

DISCONNECT BETWEEN INDIGENOUS TRADITIONAL CONNECTION WITH  
WATER DUE TO WATER INSECURITY

By

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## A CAUTION TO THE READER

This HBEM thesis has been through a semi-formal process of review and comment by at least two faculty members. Multiple literature regarding Indigenous people has been used in this thesis. Case studies regarding the Grassy Narrows First Nations and Attawapiskat First Nation were also used. It is made available for loan by the Faculty of Natural Resources Management for the purpose of advancing the practice of professional and scientific environmental management.

The reader should be aware that opinions, conclusion and recommendations expressed in this document are those of the student and do not necessarily reflect the opinions of the thesis supervisor, the thesis second reader, Indigenous people, the Faculty of Natural Resource Management, or Lakehead University.

ABSTRACT

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People indigenous to what is now Northern Ontario have always had a traditional connection and relationship with water. In recent year, that relationship has been put through many obstacles amounting to water insecurity. The effects of water insecurity have changed Indigenous people's traditional connection and relationship with water, causing a disconnect for various reason. This relationship must be fixed and made even stronger than before with the help of all levels of government, non-Indigenous people and Indigenous people alike, and a multi-step approach.

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## ACKNOWLEDGEMENTS

As a non-Indigenous Canadian, I acknowledge that I cannot speak for Indigenous communities. The goal I have with this thesis topic is to help Indigenous people in their fight for water security and justice.

I would like to acknowledge specifically the Grassy Narrows First Nation and Attawapiskat First Nation, along with the many Indigenous communities who are in the incredibly unfortunate and un-right situation of water insecurity due in large part of resettlement programs sponsored by multiple levels of colonial government that marginalized and continues to marginalize these Indigenous peoples.

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## INTRODUCTION

When you think of Canada, do you think of 32+ water boil advisories (Government of Canada, 2023b)? What do you think the impact of not having clean water would do to someone? Unfortunately, for many Northern Ontario Indigenous Peoples, this is their everyday reality. Canada prides itself on their natural resources and Indigenous relationships but fails to provide most Indigenous communities with access to clean water. Indigenous Peoples have a history of a strong connection with water, which is ironic because many do not have access to this element in a healthy way. Numerous federal and provincial government policies cover Canadians' rights to clean water; however, there is still an alarming amount of water advisories in First Nation communities. For decades, water insecurity involving First Nation communities has stayed consistent. It is a constant wonder how these communities are still struggling to fill the gap between water insecurity and water security.

Northern Ontario is home to many Indigenous communities, including the Anishinaabe, Cree, and Oji-Cree peoples (City of Thunder Bay, N/A). There are 133 First Nation communities in Ontario alone (Government of Canada, 2021b). These communities have a deep connection to the land and water, relying on these resources for thousands of years. However, in recent decades, the water in Northern Ontario has become increasingly polluted and contaminated, leading to severe health and environmental problems. All these factors have and are currently significantly impacting Indigenous Peoples, who are often the most vulnerable to water insecurity.

Water insecurity disproportionately affects Indigenous people in Northern Ontario, leading to cultural and spiritual impacts, adverse health outcomes, and social



disparities, all contributing to the overall disconnect for many Indigenous Peoples' fundamental traditional connections to water. Water insecurity is a growing problem that affects many people around the world. For many Indigenous communities, water is a vital resource for drinking and sanitation. It is also culturally significant and is essential to traditional practices and way of life.

On an individual level, becoming educated about the problems surrounding us is necessary. The more we become educated, the more knowledge we can have to help fight for a solution to these critical problems. Numerous calls to action regarding water insecurity are currently in place (Government of Canada, 2023b). Water security has been promised for years by multiple levels of government; However, the issues of water insecurity remain prominent . With more people becoming aware of these water crises faced by Canadian Indigenous communities, the more pressure the Government will receive to fix these issues quicker.

This paper will explore how water insecurity affects Indigenous people in Northern Ontario, looking the Grassy Narrows and Attawapiskat First Nations case studies in. Within this thesis the adverse effects, water insecurity has on Indigenous culture, health, and environment is explored. It will also examine some of the causes of water insecurity and the efforts being made to address this significant and concerning issue by the Canadian government and Indigenous communities. Using media coverage to support my conclusions, I ultimately explore the disconnect Indigenous People have faced from their traditional connection to water due to water insecurity. I also explore solutions to end all water injustice and discrimination against First Nation communities.

## LITERATURE REVIEW

Water has such a large and heavy meaning in the Indigenous traditional culture. Water is a sacred element that must be protected and adequately appreciated. Unfortunately, Indigenous people have fallen victim to the majority of water insecurities within Canada (Human Rights Watch, 2016). Ontario is one of the most affected provinces, with the highest number of boil water advisories among First Nation communities (Human Rights Watch, 2016). To better understand the effects water insecurity has had on Indigenous community members, I conducted a brief exploration of Indigenous people's traditional connection with water, their modern-day connection, water insecurity, water crisis events and water governance as a literature review.

### INDIGENOUS PEOPLE'S CONNECTION TO WATER

Indigenous peoples have traditional knowledge and cultural practices related to water passed down from generation to generation. The relationship between Indigenous peoples and water is deeply rooted in Indigenous cultures, histories and way of life. The connection between Indigenous peoples and water is complex, multifaceted, and varies among different communities, but it follows a common thread that has run through many Indigenous cultures and traditions (AFN, 2012). However, in recent years, the modern-day relationship that Indigenous peoples have with water has been transformed due to colonialism, industrialization, urbanization and water insecurity. As a result, water's spiritual and sacred value now tends to clash with the perception of water as a resource (IUCN, 2021).

Water is often viewed as a living entity with its own spirit and energy and is highly respected, protected and cared for in a sacred manner (McGregor, 2012). First

Nations have a direct relationship with all waters that exist on Mother Earth, and care, protect and honor them through traditional ways (AFN, 2012). Indigenous peoples have developed a profound knowledge of the waterways, ecosystems, and natural resources of their territories over generations (UN, 2020). Climate change has now had significant impacts on water resources, including changes in water levels, increased frequency and intensity of extreme weather events, and the loss of traditional ecological knowledge (Seneviratne et al. 2012). Today, First Nations people and governments recognize the importance of protecting water from pollution, drought, waste, and climate change, and the importance of protecting and preserving the environment for future generations (AFN, 2012).

In addition to the spiritual and cultural practices related to water, Indigenous peoples have also developed sustainable and responsible ways of managing water resources (FAO, 2018). For example, many Indigenous communities have sophisticated systems of water management that prioritize conservation and sustainability (FAO, 2018), such as rainwater harvesting, irrigation, and the maintenance of wetlands and other ecosystems that support water resources (FAO, 2018). In the modern era, Indigenous peoples' connections to water has been transformed due to the water crisis they are experiencing due to colonialism (CUPE, 2022), industrialization, and urbanization (Bakker, 2010). These factors have significantly changed Indigenous peoples' traditional ways of life and profoundly impacted their relationship with water (AFN, 2012). They are, however, fighting for that connection to be fixed.

Colonialism and industrialization forced Indigenous peoples to be removed from their ancestral lands, an action that destroyed traditional water management systems (Samson, 2017). In addition, industrial development often led to the pollution and

degradation of water resources, severely impacting Indigenous people's health, mental health and well-being (Fernández-Llamazares, 2020). In many cases, Indigenous people were denied access to clean water and forced to rely on contaminated water sources (Human Right Watch, 2016). Urbanization also significantly impacted Indigenous peoples' relationship with water. Many Indigenous peoples were forced to move from their traditional territories to urban areas, facing many challenges in maintaining their cultural practices and connection to water (United Nations, n.d.). Urbanization has also led to increased demand for water resources, which has resulted in the over-extraction of water from traditional sources (Talat, 2021).

Many First Nations are actively seeking to restore traditional ways of protecting water health and to share these ways with the rest of the world (AFN, 2012). First Nations are traditional knowledge keepers and sacred protectors of the land and resources (AFN, 2012). Indigenous communities are the leaders of the growing movement to reclaim water security and justice within their communities. Unfortunately, these communities' members are taking matters into their own hands due to inefficient government assistance to gain water security as soon as possible.

## WATER INSECURITY

Water insecurity in Northern Ontario is caused by various factors, including pollution from industrial activities, urbanization, and climate change (Pomeroy et al. n.d.), all aspects that can be avoided or easily managed. In addition, water insecurity has various adverse effects on Indigenous communities, including economic, social and cultural impacts. Water insecurity has a range of health impacts on Indigenous people in Northern Ontario. One of the most significant health impacts is the increased risk of

waterborne diseases (Klasing, 2016). Contaminated water can cause illnesses such as diarrhea, cholera, and typhoid fever, which can be particularly dangerous for young children, the elderly, and people with weakened immune systems (Klasing, 2016). These illnesses can be complicated to treat in remote communities, where access to health care is limited. In addition to waterborne illnesses, water insecurity can also lead to other health problems. For example, many Indigenous People in Northern Ontario rely on fish and other aquatic resources for their diet, which can be contaminated by pollutants such as mercury and PCBs (Pomeroy et al., 2019). Exposure to these toxins can cause various health problems, including neurological damage, developmental delays, and reproductive issues (World Health Organization, 2022). These health impacts can have long-term effects on individuals and communities. They can be particularly devastating for Indigenous people, whose traditional practices and way of life often center on land and water.

Water insecurity also has significant cultural impacts on Indigenous People in Northern Ontario. Water is a vital resource for many Indigenous communities and is essential to their traditional practices and way of life (Human Rights Watch, 2016). For example, water is used in many cultural traditions, such as sweat lodges, purification ceremonies, and traditional healing practices (Gadacz, 2017). It is also an essential resource for hunting, fishing, and gathering, which are central to many Indigenous cultures (Kumar et al. 2019). The higher the restrictions on practicing these traditional ways, the more challenging it is to maintain cultural identity and a healthy relationship with water. When water is contaminated or unavailable, it can disrupt these traditional practices and ways of life. Water insecurity can profoundly impact Indigenous communities, leading to a loss of cultural knowledge, traditions and practices. In

addition, the loss of access to clean water can also cause emotional distress and trauma, particularly for elders and other community members who have a deep connection to the land and water (Human Rights Watch, 2016).

The economic impacts of water insecurity can be severe, particularly for Indigenous people who rely on water for their livelihoods. For example, fishing and hunting are often essential sources of income for many Indigenous communities, but water pollution can severely impact these activities. Water insecurity can also limit agricultural production, making farming and sustaining livestock harder (FAO, 2018). Water insecurity also has significant environmental impacts on Northern Ontario, ultimately affecting the Indigenous People within that area. Pollution and contamination can have a range of effects on aquatic ecosystems, including the loss of biodiversity, the destruction of food webs, and the destruction of habitat (Bassem, 2019). Long-term effects on the environment are also a significant risk that comes with water insecurity. For example, pollution and contamination can cause damage to the soil and groundwater, leading to long-term environmental degradation (WWF, n.d.). These effects can have a range of effects on the ecosystem, including the loss of wildlife habitat, the degradation of water quality, and the destruction of vegetation (EPA, n.d.).

All these factors, combined and on their own, play a part in water insecurity. Therefore, it is essential to understand better the reasons water insecurity occurs to come up with better solutions to these problems. Most, if not all, factors contributing to Indigenous water security can be fixed with proper planning and management within the Canadian government and help from Indigenous community members. Indigenous community members, along with many non-Indigenous people, are patiently awaiting water security for everyone.

## A TIMELINE OF THE FIRST NATION FIGHT FOR WATER SECURITY

The complex water crisis in Northern Ontario affecting First Nations communities has been ongoing for decades. Many communities face issues such as boil water advisories, lack of access to safe drinking water, inadequate water treatment facilities, and inadequate infrastructure to address water and wastewater needs (CUPE, 2022). There have been numerous policies in place to protect Canadians' right to clean water (Government of Canada, 2023b). Exploring the timeline of events that has contributed to the water crisis in First Nation communities in Northern Ontario is critical to realize that there have been many incidents that could have been avoided if the government learnt from past experiences and did their part to ensure the water crisis do not continue.

### Pre-Contact:

Before European contact, Indigenous peoples in Northern Ontario had a deep connection to the land and water (Government of Canada, 2017). They understood the importance of balancing the natural environment and human needs. Consequently, the traditional Indigenous knowledge and practices were centred on protecting and preserving water and land, which was necessary for their survival (UN, 2020).

### 1850s:

The British Crown signed the Robinson-Huron Treaty with Indigenous peoples in Northern Ontario (Government of Canada, 2017). The treaty promised the protection of Indigenous rights to hunt and fish and access to traditional lands and resources (Albers, 2017). However, over the years, the treaty promises were not honoured by the Canadian government, and the treaty rights were disregarded (Albers, 2017).

1905:

Ontario First Nation's residents faced an endless crisis since signing Treat 9 in 1905, says Attawapiskat First Nations elder (Barrera, 2019).

1940s:

The development of hydroelectric dams and mining activities in Northern Ontario began, significantly impacting the local water systems (Wilt, 2019). Moreover, indigenous communities were not consulted or included in decision-making processes for mines and energy developments, leading to a loss of traditional lands and resources and environmental degradation. Water treatment facilities in First Nation communities across Canada were not adequately designed or maintained, leading to ongoing water quality issues (Human Rights Watch, 2016).

1960s-1980s:

Between 1962 and 1970, a pulp and paper mill operated by Reed Paper discharged an estimated 10 tons of mercury into the English and Wabigoon rivers, which are the main waterways that flow through the Grassy Narrows First Nation (Anderson, 2020). The mercury poisoning contaminated the fish and wildlife in the rivers, which were a major source of food for the community (Ilyniak, 2014). This disaster resulted in a significant decline in the community's health, with members experiencing a range of physical and mental health problems (Ilyniak, 2014).

In 1976, it was recommended that the Attawapiskat First Nations community water supply come from an inland lake (slough) just northeast of the community (Admin, 2012). The community was concerned about using the slough as a water source, as they knew the water had organics and there was no flow in the winter months. The water in the lake had high natural organic matter, iron and manganese concentrations.



1990s:

The First Nation water crisis began to emerge in Northern Ontario, with many communities reporting unsafe drinking water and inadequate sanitation facilities (Luo, 2021). In addition, the well-known Walkerton *E. coli* outbreak occurred, which resulted in the death of seven people and made over 2,000 people sick (CBC News, 2010). The incident highlighted the importance of safe drinking water and the need for proper water management.

Around 1991, the Attawapiskat First Nations finally had a water treatment plant (Admin, 2012). In 1994 running water finally came to every home in the community (Barrera, 2018).

Early 2000s:

The United Nations General Assembly recognized the human right to water and sanitation (United Nations, 2014). However, in Northern Ontario, many Indigenous communities continue to lack access to safe drinking water and sanitation facilities, leading to health issues and high rates of waterborne illnesses (Human Rights Watch, 2016).

In 2001, the Attawapiskat First Nations was placed on a boil water advisory (Barrera, 2019).

2006:

The Walkerton Inquiry, which investigated the deaths of seven people in Walkerton, Ontario due to contaminated drinking water, recommended that the government take action to address water quality issues in First Nation communities (CBC News, 2010).

2008:

The federal government launched the First Nations Water and Wastewater Action Plan (FNWWAP), a 10-year initiative that aimed to improve access to safe drinking water and wastewater management in Indigenous communities (Government of Canada, 2023a). However, despite this plan, many Northern Ontario Indigenous communities still need help accessing safe drinking water.

2011:

The Auditor General of Canada released a report on the FNWWAP, finding that progress needed to be faster and more adequate (Hogan, 2021). The report also identified several barriers to improving water quality in First Nation communities, including insufficient funding, a lack of trained personnel, and complex regulatory requirements (Hogan, 2021).

2016:

The federal government committed \$1.8 billion over five years to address the water crisis in First Nation communities across Canada (Government of Canada, 2023a).

2017 – 2018:

The federal government launched the First Nations-led engagement process on the development of a new legal framework for First Nations drinking water, aimed at ensuring that First Nations have access to safe, reliable, and sustainable drinking water (Hogan, 2021).

In 2018, a report commissioned by the Ontario government concluded that mercury contamination is still present in the river system flowing through the Grassy Narrows community and poses a long-term threat to the health of individuals (Ketonen, 2018).

2020:

A joint report by Human Rights Watch and Amnesty International found that the government's efforts to address the First Nation water crisis had been inadequate, with many communities still experiencing unsafe drinking water and insufficient sanitation facilities (Human Rights Watch, 2022).

2021:

The federal government committed an additional \$1.5 billion over five years to accelerate work on resolving long-term drinking water advisories (Government of Canada, 2020).

Indigenous communities faced various challenges, including displacements, loss of traditional lands and resources, environmental degradation, and health issues (United Nations, 2020). While various initiatives have been launched to address the crisis, there is still a long way to go to ensure that Indigenous communities have access to safe drinking water and sanitation facilities. Therefore, it is essential for the Canadian government and all other involved stakeholders to work together to address the Indigenous water crisis currently happening in Northern Ontario.

2023:

The Ontario government begins construction of the mercury treatment facility in the Grassy Narrows community (Free Grassy Narrows, n.d.).

## WATER GOVERNANCE

Canada has about 20% of the planet's freshwater resources and 7% of the world's freshwater (Klasing, 2016). However, most Indigenous people in Canada have experienced some water insecurity in their lifetime. The work of Indigenous activists

and allies has led to government commitments advancing the work to ensure access to clean drinking water for Indigenous peoples (CUPE, 2022). As a result, the Government of Canada has made a 2030 goal to achieve universal and equitable access to safe and affordable drinking water for all (Government of Canada, n.d.).

The management of potable drinking water and wastewater on First Nation reserves is a shared responsibility between First Nations and the federal government (House of Commons, n.d.). Programs and services for providing clean, safe and secure water on reserves are provided through First Nation band councils and Health Canada, including an advisory role to Indigenous Services Canada by Environment and Climate Change Canada (Government of Canada 2020).

In many cases, First Nations live with insufficient water allocations and infringements on their Aboriginal and Treaty Rights to water (AFN, 2012). Provincial regulatory initiatives need to be improved for governing water in First Nations (McGregor, 2012). Provincial regulatory standards do not apply to on-reserve First Nation communities, and federal initiatives must be revised to govern water in First Nation communities (McGregor, 2012).

The Government of Canada proudly shares their plan of action to end water insecurity within indigenous communities. It is stated that "in addition to resolving long-term drinking water advisories, work is also underway to support community infrastructure projects on reserve to build a sustainable foundation and increase reliable access to clean drinking water for generations to come" (Government of Canada, 2023b).

The federal government limits which Indigenous peoples it has financial and legal responsibilities to for clean drinking water (CUPE, 2022). The government needs

to focus on fixing piping in homes, or on homes with no piping that rely on enormous tanks of water called cisterns, or on supporting wastewater treatment systems (CUPE, 2022); all actions that would help these communities gain water security.

Under Section 35 of the Canada Constitution 1982, First Nations' inherent right to self-government extends to the right to manage and govern their waters (AFN, 2012). They have a right to make their own water and environmental laws and to practice customary and Indigenous legal orders (AFN, 2012). Many Indigenous community members are ready to help the government secure water justice adequately. Keepers of the Water was born as an urgent need for Indigenous Traditional Ecological Knowledge holders to be heard, understood, respected and embraced as a critical solution to overcome the Indigenous clean water crisis (Keepers of the Water, 2021). Keepers of the Water look to Indigenous communities working to instill Indigenous water governance and management with policy, legislation, natural law and traditional ecological knowledge, providing solutions to ensure water is kept safe now and for future generations. It is now up to the Canadian Government to accept the help from the knowledge that came before colonization.

## MATERIALS AND METHODS

### OVERVIEW OF METHODS

To better understand this subject, two case studies were used to cover various points within this thesis. Access to clean and safe water is a fundamental Canadian right that is essential for the survival of all living things. However, Indigenous communities in Canada are still struggling with water insecurity. These two case studies are examples of

how Indigenous people's exposure to water insecurity has disrupted their traditional connection to water.

#### CASE STUDY ONE: GRASSY NARROWS FIRST NATION

The Grassy Narrows water crisis is an example of how Indigenous people have been disconnected from water. The Asubpeeschoseewagong First Nation, also known as Grassy Narrows First Nation, is located in Northwestern Ontario, Canada, and is an Ojibway community of 950 people (Keepers of the Water, 2021). The community has a long history of logging, pulp, and paper mills that have operated in the area for over 50 years (Free Grassy Narrows, n.d.). The Reed Paper Mill operated from 1962 to 1970 and is considered the source of the mercury contamination that has affected the Grassy Narrows community for over five decades (Ilyniak, 2014). The Reed Paper Mill, owned by Dryden Chemicals, released large amounts of mercury into the Wabigoon-English River system, which flows directly through the Grassy Narrows community (Free Grassy Narrows, n.d.). The mercury contamination has led to severe health problems for community members.

The provincial government of Ontario was aware of the mercury contamination in the Wabigoon-English river system but did not take action until 1970 when the mill was closed down (Free Grassy Narrows, n.d.). In 1970, Ontario banned all commercial fishing in the English-Wabigoon river system (Anderson, 2020). The ban was devastating for the people of Grassy Narrows, as fishing was their main source of income. The government conducted a cleanup of the river system (Poisson & Bruser, 2017), but the effects of the mercury contamination already made a permanent mark in this community. As a result, the community continues to suffer from the effects of the

contamination, including ongoing health problems and a loss of traditional ways (Free Grassy Narrows, n.d.).

The Grassy Narrows water crisis is not solely a result of mercury contamination but is also influenced by more prominent social, economic, and political factors (Free Grassy Narrows, n.d.). These factors have contributed to the ongoing water insecurity in this community and the disconnection of Indigenous people from the water. Economic consequences impacted the community, as many people were forced out of jobs (Porter, n.d.). The lucrative fishing tourism industry near Grassy Narrows crashed. This led to effects on community members' mental health.

In 1986, Grassy Narrows reached a settlement agreement with the provincial and federal governments (Anderson, 2020). The settlement included the creation of a mercury disability fund. A 2016 report found that more than 90 per cent of residents in Grassy Narrows have symptoms of mercury poisoning, including sensory disturbances, permanent impairment of speech, sight and hearing, as well as convulsions and loss of balance. The Grassy Narrows water crisis is a clear example of environmental racism. Environmental racism refers to the disproportionate impact of environmental hazards and pollution on marginalized communities (Ilyniak, 2014), such as Indigenous peoples. For example, the community has been exposed to mercury contamination for decades due to the actions of non-Indigenous corporations and government institutions. The failure of these institutions to address the contamination and provide adequate compensation to the community reflects systemic racism in Canada.

The Grassy Narrows water crisis is also linked to the ongoing extraction of natural resources in Indigenous territories. The logging, pulp and paper industries have historically operated in the region and have caused significant environmental damage

and contamination (Free Grassy Narrows, n.d.). The extraction of resources has also led to the displacement of Indigenous peoples from their traditional territories and the loss of their traditional ways of life. Numerous people were affected by this crisis. Debora C., a woman in Grassy Narrows First Nation, explained how difficult it was to manage her child's skin rash due to the contaminated water (Human Rights Watch, 2016).

Caregivers, such as Debora, shoulder a significant burden of care, work and work to ensure that at-risk individuals avoided further exposure to the water. Being a caregiver can cause a great deal of stress on a person's life, and as a person needing to be cared for, lack of access to care can cause a significant amount of embarrassment and shame.

The effects of industrial pollution on the mental health of the Grassy Narrows First Nation have been less well-documented, but are no less significant. Exposure to environmental toxins, such as mercury, can have a range of mental health effects, including anxiety, depression, and cognitive impairments (Free Grassy Narrows, n.d.). Studies have shown that exposure to mercury can cause cognitive impairments, such as memory loss and difficulty with attention and concentration (Kabatay, 2022). These cognitive impairments can have a significant impact on a person's mental health, and can lead to feelings of frustration and hopelessness. Members of the community have reported feelings of depression and anxiety, as well as cognitive impairments that have impacted their ability to work and carry out daily tasks. The mental health effects of mercury poisoning have also had a ripple effect on the community, with families and caregivers experiencing stress and anxiety as they care for loved ones who have been impacted by the pollution (Human Rights Watch, 2016).

Many Indigenous communities in Canada lack access to basic infrastructures, including clean drinking water and adequate sanitation facilities (Human Rights Watch,



2016). The Grassy Narrows water crisis is a reaction of a more significant problem, as the community has been without access to safe and clean water for decades (Free Grassy Narrows, n.d.). The federal government has committed to addressing this issue in numerous ways, but progress needs to be faster.

Indigenous peoples in Canada have treaty rights that are enshrined in the Constitution Act of 1982 (Klasing, 2016). These rights include hunting, fishing and gathering on their traditional territories (Government of Canada, 2021c). Unfortunately, the Grassy Narrows water crisis has significantly impacted the community's ability to exercise these treaty rights. The contamination has led to a loss of traditional food sources and a way of life (Free Grassy Narrows, n.d.). Addressing the Grassy Narrows water crisis requires a multi-stepped approach that addresses the root problem.

#### CASE STUDY TWO: ATTAWAPISKAT FIRST NATION

One notable case study involving Canadian Indigenous drinking water issues is the situation in the First Nations community of Attawapiskat in Northern Ontario. The community has been struggling with contaminated drinking water for over a decade, leading to significant health, social, educational and environmental consequences. However, the water crisis in Attawapiskat is not an isolated issue, as many other Indigenous communities across Canada face similar challenges.

Attawapiskat First Nation is a remote community located in Northern Ontario, Canada. The community has a population of around 2000 people (Five Nations Energy Inc, 2012). Attawapiskat is situated on the Attawapiskat River and is home to the James Bay Cree First Nation, who have lived there for thousands of years. The water crisis in Attawapiskat began in the 1970s, according to Chief Ignace Gull, when Ottawa decided

to use the lake water, which was initially intended only to feed the school and homes for teachers and the nursing station, to supply the whole community (Barrera, 2019). In 2011, the community's water treatment plant failed, issuing a state of emergency when high levels of trihalomethanes (THMs) were found in the water supply (Bui, 2019) over the Canada drinking water standard (CBC News, 2019). This contamination has been linked to various health issues, including skin rashes, respiratory problems, and increased cancer risk (Klasing, 2016).

The water crisis was caused by a combination of factors, including inadequate infrastructure, poor water management, and the effects of climate change. The community has struggled to access clean and safe drinking water ever since. The infrastructure in Attawapiskat must be improved to provide clean and safe drinking water to the community (Bui, 2019). The water treatment plant in the community is old and outdated, and the pipes that transport water to the community need to be in better condition (CBC News, 2019). In addition, the funding for maintenance is lacking, which means the water systems have a greater chance of breaking down again (Abedi, 2019).

Another cause of the water crisis in Attawapiskat is poor water management. The community needs a comprehensive water management plan; without one, it is challenging to address the issues with the water supply. In addition, the lack of a comprehensive water management plan has made it difficult to secure funding for water infrastructure projects (Holmes et al. 2021). It would make no sense for these community members to be responsible for developing a water management plan, as they have no previous knowledge, experience or credentials.

Climate change has also played a role in the water crisis currently still going on within this community. The melting of permafrost in the region has led to changes in the

quality and quantity of water in the area (Human Rights Watch, 2020). The changing climate has also led to more frequent and severe weather events, which have damaged the infrastructure and made it difficult to maintain a reliable water supply.

The water crisis in Attawapiskat has significantly impacted the Indigenous people living within this community. The unsafe water supply in Attawapiskat has significantly impacted the community's health, well-being and mental health (Bui, 2019). The high levels of contaminants in the water have increased waterborne illnesses (EPA, 2021). The poor water quality has also been linked to various other health issues, including skin rashes, respiratory problems and infection (CBC News, 2019). The disruption of daily life affected Indigenous peoples' well-being and mental health (Russell, 2017). The water crisis disrupted everyday life in Attawapiskat, as people were forced to ration their water usage and rely on bottled water for drinking, cooking, and bathing (CBC News, 2019)

The Attawapiskat case is just one example of the systemic issue of inadequate water infrastructure in many Indigenous communities in Canada. It provides important lessons for policymakers and government officials. One key lesson is the need for greater investment in Indigenous communities to address longstanding infrastructure issues, including water and sanitation. Another lesson is the importance of meaningful engagement and consultation with Indigenous communities and developing and implementing solutions.

## SUMMARY

## OVERVIEW

It is unfortunate but true that there is a noticeable gap in primary "care" between Indigenous Canadians and non-Indigenous Canadians. The Canadian Government fails time after time, for numerous years and in countless situations, to provide Indigenous Canadians with basic water security. As a result, many Indigenous peoples still do not have access to clean drinking water (CUPE, 2022). This violates the internationally recognized right to water (CUPE, 2022).

Over the past two decades, Indigenous peoples have made their voices heard in environmental and resource management at the international level (McGregor, 2012). However, so far, the indiscriminate application of Western science and technologies has prevented full and equal participation of Indigenous peoples in water management and is contributing to the loss and degradation of water security (McGregor, 2012). This has provided a movement and solutions to water security, where the government has failed to do so.

Multiple levels of government have made countless promises. Still, none have delivered adequate funding to build and maintain drinking and wastewater treatment plants as well as proper piping systems connecting the plants to homes or provide enough trained and fairly-paid staff to run the systems (CUPE, 2022). They also have failed to provide a reliable plan other than promising funding. As a result, there are numerous things that must still be done on the government side of this fight.

The Grassy Narrows First Nation and the Attawpiskaat First Nation are both communities that have faced significant challenges with their water systems. There are

some key differences between their situations; The Grassy Narrows water crisis is directly linked to industrial pollution (Ilyniak, 2014), while the Attawapiskat water crisis has been attributed to inadequate infrastructure and maintenance (Barrera, 2019). Additionally, the Grassy Narrows crisis has been ongoing for several decades, while the Attawapiskat crisis has been more recent. Both crises highlight the ongoing issues facing Indigenous communities in Canada, including the lack of access to safe and clean drinking water. The Canadian government has made commitments to address these issues occurring in both communities (Government of Canada, 2023b), but there is still much work to be done to ensure that all Indigenous communities have access to the basic necessities of life, including safe drinking water.

The waters in Canada are increasingly being disrespected, misused and polluted by industrial development, agriculture, urbanization and climate change (AFN, 2012). In addition, water in First Nations communities is often degraded by activities occurring outside of their control. The countless water crises Indigenous people have faced create a large gap in their traditional to modern-day relationship and connection to water.

## OVERALL EFFECTS

The water crisis that Indigenous people are facing is not simple. Over the last several hundred years, most Indigenous communities and First Nations have faced threats to clean drinking water (CUPE, 2022). Many of these experiences are repeated events. There are short- and long-term effects that come with water insecurity. Effects of water insecurity include physical and mental health problems, economic consequences, social consequences, loss of trust in levels of government, and daily hardships, all of

which are factors associated with the disconnect between Indigenous people and their traditional connection to water.

Some communities have endured decades of boiling their water before it is safe to use (CUPE, 2022). Communities without safe drinking water must spend large amounts of money supplying members with bottled water, which creates large quantities of plastic. Community members are required to factor in timing, costs and logistics of picking up water just to be able to have access to a clean and healthy source. Being exposed to numerous illnesses in water has resulted in many Indigenous people getting sick and, in some cases, ending in fatality. Water insecurity forces some communities to have poor hygiene due to a lack of clean water (CUPE, 2022). Contaminants in drinking water include coliform, *E. coli*, cancer-causing trihalomethanes and uranium (Klasing, 2016). Exposure to these types of pollutants can have various health impacts (Human Rights Watch, 2016). Many people face frustration and security when experiencing water insecurity, which can result in various mental health issues. In addition, many people exposed to unsafe water have external and internal health issues.

The daily hardship of living under a water advisory results in some people becoming frustrated and drinking the water without boiling or otherwise treating it, resulting in possible exposure to these contaminants (Human Rights Watch, 2016). A loss of trust in the government also occurs time after time in water crises (Isai, 2022). Many Indigenous people feel that their concerns about water quality has been ignored for years (Isai, 2022). This leads to a sense of frustration and disillusion among the Indigenous community and a greater sense of mistrust of the government (Klasing, 2016).

The combination of all these factors makes it difficult to connect with the source of this pain. It is hard to form a proper and traditional relationship with water when worrying about getting sick or wasting clean water. It is hard to understand all effects of water insecurity, if not personally experiencing these injustices. It is, however, easy to do your part in helping Indigenous communities fight for water security.

## DISCUSSION

### ROAD TO ACTION

The idea of water is not about "use" but rather about maintaining the proper relationship (McGregor, 2012). Water is part of a more fantastic, interconnected whole and must be protected and discussed beyond clean drinking water access. Increased awareness of Indigenous water crises is needed, in hopes that it will lead to a broader public debate about Indigenous issues and a greater awareness of the ongoing struggles faced by Indigenous People in Canadas.

The United Nations has recognized the importance of water as a human right and has called for the protection and recognition of Indigenous people's rights to water in Canada (Government of Canada, 2021a). As a result, the federal government committed to addressing the water crisis in Indigenous communities and ending long-term boil water advisories by 2021 (Stefanovich & Jones, 2021). However, as of February 2nd, 2023, 32 long-term drinking water advisories are still in effect in 28 Canadian communities (Government of Canada, 2023b). The solution seems easy. Build water treatment plants, train community members and give these "people" the water security they are "entitled to."

As an individual, you can help fight towards the goal of water security for Indigenous peoples in numerous ways: Educating about the history of water contamination in Indigenous communities, the current water crises, and the ongoing struggles these communities face. Reaching out to indigenous-led organizations, asking if they need volunteers or donating. Contacting government officials, urging them to take action to address the water crisis in Indigenous communities. Contacting corporations contributing to water contamination and demand responsibility are taken for the messes they create. Recognizing Indigenous sovereignty and the right of Indigenous peoples to make decisions about their land and resources (Government of Canada, 2021c). Doing all this while using your voice to advocate for change, whenever possible, will help the fight for Indigenous water security and fix their relationship with their traditional connection to water.

Despite the challenges posed by water insecurity, many Indigenous communities are developing innovative strategies to adapt and build resilience in the face of environmental stressors (Climate Atlas of Canada, n.d.). These strategies involve combining traditional knowledge with scientific approaches to address water issues.

#### GOVERNMENT RECOMMENDATIONS

Government-led initiatives so far have failed to address the problem from an Indigenous perspective and are failing to respect the guidance provided by multiple Indigenous communities (McGregor, 2012). First Nations must be adequately and fairly consulted and accommodated prior to any decisions or actions related to the water in Canada's provinces and territories (AFN, 2012). Indigenous people have the right to



consultation by culturally appropriate means, where these consultations must be carried out with mutual respect and consent (AFN, 2012).

The First Nations Drinking Water Settlement is for First Nations affected by long-term drinking water advisories that lasted at least one year between November 20, 1995, and June 20, 2021 (Government of Canada, 2023c). In addition, the Canadian government has declared that "actions to resolve water or wastewater issues can include: feasibility studies, new system design work, interim repairs on existing systems, permanent repairs to existing infrastructure, construction to new infrastructure, and improved training and monitoring" (Government of Canada, 2023b). The government states that such initiatives are underway in communities, but the situation does not seem to be considered an immediate concern. The goal of having no water advisories in 2030 simply needs to be sooner. These problems should be fixed now, not allowing these Indigenous communities to go years more without water security. It is not new knowledge that completion of a new water treatment system can take 3 to 4 years to complete, so why were these treatment systems created right when the problem occurred? How long does a community have to go with inadequate infrastructure before a new treatment system is designed? It is assumed that not all communities facing water advisories need a whole new infrastructure, so that should decrease the time necessary to fix these problems. If it takes only a maximum of 4 years to complete a new water treatment system, why is the goal to have no water advisories in 2030 and not closer? There are so many gaps in logic when it comes to the Government of Canada's plan that is hard for many to understand.

Many Indigenous peoples and communities are left out of the government's specific efforts (CUPE, 2022). The plans set out by the government primarily only focus

on long-term water advisories, not including First Nation communities living under short-term water advisories. Inuit and some other communities receive separate federal funding, but there are still many other communities that still need this extra funding. Financial commitment alone will not solve the water and wastewater crisis on First Nation reserves (Klasing, 2016). The government must create remedies to various problems contributing to the water crisis (Human Rights Watch, 2016). These include: the lack of binding regulations on water quality on First Nations reserves; persistent under-funding and arbitrary budgeting for water costs systems; lack of support for household water systems; worsening conditions of source water; lack of capacity and support for water operations; lack of community members trained or educated in water or wastewater fields; failure to understand Indigenous peoples traditional connection and knowledge to water; and lack of an overall plan to create water security within all Indigenous communities.

## CONCLUSION

In Ontario, water security must be changed to a right, not a privilege. It is apparent that it is not currently a right, and saying that it is only adding to the problem. This ongoing water crisis is rooted in a history of colonialism, forced displacement, and neglect of Indigenous peoples and their lands, resulting in an overall change and disconnect between Indigenous people and their traditional relationship with water. To address these issues, there have been numerous calls for action; however, the problems are still large.

Indigenous people's traditional connection to water is deeply rooted in their spiritual and cultural practices, as well as their sustainable and responsible management

of water resources. However, the modern-day connection that Indigenous peoples have with water has been transformed due to numerous water insecurities from the effects of colonialism, industrialization, urbanization and government neglect. These factors have destroyed traditional water management systems, creating the pollution and degradation of water resources, and forcing removal of Indigenous peoples from their ancestral lands (Baijius & Patrick, 2019). It is essential to recognize, respect and learn from Indigenous peoples' traditional water knowledge and practices and work towards restoring traditional water management systems and protecting water resources for the benefit of all.

Water insecurity significantly impacts Indigenous communities, challenging their traditional connection with water and disrupting their cultural practices, traditions and way of life. Ending a long-term drinking water advisory is a complex process and requires collaboration between the Government of Canada and First Nation communities (Government of Canada, 2023b). All levels of government have a long way to go before meeting their goal and have lots to learn about providing water security. Many Indigenous communities are taking steps to build resilience, adapt to changing environmental conditions, and confront government neglect. Through a combination of traditional knowledge and scientific approaches, their communities are finding innovative solutions to water insecurity that uphold their spiritual and cultural beliefs while ensuring their access to clean and safe water (Human Rights Watch, 2016). It is vital to continue supporting these efforts and to work towards addressing the roots of water insecurities.

It is vital to recognize the strength and dignity of Indigenous peoples who have been impacted by these terrible water security conditions and have fought hard for

change (CUPE, 2022). It is also crucial to note that there are many more water insecurity challenges Indigenous communities are facing, all just as relevant and inhumane as the ones explored within this thesis. With the constant and continuous work towards Indigenous water security, it is hopeful that the disconnect between Indigenous people's traditional relationship with water is fixed and protected.

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