ways of living, that by having control of the sled dogs through killing them, the federal government also had control of Inuit populations.

According to Inuit testimony, RCMP officers and government officials travelled through the Qikiqtaaluk Region in the 1950s and 1960s, and searched out dog teams (Watt-Cloutier 2015). These officials claimed that a number of the dogs had become infected with canine distemper, and that because some of the dogs had attacked people, they needed to be sent south for ‘health care’ (Watt-Cloutier 2015). The dogs never returned. In many cases, owners were instructed to bring their dogs to a specific location, and the dogs were shot point blank, without any questions about their health (Watt-Cloutier 2015). In some cases, the carcasses were thrown in a pile and burnt. Some Inuit testified that they were preparing to go hunting and their dogs were shot before their eyes, while still harnessed to the sled (Watt-Cloutier 2015). Even more tragically, some Inuit were ordered or coerced into shooting their own qimmiit, especially at the end of this period, when some people were being moved to different camps (Qikiqtani Inuit Association 2014f).

Watt-Cloutier (2015) explains that “while the official explanation given at the time was that they were culled to prevent the spread of distemper and attacks by sick dogs, many now

suspect that the destruction of the dog teams was another way to force Inuit families to move from outpost camps into settlements by removing their only mode of transportation” (71).

Today, it is thought that the mass sled dog culling was a move made by the government to assimilate Inuit into southern Canadian modes of living, or perhaps to even eliminate Inuit entirely. In 2006, the RCMP began an internal inquiry to determine whether or not the RCMP had engaged in a mass killing of sled dogs. The report denied any evidence of slaughter. This report exists online, and is open for public viewing. In the first part of the long report, the RCMP openly admits that they did not obtain access to the transcripts of the detailed allegations of the Inuit Elders of the unlawful killing of sled dogs (Police 2006, 5). The report purports that there is no documentary, anecdotal, or oral evidence to support the claim of unlawful killing, other than the reports of “certain Inuit [E]lders” (Police 2006, 5). The report states that “the mere absence of records, or statements to the contrary of those who also lived in these communities, and who agreed to be interviewed by the RCMP, may not satisfy those Inuit [E]lders who believe that what they remember seeing some 35 to 55 years ago, or being told of by their families, was evidence of such a conspiracy” (Police 2006, 5). Interestingly, the report does admit that the destruction of Inuit sled dogs was undertaken by RCMP, however it was for public health and safety concerns, and to contain canine epidemics (Police 2006). While the report remains clearly incorrect, it does highlight some of the strategies used by the Canadian government to try to control Inuit communities.

Regardless of what the report does or does not admit, the killing of qimmiit had devastating impacts for Inuit communities. It deepened the mistrust between Inuit and the government, disrupted traditional values, changed social hierarchy, and allowed the Canadian government to tighten its grasp on everyday Inuit life (Qikiqtani Inuit Association 2014f, 61).

The impact was also economic, as the cost of gasoline and snowmobile maintenance was insurmountable for many Inuit (Qikiqtani Inuit Association 2014f). As the commissioner for the Qikiqtani Truth Commission stated:

Those Inuit who lacked qimmiit or snowmobiles to access the land felt that life in the settlements was a form of imprisonment. For many people, alcohol and gambling provided a temporary, but often unhealthy, distraction from boredom and worries about life in general. By the end of this period, illegal drugs were also entering settlements. (Qikiqtani Inuit Association 2014f, 61).

These impacts and struggles are still seen in Iqaluit today, as many young people cannot afford gas for their snowmobiles, and alcohol and drug abuse continues.

Project Surname

Traditionally, most Inuit are given a single name at birth, and often, this name changes throughout their life. Inuit also believe in appeasing the restless ghosts of those who have passed away. To ensure this, a deceased person's name is given to a new baby as soon as possible, and therefore it is not uncommon for a young girl to have the name of an older man (Scott et al. 2002). As Alia writes, "these ties are so strong that until puberty, kinship terms, dress, and behaviour often follow the namesake relationship, rather than biological sex or conventional gender identification" (Alia 1994, 11). Furthermore:

No child is only a child. If I give my grandfather's *atiq* [soul-name] to my baby daughter, she *is* my grandfather. I will call her *ataatassiaq*, grandfather. She is entitled to call me grandson. (Brody 1975, 33, quoted in Alia 1994, 11, emphasis original).

Therefore, the renaming process also disrupted relationships with ancestors (Alia 1994). To Qallunaat, this practice was confusing and names were difficult to pronounce. Inspired by the idea of military dog tags, the Ministry of the Interior developed a disk system for identifying Inuit. Each disk had a crown, the words “Eskimo Identification- Canada” and then a letter and number indicating the administrative zone of the North where this particular Inuit person had been sighted, registered, and tagged (Scott et al. 2002).

According to Scott et al. (2002), attempts to re-label people in standardized ways carries three implications: labelling facilitates control by extra-local authorities, helps nest the locality in a larger pattern of regional and national meanings, and overlays and destroys local systems of orientation (26). In other words, this was a systematic re-mapping project, and it reoriented powerful agents and disoriented others (Scott et al. 2002). What I mean by this is that by giving Inuit people standardized names, power is taken from Inuit people and redistributed to the government.

Sheila Watt-Cloutier recalls the dog tags in her book. Her number was E8-352, stamped on a small red tag with the image of an intricate crown on the other side. In her youth, she was curious about the tag, but in later years she would come to realize that “these small bits of pressed fibre or leather and the numbers stamped on them were part of the story of how our Inuit communities had been controlled and made to fit into a southern governing structure” (Watt-Cloutier 2015, 98). By the time Watt-Cloutier was a teenager, most Inuit had adopted last names, making the disks no longer necessary. However, the scars of the tagging system remain potent to this day. They are a reminder of forced relocation, southern schools, and being coerced into fitting into a colonial social and political system (Watt-Cloutier 2015). One of the people I interviewed this summer still had her small red tag, tucked away in her wallet for safe keeping.



Image 3: An “Eskimo Identification Number” tag (MacDonald-Dupuis 2015).

After the number system, the government forced Inuit to take surnames. To some Inuit, although not ideal, the tagging system was actually preferred to the surname project and census, because it was considered less disruptive. Forcing women to take on their husband’s surname reshaped the structure of the Inuit family, as it assumed that men were the heads of the households. As one woman explained, “my mother was the head of the household- my father was always out hunting; she ran things at home. So why wouldn’t they list *her* as the ‘head’ of the family?” (Alia 1994, 12, emphasis original). Adopting other people’s biological children as your own is also a common practice, but the census disturbed this process, as children who were full family members by Inuit practice were suddenly labeled boarder, step, or adopted by census officials (Alia 1994, 12).

By tagging Inuit with a number system or forcing them to take last names, the government was able to control and know biological data about the population. Birth rates, death rates, and other necessary information could be collected and controlled. This tracking can also control the body on a statistical level, through surveillance. This tagging system would have made it easier to know how many Inuit lived in government settlements and who exactly was in

attendance at the residential schools. Therefore, the government has the ability to control the population. Furthermore, using numbers and letters rather than simply recognizing the given names of the Inuit population further speaks to the government's efforts to erase Inuit identity. Removing or changing cultural practices sought to assimilate Inuit into Southern culture, and this colonialism continues to impact Inuit life today.

Healthcare and Illness

The Qikiqtani Truth Commission defines Inuit health knowledge as:

holistic in its approach and upholds that all aspects of a person's needs, including the psychological, physical, and social, are connected. For Inuit, healing injuries and sickness goes hand in hand with developing a strong mind and resilient body; for this reason, health is closely tied to personal identity. Adults are expected to act independently with the interests of themselves and their families in mind. Sick people are treated with love and care, and satisfying the patient's needs and desires is considered paramount for recovery. Inuit health knowledge also refers to more than general healing techniques—it concerns knowledge of the body and its social environment. (Qikiqtani Inuit Association 2014a, 9).

The Qikiqtani Truth Commission defines this health history in three periods. Up to the early twentieth century, Inuit relied on their own knowledge and the land and sea provided almost everything that Inuit needed. However, during this time European whalers brought many new diseases to Inuit land that were not responsive to traditional Inuit treatments. The Qikiqtani Truth Commission estimates that hundreds of Inuit died from these diseases in the 1850s alone (Qikiqtani Inuit Association 2014a, 13).

In the years that followed, Inuit were forced to change their ways by Qallunaat who were sent to the Arctic to ensure that Inuit were subject to Southern laws and ideas. Some treatments that were intended to improve Inuit way of life were very detrimental, as people were removed from their families and sent via ship for treatment in the South, a process which sometimes took years (Qikiqtani Inuit Association 2014a). Sometimes Inuit were sent back to Iqaluit for observation, but then never found their way home to other places in the territory (Qikiqtani Inuit Association 2014a). During the Second World War, the government focused their attention to national sovereignty, rather than health for Northern communities. During this time, Canada worked with the US Army on national defense projects, and there was an influx of US military personnel in the North (Qikiqtani Inuit Association 2014a). The military brought infection and disease with them, and there were extremely high mortality rates for Inuit during this time. In the third period, Inuit were forced into small communities, and low-quality health services were provided.

One of the most common ways of treating tuberculosis (TB) patients was to transport them south for treatment, as this was the least expensive available measure (Qikiqtani Inuit Association 2014a). This caused emotional distress and confusion, as Inuit were often afraid of being taken away from their families whenever a ship came to port. Inuit community members were forced to board the ship for medical screening, and then their families watched the ship pull away with the relatives aboard, without the opportunity to say goodbye or any explanations as to where they would be taken (Qikiqtani Inuit Association 2014a). Mothers were separated from their babies without any concern as to who would look after the child, and patients would often be discharged back to communities in the winter, in only the summer clothing that they were wearing when they left (Qikiqtani Inuit Association 2014a). Once on the ships to receive

treatment, conditions were deplorable. Ships were dirty and unorganized, information was not available in Inuktitut, and personnel engaged in heavy drinking that endangered ship passengers (Qikiqtani Inuit Association 2014a). Many people died on the ship or in sanatoriums in the South. Since medical records were not well kept, many Inuit today still do not know where their ancestors are buried. This separation continues to affect Inuit. In an article published in Nunatsiaq, Nunavut's online newspaper, Adamie Nutaraluk blames his stay in the Hamilton Mountain Sanatorium for his anger and subsequent incarceration. He spoke no English when he arrived at the sanatorium, but by the time he left and returned to Apex, he couldn't speak in Inuktitut with his family and friends (Thompson 2007). This disconnection and isolation is not unique to Nutaraluk.

Having TB often resulted in permanent health ailments which made it impossible for people to return to life on the land. In addition, many people were forced to live in Iqaluit or Apex because of the rehabilitation centre located there, while they would have preferred to live in their home communities (Qikiqtani Inuit Association 2014a). Sytukie Joamie told the Qikiqtani Truth Commission "Some people do not have resources and they end up living in Iqaluit and Apex because they had no means to return home. [...] There are a lot of people living [in Iqaluit] today, descendants who are stuck where they may not want to live" (Qikiqtani Inuit Association 2014a, 32).

The Qikiqtani Truth Commission also notes the gendered impacts of health care changes for Inuit women. Inuit women were key agents in caregiving during times of illness and played a large role in procuring food. (Qikiqtani Inuit Association 2014a). The changes in healthcare brought about by colonialism has no doubt had a large impact on sense of identity.

By the 1960s and 1970s, TB related deaths subsided, and instead accidents, injuries, and violence became the main cause of death (Qikiqtani Inuit Association 2014a). It is estimated that alcohol was involved with 40-50% of these incidents. During my summer fieldwork, it was stressed to me by an Inuit community member that Inuit did not ask for alcohol to be brought to Iqaluit. The bars came with the US military, and now people who would not have been impoverished before the bars opened are living in poverty because they drink. As the Qikiqtani Truth Commission reports, “child neglect, sexual abuse, and domestic violence were often directly related to binge and persistent drinking, and to the trauma experienced by the children of drinkers, some of whom became alcoholics themselves” (Qikiqtani Inuit Association 2014a, 37).

It is important to look at these acts of colonialism not separately, but to see the cumulative impact they had for Inuit. In the North today, suicide is one of the largest problems facing Inuit communities. There is no doubt that this has its roots in colonialism, forced assimilation, and paternalistic policies (Qikiqtani Inuit Association 2014a, 47). It is also believed that “the manner in which historical experiences of shame, abuse, and anger, as a result of colonial practices and policies have been communicated through generations of Inuit have led to internalization of emotions, fostering the potential for self-harm” (Qikiqtani Inuit Association 2014a, 48). Many people describe psychological disturbances after losing their qimmiit. Alicee Joamie describes:

We could hear the moaning and growling of the dogs...I was trying to soothe my husband. I wondered, “How am I going to help my husband?” He was quiet for such a long time. He held the whip in his hand for the longest time. He was gripping the whip so much that his knuckles turned white...My in-law had to take care of my kids because my husband was moving around. I was trying to soothe

him. I didn't know how to care for him or how to make him feel better. He almost uttered things to me but he shut his mouth before he said anything...My son cried for the longest time because his father was the most important person to him.

(Qikiqtani Inuit Association 2014a, 45).

Others describe the pain of enduring residential schooling as a 'poison' (Qikiqtani Inuit Association 2014a, 45). Many Inuit were very grateful for the sudden access to Southern comforts such as electricity and water (Qikiqtani Inuit Association 2014a). This came up several times when I was speaking with community Elders, as they expressed that they were just grateful for the water available in their homes. However, this also came with the price of children leaving to attend school, the killing of qimmiit, the loss of relative autonomy, and the surveillance of settlement life (Qikiqtani Inuit Association 2014a). As research moves forward it is imperative to never forget the incredible hardships and hurt experienced by Inuit from colonialism.

Making Connections with Emotional Geographies and Feminist Political Ecology:

Through the examples of colonial actions such as residential schooling, the killing of qimmiit, and the tagging identification system, it is clear that colonialism at the hands of the federal government has had an impact on Inuit today. However, what is perhaps less often discussed is the fact that these decisions had a profound impact on Inuit ecological sense of place, and the ramifications this has had on Inuit communities. It is difficult to separate these events into discrete entities in terms of affecting sense of place, and therefore, these events will be examined more holistically.

Country food plays a vital role in Inuit culture, as the hunting of animals provides not only crucial nutrients to Inuit communities, but also supplies much of the community atmosphere. Country food brings people together. During my fieldwork, I participated in

Nunavut Day, a day that celebrates Nunavut becoming a territory independently from the Northwest Territories. Country foods, including seal, narwhal, caribou, and shrimp, are supplied in large amounts for this event, and the town comes together to enjoy the feast. I was also told by many community members that some of these foods are so nutrient rich that they can almost be a whole, complete meal on their own. Eating animal fats such as whale maktaaq allows a person to gain more brown fat in their body, crucial in keeping warm in the colder months.

The changes in the North, both forced as a result of governmental decisions, and environmental from rising global temperatures, is limiting the country food harvest, which in turn having a profound impact on Inuit ecological sense of place. According to Kirmayer and colleagues, the Inuit concept of a person has been called ecocentric, because it “gives a central role to connections among individuals and to place in the health and well-being of the person” (Kirmayer et al. 2009, 292). In other words, Inuit culture holds the meaning that a person is in a series of constant transactions with the environment (Kirmayer et al. 2009). The consumption of country foods is closely associated with overall health and well-being, and not eating enough country food can lead to physical maladies and depression (Kirmayer et al. 2009). In addition, because of the increasing presence of nine-to-five jobs in town, hunting has diminished. The loss of the sled dogs also had a profound impact on traditional hunting patterns, as hunters lost their primary mode of transportation. These are all deeply emotional, embodied issues, and have impacts in identity, self-worth, health, and ecological sense of place.

Inuit communities also experienced a change in their sense of place with the letters and numbers assigned to them as names by the Government of Canada. As mentioned earlier, Inuit naming practices traditionally use the name of a deceased ancestor for a new baby, so that the ancestor can live on in the infant (Alia 1994, 11). By assigning numbered disks to Inuit, this is

erasing not only the ties to Inuit culture, but also a community sense of connection with loved ones who have passed away. Assigning numbers or even completely new, Christian names to Inuit people altogether, destroyed Inuit independence and pride, and caused confusion and sorrow (Alia 1994).

With changing lifestyles also came an increase in owned possessions. As Pauloosie Veevee describes to the Qikiqtani Inuit Association, this has emotional repercussions:

At times during winter months we would occasionally go hungry but not starve...It seemed like a happy life as long as we had food in our mouths and warm clothing to wear, we were content with it. Our standards today are much bigger now compared to what we had then. Today we have excessive possessions and we are not happy with our lives and we struggle with life when we have all the conveniences now. (Qikiqtani Inuit Association 2013g, 18).

The embodied, emotional repercussions of colonialism in the North can also be broken down into gender and age, as men, women, young people, and Elders all experienced this differently. George Wenzel told the Qikiqtani Truth Commission that after forced resettlement into stationary communities, nostalgia for life on the land was felt more commonly among men than among women (Qikiqtani Inuit Association 2013e, 21). Others noticed that women's traditional skills were more easily transferred to settlement life than men's traditional skills (Qikiqtani Inuit Association 2013e). Another study has identified that girls were usually sent to work on household chores, and thus developed skills in coping and priority setting, while some of the traditional skills that boys had as hunters in fact directly conflicted with the behaviour expected of them in the classroom or workplace (Qikiqtani Inuit Association 2013e). In a discussion regarding suicide prevention and resilience, a group of Elders stated:

Previously men did not have to relate in larger groups as they were out hunting, and perhaps girls had learned how to live in groups better. The move to living in settlements and communities meant men were constantly exposed to more complex relationships in their new environment, yet they lacked previous experience in this regard. On the other hand, women had...coping skills and strategies that aided them in adapting to newer, more complicated, and busier circumstances. (Qikiqtani Inuit Association 2013e, 22).

These social differences between men and woman also impact how alcoholism and domestic abuse is experienced in the community. Martha Idlout explains that her parents drank to dull the pain in their new settlement lives, and as a child she would hide with other children under houses when the men would get drunk (Qikiqtani Inuit Association 2013g, 31). Watt-Cloutier describes something called “wounded hunter spirit”, as the men she once knew began using alcohol abuse, addiction, and violence to unleash years of anger and frustration caused by the horrific changes inflicted on the community by the government (Watt-Cloutier 2015, 64). From these stories it is clear that the embodied, emotional impacts of colonialism are also experienced differently by different kinds of people, and that gender and age will play a key role.

As mentioned previously, Inuit culture holds the meaning that a person is in a constant transaction with the environment, and that the natural world is of central importance in Inuit health and well-being (Kirmayer et al. 2009, 292). Having a deep relationship with the environment is crucial to the ecocentric sense of place. Because everyone has a different lived experience, the impact that colonialism had on sense of place and identity will be experienced and embodied differently by individual community members. Throughout the research process,

the embodied nature of colonialism is kept in mind to help ensure that the final product is more accurate and decolonized.

Making Connections with Water:

Having a well-rounded and deep understanding of the colonial experiences of Inuit living in the North, and specifically in the Qikiqtaaluk Region, is extremely important in facilitating respectful research with Inuit communities. This history and these experiences will all influence both individual experiences with traditional water from the land and municipal sources, and collective community memory. When Inuit were forced to relocate to permanent settlements and with the onslaught of imposed Southern Canadian water infrastructure, ways of gathering water began a process of change from collecting it from the land, to getting it from the tap. This change in relationship to water, coupled with infrastructure problems, created an environment of stress and mistrust. By having an understanding of the colonial processes that led to current-day water problems, more accurate and beneficial research can be produced.

There are some important things to consider when researching water in Iqaluit. Iqaluit has the most developed water system of any of the communities in Iqaluit, and although now an absolutely necessary part of everyday life and essential to the functioning of the city, the water infrastructure in Iqaluit was not traditionally a part of Inuit culture. This infrastructure was the result of colonial actions taken by the federal government to ‘settle’ the North. This means that regardless of how the city operates the municipal water system in Iqaluit, perceptions of municipal water among Inuit community members may be shaped by colonial experiences.

Second, there is often a general feeling among Inuit community members that municipal tap water should not be trusted. People report historic incidences of tap water coming out brown, or having an odd smell. Although tap water is not usually brown now, these historic incidents

can impact the way people experience municipal water today. Many people reported having their parents or grandparents tell them not to drink the tap water until it has been boiled. Some mothers would not feed their children tap water until it is boiled or filtered.

The change from gathering water from the land to having it come out of a tap undoubtedly had an impact on Inuit identity and sense of place. Although this is often not talked about, a community member described to me that going out to collect water from the land makes you feel like you are closer to your ancestors, and that the walking to get the water is good for mental and physical health. The change from collecting water from the land to getting it from a tap was a result of colonialism, and because of this, the colonial history of Iqaluit must be understood and honoured in order to have a deeper understanding of some of the water issues the community faces today.

Finally, not having access to water, either through municipal breakdown or not being able to get to the land, is an inherently stressful and emotional, embodied experience. Having an understanding of the trauma people experienced from colonialism adds to an understanding of how stress from perceptions of municipal water can build upon and add to other issues people may be facing, to impact their lives in unique ways.

Conclusion:

The Qikiqtaaluk Region, and more specifically Iqaluit, has a deep colonial history that has shaped the way the community operates today. These experiences of trauma continue to have an impact on Inuit community members. Understanding this information is essential to undertaking any study in the North, as it provides more context to the present-day concerns that these communities face. Therefore, when studying water in Iqaluit, I keep these histories in mind throughout all stages of the research process, to help facilitate respectful research that honours

community histories and provides information that is useful and beneficial to the community it serves.

Chapter Three: Research Methodology and Approach

Introduction:

Research with Inuit communities has a deep colonial history. In my desire to work in a more positive and constructive way, this is a community-based project that seeks to use Indigenous methodologies in order to be more decolonized in its approach, and to facilitate a respectful and mutually beneficial research process.

My own positionality in this research is important, because who I am as a person influences the information I receive, who is willing to talk to me, and what I understand. I am a white, university educated, young, queer person. In some areas of my life I am very privileged, and in others I have faced oppression. As someone who has experienced oppression and struggle in certain areas of my life, it makes me more empathetic to the oppressions and struggles that others are experiencing, and more aware of how this can impact health and well-being. Yet as a white, Southern person, it also means that I am privileged in ways that make me an outsider in the Inuit community of Iqaluit. When I greet research participants, I am read as being a woman, which means that this could have the potential to impact what men and women are willing to share with me. I interviewed approximately double the number of women as I did men, because more women volunteered to be interviewed. My own gender presentation could have been an influence.

In addition, this research was made possible by the integral support of a local interpreter, Elisha Kilabuk. Elisha is an Inuk man, who lives in Iqaluit. He was present for approximately half of the interviews. His presence as an Inuk person, and as a man could have also had an impact on who participated in this research, and the information that they chose to share with us.

As a non-Indigenous researcher, I recognize that there will be ontological and epistemological differences between myself and the Inuit community members in Iqaluit. Therefore, I use a mixed methodology to account for these ontological and epistemic differences, and to produce research that is grounded in place, respectful, and useful to the Inuit community in Iqaluit.

Different people experience both municipal water and water from traditional sources in different ways. Class and socio-economic status are certainly factors in rendering people able or unable to purchase expensive bottled water in a time of water shortage, and can also impact who is able to collect water from the river, as generally a vehicle is needed to drive water back from the river and gasoline is expensive. Furthermore, the ability to access water by residents in Iqaluit is not just a resource struggle, but it is also an embodied and emotional struggle that is a part of people's everyday lived experience. Because of the emotional and intersectional nature of this work, using a feminist and emotional political ecology framework allows for these lived experiences not only to be honoured, but to contribute to diverse and varied research findings. Therefore, I build upon Latulippe's treaty methodology and use a mixed methodological approach that brings together principles from Indigenous methodologies, with feminist political ecology and emotional geographies. Through this collaboration, the research is more decolonized and grounded in place.

Scale is a vital aspect to consider in virtually all subfields of geography. Marston and colleagues (2005) rework scalar imaginaries to use a flat ontology of scale to examine problems faced in everyday life. Marston et al. suggest that using a horizontal rather than hierarchical framework is important, because people encounter power structures not removed in a vertical imaginary, but in practice and on the ground, as the result of boundaries, enclosures, documents,

rules, and enforcing agents (Marston et al. 2005, 420). Site ontology provides a way in which to account for how the built environment can act as “an ordering force in relation to the practices of humans arranged in conjunction with it” (Marston et al. 2005, 425). In other words, there is a reciprocal relationship between the influence that place has on structures and processes, and that these structures and processes in turn have on place. In my own work, I use the concept of flat ontology to keep my research deeply rooted in place.

The first part of this chapter outlines the key principles of Indigenous methodologies, and how they apply to this research in greater detail. Next, I discuss how emotional geographies of resource access and feminist political ecology provides a lens with which to understand the diversity of water security experiences in Iqaluit, and how these have an emotional impact in the everyday. How Indigenous methodologies are complemented with emotional geographies and feminist political ecology, and how I use them in this project is also discussed. The lived experiences of people struggling with water access are deeply rooted in place, and they are affected by identity, the reciprocal influence between structure and place, and the emotions felt in the everyday. Using a mixed methodology allows for these elements to be explored while also producing research that is most useful for the Inuit community in Iqaluit. It also allows for a bridging of differences between myself as a non-Indigenous outsider, and the Inuit community. The second part of this chapter discusses the research approach, and how this methodological framework was implemented in fieldwork. This section also includes how interviews were conducted, and any limitations that occurred.

Principles of Indigenous Research Methods:

Indigenous research methodologies seek to change the harmful patterns that are often used in research with Indigenous communities, by employing a methodological approach that is

more reciprocal in nature. This section discusses the guiding principles of Indigenous methodologies in more detail. There are many scholars that contributed and continue to contribute to Indigenous methodologies. Drawing on their work, I argue that having an extensive understanding of colonial histories, self-location as the researcher, community collaboration, storytelling as method, and relational accountability are key elements of Indigenous methodologies. These elements have a centre role in my project in order to produce research that is respectful, accurate, and useful for the community.

Understanding the colonial history of the community is critical in the work that I do because it provides a deeper context into some of the struggles that the community faces today. This contextualization is critical in producing research that is truthful, and also helps to prevent the reproduction of harmful narratives. Linda Tuhiwai Smith, a professor of Indigenous studies, supports this belief and also calls for an understanding of colonial histories and their place in academia. She states that in order to undertake a decolonized approach, a researcher must first come to understand that colonialism is one expression of imperialism, and that imperialism is used in academia generally in four different ways: imperialism as economic growth, imperialism as the suppression of others, imperialism as an idea with multiple forms of realization, and imperialism as a discursive field of knowledge (Smith 2013). She writes that understanding the impact of imperialism and colonialism “is an important aspect of [I]ndigenous cultural politics and forms the basis of an [I]ndigenous language of critique” (Smith 2013, 25). She uses the metaphor of an archive to show the process in which the West drew upon an expansive history of itself and on traditions of knowledge that incorporated cultural views of reality, time, and space (Smith 2013). The Indigenous world is not only represented in particular ways back to the West, but the Indigenous world view has also been transformed into the spatial image of the West by

Western scholars (Smith 2013, 106). What she means by this is that even the very conception of space, such as physical space, psychological space, or theoretical space is a Western classification (Smith 2013, 53). To put this simply, research is deeply entrenched in Western theories, traditions, and knowledge systems, where importance is placed on the scientific method to understand the world around us. Using Indigenous methodologies can help to reassert Inuit needs, without being extractive in research approach and design.

Understanding my positionality within this research project is critical because it influences every stage of research, especially as a non-Indigenous scholar. Margaret Kovach, an Indigenous scholar, supports this and emphasizes the importance of situating yourself specifically in Indigenous research, as “self-location anchors knowledge within experiences, and these experiences greatly influence interpretations” (Kovach 2009, 111). She explains that by locating ourselves and research participants, it can help to ensure that stories are not generalized (Kovach 2009). Kovach emphasizes the importance of cultural grounding, and how ceremonial practices can be included in the research process to show respect and give protection to shared knowledge (Kovach 2009). Lynn Gehl, an Indigenous scholar, writes in her “Ally Bill of Responsibilities” that effective allies must be grounded in their own culture (Gehl n.d.). This builds upon Kovach’s theories of self-location, as being firmly grounded in your own ancestry and culture can help you to further understand your own position within the research framework. Shawn Wilson (2008) also emphasizes the importance of introducing yourself as the storyteller, because “when listeners know where the storyteller is coming from and how the story fits into the storyteller’s life it makes the absorption of the knowledge that much easier” (32).

To become more grounded in Inuit culture, I started with reading books and memoirs by Inuit authors. Once I landed in Iqaluit, I participated in as many cultural and community events

as I could. This included attending throat-singing workshops, seal-butchering tutorials, and community celebrations such as Nunavut Day. When I introduced myself to research participants, I always stated where I was from, how long I was up North, and what kinds of activities I had experienced in the North so far.

In addition to self-location, using community collaboration strategies was integral to my research design. This is emphasized in “Negotiating Research Relationships with Inuit Communities: A Guide for Researchers”, a document prepared by the Inuit Tapiriit Kanatami and Nunavut Research Institute to help facilitate more respectful research (Nickels et al. 2007). Community agency is critical in project design, because it helps to produce research that is more likely to be beneficial for the community with whom I am working. Even as the language of ‘community’ suggests, community research conveys a much more intimate space, compared to ‘the field’, which assumes the research space to be in a far-away location that is disconnected (Smith 2013). Smith (2013) and Louis (2007) emphasize that community-based research must allow the community to make their own decisions, and that the research agenda must be created in a way to have the most benefit for the Indigenous community. As Nickels and colleagues (2007) write, this can also help move research to policy as community members give a voice to articulate research findings. Process is vital to community research, as respect must be ensured at all stages of the research journey (Smith 2013). Placing community members as collaborators in theorizing is one way to do this (Louis 2007).

In relation to this project, consultations with Jamal Shirley, Manager for Research Design and Policy Development at the Nunavut Research Institute, took place before a research plan was developed. Shirley highlighted some of the needs of the community, and this influenced research design. In addition, the proposed research plan was sent to Mayor Madeleine Redfern for

approval before a Nunavut Research License was granted. As I worked closely with Elisha, I asked for his feedback about research questions. I also asked him if there were any questions he would like to ask. By giving Elisha agency in the interview process, I hoped to position him in part as a collaborator in this project.

While Smith argues that Indigenous research can be attained through community-based research, Kovach and Wilson's arguments are centred less on successfully and respectfully incorporating Indigenous voices into Western research, and more focused on Indigenous methodologies as theories within themselves. The original 1999 publishing of Smith's book "provoked analysis of how methodologies per se impact Indigenous peoples, and we are now at a point where it is not only Indigenous knowledges themselves that require attention, but the processes by which Indigenous knowledges are generated" (Kovach 2009, 13). Kovach (2009) argues that there are three distinct aspects of Indigenous research: cultural knowledges that guide research choices, the methods used in searching, and finally a way to interpret knowledge so that it can be given back in a useful and purposeful manner.

I wanted there to be opportunities for storytelling during conversations with community members, and because of this I did not always follow a set of specific questions. While I did have questions to use to get conversations going, I always allowed people to take the conversation in the direction that they saw fit. Storytelling gives the research participant agency in deciding what information is important to them. In Indigenous methodology, storytelling as method has great importance because of the inseparable relationship between story and knowing. As Kovach (2009) states: "stories can never be decontextualized from the teller. They are active agents within a relational world, pivotal in gaining insight into a phenomenon" (94). The use of storytelling in qualitative research is not unique to Indigenous methodologies. Kovach makes

explicit the fact that story as method is used differently from culture to culture, and the transfer to Indigenous methodology will fail without a full appreciation of the underlying epistemological assumptions that motivate its use (Kovach 2009, 97). To truly use story as method means to provide openings for honest narrative and sharing.

In Western frameworks, the personal nature of a story will bring questions of legitimacy of knowledge. Kovach (2009) argues that in an Indigenous framework, we are bound by the cultural imperative that the storyteller is telling the complete truth according to how they came to know it (103). Kovach also emphasizes the importance of sharing stories carefully and accurately to protect them from exploitation. While in Iqaluit, I was fortunate to be able to speak with many community members about their struggles with water, and to also hear many personal stories about what it was like to grow up in the North. Now that I have this information, it is my responsibility to share it carefully, respectfully, and to the utmost accuracy. In my data analysis, I am careful to never take a quote out of context, to help ensure that the stories I heard in Iqaluit are not retold inaccurately. This is why the quotes I share are often longer, to preserve the context with which they are being told.

Finally, the concept of transparency and relational accountability is central in my research design. Research that is not transparent and not beneficial to the community is extractive and colonial research. This is supported by Renee Pualani Louis, as she explains the importance of understanding that all parts of the research process are related, and that the researcher is responsible for nurturing relationships and remaining accountable to all people involved in the process (Louis 2007). Louis (2007) argues that the main aim is to produce research that is respectful and ethically correct. To have transparency, knowledge must be shared with Indigenous communities, and this can be done by means of providing copies of archival

documents, copies of final reports, and by having a panel of Indigenous community members adjudicate the researcher (Louis 2007). This is also supported by Kovach, as she explains the importance of research being born from a process involving the community, and making research accessible to all people (Kovach 2009). Wilson also emphasizes the importance of relationality in Indigenous research. He states that it is important to have respectful relations with people, the land, the cosmos, and with ideas (Wilson 2008). Wilson also stresses the importance of letting the community guide its own research, and keeping the community well informed of outcomes (Wilson 2008).

In my methods, I strived to keep my research transparent with the community throughout my process. In the North, Facebook is used as a main platform to share community news. I shared information about my project several times on the community Facebook group, in both English and Inuktitut syllabics. Posters were placed around town in both languages. I also relied heavily on Elisha, to interpret and explain my project to unilingual Inuktitut speakers. Ensuring that the community has access to research findings is a critical part of Indigenous methodologies. This is reinforced by the Inuit Tapiriit Kanatami and Nunavut Research Institute, as they stress that lines of communication must remain open not only during the field season, but also before and after (Nickels et al. 2007). In May 2017, I returned to Iqaluit to share the research findings, and reconnected with both Inuit research participants and government bodies to seek their input and feedback on the research results.

Other authors similarly reinforce these ideas. For example, Wendy Shaw and colleagues identify the importance of asking “who does this serve?” before beginning any research project (Shaw et al. 2006, 273). They provide the example of mapping. Cartography, they argue, is a geographical tool that reifies a particular view of land that is rooted in colonial understandings.

From the colonizers' perspective, the emptiness between the points on a map symbolizes land that is exploitable. From this perspective, research tools like maps can either be key in enforcing potentially harmful reproductions of knowledge, or central in the decolonization of methodologies.

However, perhaps what is most important to consider is how these main ideas of Indigenous research are interconnected. Understanding colonial histories, self-location, community collaboration, story as method, and relational accountability are not mutually exclusive research strategies. In order to be able to thoughtfully and appropriately use storytelling in research, a researcher must be centred and aware of their own self-location. They must also hold themselves accountable to all people involved in the research. An example of the interconnectedness of Indigenous research can be seen in McGregor, Bayha, and Simmons' (2010) study, where the facilitators were also participants in the process to help alleviate power imbalances. This helped them to remain accountable as they heard stories from research participants, because it alleviated the power hierarchy between the researchers and research participants by having the researchers also be participants. Listening is also important when determining the research question. As Louis emphasizes, collaboration with Indigenous communities is vital to be able to conduct research that prioritizes the needs of the community (Louis 2007). In Iqaluit, working in collaboration with the community can help to produce knowledge that reasserts and prioritizes Inuit needs. This in turn can assist with policy development that is designed with the community's interests put first.

In order to add to my understanding of Indigenous methodologies, this next section will examine some current work that uses these decolonized practices in the Arctic. In Gita Ljubic's (née Laidler) 2006 study about the relationship between climate change and sea ice, Ljubic

used a combination of a scientific approach and Indigenous methodologies. Ljubicic articulates five reasons for this: to understand the differences in Inuit and scientific perspectives, to investigate common interests, to establish meaningful and reciprocal research partnerships in Inuit communities, to improve collaborative research methods, and to maintain ongoing dialogue (Laidler 2006, 407). Ljubicic is careful to specify that Inuit knowledge is diverse depending on region, and includes a map of Northern Canada that shows the different Inuit regions. The inclusion of this alternative map contributes to a decolonized method because the map does not use governmental territorial boundaries, but instead emphasizes how the Inuit community understands the land. In a subsequent paper by Ljubicic detailing the fieldwork for this study, she writes that the Inuit community members who helped her to understand the local knowledge “are formally cited throughout this paper, as their contributions are equally weighted and acknowledged as academic sources” (Laidler et al. 2009, 369).

Kolson Schlosser’s focus group research on the cultural politics of diamond mining in Nunavut seeks to produce field-informed research that has intellectual value, yet is neither extractive nor perpetuates colonial imaginaries (Schlosser 2014). Schlosser (2014) questions community-based research, as the researchers conducting the research are still from colonial institutional environments. By researchers claiming to be anticolonial when they are from colonial institutions, this can potentially just reinscribe colonial relations. Instead, Schlosser proposes a ‘messy’ and flexible framework that allows for Indigenous communities to provide the answers to academic questions, not just data for further analysis. Schlosser’s work uses story as methodology, as he uses the stories of Nunavut residents gained in interviews to examine the impacts of mining. He emphasizes the importance of having informants help researchers shape reflexive accounts, by highlighting the known and unknown (Schlosser 2014). Chie Sakakibara

(2008) also uses contemporary storytelling to reveal how people cope with the unpredictable future and to maintain connections with the land that is slowly disappearing (Sakakibara 2008). While many scholars have collected and published stories from Northwestern Alaska, Sakakibara points out that scholars have not focused on stories of the supernatural, and that these stories can provide insights into Indigenous sense of place (Sakakibara 2008, 459).

Having a firm understanding of colonial histories, understanding my own positionality and practicing self-location as the researcher, community collaboration, using story as methodology, and keeping research transparent are the key strategies that I used in my study. Through these principles of Indigenous methodologies, I aim to produce research that is productive and useful for Inuit in Iqaluit.

Theoretical Framework of Emotional Geographies and Feminist Political Ecology:

This section examines the principles of emotional geographies of resource access, and feminist political ecology, to construct the theoretical framework that I use for this project. I argue that these two frameworks add a critical element to my methodology, by allowing for a deeper look at how identity shapes how people experience and feel about water insecurity. By keeping my research grounded in place, I am able to account for the ‘everydayness’ of resource struggle.

Emotional Geographies of Resource Access

Emotions are dynamic, process oriented, and relationally produced between people and places (Sultana 2011; Anderson 2013; Jayne et al. 2010). To understand this further, I looked at Sultana’s (2011) work on the emotional geography of water access. She focuses on the fact that resource struggles are not just material challenges, but are “mediated through bodies, spaces and emotions” (163). Studying emotion in water struggles provides key insights to how water

resources are managed and experienced in everyday life, because emotions influence the outcomes of the practices and processes of resource access and use (Sultana 2011). Using a case study of women's access to water in Bangladesh, Sultana shows that analysing the various forms of 'suffering' that people experience enriches research by examining both the material conditions and the experiences of struggle, while refuting a tendency in development research to ignore subjectivity (Sultana 2011, 166). Using subjective and personal responses allows for a deeper understanding of resource struggle, by reflecting the complexity of the issue and the processes and relationships involved.

Keeping a place-based approach and looking at the reciprocal relationship between structural systems and experiences is key when examining the emotional geographies of water in the North. Willox and colleagues (2013) examined the impacts of climate change on the emotional well-being of Inuit in Rigolet, a remote coastal Labrador community. With a changing climate comes changes in place, including different weather patterns, warmer temperatures, alterations in sea ice thickness, and reduced freshwater availability. In addition, communities within the Canadian North have experienced a rapid shift in the last 60 years from nomadic lifestyle to community settlement, forced relocations, residential schooling, and language loss (Willox et al. 2013). Davidson and Milligan write that emotions can be seen as "a form of connective tissue that links experiential geographies of the human psyche and physique [within] broader social geographies of place" (Davidson and Milligan 2004, 524).

This linkage can be seen in the way that many of the Inuit community members interviewed in Willox et al.'s study discuss feeling increasingly frustrated or saddened by changes in weather patterns (Willox et al. 2013). This matters because it means that changes in the environment are having a direct impact on the mental health of community members. It also

means that using emotional geographies will provide a platform for this kind of information to be analyzed, because of the way that emotional geographies allow for a deeper understanding of the relationality between people and places. Incorporating emotional geographies into my study of municipal water service interruptions and preferences of traditional water will therefore allow for a fuller understanding of how specific places influence human emotion. Furthermore, by keeping a place-based approach, there is less risk that these stories of lived experience will be decontextualized from their location on the landscape. Emotional geographies will provide a critical lens when studying water security in Iqaluit, because of the relationship that people hold with water.

Feminist Political Ecology

By keeping a process-oriented approach, feminist political ecology can create a framework in which the relationship between the complex intersections of identity, power structures, and the built environment can be explored. Intersectionality studies operate with the main assumption that different oppressive structures are interconnected, and cannot be examined separately. Race, gender, socio-economic status, physical ability, and sexuality, to name a few, interconnect in unique and mutually constitutive ways to affect a person's position within society, and therefore will have an effect on their lived experiences (Carbin and Edenheim 2013; Hancock 2007; Veenstra 2011). Valentine challenges the notion that systems of oppression are additive because this approach is inherently essentialist in the way that it interprets identities as separate and fixed differences, and it ultimately champions identity politics and ranks difference (Valentine 2007, 13). She argues for feminist geographical theory that acknowledges the fluid and unstable nature of identity intersections that does not “assume that intersections between

multiple-identity categories are always experienced or “done” in untroubled ways” (Valentine 2007, 14).

Valentine’s critiques of intersectionality can lend a crucial component to my methodology, by providing a framework with which I can examine how people with different identities and lived experiences will feel about water. Physical ability, race, gender, marital status, socio-economic status, sexuality, and myriad other identity markers will all influence how a person experiences both municipal water and water from the land. For example, a single Inuk man with a government position may be able to fiscally and physically access expensive bottled water during a municipal water service interruption more easily than an Inuk woman who does not have a job outside of the home, and who is caring for several children on her own. Similarly, someone with access to a vehicle and who has the financial resources for gasoline will be able to access river water more easily than a person who does not. The identities of Inuit living in Iqaluit interconnect in and through particular spaces, which not only influences how people experience water shortage, but also systematically reproduces inequalities. My research questions do not approach the Inuit community as a monolithic entity, but as a place with diverse people who will experience water in different ways because of their identities and lived experiences. Thinking about the research in this way helped me to narrow my scope down from ‘the community’ to a specific group in the community. In my project, I worked with Elisha to try to get as diverse a sample of people as we could. We spoke with Elders, youth (people under 30), men, women, and people of varying socioeconomic statuses including people working in business and people in community shelters.

Furthermore, Valentine argues that current theorizations of intersectionality fail to recognize “how the ability to enact some identities or realities rather than others is highly

contingent on the power-laden spaces” of the everyday, and that academics must reengage with questions of structural inequalities (Valentine 2007, 19). Jay Johnson (2012) argues for the importance of place-based research, as it allows for a way of understanding how the political, cultural, and economic intersections of struggle are embodied and experienced in the everyday (830). He states that the landscape is carried with people, remembered and retold as it plays a part in education, world-view, and how people engage in social reproduction and knowledge (Johnson 2012, 832). Using an intersectional approach that is place-based allows for an analysis of how the the complex nature of identity influences lived experience without disenfranchising the deep relationships between lived experiences and attachments to place. This is important because people live in specific places, where their identities contribute to their lived experiences and struggles.

This understanding is especially important in water security studies in the North. In relation to Iqaluit, the community has experienced the imposition of high-modernist thinking, where water management and governance has a history of being colonized and recolonized. For example, Southern Canadian technologies have been imposed on the community for water transport and distribution. In this light, the systematic production of power has had a specific impact in Iqaluit. While colonization certainly employed hierarchical power structures, the impacts of colonialism in the North are not experienced in vertical imaginaries, but rather in local places. Using a horizontal rather than hierarchical framework, in combination with an intersectional feminist approach can contribute to a deeper understanding of how people with different identities encounter power structures in practice and on the ground, by looking at the intersections of power structures and how people experience them.

Yaffa Truelove (2011) discusses how a feminist political ecology framework can help to reconceptualise water inequality and access. She argues that a feminist political ecology framework helps to “illuminate water inequalities forged on the body and within particular urban spaces, such as households, communities, streets, open spaces and places of work” (Truelove 2011, 143). This allows attention to be directed to the ways in which daily practices are productive of gender, class, and socio-economic status, and how this in turn influenced the embodied consequences of not having enough water (Truelove 2011, 144). Water shortage experiences are inherently physical and emotional. In the context of Iqaluit, water shortage due to utilidor break, the water tank being empty, or being unable to travel to the river to collect water is an embodied experience. Utilizing a feminist political ecology framework allows for conceptualizations of water inequality to be deepened to incorporate differences that arise in the experience of water shortage.

Through the use of emotional geographies of resource access and feminist political ecology, the true interconnectedness of the factors influencing water precarity in Iqaluit are conceptualized. It is not enough to look at water security through a top-down, hierarchical perspective. The lived experiences of people struggling with water access are deeply rooted in place, and affected by identity, the reciprocal influence between structure and place, and the emotions felt in the everyday. As Sultana (2011) writes, “broader social relations of power and gendered subjectivities are re/negotiated and re/produced in water–society relations where emotions come to play a key role” (171). In other words, using emotional geographies of resource access with feminist political ecology forced me as a researcher to pay attention to how structural inequalities have an emotional impact on people. These theories actively influenced my time in Iqaluit, as the notion of ‘community’ was deconstructed to mean not just a singular,

homogenous group, but people with differences, who emotionally experience water in diverse ways.

Complementing Indigenous Methodologies with Emotional Geographies and Feminist Political Ecology:

This project uses a mixed methodological approach, where Indigenous methodologies are bridged with emotional geographies and feminist political ecology. This approach creates a framework with which I can critically examine how identity affects the emotional experience of water insecurity, while producing research that is respectful and beneficial for the Inuit community in Iqaluit. This section will outline how these methods work together and complement each other.

Latulippe (2015) explains that a mixed research methodology should be accountable to Indigenous communities, appreciate Indigenous methodologies as distinct, and work to bridge epistemic difference. She uses this method so that she can orient her work in both directions, while also maintaining obligations to both parties (Latulippe 2015). Since I am a non-Indigenous researcher, I am working with this framework to also bridge the epistemic difference I bring to my work.

Based on the teachings of several Indigenous scholars, I am working with five key concepts from Indigenous methodologies: understanding colonial histories, self-location as the researcher, community collaboration, the use of storytelling, and transparency. Feminist and emotional geographies lend important contributions to Northern research, when used in concert with Indigenous methodologies. First, by keeping my work situated in place I am able to look at how structural inequalities have an impact in everyday life, while also maintaining a community-driven project. In their work, Marston et al. (2005) seek to understand how social injustices are

experienced in particular places, by specific people. This is because a flat ontology sees beyond the local as bounded, but rather looks at the intersection of processes and how these intersections can alter the processes themselves. Through this process-oriented approach, it keeps the focus on the local, so that stories are not decontextualized and lost in a vertical imaginary. Therefore, by keeping work grounded in place, it can help to nurture the relationship between researcher, participants, land, and community by keeping all parties accountable and thus in line with the principle of relational accountability of Indigenous methodologies. These notions informed my methodology when I traveled to Iqaluit for fieldwork, to not only work with the community on my research, but to also become engaged in community life. This relationship building will help to keep me accountable in the knowledge that I produce, and site-specific in my methods.

Furthermore, an intersectional feminist approach informs my methodology by influencing who is involved in the research this summer. Iqaluit is a racially and socio-economically diverse community. Thinking through a place-based feminist geographical lens can lend itself to seeking a wide variety of people with different identities to involve in the research, thus contributing to a deeper understanding of how power structures are embodied and felt on the ground. Because of this, Elisha and I worked to interview people of different genders and social backgrounds within the Inuit community. This approach merges well with Indigenous methodologies because it places a focus on both the positionality of the researcher, and the positionality of the participants. Self-location and reflexivity on behalf of the researcher are key to anchoring knowledge within lived experiences, and being conscious of my position and power as a researcher helps to alleviate power imbalances (Kovach 2009; McGregor et al. 2010).

Site-based emotional geographies inform the methodology for my work, as emotional geographies force me to pay attention to how structural inequalities have an emotional impact on

people. A changing environment is altering the relationship that Inuit people have with the land, which is then having a negative impact on emotional health and well-being. Honouring these relationships through the use of emotional geographies can help to keep Louis' teachings of relational accountability present throughout my methodology. For example, I participated in community life this summer, such as going on fishing trips. By engaging in land based activities, I gained more insight into the emotional connection between Iqaluit residents and the land, while also building trust and positive relationships, which will in turn help to keep me accountable to the community in all facets of the research process.

Keeping my work deeply rooted in place can also provide a framework for understanding places of emotional resistance. By unpacking the different interrelated structures influencing place, the local is reframed as not just passive container, but as a site for change where new social structures can emerge. As Willox and colleagues (2013) write, emotional strength and resilience are also “intertwined with socio-cultural, socio-economic, and socio-political structures; indeed, climate change itself takes place within the context of myriad and overlapping social, technological, political, economic and cultural transformations and stressors” (15). This becomes important when thinking about my work through a lens of resiliency. Wilson discusses how research with Indigenous communities tends to focus on problems and negative components, while Elders emphasize that “focusing on the positive in Indigenous research focuses on harmony. It forms a relationship that pulls things together” (Wilson 2008, 109). By thinking through how places can produce positive change, I can ask questions that highlight community strengths, rather than reproducing negative and problem-centred research.

Using a mixed methodological approach where Indigenous methodologies are used in concert with emotional geographies of resource access and feminist political ecology creates a

framework that is reciprocal, beneficial, and more decolonized, while also taking into account the complex identity of community members and power structures that shape lived experiences with water. Indigenous methodologies provide a guideline and framework for how to conduct my research. It provides opportunities to make connections and to nurture relationships. In turn, emotional geographies and feminist political ecologies provide a framework that guides both the types of questions I will ask, and how I will analyse the data. This component of my methodology allows for a more in-depth look at how identity shapes experience. By using these two frameworks in tandem, I am able to produce research that is beneficial, reciprocal, grounded in place, and critical.

Research Approach:

This second part of this chapter discusses the research approach, plan and implementation of this project. Here, I outline how I planned and conducted research during my time in Iqaluit, including how I worked, who I worked with, and any challenges or limitations I experienced.

Research Design

As outlined previously, some of the key elements of Indigenous methodologies are: having a firm understanding of colonial histories, understanding your own positionality and practicing self-location as the researcher, community collaboration, using story as methodology, and keeping research transparent. These methodological values influenced the research design and process of my project.

Practicing community collaboration is essential in a decolonized research project. Research should be community driven, where community members play an active role in the design and implementation of the research project. Some researchers travel to the North before beginning research to meet with community members to discuss project design. This is ideal.

Unfortunately, I personally was unable to travel to Iqaluit before beginning summer research due to the prohibitively high cost of airline tickets to Northern communities and a lack of funding. However, Erin Rose, a PhD candidate in the department of Geography at York University, travelled to Iqaluit in 2015, the summer before my fieldwork. She made valuable connections in the community that laid a groundwork for my own research the following year. She met with staff at the Nunavut Research Institute, several government employees in different departments, and learned about the importance of capacity building and research transparency with the Inuit Research Advisor at the time. One of the challenges facing research in the North is that people often do not remain in the same job position for long. I was told this summer that the average length of employment for a Government of Nunavut employee is fifteen months, generally because Southern Canadians come up to Nunavut with the hopes of making money, and then return to the South after a short stay. What this means for policy development in the North is that it is inconsistent. This also creates difficulty when trying to make or sustain connections for research purposes. For example, unfortunately the person Erin spoke with as the Inuit Research Advisor was no longer employed in that position when I reached Iqaluit, and there was no replacement person in that position at the time. Because of these challenges, it is important to speak with as many people as possible while in the community.

While I was not able to travel to Iqaluit personally before beginning my data collection, I did make community connections via telephone with staff members at the Nunavut Research Institute prior to visiting Iqaluit. The Nunavut Research Institute (NRI) is an organization based in Iqaluit that is responsible for licensing research in the health, natural, and social science fields, which is required by Nunavut's Scientists Act. The NRI provides information about research in the territory, and offers guidance to researchers to help make research respectful and in

accordance with the needs of the community. In addition, the licensing process insures that Nunavummiut are engaged and consulted in the research process.

Jamal Shirley is the Manager of Research Design and Policy Development at the NRI. While in the design stage of my research in winter 2016, I had several email and phone consultations with him to seek his input on what kind of research had already been done in Iqaluit with regards to water, and what kind of information was still needed. Before our first phone discussion, I emailed him a copy of my research proposal, to seek his input. Shirley provided insights into research design, how to frame the project in ways that are respectful for the community, the accuracy of my information, and practical fieldwork guidelines, such as what kinds of gifts to offer Elders for their time.

During these conversations, we discussed how the “community” in Iqaluit is not a uniform group, where people all have the same background and life experiences. Iqaluit is a diverse city, with a relatively large immigrant population. Even within the Inuit community, people have different backgrounds and experiences. This critical information was essential in the creation of a mixed methodological research design, as the use of Indigenous methodologies keeps research accountable and respectful, while the intersectionality of a feminist political ecology framework honours the differences in the lived experiences of the Inuit community members that are a part of this project.

Prior to travelling to Iqaluit, I also consulted with other researchers who have experience with research in the North. As discussed earlier in Chapter 3, Gita Ljubicic is a researcher who has extensive experience with community-based research in the North, particularly on Baffin Island. Like myself, Ljubicic is a non-Indigenous researcher. Together we discussed positionality, how to make community partners, and respectful research practices such as

Both of these advertising methods contained a portion of text that was translated to Inuktitut, so that unilingual Inuktitut speakers could also have access to this information and to have equal opportunities to participate.

Engaging in Community

Data collection took place over a two-and-a-half-month time period spent in Iqaluit from June 14, 2016 to August 18, 2016. In consultation with Jamal Shirley, this time of year was deemed to be the most appropriate because earlier in the spring, people are still out on the land hunting because the ice is still solid enough to snowmobile across it, meaning that garnering interest in participating in interviews could be a challenge. However, one challenge of doing research in the summer is that people often go South for vacation. By staying for at least two months, this provided enough time for the people who were on vacation to return to Iqaluit while I was still in the North.

As a non-Inuit researcher, reflecting on my positionality in all aspects of the research process has and continues to be critical. I understand that there are extraordinary gaps in my knowledge and understanding of Northern life as a person who is not only non-Inuit, but also born and raised in Southern Canada. In order to enhance my knowledge, participating in as many experiential learning opportunities as I could while I was living in Iqaluit was a critical part of my research process. For many of the experiences that I was a part of, I was volunteering my time and resources to community events. Research in the North has a colonial history of being extractive. By volunteering my time and giving back to the community, it was my hope to make this project less extractive. Volunteer work alone does not make research decolonized, however by participating in these events it does ensure that as a researcher I am engaged in community life and actively contributing to activities that are designed to improve community health.

Soon after arriving other researchers connected me with the Piviniit Thrift Store, which is open several nights a week and provides inexpensive clothing and houseware options for community members. I also volunteered with the Qayuqtuvik Food Centre, which provides lunches during weekdays and hot dinners on Saturday and Sunday. Every year the Alianait Arts Festival comes to Iqaluit. Alianait is a festival that takes place in Iqaluit near the end of June, and brings together circumpolar artists for a family-friendly experience, with the goal of building a healthier Nunavut through the arts. I volunteered as the designated first-aider for a concert, and also worked several shifts at the children's station in the central tent. A large part of community research is building trust. By volunteering for these events, I was able to interact with people I might not have otherwise had the opportunity to speak with.

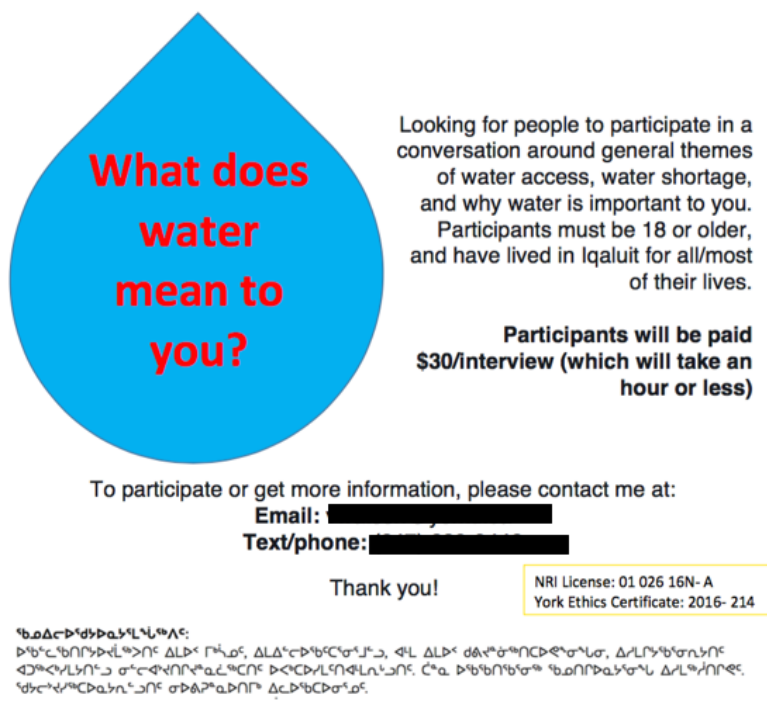
Like other Northern communities, some parts of Inuit culture in Iqaluit were restricted through colonial acts of forced assimilation, relocation, and pressure from the missionary influence. Community cultural events now exist to provide opportunities for people to learn more about Inuit culture. These events are open to the public, and I was able to attend some of them. I attended a seal butchering workshop, an Inuit throat singing demonstration, and a drum dancing workshop. Nickels et al. (2007) highlight the importance of trying new experiences to learn about Inuit life and culture. While in Iqaluit, I was fortunate to be able try some local foods, including seal, Arctic char, and beluga maktaaq.

Gathering Participants

For those who have computers, Facebook is one of the primary means of communication in the North. There are groups to sell and exchange goods, make community announcements, and even a group to raise community concerns. I made an initial post in the Iqaluit Public Service Announcements Facebook group, introducing myself, explaining the research project, and asking

people to send me a message if they would be interested in participating. I also posted in the Iqaluit Rant and Rave Facebook group. I made posts throughout my time in Iqaluit to maintain community awareness and involvement. Most of these posts were made in English due to the high cost of translation services, however one post was translated to Inuktitut and posted in both groups to increase visibility and awareness.

In addition to posting in Facebook groups, I also made colourful posters with text in both English and Inuktitut, and posted these in high traffic areas around town. Some of these places included Northmart, Arctic Ventures Marketplace, Canada Post, Arctic College campuses, the Nunavut Research Institute, the airport, and smaller stores and businesses in Iqaluit.



What You Will Be Asked to Do:
 You will be asked to participate in a conversation around the general themes of water access, water shortage, and water shutoffs, and to share your own opinions and experiences in a face-to-face discussion. This discussion can be as long or short as you feel comfortable with an approximate time commitment of one hour. You will be offered a gift of approximately \$30 value.

Figure 5: One of the posters used to gather research participants, with English translation below

The Facebook posts and posters placed around Iqaluit gathered some attention, but ultimately were not responsible for garnering interest from the majority of the people who participated in this project. Once I connected with Elisha Kilabuk, he worked to increase awareness of the project and gathered research participants through word of mouth.

Interview Questions

The interview questions changed significantly over the fieldwork season. Indigenous methodologies highlight the importance of using story as methodology. Using principles from Indigenous methodologies is at the core of my research design, and so when I began interviews in Iqaluit I did not have specific questions to ask, but rather used a list of open ended topics that I hoped we would cover over the course of the conversation. I chose this strategy so that research participants could have greater agency in choosing the direction of the conversation, and so that people could share the information that they felt comfortable sharing, rather than answering a long list of questions. Unfortunately, this was not successful. Many participants did not know what to share or talk about. Some were also reluctant to start the conversation. I am aware that this may have been because of my positionality as a white researcher, or have cultural implications.

With the help of some other researchers also working at the Nunavut Research Institute, I revised my interview themes into more specific and detailed questions to ask people. Previously, it was difficult to think of questions on the spot when interview participants were hesitant to begin the conversation. As can be seen in Table 1, the new question scheme made it much easier because I no longer had to think on the spot if people needed help. The interviews still remained somewhat open ended. If participants had things they wanted to share, I always stopped and listened to the information they were telling me, regardless of its relevance to water. I also made

sure to stop at several points and ask people if they had anything else they wanted to share that I didn't ask. In addition, I made sure that Elisha looked over the interview questions before we used them for the first time, and asked his input as to whether or not he thought anything should be added, changed, or removed.

Interview Topics to Cover:

Water Shortage, Accessibility, and Risk

- What water shortage and risk of water emergency means to you
- What water shortage and water emergency looks like for you and your family
- Water shortages and emergencies you have experienced and how they impacted you, including any difficulties you experienced or are experiencing because of it
- Water infrastructure (utilidor and trucked water delivery) and impacts to your daily life
- The number of people living in your home, and how this impacts your water use
- Changes you wish to see with regard to water in Iqaluit
- Gender and water accessibility
- Traditional (non-chlorinated) and non-traditional (municipal) water sources
- Water shortage and your relationship with the land
- Drinking water and its role in your health

Concerns

- Concerns you have for water security in the future
- Concerns you have for the safety of the city when water is shut off
- Concerns you have for municipal water sources

Adaptations

- Ways that you cope with water shortage and emergency water shut-off or "Waterless Wednesdays"
- Ways that you have adapted to changing water availability
- Ways that you help other people cope with changing water availability
- What water security looks like and means to you
- Praises you have for municipal water sources

Figure 6: The initial loosely structured interview topic guide

Table 1: The revised interview structure guide, with general themes and specific questions to ask if needed.

| Actors/Arenas | Research Question(s) | Information to Gather |
|------------------------------|---|---|
| Community Members in Iqaluit | What role does water play in Inuit culture? | <ul style="list-style-type: none"> - Do you prefer traditional or municipal sources of water? Why? - What role does water (municipal or traditional) play in your health - When you're on the land, what role does water play when you go hunting, camping? - How do you use ice when you're out on the land? - How do you feel about different sources of water when you're on the land? |
| | How do performances of gender/socioeconomic status/identity play into water access? | <ul style="list-style-type: none"> - Do you mind me asking how many people live in your home? How does the number of people in your home impact your water use? - Can you tell me about how your parents used water when you were a child? - Who used the most water in your home growing up? What was the water used for? - Do you remember when Iqaluit switched to utilidor? Can you tell me about that experience? How did that impact different people in your family? - When water service is interrupted, does this impact men/women differently? |
| | How is water infrastructure impacting water access? | <ul style="list-style-type: none"> - How does the utilidor/trucked service impact your daily life? - How do utilidor breaks affect you? - How did you feel about "Waterless Wednesdays"? - What did you do to prepare for no water delivery on "Waterless Wednesdays"? - How do water shortages/shutoffs impact you and your well-being? - What would you change to improve the system? - What do you like about the system and what do you dislike? |
| | To what extent is Iqaluit currently experiencing water insecurity? | <ul style="list-style-type: none"> - How many times in the last year have you had a service interruption? - What did you do when that happened? |
| | Community perceptions of water shortage/shutoff | <ul style="list-style-type: none"> - What do water shortage and risk of water shortage mean to you? - What happens when there isn't enough water for your family? - Do you have concerns for water availability in Iqaluit's future? - Can you tell me what you think about the quality of municipal water? - Have you ever gotten sick and felt water was the cause? - What does having enough water mean to you? - How important is it to you to have enough municipal water? |
| | Adaptations to changing water availability | <ul style="list-style-type: none"> - How do you cope when there is a service interruption? - Has there ever been a time when you helped someone else who had run out of water? |
| | Modes of communication | <ul style="list-style-type: none"> - How do you get information from the city about water shutoffs or service interruptions? - Are you satisfied with how the city communicates information about water? - What changes would you like to see? - Is there another way the city could contact people? |

Part of the revision process with the interview questions was also to rephrase them in a way that made more sense for the people we were interviewing. For example, in the first few interviews I conducted I asked people about gender and water. Most people said there was no connection or did not understand the question. The revision to the questions created smaller and more specific questions that are ultimately answering the larger question, but easier for people to

understand. When I asked people about who they thought used the most water, most people said women because of cooking and cleaning. Therefore, while the revision to the questions did make the interviews more structured and perhaps formal, I decided it was necessary in order to gather the information that is needed for this project.

Interviews and Focus Group

In addition to individual interviews, I planned to hold a focus group. The focus group would centre around the same questions and themes as the interviews, but by having several people present at the same time, would hopefully generate discussion and allow community members to build upon each other's ideas. It also would allow for people to rank the importance of water security issues, by voting or coming to consensus. The focus group was scheduled to be held in the Qayuqtuvik Food Centre, in hopes that this would be a neutral and welcoming location that many people are familiar with, as it is a multi-purpose space. I advertised through posters and online Facebook posts, and Elisha gathered interest through word of mouth. We were planning to have approximately 5-10 people come to this focus group. Unfortunately, only one person came, so we conducted a regular interview with them instead.

Limitations and Challenges

One of the main issues that I encountered while doing fieldwork in Iqaluit was garnering interest in the project. Initially, people were very reluctant to participate, or would agree to participate and then not come to the interview. Elisha has a very good rapport with community members, and he knows a great deal of people in Iqaluit. Once I connected with him, Elisha helped find research participants through word of mouth and different community connections. People would also commit to meeting with Elisha because they know and trust him, so there was

less chance of people not coming to the interviews. This community partnership with Elisha was integral to this project.

Another setback we experienced were language barrier issues during the interviews. Certain words or questions do not translate well to Inuktitut. I know there were some language barrier issues because several times I would ask a question, and after interpretation the participant would give a completely different answer that was not related in any way to the question. When the interviews were in English, there were also some language barrier issues. Certain phrases or terms that are commonplace for people who speak English as a first language have different meanings for people who do not speak English as a first language. For example, I tried to ask people if utilidor service interruptions had an impact on their “well-being”. Several times people said there was no impact, but then later in the interview would talk about how utilidor service interruptions were stressful and upsetting. This is something to be mindful of for future research endeavors like this in the North.

Finally, another setback that I encountered this summer was non-Inuit Southerners who were fairly new to Iqaluit requesting to be interviewed. My posters and advertisements stated that participants needed to have lived in Iqaluit for all or most of their lives, however there were a few miscommunications. Most people who responded to my posters did so via text. I felt it was inappropriate to ask people whether or not they were eligible to participate, and went to meet people in good faith. Unfortunately, a few times people did not meet the criteria.

While these difficulties did not ultimately prevent me from completing the research, I will take these setbacks as learning opportunities for future work in the North.

Conclusion:

A collaboration of Indigenous methodologies with emotional geographies of resource access and feminist political ecology provide a critical and unique framework for my project. By keeping my work deeply rooted in place and building upon Latulippe's concept of a treaty methodology, I can bridge Indigenous methodologies with a site-based feminist and emotional geographical perspective. This keeps my work beneficial for the community, grounded in place, critical, and intersectional. This in turn will help to privilege subjective knowledge, understand the intersections of identities with structural inequality, and honour the emotional connections between land and people. These methodologies were put into practice in the fieldwork I conducted in 2016, and have informed how I worked throughout the research process.

Chapter Four: Findings and Discussion

Introduction:

This chapter examines the results from the data gathered in 2016. This research focuses on Inuit perceptions of water in Iqaluit, including both municipal and traditional sources. Based upon the stories shared by the twenty-one research participants in this study, it is clear that perceptions of municipal water in Iqaluit can cause added stress in everyday life, which is an emotional, embodied experience. The stress experienced from perceptions of municipal water can be broken down into four subthemes. Stress is experienced from concerns over the quality of municipal water, caused by many uncertainties including water coming out of the tap that is brown in colour, or hair being dyed blue. Emotional burden or stress is also experienced from municipal water shortage, including utilidor service interruptions and running out of water for those who are on water tanks with trucked service delivery. During times without water there is also a physical stress, as residents are required to physically bring pots of water inside after water trucks have come around to fill them. Thirdly, there is an element of emotional stress in anticipating water shortage, as people feel the need to constantly be prepared. Finally, there is financial stress associated with water in Iqaluit, as participants discuss the strain of trying to pay the call-out fee for an additional water tank fill-up, or trying to purchase expensive bottled water from the grocery stores. Different people experience water shortage in different ways. Using principles from feminist political ecology, these four main themes are discussed with special attention paid to how factors such as age, gender, socio-economic status, and housing status

impact how people experience municipal water in Iqaluit. This section concludes by discussing strategies that residents use to cope with municipal water shortage³.

Municipal water is not the only source of water for many Iqaluit residents. The second part of the data analysis discusses the importance of continuing to gather water from traditional sources for the Inuit interviewed in this study. In this thesis, traditional water refers to water gathered and used from the land. Water from the land may be collected from a number of sources including icebergs, freshwater lakes, or the Sylvia Grinnell river which can be seen in Figure 7. It is approximately a fifteen to thirty-minute walk from Iqaluit to the river, depending on where a person is coming from in town.



Figure 7: A map of Iqaluit showing its proximity to Sylvia Grinnell Territorial Park (Google Maps 2017)

Many people report their preferences of traditional water over tap water, and discuss the physical, emotional, and spiritual benefits of gathering water from the land. This can be broken down into three subthemes. First, traditional water is preferred because of taste and coldness. Next, the health benefits of traditional water are discussed, including feeling energized after walking on the land to gather the water. Although not everyone held this viewpoint, for some

³ Some residents turn to water from the land in times of municipal water shortage. It is generally believed among community members that natural water sources from the Sylvia Grinnell river are free of chemical contamination and bacteria.

there is also a spiritual benefit with gathering water from the river, because the water has not gone through any pipes or treatments. Finally, the theme of using water collection as a way of reconnecting with Inuit identity is discussed.

Experiences with Municipal Water:

Stress from Concerns of Municipal Water Quality

The Taste and Smell of Chlorine

This section discusses the stress that many people experience over concerns of municipal water quality. I would like to emphasize that municipal water in Iqaluit is always treated and bacteria tested. This section is not to debate or comment on the “safeness” of municipal water sources. However, due to historical water problems, miscommunications from the city, and other problems such as water coming out of the tap brown, there is mistrust among many community members about the quality of municipal water sources. In addition, many people report that city water has an unpleasant chlorine taste and smell. This section will examine how these experiences create emotional stress that is experienced in the everyday.

One of the biggest issues that people report that concerns them with the quality of municipal water is the strong chlorine smell and taste that comes from the tap. Eighteen of the twenty-one Inuit I interviewed discussed the smell and taste of tap water being a cause for concern. Some people noticed a difference in taste between utilidor water and trucked water, even though both come from Lake Geraldine. One young mother I spoke with reported that she does not trust the tap water like she does the river, because tap water tastes funny (IQJuly29/16A). She brings boiled water everywhere for her baby. She is on utilidor, and reported that the water coming out of the tap at her house tastes like metal and rust, as if it has been contaminated in the pipe. When visiting her friend who is on trucked water in Apex, she

said that the trucked water she tried at her friend's house tastes like dirty mould, as if the tank has not been cleaned recently. She told me that she would "rather drink a can of juice than un-boiled [municipal] water" (IQJuly29/16A). As can be seen by this statement, having a perception that municipal water is unsafe could also have an impact to health, if people are instead turning to sugary drinks.

The stress experienced by concerns of municipal water quality is gendered. Although this is not always the case, women often look after babies and children, both historically in Inuit culture and today. Therefore, ensuring that the water given to babies is clean and healthy may be a burden experienced more by women. Although this sample size certainly does not speak for the entire population of Iqaluit, of the men that I spoke with this summer, there was no mention of being worried about municipal water because of children. This does not mean that men do not care about their children, but does lend insight into how there could be a disproportionate amount of stress experienced by women with regards to ensuring that children have a trustworthy source of water to drink. Men reported an unpleasant taste, but did not mention that they were concerned about the quality for the vulnerable people in their home. In contrast, two women had young children, and reported feeling concerned about giving their children municipal water to drink without boiling or filtering it first. Some people use Brita filters, however others use methods such as using a cloth or paper towel, as Brita filters are costly.

Emotions are relationally produced between people and places, and are "always embodied experiences, where sites and context matter" (Sultana 2011, 164). By using embodiment in feminist political ecology, it allows for the multiplicity of ways that emotions are not strictly 'feminine', but rather are created from particular bodies and experiences (Sultana 2011). Building upon this theory, when women experience stress because they are worried about

the quality of the water they give their children, this is not because feeling these emotions is inherently feminine, but rather is the result of the gendered subjectivities of raising children, and the intersections of identity and lived experience in the North.

One research participant noted that “you have to live closer to a booster station to have the best water” (IQJuly13/16A). She recalled a time when her sister did a project in school to see who had the best quality of water around town, by examining the chemicals present in the water and by taste testing it. She remembers that different areas of town produced better results. Again, this is not to make a scientific statement about municipal water quality, but does show how perceptions of municipal water quality are long lasting, and can cause added stress experienced in everyday life.

Though most people reported a dislike of the taste and smell of municipal water, Elders seemed to be most affected by the addition of chlorine. For some Elders, the chlorine upset their stomachs and made them feel sick.

It really affects...the water delivery, because of all the chlorine in it, sometimes it affects us, her stomach. Upset stomach, sometimes diarrhea, sometimes...I don't know how it affects us...it affects each of us differently (IQAugust5/16C).

Yeah because we as a young lad, we never used to have chlorine in the water, eh? After a while you get used to it, but nah, it's still yeah...it is still not too good yet. Especially the chlorine, I can feel the chlorine (IQAugust10/16B).

While most younger people also reported not liking the taste of chlorine in municipal water, none reported that it actually upset their stomach. This lends insight into how age can impact the experience of municipal water, as older people who are more used to the taste and feel of traditional water report feeling physically sick from drinking tap water. This also lends insight

into perhaps why many people do not trust municipal water, as the feeling that it is unclean or unsafe is passed down through the generations. One young woman stated:

We were always taught that it's cleaner. So my grandmother will ask us to go and get buckets or water containers full of water for her from the river, because she prefers it. There no chlorine or whatever else they put to clean our water up at the dam. (IQAugust17/16A).

Through these stories, it is clear that the taste and smell of chlorine in municipal water is an embodied experience that is different for everybody.

Brown Water

In addition to concerns arising from the taste and smell of municipal water, many residents also feel concerned about the colour of the water coming out of their taps. Currently, this could happen briefly after the utilidor has been off for maintenance. Some people call it 'rusty water'. One participant noted, "Not only clear, but you get a little bit of brown. That's why I always boil my water. I always boil water from water tap. And I use a lot of boiling water. Sometimes I bust my stove in [laughs]" (IQAugust10/16C). The colour of the water coming out of the tap contributes to people's mistrust of municipal water sources, as made evident by people boiling their water before drinking it, to try to rid it of perceived contaminants from the pipes. Another woman said "[...] When there's water shutdowns and stuff or they're working on pipes, once in a while they'll do boil water advisories where they'll tell you you have to boil your water, which I already do anyways. But I have had a couple of instances where it comes out the tap almost brown." (IQAugust17/16A). When asked if this experience was scary, she responded "Yeah, it's gross" (IQAugust17/16A). Another young woman commented on the brown water, stating:

I know in certain areas there are concerns. I guess where there are older pipes, the rust may come through the water, and I know like when I was 11 we were on a boil water advisory because there was something going on with the pipes they were old or something, and it was actually coming out rusty looking so you had to boil the water, and that still didn't seem...it didn't seem normal, right?

(IQAugust17/16B).

She felt that this was a possible reason for many people being wary of municipal water sources, along with other experiences in the past.

One young man explained that due to the colour of the water coming from the tap, he often feels safer drinking water from the river instead:

Sometimes I prefer outside source that's not treated from the plant, even though they say it's still good, I use it sometimes. I feel a little bit more safer drinking from lakes or snowmelt, as because I don't know if most of the housing in Nunavut, like some of them are pretty old and they might still have lead pipes, like for their water source, and sometimes that has happened. And it looks very disgusting too, because it would be corroding and then your water turns yellow. And like black bits come out and it's just not a good sign and yeah it's a heavy price to pay because like either the pipe needs to be changed or the entire water system needs to be changed in the household. But yeah. (IQJuly22/16A).

Feeling unsafe is an embodied experience. When participants feel worried about water quality because of the colour of tap water, it is inherently emotional, and therefore has an impact in the everyday.

Historical Problems Contributing to Current Stress

While the municipal water service in Iqaluit has improved greatly over the years, many participants noted that the quality of the tap water caused them concern in the past.

As one person stated, “When I was growing up, every spring or every fall, we’d have brown water. And it was spring melt, Lake Geraldine would get all swished up and it was- we’d have boil water advisory, we were told not to drink [municipal water]. In past years that hasn’t happened.” (IQJuly 13/16A). She also noted: “But like I said, I remember also back then water being brown. Being told that you can’t drink it. If you shower in it you’re going to have dusty hair. Things like that.” (IQJuly13/16A).

This participant also commented on how in the past, the municipality would put out boil water advisories:

The municipality putting on the boil water advisory, telling you not to drink it. If you were to drink it, you were to boil it for at least a minute. You were allowed to shower in it, you were allowed to wash your clothes. But it was more so boiling your water for the minute before drinking it, or anything like that. If you’re going to cook with it, make sure you boil it prior to cooking. (IQJuly13/16A).

In conversation with an Elder, I asked her if she knew why many people do not trust municipal water sources. She answered that whenever she has to take a drink of water from her tap, she always lets the tap run for a period of time to see if it is clear or not. She said it is often not clear coming out of the tap (IQAugust4/16B). When asked about how this affects her, she responded saying that it bothers her because everyone needs to have clean water to stay healthy, and that it affects everybody (IQAugust4/16B). This conversation reveals the inherent stress in never being certain that the water coming out of the tap will be clear. Even though the water is

safe to drink when it is slightly tinted, it is disconcerting to feel like you are unsure of the quality of the water.

Even for those who are young enough not to have lived through the stress of having to contend with water quality issues when the utilidor was first installed, people feel mistrustful of municipal water sources because of what they have been taught by parents and grandparents. One young woman stated that she will only drink tap water if it has been boiled or processed through a Brita filter. She said “That’s...what I’ve been taught so...um. I guess I take after my mom and my grandmother, they won’t drink the tap water at all either. It actually tastes pretty gross.” (IQAugust17/16A). This shows the pervasiveness of the fear that municipal water is unsafe, as it passes from generation to generation. This is understandable, as Elders could have experienced discoloured water with high turbidity in the early days of the utilidor.

The relational and inter-subjective nature of emotional geographies means that how people experience and feel about water will be strongly influenced not only by their own lived experiences, but by the lived experiences of those around them. The above quote demonstrates this, as the research participant discusses her emotions toward municipal water, based upon what she was taught by her grandmother and how her grandmother feels.

She also stated, “I don’t drink tap water at all. It kind of scares me, so it’s either our Brita filter or boiling it. So I don’t just...especially my children, they seem to think that it’s okay...I’m just really uncomfortable with them going to the tap and drinking out of it. So it has to be from the Brita jug or boiled first.” (IQAugust17/16A). This statement reflects the added stress that is added to daily life when there is a concern of municipal water quality. The stress is twofold as this woman has to add the task of boiling water to her daily routine which is time consuming, and she also has the burden of worrying every time her children drink straight from the tap. This

woman's experience is gendered, as she is experiencing stress as the primary caregiver for her children.

Another woman explained that she always freezes, boils, or uses a make-shift paper towel strainer with municipal water before she will drink it, because that is what her parents taught her to do (IQJuly29/16A). This again demonstrates how historical water quality issues have an impact on the trust that people feel with municipal water today, regardless of how the system now operates.

Water Dying Things Blue

In Iqaluit, it is very common for the municipal water to dye tubs, sinks, and sometimes even people's hair a blue colour. In the apartment where I was staying in Iqaluit, the tub had been dyed a shade of turquoise from repeated exposure to municipal water. When community members heard that I was working on a project regarding water in Iqaluit, many asked if I knew why everything was being dyed blue. In passing, people told me stories of their hair being dyed blue, especially if it was light in colour, and warned me to 'watch out' so that my own light hair would not be dyed as well. Sometimes I asked people if the city has ever published anything about why this is occurring. Whether or not the city has ever publicly addressed this issue, every person I asked said that they had never seen or heard an official explanation.

One of the Elders I interviewed told me that her sink, shower, and hair had been dyed green from the water. She said that it actually bothered her so much that she had to move out of that house to a new house where the water would hopefully be a better quality (IQAugust5/16B). The blue colour does not mean that the water is unsafe. However, what this does show is how community perceptions of municipal water can cause concern or stress.

I was unable to find an answer for this while in Iqaluit. Although official documents about this do not exist publicly, plumbing websites suggest that this could be due to elevated copper levels in the water (Copper Development Association Inc. 2017). This could be due to either an interaction between the copper pipes and elements in the water, or something from installation (Copper Development Association Inc. 2017). A 2008 Nunatsiaq News article reported that Iqaluit's water has 0.7 parts per million of copper, which is below the federal standard of 1 part per million, yet still high enough to cause a blue stain (Windeyer 2008). A 2015 CBC News article reports that the City of Iqaluit tests for 20 of the 75 contaminants on Health Canada's drinking water guidelines (CBC News 2015). This is not necessarily uncommon for Northern communities, as there is no influence from farming waste that could cause certain types of contaminations (CBC News 2015). However, regardless of what the actual levels of copper are in the water, the blue dye that results from water use causes people to have concerns for their health, which is a stressful experience.

Illness from Water

Finally, feeling as though municipal water has caused illness is a large contributor to the mistrust that many people feel towards municipal water sources, and to the stress and fear experienced on a daily basis. Municipal water in Iqaluit is treated, tested, and quality controlled just like other municipalities across Canada. This section is not meant to imply that Iqaluit's municipal water supply is unsafe, but instead is to lend insight into how perceptions of municipal water can cause worry and stress.

When I asked one woman about what she thought of the quality of municipal water, she responded:

Quality? I...had a guy test it. Test the tank. And, he found feces...there was traces of [Inuktitut]. So he told me to put like a cup of bleach in the tank every time we get water deliver or once a month, but I don't want to be drinking bleach! But I have a filter now, that filters out everything. So hopefully that eliminates it. It's supposed to turn black once it's dirty; it hasn't turned black yet so...I've had that for a little over a year now. (IQAugust4/16A).

She also reported that the man who tested her tank told her that the contamination was from the water truck, likely from a cross-contamination during water delivery (IQAugust4/16A). The issues with this person's tank could have been from myriad of sources unrelated to municipal water delivery. Yet regardless of the root cause, this woman was told that it was from a municipal contamination, and now experiences added stress every day because she fears of getting sick from her tap water.

One woman reported 'almost getting sick' after taking a drink of municipal water. She said "Lots of dirt went in when it's on my mouth. My throat, my stomach. From the water truck. That's why I always boil that water because I know it's dirty." (IQAugust10/16A).

In addition, several Elders told me that drinking tap water upsets their stomachs, because of the added chemicals (meaning chlorine). One older woman noted through interpretation:

Sometimes the chlorine, you can really taste it. Sometimes you can even smell it, not just smell it, even taste it from the water. She uses Brita water, and she...Brita filters to clean her water from the tap water. When she doesn't use the Brita filter, when she accidentally forgets, because we don't always remember, when she accidentally pours water from the tap and she doesn't use that Brita filter, she gets upset stomach at times. (IQAugust5/16A)

Another Elder said that when she drinks straight tap water, “it just want[s] to come back up” (IQAugust10/16C).

Other community members, both Inuit and non-Inuit, mentioned to me in passing over the course of the summer that they experienced acute gastrointestinal illness from drinking tap water. One person told me that upon moving to Iqaluit from the South, they were sick for two weeks so they began boiling their water and have been boiling it ever since. Correlation does not imply causation, as this person’s experience with illness could have been from a variety of factors. It does however lend insight into perceptions of municipal water quality. I also had several community members, both Inuit and non-Inuit, tell me in passing that I should be filtering my water ‘so you don’t get sick’.

The stress and fear that comes with worrying about getting sick from drinking tap water would be experienced differently by people of different genders and ages. While this did not explicitly come up in the data I gathered, it is not inconceivable to surmise that people who are caring for vulnerable persons, whether that be children or elderly parents, may have greater anxieties about the quality of the tap water, because of the grave impact it could have on certain family members. Since women are often the family members who care for children, it is also not inconceivable to state that women may experience greater stress and anxiety over concerns of tap water quality, because they are the ones who are faced with the daily worries of illness.

Due to the taste and smell of tap water, discoloured water, water dying things blue, historical water problems, and illness, many community members experience stress related to concerns of municipal water quality. These stresses are experienced in the everyday, and could have a negative impact on general well-being. The feeling of being stressed about water quality is experienced differently by men and women, and by people of different ages. In particular,

many young people experience stress because of what their parents and grandparents have experienced and subsequently taught them.

Stress from Municipal Water Service Interruptions

While the water infrastructure in Iqaluit has improved greatly since the 1980s, there can sometimes be interruptions in municipal water supply due to utilidor repairs or problems with trucked water delivery. One hundred percent of the people interviewed last summer reported experiencing either a municipal service interruption, or running out of water in their water tank at least once in the past year. For those with water tanks, experiencing water shortage can be linked to a variety of factors, including the number of people living in the home. This section discusses these experiences, and the inherent stressfulness that they can cause. Unless otherwise specified, municipal water service interruptions are discussed in terms of household usage, and its implications for people in the home.

Water Shortage on Trucked Water

For those on water truck delivery, there can be added stress experienced due to trying to conserve water, or running out of water. As one older woman explained through interpretation:

When they were still on trucked delivery, whenever the tank got empty, because she lives in a building with ten other apartments, it was very hard when the water tank got empty, because you can't do anything! If you want to cook you need water, if you want to wash yourself you need water. It was hard, very hard. And sometimes she would get worried; she gets worried, would get worried easily when there's no water because you can't do anything. (IQAugust5/16A).

Another woman explained that her friend in Apex once went two days without water because the truck was not able to drive to Apex due to weather. Her friend had to drive to her place to get water for their family, because she had children who needed it.

Many of the people that I spoke with had experienced being on both the utilidor system and trucked water. As one woman explained:

I lived with a friend who had trucked water and there was only two of us in the house, in a big four-bedroom house and that's not enough. Each room had a. Well just about each room had a washroom, and just trying to keep that going is like whoa. Stress. Because you're not used to it. You're so used to being on utilidor.

And it was right during a blizzard her tank froze. (IQJuly13/16A).

She also explained that she had to spend twelve hours boiling water to keep the tank from freezing during this blizzard, which was stressful for her.

The number of people living in a home can greatly impact water use, and how often the water tank runs out of water. As one young woman described, having six to eight people in a house with only one water tank can limit and restrict how people perform daily activities such as cleaning and laundry, and can have an impact on drinking water (IQAugust17/16B). She describes the everyday stress, saying "[...] it was tough. You really have to pay attention. If you're brushing your teeth you can't keep it running, right? Sometimes you forget but you're like AH I shouldn't have done that!! Right?" (IQAugust17/16B). This shows how living with the trucked water system can add an element of stress to daily life, as people report how running out of water, or the fear of running out of water can impact and interfere with daily activities.

Weather can sometimes be a factor in whether or not the water trucks will be able to deliver water. As one woman describes, having a larger number of people living in a house trying to get by on one water tank is a stressful experience:

Actually when we were there we did go through a few blizzards, so three days on one tank. Eight people. It's almost impossible. And if anything I think I do remember we had to gather some snow to melt. Because that's another way people will drink water here. Not just ice, but if you find snow that doesn't look obviously dirty and it looks clean, then you're able to just scoop it up and melt it. (IQAugust17/16A).

This can cause tensions and stress levels to rise:

Yeah I'd say so because it was...there was forewarned blizzard warning, so we thought you know, don't take a shower, don't do laundry, if you need it for cooking or anything else. So it was three days of nobody taking a shower, and it was just making everybody on edge and cranky, and not wanting to be around. (IQAugust17/16A).

Running out of water has gendered implications. For example, mothers who are primary caregivers for their children may experience added worry ensuring that there is enough water for not just themselves, but also for their children. I asked one woman if she found water shortages stressful with children, and she said: "Yeah, especially with a young baby. She wasn't even one yet, so it was really hard to...keep on it I guess. Because we'd have jugs for the bottle or whatever else, but eventually everything is empty or runs out. It's just a pain in the butt." (IQAugust17/16A). For those who work outside of the home, they may be able to access water at their workplace if it is not affected by the service interruption. This quote highlights how women

who do not work outside of the home may be especially impacted by a municipal water service interruption.

In addition, research shows that the number of one-parent households headed by women is increasing in Iqaluit (Matthijsse 2010). In relation to water, this means there is a disproportionate burden between women and men when there is a water shortage in the home, as women are more likely to be running households and caring for children.

Another component that can make life on water tanks in some ways more stressful than utilidor is the unpredictability of when the water truck will come during the day. One resident explained to me that for her, water delivery was between 9am and noon, but she did not know when exactly the truck would come within that time frame (IQAugust17/16A). This makes it difficult to plan water usage, because the schedule is varied.

Another participant highlights how when she was on trucked water, she checked the water tank frequently because she was worried about running out of water:

When you're on utilidor, there is less worries. But when you're on water trucked delivery, we are worried more often, and we tend to check the water tank where the water is at now more often than the people who are on utilidor. So it's more worrisome when you have water delivery to your house. (IQAugust5/16C).

If a person runs out of water in their tank, they can pay a callout fee to have a municipal water truck come to their house specifically to fill the tank. Although the cost is necessary because this service also costs the city, participants discussed that they were not able to afford this, meaning that if they run out of water in their tank, they are forced to wait until the next delivery day. People told me different values ranging from \$250 to \$400, although the city confirms that a callout fee is \$250. A case of bottled water at the grocery store can range in price

from \$40 to \$100, which means that purchasing bottle water during times of water shortage is also very inaccessible for most people.

Two years ago, the city of Iqaluit implemented Waterless Wednesdays, meaning that water would no longer be delivered to those with water tanks on Wednesdays. This was designed as a cost-saving measure and was implemented without consulting community members (Ducharme 2016; Oudshoorn 2016). This meant that people on trucked water had to conserve water from Tuesday's delivery until Thursday when the normal delivery schedule resumed. While not everyone experienced distress from Waterless Wednesdays (particularly those with fewer people living in their houses), many people describe the inconvenience and worry that Waterless Wednesdays added to their lives. Twelve of the twenty-one participants had experienced Waterless Wednesdays. Ten of the twelve participants noted added stress, inconvenience, or frustrations as a result of Waterless Wednesdays. One participant did not experience this, but acknowledged that this was because he had a larger than average tank and small family. Another participant who also had a small family did not experience much added stress, but noted that it would be hard for people with children. As one older woman described:

It really affects the people, because on Waterless Wednesdays, when they know that the water won't be delivered, those people who have trucked delivery, they get so worried, and they have to preserve it in order to have water all the time.

They get worried sometimes, and because of that, they try and preserve water all the time to have water in their place, in their tank anyway. (IQAugust5/16A).

One resident explained how Waterless Wednesdays affected the well-being of her family:

Well it definitely added a lot of stress to the house, because if you accidentally left the sink on, or like if we I don't know, mindlessly...turned the dishwasher on,

you know, you have to be...you have to consider everyone in the family, and you have to make sure that you're making the decision that is in the best interest for everyone. So yeah...it definitely affected everyone's thought processes I think, and just...yeah. (IQAugust17/16B).

Another woman explains how she lives with just her son, so Waterless Wednesdays were not that stressful for them. However, she knows that for people with a lot of children, Waterless Wednesdays were harder for them:

I don't know if cloth diapers are still being used, but you know these people that were living in Apex with all these kids, would run out of water before Wednesday, and you know they would start complaining. So it's better for me, I can tell my son don't waste the water right now, we're not getting water for a bit. It's a long weekend, they're not delivering and things like that. (IQAugust4/16A).

How people experience Waterless Wednesdays is dependent on how many people live in their homes, whether they are able to afford the call out fee, and what time their water is delivered on Tuesdays. When water tanks need to be refilled, a red light will turn off which signals to the truck driver that the tank needs water. If a household has not used enough water in their tank to make the light go out, then the water truck will not stop at their house to deliver water. Therefore, an added stress to Waterless Wednesdays was that people had to consciously use enough water on Monday and Tuesday to have the water truck fill their tank completely on Tuesday, so that they could have a full tank to get them through Wednesday until their next fill up on Thursday. (IQJuly13/16A). The time of day that your tank is filled can also impact how easy it is to make it through Waterless Wednesdays. As one man explains:

A friend of mine had quite a lot of problems. And kind of all depended on when your delivery schedule was due. So, if you got water early on, if you got water Tuesday morning then that actually meant that you didn't get it again until Thursday morning. You actually had two full days without water. Whereas at our place we usually get water late in the afternoon, so that's...we have almost a full day supply extra than he did. All the morning baths and showers, he would have to use his water for two days, whereas ours was getting topped up.

(IQJuly14/16A).

If a household can afford to have a larger tank, Waterless Wednesdays could be more manageable. However, many people, especially those in public housing units, are not able to afford a larger tank. Therefore, socio-economic status is a large factor in determining how someone is going to experience water shortage while on the trucked water system. For those who can afford a large tank and the callout fee, there is a greater sense of security. Yet for those residents who have small tanks, a large number of people living in their house, and who are unable to afford a callout fee or bottled water at the store, Waterless Wednesdays were a stress inducing event. This is a complicated issue that is deeply rooted in colonialism, as socio-economic status is tied to systemic barriers and racism. Examining the emotional geographies of water is a way to look beyond resource access as a solely socio-political issue, and to dig deeper into how water use, practices, and experiences influence people in their everyday lives (Sultana 2011).

Water Service Interruptions with Utilidor

Utilidor infrastructure has improved greatly over the years in Iqaluit. However, regular maintenance or the occasional water main break can mean that residents will experience service

interruptions, which are an added stress to everyday life. Some people experience a utilidor service interruption once or twice a year, while other people told me they have had so many service interruptions that they lost count (IQAugust10/16A).

When the utilidor is shut off, people turn to friends, family, and neighbours to share water resources. While people are usually willing to help each other, many participants noted feeling stressed about having to be constantly calculating how much water they would be able to get from each person in order to get by (IQAugust12/16B). One woman said she felt embarrassed about having to go door to door asking for water (IQAugust12/16B). Only one person had an experience where their neighbour would not share water with them.

One young woman described how a utilidor service interruption adds stress to her day:

Well it's just a nuisance, right? I think it's just, you know you have to think of ok where else can I go if I really need to do laundry, you just have to make alternative decisions when deciding okay, so if I worked out today I really need a shower, maybe I'll just call up a friend and ask them to use their shower if their water is on. Yeah. It's annoying for sure. It adds unnecessary, well not unnecessary, it adds a bit of stress throughout the day. Like okay I really need a shower, if you're really sick, if you're like actually ill and you're throwing up, you need to be able to flush a toilet so that adds stress. Yeah it definitely adds stress because it's annoying. (IQAugust17/16B).

One resident expressed how she thought the utilidor infrastructure really needs to be updated:

If the city would just upgrade their utilidors and their aging pipes, some of them haven't been replaced in thirty some odd years. And they're bursting. And the city is having a hard time catching up. That's what I think it is. Cashed strapped

city, you can't do much. There's a new bonus aquatic pool coming up. Haven't had one for almost ten years now, but little things you got to work at, but I'd say the utilidor, the water mains system needs to be upgraded. Especially for the size of the growing city. (IQJuly13/16A).

The functionality of the infrastructure in Iqaluit is not even throughout town. The people I spoke with from the newer areas of town generally had not experienced as many utilidor service interruptions as had the people from the older areas of town. There is a general feeling among community members that people with more income live in the newer areas of town. As one participant describes, she felt that the speed at which problems are dealt with by the city depends on where you live in town:

And like I said we had problems this spring, but they dealt with that very quickly. It's new utilidor up there in the past ten/fifteen years, so it shouldn't be that bad. But it is. In some parts of the city it is. And it's hard to just sit back and watch. The city won't do anything about it. Won't apply for any kind of funding. Especially when you have also sewage lagoon problems, sewage problems. All that- it's hard. (IQJuly13/16A).

Another participant expressed feeling stressed about the fact that some of the pipes in town are much older than other pipes, which means that they could be more likely to break down. She said, "But then it will be more scary if another old water pipe breaks down and more waiting and waiting" (IQAugust10/16C). When I asked her if she was worried about a water pipe break happening again, she responded with "Yes. Because it's old old place. Some places have not been looked at properly. Like the one up by Tundra Valley, they're working on it almost 4 or 5 months now" (IQAugust10/16C). This shows how the stress or concern experienced by people

living in Iqaluit can be greatly impacted by where they live, as some parts of town are more susceptible to water pipe breakage. As the newer areas of town typically have more expensive houses, this problem is not just a matter of equity with regards to water access, but also a deeper matter of socio-economic inequalities and systemic barriers. By using a feminist political ecology framework, water inequality is reconceptualised to include the inequalities resulting from the processes of social and spatial differentiation (Truelove 2011). How a person experiences a utilidor service interruption is dependent on social power relations, and is not experienced uniformly throughout Iqaluit.

This section will conclude with a description of a period of water shortage as explained to me by one of the women interviewed in both 2016, and in 2017 during a follow-up meeting. In our first meeting, she told us that for six months, between February and August 2015, she was without utilidor service in her home because the city was working on fixing pipes in the area around Ventures Marketplace and NorthwesTel. When we reconnected in 2017, she told us that the utilidor was shut off for the summer, a period of about 2 months. Regardless of how long the utilidor service was interrupted in reality, the experience was stressful enough that this participant remembers it as being shut off for a period of several months.

When there is a major utilidor shutdown in Iqaluit that will last more than a few hours, the city ensures that residents still have access to water by having a water delivery truck deliver water to those who are without regular utilidor service. She described that while the utilidor was shut off, “the water truck would go around and deliver to anyone who had water bucket. There’d be people waiting for the water truck to come by” (IQAugust10/16C). When the water truck would come by, it would honk the horn to notify people that it was in the area, so if people wanted water they would know to come outside with pots and go to the stop location. She told

us: “so imagine having lots of stairs to go down, down the stairs full of waters, and going up the stairs. It’s hard” (IQAugust10/16C). She explained that “it was stressful, yes. Every time the water truck driver would spray the water, we all get wet a little bit” (IQAugust10/16C).

During that time, the Arctic Winter Games arena was open for people who were affected by the shutdown to take showers. She explained that the city gave notice “one month before. Boy that was short notice. Maybe things would have been easier then” (IQAugust10/16C).

She explained that this had health impacts for her, as her voice was “not all that good for a bit, because of so dryness” (IQAugust10/16C). This also had an impact on her emotional well-being. She said “oh yeah it was different. I realized it was different. I was more in tune, fast forwarding. My mind fast forwarding. Not enough water” (IQAugust10/16C). When I asked her if it had an impact on her emotional health or how she felt, she responded “Yes. Yes. Yes. Thinking that they’re not going to be able to fix the pipes, because those pipes are very old, older than us. Much older than us, and they haven’t changed it for many many years” (IQAugust10/16C). Specifically, she mentioned that younger people seemed particularly stressed by this event, saying that “the stressfulness really showed. Their shoulders were down. Seemed stressed out. That’s what I noticed at the time” (IQAugust10/16C).

This woman’s experience with utilidor shutdown highlights some of the emotional struggle that can accompany resource access. It also highlights how experiencing water shortage evokes not just emotional stress, but also physical stress. As residents race down stairs with buckets to meet the water truck or travel to the river to get water, this could potentially be very physically demanding for some people. Apartment buildings in Iqaluit often have metal stairs on the exterior of the building to allow people to access individual floors, rather than staircases inside the building. Running down these stairs in the winter with snow and ice could be

dangerous if someone were to lose their footing and slip. Some people with different physical abilities may also feel this physical stress in different ways than other people. For example, a person who uses a mobility aid could have difficulty getting a bucket full of water back to their apartment. While the water truck is a necessary alternative, this delivery system assumes that residents will have the resources to access extra pots and buckets. This participant shared that some people do not have the money to buy buckets to get water from the water truck (IQAugust10/16C).

When I asked participants if they thought young people or older people were more bothered by a water shutdown, most people thought that younger people were more upset by a water shutdown. As one young woman stated:

I don't know, they're a lot more resilient and maybe used to going through struggles like that. Whereas the younger generation, we are sort of I don't know...I don't want to say we feel entitled, but we're just used to having it readily available. Some people might take two showers a day even if they aren't fishing or whatever. They're just used to having it there for them. Whereas Elders are used to going without, whether it being water or food, they can survive days without it. (IQAugust17/16A).

Some of the Elders I spoke with talked about how having the water shutoff was a nuisance, but did not report being as stressed or worried as some of the younger people. However, one younger participant explained how a water shutdown had a larger impact on her grandmother because of her grandmother's preference to boil foods:

In my grandma's house there were four of us. Water impact. You don't cook as much. My grandmother is old school, everything of hers is boiled. All the food

basically. Chicken, pork. As much as she could, grandmother would boil everything. Mum bakes it, fries it, does all the other regular stuff. But when your grandmother is so old school and she relies on that water to boil her food for every single day, it is hard. Because then the emotions go down low. And you're disappointed, what are you going to do. Some days you'd have my sister bring leftovers just because grandma didn't want to cook. Had no energy to cook. There's no water. Main source of cooking. And yeah. Old school. Boil everything! No flavour, but that's grandma! (IQJuly13/16A).

This quote demonstrates how not having access to water in the home has emotional consequences for people. Boiling meat is a part of traditional Inuit culture, and when this woman's grandmother was not able to boil her meat, it affected her well-being. Although most people thought that water service interruptions were harder for young people, this quote lends insight into how Elders may be impacted by service interruptions, because of the way that food preparation is an embodied practice that is strongly tied to identity.

Another young woman described some of the different challenges that women specifically face when the utilidor is shut off:

Yeah I definitely think so. Because if you're a woman, you...and you're on your period, you need to be able to flush the toilet, and then you're like but there's not any water! And then for a male, you can just go outside. And it's just like so there's that aspect, and then...yeah I think that's one of the biggest ones for men and women. (IQAugust17/16B).

One woman told me that water shutoffs are hard on families and very frustrating. She did not want to ask her husband to go get water because she did not want to cause an argument

(IQAugust12/16B). We asked participants who they thought used the most water, and who they thought was most affected by a water shutdown. Sixteen of the twenty-one people interviewed mentioned directly that either that they thought women used more water, or that women were more impacted by a water shutdown, due to a variety of gender roles such as doing more of the cooking and cleaning in the household. Traditionally, women were also the household members who cleaned seal skins, which uses a lot of water (IQAugust5/16B). As one man said, “I say the women! Yes. The women always say ahh no water yet! How come? I want to cook this! I want some water! I heard that a couple of times.” (IQAugust10/16D). These quotes demonstrate how water practices are not only embodied and physical, as women use water to perform both traditional practices and household duties, but also how the use of water contributes to the production of gendered subjectivities. As Sultana writes, “paying attention to embodied subjectivities demonstrates the ways that embodiment and spatial relations both enable and constrain certain relations to water” (Sultana 2009, 439). This is reified in the quote of the young women describing the need for women to be able to flush toilets because of menstruation. Here, the gendered nature of water usage reproduces inequalities so that a municipal water service interruption is felt and embodied differently among men and women.

Experiencing a water service interruption impacts people differently, depending on their age, gender, socio-economic status, and physical ability, and it is important to understand how these factors of identity intersect to impact resource access when designing policy.

Stress of Anticipating Shortage

Another way that people often experience stress with regard to water in Iqaluit is through the stress or worry of a water shortage or water service interruption occurring in the near future.

This worry could be caused by both remembering experiences of water shortage historically when the utilidor system was newer, or current experiences.

Historical Water Shortage

While the city now gives adequate warning to residents if there is going to be a scheduled water service interruption for maintenance, this was not always the case historically. Two participants discussed this during our interview, where they described that the city would sometimes just shut water off without any warning in the early 1980s when the utilidor was very new. It made a lot of people angry, and “it makes you cuss and swear, why didn’t they warn us?! [laughs]” (IQAugust10/16A).

One older woman describes how her family would try to use as much water as they could when they heard the water truck coming, so that they could save that water to use in addition to the new water being put in their tank:

They would put water aside. Even if their tank was full, they would put some water aside in buckets, especially larger families did that, when they know that water would be delivered today they would try and empty their tank with pails and buckets, because they know that the water will be delivered today. When they were still on water delivery, when the utilidor was not fixed yet, when they saw that the water truck was coming, they would try and quickly fill up the washing machine with water, so that the good fresh water would be put in their tank. They would try and fill up the laundry machine, yes. One time, her arm got stuck in between the old washing machine. Her arm almost went all the way in, and when her mother noticed that her arm was going through the rollers, her mother punched that thing that releases that [laughs]. (IQAugust5/16A).

This quote reveals some of the stress that was experienced in the early days of water delivery, as residents literally stopped what they were doing to put away water before the water truck came to their house. These historical experiences with water were stressful. Remembering these experiences could conceivably contribute to current worries, due to the embodied nature of stressful events.

Channels of Communication

For many people, one of the largest stressors with a potential water service interruption is the uncertainty as to when the next water shutoff will occur. Some people told me that they keep their radio on all the time, just in case they announce that there will be a service interruption. As one man describes:

When they announce it on the radio, that's when everybody knows and make sure you put away water. It's good to know when they gonna cut it off. That's why I always have my radio on, in case. In case they say water shortage, water cut off!
(IQAugust10/16D).

One older woman describes how she does her best to listen to the radio, but sometimes she is out in town. When she sees that the utilidor is being worked on, she races home to put aside water just in case:

They announce it way before hand, before they shut down the utilidor. She sometimes doesn't always listen to the radio. Sometimes when they're going to shut down the utilidor, so sometimes she doesn't hear about it. But when people...when she sees people working on the utilidor system, she rushes home and makes sure that she will have water when the water is shutdown. When she noticed that there were people working on the utilidor system, she rushed and put

water aside in buckets and pails, but her water didn't get shut off that day. She put water aside because she thought that the utilidor system would be shut off, but they didn't shut it off that day. Because she doesn't want to waste water, she used it all up, that she put away in buckets and pails. (IQAugust5/16A).

When I asked one young man if he was satisfied about how the city communicates with regards to water shortages, he said:

Not really. Sometimes it goes at a...sometimes the news arrives at a later date and so the...like the event has already occurred right when we get the notification. So maybe they were able to give a heads up like say they want to clean out the water trucks or they want to clean out the water plant and like at a certain date, because I believe that they do that at a couple times a year. And what would probably be very crucial is that they gave a notification either a week before, or the actual water shortage or even that they need to do. (IQJuly22/16A).

For one young mother, she notices that the city is not consistent with how much warning they give for a utilidor service interruption. She said that once she was notified a week in advance, and another time she only received 24 hours' notice (IQJuly29/16A). Of course this could be due to the nature of the service interruption, because if a repair must be done more quickly then there is less time for warning, but I share this because it speaks to the frustration that some residents feel regarding notice from the city. She speaks both English and Inuktitut, and she feels that the Inuktitut translation was not very professional. She reports that the translation is done literally, rather than the way you would say it in a sentence. For example, in English the sign might read 'important notice, water shutdown', but in Inuktitut it might say 'watch out, water cut off' or 'water blocked' (IQJuly29/16A). If there is a translation issue with

how the messages in Inuktitut are delivered to the community, this could lead to an increase in stress or worry, especially if the messages are unclear or ambiguous.

Another younger woman explained how she felt that receiving information regarding water issues from the city is inconsistent:

It's a hit and miss with the city. Sometimes they'll put it out, sometimes they won't put it out. It all depends on the situation. Even just a simple update, there's no water, we don't know when it will be available, we're working on it.

(IQJuly13/16A)

She also reports that sometimes these updates are not available in Inuktitut (IQJuly13/16A).

These inconsistencies with warning have ramifications for community members, as people describe being 'on edge' or constantly thinking about when the next water service interruption might occur. This is demonstrated by people who talk about constantly listening to the radio, or running home to put water aside whenever they see that the utilidor is being repaired. This emotional burden is experienced differently by different community members. For example, unilingual Inuktitut speakers may experience more stress if they do not have access to translated notices. Since most unilingual Inuktitut speakers are older, this means that age is a key factor in determining how people experience municipal water in Iqaluit.

Stress from Financial Strain of Water

Finally, many people experience stress from feeling concerned about the cost of water. Some people on trucked water experience concern because they are concerned that the city will force them to switch to the utilidor system, which could be more expensive. As one woman describes:

I'm on pumped water right now, I'm not on utilidor yet. So when the rest of the town is out of water, I have water. So I have a tank, but I need to eliminate that, because they're all going on utilidor now. I'm the only one on my street without utilidor, because I can't afford it. There is help, but how do we grab it? You know? (IQAugust4/16A).

As mentioned previously, if the water in a person's tank runs out before the next scheduled water delivery, residents can pay a \$250 callout fee to the city to have a water truck come to fill their tank. Everyone that I spoke with talked about the callout fee being a possibility in theory, but too expensive in actual practice. Out of all of the people that I spoke with, no one had actually been able to pay the fee when out of water, and subsequently got water from other sources such as the river, or friends and family. As one Elder described, for families on social assistance, the callout fee is far too expensive to pay, and bottled water is also not an option because of the price (IQAugust5/16B). Because of this, she describes the water truck delivery as an uncomfortable way to live, especially when people are so used to having running water.

Another Elder describes through interpretation:

She gets upset or worried. Sometimes they don't have water for a whole day, and she asks her dependents, "have the water truck came yet?", and then it comes next day later. Even though she is on public housing, if she runs out of water, if she requests water from the water delivery to get water delivered to her place, they have a fee of \$150 for public housing. She...even though when she runs out of water, she'll never call them because she doesn't have a fee to pay for it. When you don't have much money, when you don't have money all the time, it's

expensive of course. When you're not...when you don't have income coming in biweekly, it's really really hard. (IQAugust5/16C).

Individual homeowners are responsible for the cleaning and maintenance of their own water tanks. This can be costly. As one woman describes, sometimes the pump in the water tank can break:

And then because the pump needs water to keep running, if I'm low it will keep going and going telling me it's circulating, but there's no water to circulate. So I have to shut that off before the piece runs out [...] then you'll have to go get \$5000 to replace it. Because the wires were in the same breaker. It was the same breaker as my dryer, and dryer takes up a lot of energy so it was spliced in and we only found out last year, that it was spliced into the dryer, so it kept breaking up my pump, and my brother found that, and so he fixed it. So... (IQAugust4/16A).

Another woman describes how her water tank used to freeze because there was not enough heat from her furnace, requiring her to pay to get it fixed (IQJuly25/16B).

Water shortage also creates a problem for business owners in Iqaluit, because companies are required to close when there is no water. Stated by one man, "Uh, we're required to close when there's no water so...it does definitely have an impact on business and has an impact on anyone in the private sector, public sector, and non-profit sector. Any employer that has to close" (IQJuly14/16A). Another person described how because of Waterless Wednesdays, a business on trucked water had to pay \$250 every Wednesday so that they could continue to operate (IQJuly13/16A).

Both utilidor services and trucked water delivery have specific financial implications for people. These financial implications can cause stress and worry, especially for those who are in

public housing or on social assistance. This speaks to the socio-economic implications of municipal water in Iqaluit, as those with lower incomes are less able to afford water. These embodied experiences are heavily tied to identity, as race, gender, family background, and experiences with colonialism will all influence a person's socio-economic status. From this data, it is clear that perceptions of municipal water in Iqaluit can cause added stress and worry in the everyday, and that this is an emotional, embodied experience that is subjective to identity and lived experience.

Strategies for Coping with Water Shortage or Service Interruption

During times of municipal service interruption, community members shared stories of coming together with friends, family, and neighbours to share water resources and ensure that everyone has enough water for basic needs. Most community members expressed a sense of coming together during times of water shortage, to ensure that everyone was looked after and had enough water to get by until they had access. As one young woman explains:

I would do the exact same for them. We've all experienced it one way or another. If you help someone out, they're going to help you out. As for my friend that knew I had no water, I'd offer for her to come to my house, come shower, come do a load of laundry because we're on utilidor. There's no reason- don't worry about not having water. I would definitely help out my friends if they asked for a jug of water. Hey we have no water can you bring some. Of course!! Friends always did that for us, and that's what we're there for. We noticed and we come closer when we realize we don't have water. How are we going to do it? So.

(IQJuly13/16A)

She also described how these experiences bring people together:

For sure it does! And then you get to have visits! That's the best part about it.

Your friend comes over to visit which rarely happens. But you know, if they did it for me, I would definitely do it for them. (IQJuly13/16A).

One Elder describes providing water not only to people during times of water shutoff, but also to people living in small huts by the ocean that do not have plumbing:

Yes, they would come and whenever they ran out of water, when they knew they had water, she would willingly give them water. Even nowadays, people out living out over here, there's people living out in the shacks, they come and get some water from her tap. (IQAugust4/16B).

With the exception of one woman, everyone reported that people are very willing to share water resources when they are in need. However, for one woman who was interviewed, one of her neighbours will deny water to those who had run out of water in their tanks due to Waterless Wednesdays (IQAugust12/16B).

In addition to sharing water resources, many people have methods to conserve water during times of shortage. For those on utilidor, when they hear that the utilidor is going to be shut off for maintenance, they will fill buckets and tubs with water to use during the shutdown. (IQAugust12/16B). One man describes also freezing water so that he can melt it when he needs it later: "We always...when it's gonna be shut off for a whole day, we always fill the fridge with water. Sometime I even freeze the water, or the one I boil. So I could use that frozen boil water when I run out of water" (IQAugust10/16D).

People also talk about making sure that friends, family, and neighbours have heard about the announcement if there is going to be a water shutoff. Often, people will also go to the river to get water:

What we usually did is just go collect water from the river. Either that or just go to the store and get a good amount until the pipes were fixed. It was more of a problem during winter time too, because the having to worry about the pipes freezing, and then getting low on fuel for the heater. And no way of keeping the pipes thawed. Because one way like if you're out of fuel and it's winter time, and in order to prevent your pipes from freezing is we run the tap water like for a good 2 hours or so, and then it would be a good time to just keep the pipes from freezing and not have any problems. (IQJuly22/16A)

In times of water shortage, community members come together to support each other and to ensure that everyone is taken care of. As described earlier by one woman, this also has a positive emotional outcome, as she felt that although service interruptions are an added stress, sharing water with friends and neighbours allowed for opportunities to visit and spend time together (IQJuly13/16A).

The Continued Importance of Gathering Water from the Land:

The second part of the data analysis discusses the importance of traditional water for Inuit in Iqaluit. Many people report the physical, emotional, and spiritual benefits of gathering water from the land, and its importance for maintaining and reconnecting with Inuit identity.

I asked people questions about their water preferences because it is critical to acknowledge that the tap is not the only source of water available to people in the North. In many cases, it is also not the preferred source of water. The influence of colonialism in Iqaluit

has meant that Southern water treatment infrastructure has been built and implemented. This history is complicated- I do not mean to make a statement that Inuit community members do not want to have or do not appreciate having water infrastructure. However, it is clear that colonialism shaped how people experience water in Iqaluit. Colonialism has influenced how people feel about municipal water sources, their trust of municipal water sources, and how water is experienced today. As outlined in Chapter 2, Iqaluit experienced violent and damaging colonialism, especially in the period following the 1950s when more Southerners moved to the Qikiqtaaluk region. This experience left a wide array of inequalities for Inuit in Iqaluit, including socio-economic disparities. Therefore, understanding how colonialism impacts people's experiences with municipal water is crucial for policy design. Also critical in policy design is the understanding that for many people, gathering water from traditional sources is an important part of daily life that plays a critical role in physical, emotional, and spiritual health and well-being. This section will explore this further. It is difficult, and perhaps inappropriate, to separate physical, emotional, and spiritual health, and therefore these will be discussed holistically and together. This section is broken into three subthemes. Preferences of water from the land are discussed with regard to properties like taste, coldness, and the feel of the water. Next, the health benefits of traditional water are discussed, including feeling energized after walking on the land to gather the water, spiritual connections with the land, and benefits of water from the land for emotional well-being. Finally, the theme of using water collection as a way of reconnecting with Inuit identity is discussed.

Taste, Coldness, and Feel

One hundred percent of the twenty-one Inuit residents agreed that if given the choice, they preferred drinking water from traditional sources, compared to municipal water. As one

man describes, “You could feel the [river] water going down smoothly. From the water truck, you can taste some dirt in your mouth from the water truck” (IQAugust10/16D).

As one participant described to me, water from lake tastes more like the land, but the river water is clear and clean, and that is why it is her favourite (IQAugust10/16A). She boils her municipal water, because to her, “Iqaluit water is yuck” (IQAugust10/16A). She explained that she notices a big difference in taste between water from the river and water from municipal sources, saying “when you’ve been living in an outpost camp, the water tastes so different here [in Iqaluit]” (IQAugust10/16A). In discussion with one of the participants, Elisha called river water mouth-watering water. I asked if river water actually is mouth-watering, and they both said yes, because you can really feel the water going into your body and into your blood (Kilabuk 2017; IQAugust10/16B). This speaks to the embodied nature of collecting and drinking water from the land, as they describe how it makes them feel physically different.

The preference for water from the land is also connected with perceptions of municipal water in Iqaluit. As one participant described, “I usually prefer from the land, yes. It taste a little more tastier than water they give out here now. Yes and it’s less dirty out on the land. More fresher. Yes” (IQAugust10/16D). When I asked him if drinking water from the river made him feel different, he responded:

Oh yes, you could taste the difference between the water being pumped on a water truck and the river water. There’s two different tastes. I prefer the river and the water. Sometimes the water we get from the water truck, I always boil it. Because one day they deliver it it doesn’t taste the same as the river. That’s why I always boil the water. (IQAugust10/16D).

When I asked another participant what she liked better about water from the land, she responded: “it’s clear, it’s cold, and it’s yummy” (IQAugust4/16A). The river is not the only source of water from the land. For this participant, her favourite water comes from a creek near an old trading post:

There’s this place not far from here, it’s an old trading post, um...there’s a lake, there’s a river that runs that way, and there’s a little creek over here, we prefer the water from here, and they would, we would always try to get it from the deep parts, its’s more fresher and colder. So and you don’t get leaves or anything if you get it from the deep part. So I liked the creek water better than the river water. Little creek there, that water there, that’s tastes good. (IQAugust4/16A).

This quote demonstrates how experiences with water are tied to place, because her favourite water is from a very specific location.

When participants would try to help me understand what drinking river water feels like, they would often make a gesture showing how they can feel the river water going down their throats and into their bodies. As one Elder describes through interpretation:

She gets water delivered to her from the river by her children or her grandchildren, and whenever her children come and check up on her bucket there’s water. It’s good and she waits for them to fetch water for her, and after they do it, it tastes much better than tap water. Whenever they bring water for her, she thinks of them ‘they’re just helping me out, they’re helping me out, it’s going to quench my thirst when I drink it, all the way down to my stomach’. (IQAugust4/16B).

When others described what it was like to drink water from the land, they said you can really feel it going into your blood (IQAugust10/16B). Others describe that when they drink water from the land it “hydrates you completely” (IQJuly29/16A). People would also often smile or use an excited tone of voice when describing what water from the land tastes like, when they were trying to help me understand. Body language would change to become more energized or excited. Even just thinking or talking about water from the land has a very embodied, positive emotional impact for many of the people that were a part of this project.

Ice is also an important source of water for many people. Some people say that they prefer ice because it is purer and has a better taste. When harvesting ice for drinking water, it is important to search for the blue ice because that is the part of the iceberg that does not contain salt (Kilabuk 2016). As one young man describes:

What some people do is that during the winter, I don't know if you were told this, but they would go into a good area in the ocean, from a good distance from town, and cut it up and take some ice from there, because when the sea is freezing, it's all the top layer of the water is partially frozen, and then the salt would be stuck to the bottom of it, and then occasionally if the top layer got too heavy, it would tip over. And then the salt would continuously stick to the bottom, and then it would keep flipping over until it was completely frozen. So...yeah either way, I just it's I don't have a both ways of getting water is pretty good, in my opinion. (IQJuly22/16A).

Some Elders describe getting ice from the land in winter, and melting it over the qulliq to make it water for household use and drinking (IQAugust5/16C).

There are multiple sources that people turn to when gathering water from the land, including rivers, freshwater lakes, and ice. While everyone has different preferences about where they harvest their water, what remains clear is that drinking water from the land evokes an emotional response that carries many benefits for Inuit community members.

Water from the Land for Well-Being

For some participants, gathering and drinking water from the land is an important part of health and well-being. One woman described to me that her body feels lighter when drinking river water (IQAugust12/16B). Water cools her body, and she drinks a lot of water to ease back cramps. She explained that for her water is more important in her physical health rather than emotional health, although river water makes her happier because it is more refreshing (IQAugust12/16B). One Elder describes through interpretation:

When she has drunk some water from the river, her ailment is...she doesn't think about her ailment, when she drinks water from the river. And after that her veins get puffed up, and when they get puffed up, her body gets warm. The river water, when you make tea from the water from the river, it's much tastier, purer. And the tap water, because of all the chlorine, it has a different colour. Slightly different colour. (IQAugust5/16C).

Elisha estimates that this Elder is close to 90 years old (Kilabuk 2017). For her, river water is a source of vitality, and a way to soothe the ailments that come with aging. She mentions that when she drinks river water, she no longer thinks about her ailments. This demonstrates how drinking water from the land is not only an important part of physical health, but also contributes to emotional well-being, as coping with ailments is just as much an emotional experience as it is physical. This also lends insight into the importance that river water can play in the lives of older

people specifically, as older people often have different experiences with pain and physical ability compared to younger people.

Another woman explained to me that part of the health benefits she receives from gathering river water is the walk out on the tundra that she takes to get to the river:

Obviously you have to like all a part of being outdoors or fishing or either collecting water is taking the walk. Um...out on the tundra, whether it's a five-minute walk or a one hour walk where you have to find the water, it's just...makes you feel better. Like I don't even put headphones in, I'd just rather hear the water running, or whatever else you hear out on the land and um...it's I don't know, you can consider it exercise I guess, especially if you have to walk like half an hour or an hour to get the water. It's all a part of I don't know...the way we do things I guess. (IQAugust17/16A).

This quote speaks to the embodied experience of gathering water, as she describes the movements she makes and the sounds she hears on the land. Another young woman describes a similar feeling:

Yeah definitely. I feel like I'm connecting to the land when I'm drinking out at the river, drinking water at the river. I feel like drinking from the tap is just the same, but I don't have that experience where I'm out there, you know in the fresh air. (IQAugust17/16B).

For these two young women, drinking river water was not just about the water itself, but also about the entire experience of being on the land.

People also talked about a sense of their body feeling more energized when drinking river water. For one older woman, “I feel more alive when I’m drinking river water. More alive. Active.” (IQAugust10/16C). Another woman describes:

I don’t know if you taste...I don’t know if you taste what we taste. I don’t even know how to word this. But it’s just really refreshing. Like fresh and you don’t taste any kind of additive or chemical or whatever...I guess it’s supposed to keep you healthy by killing bugs and stuff, but it’s just what we prefer. It’s so good and refreshing. (IQAugust17/16A).

Yeah. Almost like it gives you more energy. When I go fishing to the falls, the first thing I will do is go above the falls, which is where the freshest water is. There’s no chance of it mixing with the salt water. But the first thing I’ll do is go and have a big gulp of water and then fill my pot that I’ll use to make tea with. So it’s instantly straight to the water before your fishing. (IQAugust17/16A).

Other people talk about a spiritual connection with the land, and the important relationship that is held with water. As one Elder describes through interpretation:

Yes, it gives her spiritually. After she drank the water. It brightens her. We have to be thankful that we have drinkable water around us. It’s given to us by the Creator. (IQAugust5/16C).

One man explained that the spirituality from water comes from a connection with the land and a relationship with the land:

But it’s mostly like some people find it a spiritual thing. It’s just like our harvesting community here is still very strong and part of that, part of the harvesting culture is you have a lot of connection and respect for the land and

what comes from it, so when we're harvesting water it's directly from the land and it hasn't gone through any filters or pipes or treatments. [...] Definitely there are like people that because like the first thing you do when you harvest for a lot of people is you give thanks, and there's a very strong understanding that in order for the land to provide, you have to treat it well. It's a relationship, and so that's part of the water is an extension of that relationship of respect and providing. So that's for me that would be something, like I don't consider that spiritual, some people do. To me it's, we have to protect our water sources, because that's an essential part of life. (IQJuly14/16A).

When I asked one woman if she felt a spiritual connection with water from the river, she answered yes, because "it reminds me of when I was growing up. Used to have a lot of it when I was growing up. Used a lot" (IQAugust10/16C). This quote demonstrates the way that emotion and memory work to contribute to how people experience or feel about water from the land today. As Hoelscher and Alderman (2004) write, 'remembering' is a shared dimension. Collective memory and social space join to produce the context for modern day identities (Hoelscher and Alderman 2004). This connects with how emotions are relationally produced, as how community members feel and experience water from the land is not only a modern day experience, but also tied heavily to traditional practices, collective memory, and a sense of identity that is strongly grounded in place.

This is exemplified in how two young women talk about a spiritual connection with river water because of the way it makes them feel more connected to their ancestors:

Um, I'd say so because that's...my late grandfather who's passed on now and my grandmother would always take me out on the land. And it was just something

that I would look forward to and I...and they looked forward to, like I could see the look on my grandma's face when we find fresh water. And just take a sip out of it and grab a jug of it, and it just makes you feel like you're connected to the land I guess. (IQAugust17/16A).

Um...well maybe not spiritually in the sense of like worship. I don't see that as a connection to me personally, but I do definitely feel a connection to my ancestors and my grandmother, who raised me. And you know, taught me, and we practiced going to the river to pick up water, or if we were out at camp, we'd get fresh water in the morning. So definitely a connection with my family and traditions. (IQAugust17/16B).

Both of these women are young, and so their experiences with the spirituality of river water may be different than those of an Elder. My positionality as a non-Inuit young person may have also had an influence on the answers that I received in asking these types of questions. It is possible that because these people were also young, they felt more comfortable talking with me. We were also able to speak in English with each other. For many of the Elders and older people that we interviewed, there was a language barrier. Sometimes certain questions do not come out the same way in translation. Elders have also had a different lived experience with colonialism, and a different lived experience in their interactions with Qallunaat. Elders generally did not talk about a spiritual connection with water gathered from the land, however this does not necessarily mean that they do not feel a spiritual connection. There are many dynamics at play, and this must be navigated carefully. Most Elders and older people talked more about the "purity" of water from the land, how it quenches your thirst in a different way, and how it tastes so much better than municipal water from the tap. As one Elder described through interpretation:

When she drinks a lot of water from the tap, she gets an upset stomach. And when she gets water from the river, it cleanses her thoroughly. The water from the river, it brightens her. It cleanses her. So she prefers river water.

(IQAugust5/16B).

Other people describe that “spring water hits your soul” and “quenches your thirst right away” (IQJuly29/16A).

Within the Inuit community in Iqaluit, people have different experiences with water from the land, and this is dependent on lived experience and various facets of identity, including age, gender, and socio-economic status. For Elders, drinking river water plays an important role in managing the pain and ailments that come with age. For others, water from the land has a role in their well-being because of the way it connects them with ancestors. This was especially highlighted by two young women. While everyone has different reasons for preferring water from the land, it is clear that drinking water from traditional sources has benefits for physical, social, emotional, and sometimes spiritual well-being. People use water from the land during water shortages, when hunting, and also in everyday life. These are highly embodied experiences, as drinking water from the land encompasses more than just a physical or emotional experience, but rather an experience that is holistically tied to health and sense of place.

Water as a Part of Inuit Culture and Reconnecting with Inuit Identity

Water is an integral part of Inuit culture and Inuit identity, and this is highlighted in the stories that people shared with me about their lives growing up in Qikiqtaaluk. Water in both solid and liquid forms has myriad purposes, including travel, preparing clothing, cooking, hunting, and survival, and this knowledge is deeply embedded in Inuit culture. During the course of our time together, Elisha always told me that it is a part of Inuit culture to never refuse a

person who is asking for water (Kilabuk 2017). He emphasized this several times. This was also highlighted by a research participant as he shared advice that his father had told him:

He always told us that if any of your kids or your grandchildren want water, give it. Give it. Because he said I suffered from wanting to drink something. Even though they weren't suffering from lack of water, just that to heat up the water was hard. So, if any of my kids say we want some water or something to drink, even if it's just before bedtime, it doesn't matter to me. (IQJuly20/16A).

The importance of giving water extends beyond just humans. One young man described to me the importance of also offering water to animals that are harvested:

There's another example for water in Inuit culture is that I don't know if someone told you, is that if a hunter catches a seal, is that they should pour water in its mouth, to show respect that the animal died for the Inuit or the hunter. And doing that is supposed to show that the seal is having its last drink of water. And they do that to polar bears and caribou as well. As well as walruses. I don't know about belugas, but that's one thing that hunters do too, is give them their last drink of water. And I thought that's a pretty cool. (IQJuly22/16A)

This quote shows the value and importance of water in Inuit culture for both animals and humans, and the way that water can be used as a sign of respect.

Traditionally, if meat was not eaten raw, it was boiled. A participant highlighted this, explaining:

I don't know what it's like in other nations, but...a lot of our food, if we're not eating it raw, we usually boil it using water of course. Whether it's fresh water or salt water. If you want salt in your food, then you take salt water to boil your

food. Especially if you're out seal hunting and you catch a seal. Then you just dip your pot in the water and salted seal! [laughs] (IQJuly20/16A).

Water, and traditional knowledge about water uses, was also important in maintaining stamina while travelling on the land. As one older woman described to me through interpretation, her parents taught her to drink water after eating rather than during a meal, or else she would get thirsty while hunting:

When she was growing up, she would go with her family, walk on the land to go caribou hunting, but before they did that, they would eat before they went walking. Her parents would tell her not to drink too much water while eating, because when she was...when they were walking people who drink a lot of water while eating get thirsty more easily than those people who don't drink as much. So because of that, she rarely drinks water, still up until today. Even when she's walking for long distances, she won't become thirsty for a long time. Because her parents taught her that, it's in her system. (IQAugust5/16A).

In conversation with some of the people Elisha and I interviewed, Inuit identity was discussed in regards to gathering and drinking water from the land. For some, drinking river water is a way to reconnect with Inuit identity and a way to keep Inuit identity alive for generations to come. This was especially salient for the four young people under the age of thirty who participated. This is also reflected in the stories that people shared about traditional knowledge, and information about water usage that was passed down to them from parents and grandparents. Water is a critical part of life in the North. It is tied to health, survival, movement across the land, and also has roles in spirituality. Because of this, water has a central role in identity, which is inherently embodied and emotional. As one young woman describes:

Awesome. And something about the silence, and just being so in tune with your body and just you know...knowing you really have to be aware of your surroundings, and just yeah. Just soak it in. And hunting...I didn't go out a lot growing up, and I'm doing it more now with my friends. But it brings me back to those days when my ancestors and my grandparents even, they just had to survive out there. I yearn to gain the skills and knowledge that they had to be able to...it will never be the same, because I'll never have to live out there, but to just be able to keep holding on to those skills and traditions that my family used while hunting. That's what I think about while I'm out there. (IQAugust17/16B).

When I asked her if going to the river gave her a sense of identity, she answered "definitely. Definitely. Because my family, and knowing the connections and the way my ancestors lived is definitely part of my identity" (IQAugust17/16B).

A 2011 study by Kral and colleagues discusses the connection between traditional Inuit cultural practices and the concept of well-being. It is highlighted that traditional knowledge and practice, including camping and eating country food, is a key component to well-being because of the way that these activities also provide opportunities to nurture family and kinship relationships (Kral et al. 2011). Building upon this, participants in this research also discuss how gathering water from the land is central in Inuit identity, and how these activities foster well-being. This is exemplified in the quotes from the young woman above.

The Qanak Men's Group is a group of men in town that gathers to collect water from the Sylvia Grinnell river and then delivers it to Elders. As it was explained to me by one participant, in Inuit culture, men are traditionally in a provider role for their families. As one community member describes, "to assimilate the community into these [permanent settlements]

communities, a lot of the way that was done was by removing that role from men. Whether it was through dog slaughter or residential schools.” (IQJuly14/16A). This shows some of the gendered impacts of colonialism. The Qanak Men’s Group was created to provide men opportunities to restore that role by providing water to Elders who are not as able to access the river because of their age. The work that the Qanak Men’s Group does shows how gathering water has gendered implications, as their identities as men contribute to the experiences they have collecting water for people in the community who need it. It also shows the role that water can play in both individual and community health, as the men heal relationships and work through challenges together while they gather water.

In addition to participating in current water gathering practices, passing these traditions on to children also emerged as an important theme during interviews. As one young mother explained:

Yeah. My kids are relatively young, but their first thought also when we get to the river is to have a drink of water. Um...they are mostly used to Sylvia Grinnell, and the experience of camping was new for my two younger ones. But they did make a point to ask, when we came upon the waterfall, is it okay to drink this? Because like I said, it has to be running constantly for us to feel safe to drink it. It’s running over tundra, over all this stuff, and it comes out so clear. Like it doesn’t come out brown or anything. That was [child’s name]’s first...is it okay if we drink this? And I said yes, and they just went over and no cup or anything needed. Bent over and took a sip of the water. So I think it’s...we pass it on to our children and it’s just...I guess from them watching me, it’s just the way they are now too. (IQAugust17/16A).

When asked if she thought this was an important tradition to pass on, she responded:

Yeah. I'd say. I would prefer that they drink river water daily, but that's not an option because we don't have a vehicle right now. But like I said they're instantly like attracted to the water, and the first thing they want to do is taste it. I think it's a good thing. (IQAugust17/16A).

This participant's experience with teaching her children to drink from the river is embodied and tied to identity, as she teaches them through demonstration and observation, which is an important part of Inuit culture.

Current feminist political ecology scholarship in the emotional geographies of resource access discusses how a lack of water access or experiences of water conflict are gendered, emotional, and tied to social power and the intersections of identity. However, key elements of this framework can also be useful to understand how participating in traditional cultural water practices can contribute to positive outcomes for health and well-being because of the way that this framework takes into account the embodied nature of water access, and how social position influences experiences with water. Truelove (2011) writes that feminist political ecology is useful for revealing how everyday practices are connected to different scales, and that by having an understanding of how gendered and cultural water practices are produced from social differences, this can disrupt the framework in which water access and control is understood as the only way to understand how water practices are tied to power (144). In relation to Iqaluit, gendered subjectivities and socio-economic status can also contribute to who can or cannot access water. As the participant above explained, she is not able to access the river every day because she does not have a car. Vehicles and gasoline are costly, and this shows how accessing water from the land can be limited by financial resources. Gathering water from the land is an

important part of life that is strongly linked to well-being, embodied, and experienced in the everyday. However, it is also critical to consider who is able or not able to access this water, based on identities, lived experience, and social position.

For all of the Inuit community members we spoke with, water from the land is preferred to municipal water because of the physical, emotional, and sometimes spiritual benefits. People with different ages, genders, and lived experiences have different opinions and preferences about traditional water sources, and my positionality as a non-Inuit person could have had an influence on the answers I received. However, what remains clear is that water from the land is an important part of daily life for many Inuit community members, and is an important part of Inuit identity. Having an understanding of the importance of gathering water from traditional sources is a critical step in the development of policy that is suited to the needs of the Inuit community members in Iqaluit.

Conclusion:

For Inuit community members in Iqaluit, perceptions of municipal water can cause added stress that is experienced in the everyday. After analyzing the results from twenty-one interviews with Inuit community members aged twenty to approximately ninety, four common themes emerge. First, residents experience stress from being concerned about municipal water quality. This is due to the strong taste and smell of chlorine, which bothered eighteen of the twenty-one Inuit residents Elisha and I interviewed. The brown or yellow colour of tap water also causes distress, as well as the possibility of tubs and sinks being dyed blue from tap water. Some people feel as though they have experienced illness from drinking tap water, or perceive tap water as unsafe. The second major theme results from stress experienced from municipal water service interruptions, including going without water because of utility maintenance, or running out of

tanked water because of interrupted water truck delivery. Thirdly, residents experience stress from constantly having to anticipate when the next water shortage will occur. Residents report keeping the radio on at all times in case a water shutoff is announced, and keeping a constant supply of extra water in their homes. Finally, there is stress experienced from the financial strain of water in Iqaluit. While this stress is not experienced by everybody, for some, the cost of water services is worrying.

The second major component of this research examined gathering water from traditional sources, including the Sylvia Grinnell river, freshwater lakes, and icebergs. I asked people questions about their water preferences because it is critical to acknowledge that the tap is not the only source of water available to Inuit in the North, and often, it is not the preferred source of drinking water. In this study, one hundred percent of the twenty-one Inuit participants Elisha and I interviewed preferred drinking water from traditional sources if given the choice, although not everyone had access to these sources due to lack of transportation or time constraints. Reasons for this preference include: the taste and coldness, health benefits experienced from walking on the land, feeling more energized after drinking river water, experiencing a spiritual connection with the land because the water has not gone through any pipes or treatments, feeling more connected with ancestors, and reconnecting with Inuit identity. The practice of gathering water from the land serves as a source of health and well-being, and remains an important part of life for the community members involved in this project. Throughout the data analysis, results were examined with attention paid to how identity and lived experience can influence how a person will experience water, with a particular focus on age and gender, and how experiences with water are inherently embodied and emotional.

Chapter Five: Summary and Conclusion

This research used a mixed methodological framework that incorporated principles of Indigenous methodologies and combined them with a feminist political ecology and emotional geographies of resource access framework. Using this approach helped to keep the research grounded in place and reciprocal, while also allowing for a deeper intersectional analysis of how experiences with both municipal water and water from the land are inherently emotional and embodied.

From the interviews of the twenty-one people that were a part of this project, two main themes emerge. First, perceptions of municipal water in Iqaluit can cause added stress for Inuit community members, and this is experienced in everyday life. This is broken down into four subthemes: stress from the concern and worry of municipal water quality, stress from municipal water service interruptions, stress from having to anticipate when the next municipal service interruption will occur, and stress from being worried about the financial implications of water cost.

The second theme centres around gathering water from the land, and the continued importance of this practice in everyday life. Gathering water from various sources, including rivers, lakes, and icebergs, is a source of health and well-being for the participants in this project. Reasons for this water preference include the taste and coldness of river water, health benefits from walking on the land to retrieve the water, feeling more alive and energized, and finding spiritual connections with the land. Some people discussed using water gathering practices as a way of reconnecting with and maintaining Inuit identity, and this was especially salient for the participants under the age of thirty.

Drawing on the work of scholars who use feminist political ecologies and emotional geographies of resource access, this research further exemplifies the embodied subjectivities experienced with resource access and use, and how these relations impact access or inability to access water, both municipally and from the land. The relational nature of emotional geography is also illustrated as participants discussed feeling concerned about municipal water because of the way that parents and grandparents feel about water.

Gathering water from the land is also an embodied practice, as participants discuss how drinking river water or iceberg water makes them feel better and more alive. Here, looking at the subjectivities of water access through a lens of age is particularly useful, as Elders who grew up with drinking river water have different experiences than young people. Not everyone can access the river because a vehicle is usually needed. Therefore, using feminist political ecology to deconstruct socio-economic barriers to traditional water access is useful because it provides a more in-depth analysis of how and why people are able or unable to access water from traditional gathering sites.

Results Sharing and Data Verification:

Transparency with the community was central in my research process. Because of this, I wanted to seek the input of the people who were interviewed to ensure that they agreed with the way that I analysed and presented the research results. In my return visit to Iqaluit, I was able to reconnect with nine of the twenty-one research participants personally to share the research findings with them, and to seek their input. I also went over the results with Elisha, and asked for his feedback. In addition, Elisha and I made a trip to the Elder's Qammaq, where Elisha interpreted my results for the Elders, and asked for their feedback. From the feedback we received, participants were pleased with the results and agreed with the research findings. I was

aware that my positionality as a non-Inuit Southern researcher could impact participants' comfort levels with telling me that they did not agree with the research findings, so I tried to use accessible and casual language to emphasize several times throughout the conversations that I would really like their feedback, and to please let me know if anything 'doesn't seem quite right' with the results. Elisha was also present, to make participants feel more comfortable. We shared a two-page summary of all of the results presented in this thesis with participants, to ensure that participants had a chance to hear all of the findings.

I met with Government of Nunavut officials from the Department of Health to ensure that they have access to these results when designing water policy. I also met with the Director of Social Policy at the Qikiqtani Inuit Association (QIA).

Qaujigiartiit Health Research Centre is an organization in Iqaluit that strives to ensure that health research is done in a culturally-sensitive way, and strives to include both Inuit and Western epistemologies and methodologies. I met with members of the team to discuss my research, seek their feedback, and to look at ways of disseminating this knowledge going forward.

Both the full thesis and a research summary will be sent to the Nunavut Research Institute in Iqaluit, so that anyone who would like to see the results or learn more can access it at any time.

Contributions:

To date, this is the first research study ever done that looks at perceptions of both municipal water and water from the land in Iqaluit. There are studies that have worked with smaller communities in the territory, and work that has examined the importance of traditional practices, but there is a gap in the literature about experiences with municipal water systems, and

preferences between the two sources of water. This research works to start to fill this gap, as understanding Inuit experiences with municipal water is also an important part of understanding why some community members do not feel safe using municipal water sources, and can lend insights into how to make municipal water a better experience for everyone. Iqaluit is well-known as the most developed and diverse city in Nunavut, and because of this there could be a tendency among both policy makers and academics to think that traditional water gathering practices are less common or less important for community members. However, this research shows the opposite. This research highlights that gathering water from various sources on the land is still an important part of life for Inuit in Iqaluit, and emphasizes the how critical it is to take this into account when designing new policy. The Department of Health in the Government of Nunavut is in the process of creating a territorial water strategy. This research may be used to help inform their policy development.

As a non-Indigenous researcher, I question the extent to which I can use Indigenous methodologies or the extent to which I can call my research truly decolonized. However, by using a mixed methodology of Indigenous methodologies with feminist political ecology and emotional geographies of resource access, I have been able to complete this research in a way that is more decolonized in its approach and more beneficial for the community. The way that I used methodology in this work provides a new way of thinking about methods, a new way to engage with the literature, and a means to help bridge a gap between Indigenous and non-Indigenous ways of knowing.

Current literature that engages with the emotional geographies of resource access through a lens of feminist political ecology focuses on forms of water struggle in places without sufficient water infrastructure. In contrast, Iqaluit is located in Canada, a G7 country, and has a

well-developed water infrastructure system. This research shows how even in a ‘developed’ area, water is still an embodied, emotional experience, and that service interruptions or experiences with water in general still have gendered subjectivities, strongly influenced by identity and lived experience.

Recommendations from Interview Participants:

At the end of every interview, I asked participants if they had any recommendations for how to improve the water system in Iqaluit, or any changes they would like to see in the future.

One Elder suggested a graduated pay system based on income, so that callout fees for additional water in case of water tank shortage could be more accessible for those who have a low income (IQAugust5/16B). However, when I shared this suggestion with the nine people I reconnected with on my second trip to Iqaluit, this suggestion was met with strong opposition by eight of the nine participants. As one person stated, “there would be a lot of conflict” (IQAugust5/16A).

Miscommunication is a theme that surfaced several times throughout my time speaking with people in Iqaluit about water issues. In one conversation I had with an older woman, she told me that the water coming out of the tap used to be colder when she was younger. She said she would run it for ten minutes, but it still would not get cold (IQAugust4/16A). I suggested that perhaps this could be due to the fact that there are now several reheat stations throughout town, so that the water is kept at a constant seven degrees Celsius, to prevent the pipes from freezing. This theme of miscommunication also surfaced when people were telling me about their tubs being dyed blue from utilidor water. I asked people if the city had ever given them an explanation, or put out an official document. Whether or not the city has done this in the past, everyone that I spoke with about this said that they had not seen anything, and were worried

about the blue colour. While the blue colour does not affect the safety of the water, it does cause people to feel concerned. If there was more transparency from the city about things such as the colour and temperature of water, perhaps some of this concern could be alleviated.

For those on trucked water, there was a suggestion made that if the city could be more specific with when the water truck is going to come, it would help people more efficiently plan out their water usage. Currently, people are told that the water truck will come within a three to four-hour window, but some people expressed that it would reduce stress if they could know a more specific time for water delivery (IQAugust17/16A). Improving communication and transparency from the city could be an important step in improving water security for Iqaluit.

Gathering water from the land is an important part of Inuit culture, yet many people are unable to do this because they do not have a vehicle. Although walkable without a heavy water jug, the Sylvia Grinnell river is too far to carry an extremely heavy jug of water home for most people. One person suggested that the city or a community group could organize a bus or van to pick people up without vehicles and take them to the river so that they can get their own water (IQAugust10/16C). She likes this idea because it would let people get their own water for themselves.

Another community member made a suggestion to ensure that river water is safe for gathering and drinking:

One thing I find that can improve considering people know that we like...that we like drinking the water from the river because it's pure water, this is not the city that needs to be getting on board with this, but also the territory. There's not in the park here, there's no enforcement of keeping dogs away from the water. So you're potentially contaminating pure water with dog feces. And the city can

also, I mean there's a dog problem in town. But the people who take their dogs to the river are responsible owners, so they're the kind of people you can definitely appeal, make a plea to not bring their dogs to the river where we're collecting our drinking water. That's one area that the city and the territory can address and improve. The other is water sampling and testing water is not very expensive, especially here in town because the Nunavut Research Institute here. And they have, so we have the expertise and the tools, all the resources to test the water daily, but we don't do that anywhere. Whereas, like if you go to one of the group members posted the daily water E. coli readings from the Ottawa river, and the transections of all the different beaches. And they test it every day and post the results every day. It's very easy thing to do here. You could start here, you can collect water samples pretty easily. Municipal water is tested daily, at least here. I'm sure in the other communities too. It's tested daily here, but we don't put any effort into doing the same thing with our river water. (IQJuly14/16A).

While not all of these recommendations may be possible to implement, it is still important for the government and municipality to hear these thoughts and recommendations.

Further Research:

The research done for this thesis is not an end point, but rather a starting point that can lead way to more questions and more research. Water, and the relationship that people hold with water is very complex. Colonialism not only impacts, but also complicates the relationship that Inuit hold with water. While I began to touch on the ways in which colonialism has and continues to impact peoples' experiences with

municipal water sources, there is far more work that needs to be done. In particular, there are more questions that need to be answered surrounding the gendered subjectivities of municipal water access in Iqaluit, and how colonialism continues to shape how women and men experience water. As discussed earlier by one participant, the social and economic changes between 1950 and 1975 from colonialism in Qikiqtaaluk impacted traditional gender roles, and specifically the ‘provider’ role that men traditionally held. Research that examines this more specifically could be useful in understanding the continuing challenges that Inuit face today in Iqaluit.

Colonialism also continues to shape the socioeconomic inequalities that many Inuit experience in Iqaluit. This in turn affects how people experience municipal service interruptions, as those with less income are also less able to buy bottled water from the store, or even buckets to collect water from the water truck as it comes around to those experiencing a utilidor service interruption. Taking a deeper look at how colonialism impacts socioeconomic status, income, and job opportunities will not only lend insight into how people experience water, but also insights into the processes that have shaped current day Iqaluit. One way to do this may be through taking a more quantitative approach and examining household surveys or census data. By mapping the neighbourhoods in Iqaluit that experience more frequent service interruptions, correlations could potentially be made between socioeconomic factors, housing, and the frequency of water service interruptions.

While everyone who participated in this project said that they preferred drinking water from the land if given the choice, the actual experience people had with this water and the relationship that they held with water from the land was varied. Colonialism,

identity, and lived experience all influence the experience of practicing traditional water collection. One area where more research could be done is examining more specifically the subjectivities of traditional water use based on age and gender. In this study, generally Elders spoke more about river water making them feel more alive or curing ailments, while younger people talked more about river water reconnecting them with Inuit identity. Further conversations could increase this understanding, and lend more insights into both the historical and contemporary use and importance of water from the land.

While not specifically addressed in this research, it is clear that the practice of gathering water from the land is part of a collective memory for Inuit. Taking a deeper look at the embodiment of collective memory, the subjectivities of collective memory, and how it is passed from one generation to the next could not only lend insights into the importance of river water for Inuit, but could also improve the understanding of how Inuit in Iqaluit experience municipal water. Some people described gathering water from the land because it is what they were taught, and similarly always boiling tap water because of what parents and grandparents had taught them. Fostering conversations around the collective memory of experiences with water could increase understanding about how Inuit community members feel about both municipal water sources and water from the land.

Water is an essential, complex, emotional, and embodied part of life for Inuit in Iqaluit. As one participant described, “it’s our life and we have to drink it [...] can’t live without it” (IQAugust10/16B). Through the stories, interviews, and conversations I had with the people who participated in this research, water in Iqaluit is seen not just as a

resource, but an embodied, emotional experience that is different for everyone. As water policy is continually developed and expanded, it remains critical that both the state and scholars work in a way that is community-based, community-driven, anti-colonial, and decolonized. Water security in Iqaluit is not just a question of engineering, but also a question of governance. Audla and Smith, in response to research without Inuit input, write: “it is at best naïve – and at worst, highly paternalistic – to discount the efforts and the capacity of Inuit residents of the Arctic to envision and develop solutions to meet the intensifying pressures faced in their homelands” (Audla and Smith 2014, 120). Moving forward, it will be continually imperative that Inuit voices are not only heard and honoured, but that Inuit expertise is drawn upon in the creation, implementation, and management of water policy, in order to ensure the future sustainability of water for all community members in Iqaluit.

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Appendix A: Chart of Interview Participants

| Code Name | Date Interviewed | Gender |
|------------------|-------------------------|---------------|
| IQJune29/16A | 29-Jun-16 | M |
| IQJune29/16B | 29-Jun-16 | M |
| IQJuly02/16A | 02-Jul-16 | F |
| IQJuly06/16A | 06-Jul-16 | M |
| IQJuly13/16A | 13-Jul-16 | F |
| IQ July 14/16A | 14-Jul-16 | M |
| IQJuly19/16A | 19-Jul-16 | F |
| IQJuly19/16B | 19-Jul-16 | F |
| IQJuly20/16A | 20-Jul-16 | M |
| IQJuly22/16A | 22-Jul-16 | M |
| IQJuly25/16A | 25-Jul-16 | M |
| IQJuly25/16B | 25-Jul-16 | F |
| IQJuly29/16A | 29-Jul-16 | F |
| IQAugust4/16A | 04-Aug-16 | F |
| IQAugust4/16B | 04-Aug-16 | F |
| IQAugust4/16C | 04-Aug-16 | F |
| IQAugust5/16A | 05-Aug-16 | F |
| IQAugust5/16B | 05-Aug-16 | F |
| IQAugust5/16C | 05-Aug-16 | F |
| IQAugust10/16A | 10-Aug-16 | F |
| IQAugust10/16B | 10-Aug-16 | M |
| IQAugust10/16C | 10-Aug-16 | F |
| IQAugust10/16D | 10-Aug-16 | M |
| IQAugust12/16A | 12-Aug-16 | M |
| IQAugust12/16B | 12-Aug-16 | F |
| IQAugust15/16A | 15-Aug-16 | M |
| IQAugust17/16A | 17-Aug-16 | F |
| IQAugust17/16B | 17-Aug-16 | F |