



MARCH 15TH, 2024 WATER CARRIERS PHASE 2: FINAL REPORT



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EXECUTIVE SUMMARY

The **Water Carriers** project was established to empower Indigenous women, girls, Two-Spirit, transgender, and gender-diverse (WG2STGD+) Peoples through discourses around water governance. In Indigenous cultures across Turtle Island, commonly known as North America, Indigenous women, because of their inherent significant knowledge about the environment, are traditionally recognized as the rightful protectors of **potable** and **navigable** waters. Thus, Indigenous WG2STGD+ Peoples bring a uniquely critical set of perspectives and experiences to water discourses.

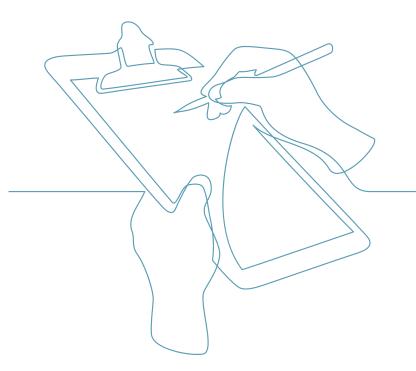
Through various engagements, the **Water Carriers** projectbroughttogether Indigenous WG2STGD+ Peoples from 13 Indigenous communities across Canada to discuss their roles as Water Carriers, i.e., culturally guided water protectors and Knowledge Keepers.

This report highlights the issues and concerns raised by Indigenous WG2STGD+ Peoples around water insecurity in Indigenous communities. The report also highlights some key recommendation for water governance particularly the meaningful inclusion of Indigenous knowledge and perspectives in decision making processes in response to water insecurity, and the protection of Indigenous rights to access potable water.

1.0. BACKGROUND

In Canada, water is often seen as a symbol of abundance and a source of national pride. However, this perception obscures the serious challenges faced by Indigenous communities particularly Indigenous women in accessing potable drinking water. The governance of water resources

in Canada has historically been structured to centralize decision-making authority, thereby marginalizing Indigenous voices and knowledge (Simms et al., 2016). The topdown approach to water governance has perpetuated socio-economic disparities deepened water insecurity for and Indigenous communities (Passafiume, 2023). As a result, many Indigenous communities lack adequate representation in water governance leading to an inadequate understanding of their unique water needs. For example, for over five decades, Grassy Narrows First Nation in Ontario has faced water contamination due to industrial activities. This has serious health and environmental consequences (Schuster & Sandberg, 2019). There have also been protracted delays in addressing these reflecting challenges the historical marginalization of Indigenous input in water governance decisions.



1.1. INADEQUATE WATER INFRASTRUCTURE

One of the major challenges to accessing clean water in Indigenous communities is inadequate water infrastructure (True North Aid). In many communities, aging and poorly maintained water treatment systems often lead to water contamination and boilwater advisories (True North Aid). Another challenge relates to insufficient funding and complex water governance structures. Inadequate funding for the operation and maintenance of water infrastructure leads to limited access to safe drinking water for residents of Indigenous communities that may escalate to more serious issues.

For example, in 2019, the Neskantaga First Nation declared a state of emergency when their water treatment plant failed, leaving residents without access to potable water for an extended period (Ferguson, 2020). This incident highlights the pressing need to address the inadequacies in water infrastructure and ensure equitable access to clean water for all communities.

1.2. IMPLICATIONS FOR HEALTH

The lack of clean drinking water in Indigenous communities has health implications as contaminated water can lead to gastrointestinal illnesses and skin infections, impacting the overall well-being of community members (McDonald et al.). Indigenous women, as primary caregivers and managers of household water needs, bear a disproportionate burden when clean water is scarce (Duignan et al., 2022). They are more vulnerable to water contamination and related health risks when compared to their male counterparts and non-Indigenous individuals, making them critical stakeholders in water governance discussions (Duignan et al., 2022).

1.3. PORTABLE WATER AND CLIMATE CHANGE

Climate change exacerbates water insecurity for Indigenous communities, introducing additional challenges to an alreadv vulnerable situation. Shifts in precipitation patterns, thawing permafrost, and extreme weather events disrupt water ecosystems and sources, leading to compromised water quality and availability (Webb et al., 2022). This impact is particularly noticeable Indigenous communities, remote in which often rely heavily on traditional subsistence practices and natural water sources (Webb et al., 2022). The Arctic region serves as a key example of climate change's impacts on water security in Indigenous communities. Arctic warming has led to unpredictable ice conditions, affecting access to traditional water and food sources for Inuit communities (Ford et al., 2018). Consequently, women in these communities face heightened challenges in accessing clean drinking water for daily household needs, further aggravating water insecurity and entrenching gender inequalities (Duignan et al., 2022).



1.4. INADEQUATE INDIGENOUS ENGAGEMENT

Lack of meaningful engagement with Indigenous perspectives has perpetuated historical inequalities and hindered the establishment of sustainable water management strategies (Wilson et al., 2021). Therefore, addressing the water insecurity crisis among Indigenous communities requires comprehensive policy interventions that focus on inclusivity and empowerment (Wilson et al., 2021). Effective solutions must integrate Indigenous knowledge and perspectives into water governance decisions and prioritize climate change adaptation strategies tailored to the specific needs of Indigenous communities (Wilson et al., 2021). Only through a collective effort that recognizes the rights and unique vulnerabilities of Indigenous Peoples can Canada pave the way for a future where access to clean drinking water is a fundamental human right realized for all (Wilson et al., 2021).

2.0. PROJECT OBJECTIVES

The Water Carriers project was established in early 2021 to empower Indigenous women, girls, Two-Spirit, transgender, and genderdiverse (WG2STGD+) Peoples through discourses around water governance. In Indigenous cultures across Turtle Island, commonly known as North America, Indigenous women, because of their inherent significant knowledge about the environment, are traditionally recognized as the rightful protectors of potable and navigable waters. Thus, Indigenous WG2STGD+ Peoples bring a uniquely critical set of perspectives and experiences to water discourses.

The Water Carriers Project is intended to empower the voices of Indigenous WG2STGD+ Peoples within water governance discourses. Through various engagements, the project brought together Indigenous WG2STGD+ Peoples from **13** Indigenous communities across Canada to discuss their roles as **Water Carriers**, i.e., culturally guided water protectors and Knowledge Keepers, focusing on issues related to water insecurity. These engagements were organized into the following two phases.

2.1. WATER CARRIERS PHASE ONE

Phase One of the Water Carriers Project (2021-2022) focused on obtaining the perspectives of Indigenous WG2STGD+ Peoples on the importance of water to Indigenous cultures. More specifically, Phase One focused on obtaining information on what it means to be a Water Carrier; how water is perceived through an Indigenous worldview; and how water conservation and environmental sustainability efforts intertwine with Indigenous cultures.



2.1.1. ENGAGEMENT ACTIVITIES

Phase One engagements began in 2021. The Native Women's Association of Canada engaged with Indigenous women Elders, Knowledge Keepers, and community representatives from across Canada who shared their Traditional Knowledge and experiences as Water Carriers. The engagements focused on the following issues:

- Understanding what it means to be a Water Carrier
- Recognizing water is life as a core Indigenous value
- Recognizing water as more than a resource
- Indigenous cultures and their relationship to water

These engagements led to several deliverables including videos, case studies, and reports that can be found at watercarriersnwac.ca.

2.2. WATER CARRIERS PHASE TWO

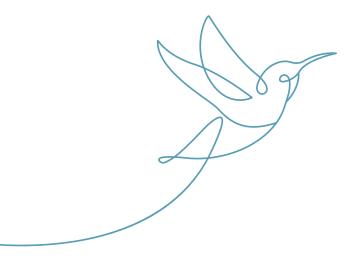
Phase Two of the Water Carriers Project (2022-2024) prioritized the advancement of Indigenous WG2STGD+ peoples' voices in water governance. Phase Two was intended to empower and amplify the voices of Indigenous WG2STGD+ Peoples as Water Carriers in water governance discourses.

Phase Two was divided into two stages from August 2022 through March 2024. The first stage focused on engagement around the experiences, issues, and concerns related to water insecurity and climate change within Indigenous communities. The second stage focused on identifying limitations around decision-making related to water governance and solutions for inclusive equitable water governance strategies. Both phases of engagement during Phase Two also focused on capacity-building opportunities.

2.2.1. ENGAGEMENT ACTIVITIES

Stage One engagement commenced in August 2022 and ended in March 2023. These engagements focused on regional perspectives from Indigenous WG2STGD+ Peoples on the following topics:

- The duties of Water Carriers within Indigenous communities;
- Experiences accessing clean and safe water;
- Traditional Knowledge of water, waterteachings, and environmental stewardship;
- Impacts of climate change on water; and,
- Recommendations for conserving and protecting navigable waters and the environment.



Stage Two engagements commenced in March 2023 and ended in March 2024. These engagements focused on the perspectives of Indigenous WG2STGD+ Peoples on the following topics:

- Risks to potable water within Indigenous communities;
- Value-based approaches to Indigenous water-policymaking;
- Current water governance policies and strategies employed to engage Indigenous communities (women, girls, Two-Spirit, transgender, and gender-diverse people exclusively as well); and,
- Indigenous-led water governance strategies.

3. 0. ENGAGEMENT METHODS

3.1. WATER CARRIERS PHASE TWO, STAGE ONE

3.1.1. SHARING CIRCLES

Stage One of Water Carriers Phase Two included 13 virtual sharing circles, each taking place in one of Canada's thirteen provinces and territories. Sharing circles are a traditional form of group discussion widely used by Indigenous communities to share information. The sharing circles were conducted over a period from September 20 to November 1, 2022, with an average participation of nine individuals per session. The specific number of participants from each region is documented in the chart below.



These sharing circles comprised Indigenous WG2STGD+ Peoples. To ensure inclusive and representative participation, the recruitment of participants was carried out in collaboration with Provincial and Territorial Member Associations (PTMA) representatives and professionals at the Native Women's Association of Canada. Recruitment efforts also involved the use of promotional posters online and peer-to-peer connections. Throughout the sharing circles, discussions were led by a thoughtfully designed discussion guide featuring thematic areas and guiding questions. A <u>summary report</u> that provides a comprehensive overview of the insights and outcomes from these sharing circles is available online.

3.1.2. ELDER INTERVIEWS

In addition to the 13 sharing circles held in Stage One of Phase Two, a series of oneon-one interviews were conducted in February of 2023. The interviews involved conversations with two Indigenous Elders and Knowledge Keepers. These interviews provided additional information on the responsibilities of Elders and Knowledge Keepers as Water Carriers. The interviews focused on the challenges they face in ensuring access to clean water, particularly considering the far-reaching impacts of climate change on water resources. The interviews were led by a discussion guide and involved similar topics to those in the sharing circle discussions. Video recordings of the interviews, which were conducted virtually through Zoom, are accessible on the Native Women's Association of Canada's website (see Table 2: Elder Engagements).

3.2. WATER CARRIERS PHASE TWO, STAGE TWO

3.2.2. ONLINE SURVEY

During Stage Two, a comprehensive online survey was conducted through the Simple Survey platform in June 2023. The survey focused on identifying existing barriers to the involvement of Indigenous WG2STGD+ Peoples in water governance. The survey included 33 questions presented in a multiple-choice format.

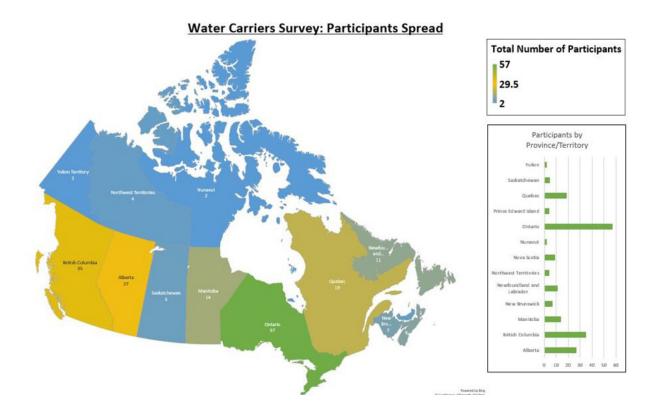
The survey consisted of four themes:

- Concerns regarding current and future water issues within Indigenous communities.
- The value of water within Indigenous communities and the importance of value-based approaches for environmental reconciliation.
- Effective engagement strategies and desired approaches for future decision-making on water policy.
- The effectiveness and desirability of an Indigenous-led water use and management strategy.



Survey participants we recruited online using a convenient sample. Using Eventbrite, invitations were sent to a list of individuals who had previously shown interest in participating in engagement sessions with the Water Carriers project. Participation in the survey was limited to a) Indigenous WG2STGD+ Peoples in Canada and, b) those who had knowledge and experience with water issues and water governance strategies employed within their community. Participants who completed the survey were offered a \$50 honorarium. To facilitate sending the honorariums, at the end of the survey each participant was asked to voluntarily provide their contact information, including their name, home address, email address, and phone number.

The survey was launched on June 14, 2023 and was closed on June 20, 2023. A total of 196 persons completed the survey representing 13 provinces and territories. The geographic demography of survey respondents can be found in the gradient map below:



3.3. INTERVIEW SERIESS

As an extension of the Elder interviews conducted during Stage One of the Water Carriers project's Phase Two, oneon-one interviews were conducted with prominent Indigenous water activists from across Canada. All interviewees have been actively involved in water discourses and water governance solutions; thus the conversations offered technical, political, and cultural insights into vast water issues. These interviews also focused on recommendations for decision-makers. industry, and Indigenous WG2STGD+ Peoples on resolving water crises in equitable and sustainable ways.

3.3.1. SHORT-FORM VIDEOS AND NEWSLETTERS

The one-on-one interviews were held over Zoom, and the conversations were recorded. The recorded transcripts were used to develop two short-form videos and three newsletters. The videos can be viewed here.

The three newsletters were produced monthly during February, March, and April of 2024. These publications build off the conversations held with the Indigenous WG2STGD+ water activists by documenting the water crises faced by Indigenous communities and included recommendations they shared. The newsletters can be accessed here.

4. O. SUMMARY OF FINDINGS FROM EACH ACTIVITY

4.1. PHASE TWO, STAGE ONE

4.1.1. SHARING CIRCLES

The following section presents a summary of the discussions that emerged from the sharing circle sessions.

1. Perspectives on Roles of Water Carrier and Traditional Water Teachings

a. Connections etween Women and the Earth

Participants from all 13 regions shared similar perspectives on their role as Water Carriers. Participants noted the connection between womenkind and the earth through its life-giving ability. They also emphasized their duties as protectors and sustainers of water through traditional water ceremonies and prayers.

b. Water Carriers as Keepers of Traditional Knowledge

A concept frequently shared by participants in the sharing circles was that Water Carriers are the keepers of water knowledge and have a responsibility to disseminate that knowledge to younger generations. The participants also shared some traditional teachings about water and provided clarification on the holistic and reciprocal relationship with water in Indigenous cultures.

c. Water as Medicine, Therapy, and Spiritual Calmness

The participants shared that Traditional Knowledge teaches Indigenous people to respect water and care for it because it is interconnected to all life. Water as a source of medicine, therapy, and spiritual calmness was a recurring theme presented in the sharing circles through various personal stories. The participants also shared thoughts on their utilitarian relationship with water and emphasized its role in their lives.

d. Disconnect between Water Culture and Teachings

While most participants understood what being a Water Carrier is, a few outliers were identified in the circles who, due to the disconnect with their traditional homes and culture, were not deeply educated on the topic. Similar patterns were also identified in conversations about traditional water teachings as many participants shared that they did not know many water teachings and ceremonies as they did not have Elders or Knowledge Keepers around them from whom to learn.

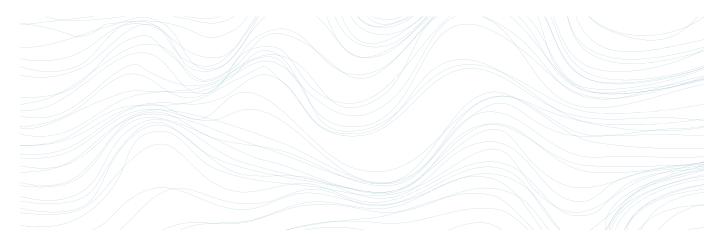
The knowledge shared on their role as Water Carriers and traditional water teachings can be identified in the box below.

Box 1.

"For me, Water Carriers are the activists of our community. We are protesting for our water to be protected for future generations." "I'm not sure about teachings as I didn't have any Elders around me growing up."

"We were always taught that water is sacred; it can feed you, nourish you, cleanse you, and offer transportation. We were taught to take care of the water, and it will take care of you."

"They [Water Carriers] are the knowledge keepers and protectors because water lines reach all across the land much like our veins and nervous system."



2. Knowledge and Access to Clean Water

As identified earlier, water insecurity is a major concern for the health of Indigenous WG2STGD+ people. Therefore, integrating current and past experiences into capacity building could help to develop sustainable mitigation practices.

a. Water Insecurity and Access

Most participants in conversations on access to clean water shared that even though they have not been denied access to water, they have previously experienced or are currently experiencing issues with access to potable tap water¹. The participants shared that their community is currently having to rely on bottled or tanker water provided by their municipality for everyday use.

b. Pollution of Lakes, Rivers, and Wells

Regarding pollution and contamination, most of the participants shared that lakes, wells, and rivers that they live close to and have used for food and water have experienced pollution over the years. A recurring theme among these conversations was that the impacts on Indigenous communities are from infrastructural buildings (e.g., dams and landfills). Environmental injustice from water dumping, agricultural runoff, and commercial oil spills were also some reasons for water insecurity identified by participants in their sharing circles. To understand some of the issues experienced by the participants see box 2 below.

Box 2.

"One of the issues was losing access to our natural water sources; for example, earlier this summer, we were not allowed to use most of our water in the north due to contamination, and nothing is being done to mitigate those issues"- When asked about being denied access to water.

"They should be fishing for what is in the river for food supply instead of trying to pollute and poison the water for eradication."

"The challenges are continued use, pollution, and access to the water. [Other challenges to communities in Newfoundland and Labrador include] Churchill Falls, mines, large scale fish plants, pulp and paper mills, and the increased recreational use of water."

"Nowadays, they can't get a handle on everything that gets into the water. It will be good on one end of the town and not be good on the other end of the town because there is too much chlorine. I'm not drinking the water from the tap now, although years ago I would. I've seen a lot of changes here, and I won't drink from the tap unless the water is boiled."

1 Potable water is also known as water that is safe to be used as drinking water. From Gary R. Brenniman, "Potable Water," SpringerLink (Springer Netherlands, January 1, 1999), https://link.springer.com/referenceworkentry/10.1007/1-4020-4494-1_265.

3. Impacts of Climate Change and Concerns for the Future of Water and the Environment

Climate change can impact natural waterways that are at times used by Indigenous communities as a primary source of food and income. Hence, it is essential to identify the current issues and possible future concerns of Indigenous WG2STGD+ people regarding climate change impacts on drinking water and waterways.

a. Climate Change and Food Security

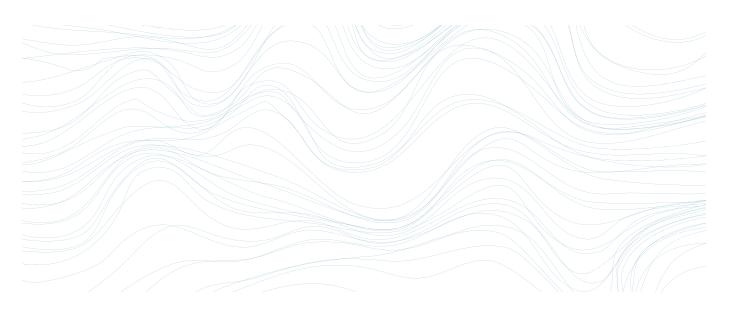
During the sharing circles, a large majority of participants shared that climate change and its subsequent impacts from hurricanes, rising water levels, and droughts are frequently affecting their communities economically and socio-culturally. А few participants who live close to water bodies noted that they have witnessed a decline in fish populations due to droughts and changes in water temperatures. All participants in their sharing circles shared various issues and concerns that they have for the water and environment at large amidst climate change.

b. Water Quality and Industrial Pollution

Some major water quality concerns were shared by participants, such as 1) pollution from infrastructure projects and oil spills; 2) changes in fisheries health due to the exploitation of large fisheries, e.g., drag fishing methods; 3) chlorine/chemical taste in drinking water; 4) increased toxicity in navigable² waters due to chemical runoffs/ climate changes; 5) pollution from old pulp and paper mills in water; and, 5) increased recreational use of water.

c. Water Governance and Infrastructural Projects

The lack of inclusion and consultation in certain infrastructural projects was also noted as an issue experienced by the participants in their community. A few participants also noted that internal governance structures in their communities prevented the inclusion of women's perspectives and input on water-related projects (see box 3 below).



1 Navigable water means a body of water, including a canal or any water created or altered as a result of the construction of any work, that is used or where there is likelihood of it being used by vessels. Legislative Services Branch, "Consolidated Federal Laws of Canada, Canadian Navigable Waters Act," Canadian Navigable Waters Act, November 10, 2022, https:// laws-lois.justice.gc.ca/eng/acts/n-22/FullText.html#:~text=navigable%20water%20means%20a%20body.of%20transport%20or%20travel%20for.

Box 3.

"[The biggest challenges are] industrialization which has contributed to water pollution, chemical emissions which lead to an increase in the ozone layer and cause changes in seasons, and drought which leads to a reduction in water."

"In my hometown, when the pulp and paper mill left over twenty years ago, the business declared bankruptcy, so they had no responsibility to clean up the contamination left behind. The province is left to fix it, but the expense is astronomical. Barrels of chemicals are buried along the river."

"The biggest challenge I face in my community is the unsafe water. Some time back, we had an outbreak of a skin condition in the community, and, after several tests, it was a result of the water we were using. I think the challenge is more man-made since it resulted from pollution."

"I had an issue with climate change with the dropping water level, especially when time goes by. We do not have enough water supply, which we have had for a while now. We need people to help and come up with solutions." "We, First Nations, need to be consulted about the environment. My kids are from Onion Lake, and that lake no longer exists. The chiefs allowed that, but the government would have done it anyway as they ignored them.... A lot of older men are running the show, and they are ignorant."

4. Possible Solutions and Recommendations

Understanding the recommendations for governance and inclusion structures for Indigenous WG2STGD+ Peoples at the grassroots level could help to develop strategies and capacity-building projects that target inclusion in water governance. Hence, the sharing circles also sought the perspectives of participants on what should be done to increase the presence of Indigenous WG2STGD+ Peoples in water governance.

a. Inclusion in Water Governance

Frustration from the lack of inclusion of Indigenous WG2STGD+ Peoples in their communities and governance structures was a common feeling among the participants. All participants shared a common feeling that Indigenous WG2STGD+ Peoples need to be included in the governance of water more frequently. Participants also mentioned increasing the inclusion of Indigenous WG2STGD+ Peoples during decision-making on policies specifically for projects that affect water. Some participants also shared how they are actively working with community members and government representatives to include Indigenous WG2STGD+ Peoples in decision-making and consultation practices.

b. Education about Water and Environmental Activism

Various participants in their sharing circles noted the need for creating education structures or curriculums in schools that focus on teaching the importance of water and environmental activism such that younger generations can make a difference in the future. Nonetheless, the participants mentioned increasing distribution of teachings within their communities as they had experienced knowledge gaps about their traditional ways due to a lack of Knowledge Keepers and Elders.

c. Formation of Indigenous Women Groups

A unique solution to inequality identified by some participants across the sharing circles was the establishment of an Indigenous Women's group within each community across Canada. This concept was introduced by the participants in response to the issue of inequality faced by them within their community on water-related issues. Some participants shared that at times their voices are overridden by community leaders on decisions related to water.

d. Power, Decision-Making, and Leadership

A frequent solution put forward across the sharing circles was the provision of decision-making power to Indigenous communities on any developments near their communities and reserves. The participants shared a strong feeling about



increasing the leadership roles of Indigenous WG2STGD+ Peoples in their communities and government agencies. The perspectives and solutions can be identified in some of the quotations shared from participants in box 4 below.

Box 4.

"I think we should be involved in decision-making on policies and have some input, also come up with ways to teach more people, like creating focus groups on how to use, protect, preserve, and all that surrounds the water."

"There should be a platform created for our women to have a place to create awareness and increase involvement in issues that are impacting our waters."

"I think involving every group in the community in policymaking, for example, the fishermen have their association, and since they interact directly with water, I'm sure they can help when formulating policies."

"I think a lot of ideas are standoffish. Any initiatives will go through the Elders first. They see everything through the lens of the trauma they went through. They should be considerate of new ideas. When you get an education and bring knowledge back to your community, you may be faced with resistance. There is favouritism within the communities. Elders are traumatized and need to let younger people talk."

"I think that to be inclusive of our folks, there needs to be active engagement on many levels. There needs to be a group set up to discuss all topics, not just this topic. If you have a strong community group or foundation of community gathering, that foundation must be already there to communicate any relationships."

4.1.2. ELDER INTERVIEWS

The Elders indicated that water was a repository of their Indigenous heritage and selfhood. They also describe this connection as their DNA being intertwined with the waters, thus evoking a delicate unity that encompasses their very identity. This sentiment extends to neighbouring landscapes. For example, one Elder shared about her rice-gathering expeditions near Curve Lake, which became a symbolic generational sustenance homage to practices. Another Elder indicated that Lake Temagami and the surrounding area have become a haven for Traditional Knowledge on the protection of water and earth.

Yet another Elder in her interview alluded to the symbolic nature of water for Indigenous Peoples especially women, as she describes it as being an integral part of her identity. She also shared the significance of the relationship of water to not just personal identity but cultural identity. She emphasized that, unlike the utilitarian approach nonIndigenous peoples have towards water, water for Indigenous communities is tied to Mother Earth and its sustenance for the long term. The unanimity in the significance of water importance among all Indigenous bands, groups, and cultures was also a common theme in both interviews.

Both participants in their interview shared some of the emotional and spiritual problems that Indigenous women face due to the declining water conditions across Indigenous communities. This was attributed to the intimate relationship Indigenous Peoples have with water. One Elder indicated that non-Indigenous peoples disregard the Indigenous voices due to various aspects leading to the loss of important Traditional Ecological Knowledge that has been passed down from one generation to the next. Sentiment was also expressed on how colonialism and its impacts have made it harder for Indigenous Peoples to connect to their cultural teachings and relate to the land. Both participants shared how their activism in protecting water is met with force or disregard from non-Indigenous peoples. They shared that due to some of the negative connotations surrounding Indigenous beliefs, issues of concern raised by them and their community are not provided with enough attention and mitigation. When asked what can be done to increase the input of Indigenous Peoples in discourses of water governance, both participants shared similar thoughts about Indigenous women, youth, and genderdiverse people needing to become active leaders in their community and take lead roles in issues of water governance.

A central theme in the narrative is their affinity for water and how Indigenous culture bridges the gap between practicality and spirituality. Their words reflect a harmonious relationship with nature, where taking from the land is done with reverence, nurturing a profound kinship. They also share the nature of the intricate interplay between land, water, and Indigenous tradition. Ultimately, their perspectives underline water's significance as not just a source of life and food but as a sanctuary of home and heritage.

4.2. PHASE TWO, STAGE TWO

4.2.1 SURVEY

a. Water issues currently faced and future concerns within Indigenous communities.

When asked to rank their concern regarding water in their community, survey respondents highlighted a widespread concern about the condition of water resources, including more than half who shared being very concerned. Additionally, about four in ten indicate that the condition of water resources in their community has declined while three in ten say that the condition has stayed the same compared to ten years ago. Half of the communities have experienced contamination of a water body in the past five years. About four in ten have experienced a boil water or no drinking water advisories (43%) and a lack of clean drinking water (42%) in the past five years.

Nonetheless, four in ten participants have experienced violations of their rights to access clean and safe water. About nine in ten of those participants who have experienced violations of rights to water say that their ability to conduct cultural and spiritual practices in and around water has been affected. Moreover, six in ten participants say that climate change has affected their ability to experience spiritual and cultural fulfillment from water. Additionally, half of the survey participants say that violations of their Indigenous rights have affected their own and their community's ability to harvest fish and other animals that depend on water. Although survey participants indicated issues with water conditions, they had a relatively positive response when asked if their communities have enough water resources to meet long-term needs.

b. Understanding the value of water in Indigenous communities and its importance in value-based approaches for environmental reconciliation.

Survey participants (98%) displayed an importance towards Indigenous values being added in water-related decisionmaking, wherein three in four participants believe that it is very important to include Indigenous values in decision-making on water. When asked what values should be considered for water-related decisionmaking, 83% of survey participants pointed to the value of water as being a source of spiritual and cultural fulfillment. Water as a source of food and health was also found to be an important value to consider in decision-making, while the recreational value of water was given the least importance.

More than three in four say that water is sacred (76%) and a source of spiritual calmness (75%). Additionally, water is a community (66%), water is a source of therapy (60%) and medicine (55%) were some of the most common values shared among survey participants. Despite the inclusiveness of gender-diverse people within Indigenous communities, two-thirds have experienced barriers due to their gender identity that limited their ability to either access clean water, perform cultural rituals and practices, or protect and conserve their territorial waters.

c. Effective engagement strategies and desired approaches for future decision-making on water policy.

Only four in ten say that there are policies or rules in place in their community for the specific inclusion of Indigenous women, girls, and gender-diverse individuals in decision-making on issues relating to water. Over half (54%) see active efforts by local municipalities or governmental agencies to include Indigenous women, girls, and gender-diverse individuals in decisionmaking on water and climate change issues. When asked about their engagements with external stakeholders, half of the survey participants think that local government (50%) and external contractors and service providers (49%) are the most difficult to engage with about water issues in their community or region. Regional and provincial governments (42%) and federal governments (39%) were also identified as being difficult to engage with. Moreover, two in three survey respondents think that lack of funding to support engagement activities (68%), lack of political will, commitment, or leadership (56%), weak legal framework to support Indigenous engagement (54%), and misaligned objectives between government entities and local community (49%) most hinder engagement on water-related issues. Respondents have received information about water mostly through meetings (48%), web-based communication technologies (46%), and hotlines (34%). Among others, web-based communication technologies (50%) and meetings (42%) have been perceived as most effective in transmitting information about water within Indigenous communities. Survey participants also indicated that tools such as long-term funding (66%) and investments to develop Indigenous knowledge (63%) would help communities establish effective local water management strategies.

Moreover, planning and management that supports economic benefit and employment (57%) and prevalent partnership with governments on the management of water and issues (52%) were also seen as some desired tools and supports for developing an effective local water management strategy. When asked about what values and approaches should be considered for resilient Indigenous water management or use strategy, most respondents found all value approaches examined as important with six in ten saying very important across all.

Honouring Indigenous outlooks on water management (77%) and promoting Indigenous women, girls, and genderdiverse individuals into managerial roles (71%) were most chosen as very important. Integrating Indigenous values with Western science (68%), co-building relationships between communities and governments (67%), and co-building formal arrangements of shared decision-making (67%) were also seen as very important.

d. Evaluating the effectiveness and desirability of an Indigenous-led water use and management strategy for environmental sustainability.

Six in ten (62%) survey respondents say that their community or region has a dedicated water resource policy at the local or regional level. Furthermore, seven in ten say their local or regional water policy indicates clear goals. Participants also say that the policies identify external resource needs for achieving goals (46%), outline emergency strategies or plans (45%), and are regularly monitored (44%). When asked if any water governance initiatives have been established in their community or region, over half (56%) indicated that water resource use and management strategies have been established.

Four in ten participants (40%) say that education programs that raise awareness of water risks have been established in their community or region. Regarding strategies that contribute to sustainably built, operated, and maintained water infrastructure, thirty-six per cent (36%) say they have been established in the community or region and (36%) indicate that initiatives that develop legal and regulatory frameworks for protecting Indigenous rights exist in their community or region.

Nine-five per cent (95%) of participants widely believe that a regional strategy for managing and protecting water, led by Indigenous WG2STGD+ Peoples, would be effective with over seven in ten believing it would be very effective and eight in ten believing that high priority should be given to an Indigenous-led water resource management strategy.

Seven in ten participants think that a lack of Indigenous representation in water governance decision-making has hurt Indigenous WG2STGD+ Peoples and their relationship to water. Four in ten participants among those say that the impact is strongly negative. Moreover, four in ten (42%) think policies that protect and promote the right to waters and resources would best protect waterways without violating Indigenous Treaty Rights compared to policies that protect and promote the right to traditional and customary governance (33%) and rights to institute laws (26%).



4.3. ONE-ON-ONE INTERVIEWS

The interviews held with Indigenous water activists were guided by preliminary questions; however each discussion was an open dialogue about the conditions of water within Indigenous communities amidst climate change. These open dialogues covered a vast array of subjects and observances from Indigenous communities across Canada. While the interviewees came from different experiences, regions, and generations, there was a consensus that the water crises affecting Indigenous communities remain vastly unsettled. Interviewees specifically identified how such water crises will have long-term impacts on all areas of life for both human and non-human occupants - impacts that go far beyond the reach of popular solutions like water infrastructure projects.

For instance, the first interviewee spoke about the mental, physical, and cultural implications of long-term water advisories and the toll they can have on the wellbeing of a community. She reflected on her experiences within communities like Grassy Narrows First Nation whose population largely suffers mercury poisoning due to waterway contamination. She expressed that not only does this interrupt cultural practices and traditions, but the health complications felt by such Indigenous communities, at both the physical and mental level, will be felt for generations and will require significant intervention.

Beyond the human experience, the interviewees expressed concern for the well-being of the non-human world that is also undoubtedly affected by water crises. One interviewee shared how a large waterway near her community was contaminated by mercury for several years, severely impacting the aquatic life. Many of the fish populations that her community relied on for food and economic sustenance became ill and significantly dwindled. Another interviewee mentioned concerns about climate change and how she has increasingly witnessed waterways drying up. She explained how animals and insects have been forced to migrate to other regions in search of water. She noted that "they [nonhumans] cannot buy water or install water systems like humans, they simply have no other choice."

Another interviewee touched on the growing issue of plastic pollution, whereby many Indigenous communities who do not have access to clean drinking water have had to rely on bottled water solutions despite not having a nearby recycling facility, especially communities located in remote regions. The result is unsustainable disposal sites that affect the environment today and potentially for decades to come.

While the interviewees acknowledged the importance of continuing Canada's mission towards equitable access to clean potable water by way of water infrastructure projects, they emphasized that we must go further as a nation to address the cascading effects of previous and ongoing water crises. A reiterated suggestion was that to truly overcome water inequality and water crises, especially amidst climate change, we must return to Indigenous methodologies. This is because the practices and teachings of Indigenous cultures stem from an understanding that humans are interconnected to the world around them, and, by this token, humans have a responsibility to care for and respect their environment to the highest degree possible. As one interviewee stated:

There are these 2 simple lessons that an Elder told me:

- 1. Never take more than you need.
- 2. Leave things better than you found them.

If everyone followed these simple principles, we wouldn't have these issues."

Based on this premise, the decisions made by governments, industry, professionals, and Indigenous communities regarding water should prioritize the well-being of all life forms potentially affected, not simply humans. So, as the interviewees suggested, rather than just initiating water infrastructure projects to fix those water issues that humans ultimately created, perhaps Canada should reconsider the ways humans use water in the first place. In doing so, Canada may be able to achieve water equality and sustainability in a proactive, efficient way.

However, as the interviewees discerned, Canada cannot ethically turn to Indigenous methodologies under circumstances of Indigenous disparity; therefore, decolonial efforts must continue to be enforced, and Indigenous communities must be liberated from current unjust conditions to achieve countrywide water resolutions. A major component to this objective, as the interviewees expressed, is to strive for Indigenous water governance, whereby Indigenous Peoples and cultures can direct the ways water is treated and used to ensure long-term safety and security of the lifeforms dependent on water. An approach to achieve this outcomes, as has been outlined in other areas of this report, is to empower Indigenous WG2STGD+

Peoples to occupy water governance roles because they have significant knowledge and expertise in water.

5. 0. RECOMMENDATIONS FOR FUTURE PRACTICES

Empowering Indigenous voices, decisionmaking power, and community involvement stands as a foundational pillar to fostering stronger relationships between Indigenous communities and the Canadian government. A critical aspect of this endeavour involves revitalizing water governance planning processes across Canada. To facilitate this transformation, adopting an Indigenous culture and value approach with a local outlook is paramount. This approach echoes the recommendations of the Truth and Reconciliation Commission of Canada (TRC), emphasizing the significance of recognizing and honouring Indigenous Peoples' deep spiritual and cultural connections to water sources. It aligns with the TRC's Call to Action 33, which underscores the importance of integrating Indigenous worldviews into resource management practices (Truth and Reconciliation Commission of Canada, 2015).

Incorporating Indigenous Traditional Knowledge alongside Western scientific expertise is also pivotal for crafting comprehensive and effective water policies. By linking Indigenous insights, which have been cultivated overgenerations, with current scientific understanding, policymakers can gain a holistic understanding of water ecosystems (Hayward et al., 2021). Such integration recommendations can be found in Article 31 of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), wherein preservation and transmission of Indigenous Traditional Knowledge is seen to be pivotal for holistic environmental sustainability practices (United Nations, 2007).

Recognizing the disproportionate impacts of climate change on Indigenous communities, collaborativeinitiativesthatuniteIndigenous knowledge and governmental expertise can pave the way for innovative solutions. Embracing principles of co-management, as articulated in the United Nations Economic and Social Council's guidelines, can help to promote shared responsibility and mutual benefits (United Nations Economic and Social Council, 2005). A promising solution in this direction is the establishment of Local Indigenous-led Water Governance Groups. These groups, operating at the grassroots level, can combine Traditional Ecological Knowledge with modern governance structures (Arsenault et al., 2018). Having Indigenous WG2STGD+ Peoples at the forefront of these government groups, helps integrate vital Traditional Knowledge and values that align with environmental stewardship (Bulowski, 2022). This approach has not only shown success in various current local contexts (i.e., British Columbia, Alberta, and throughout the Prairies), but it also has the potential to foster adaptive and culturally sensitive water management practices for the future (Bulowski, 2022).

of Prioritizing the empowerment Indigenous WG2STGD+ Peoples' rights, voices, decision-making power, and community involvement is a definitive step toward nurturing improved relationships between Indigenous communities and the Canadian government (McKibbin, 2023). By incorporating Indigenous perspectives, such as those gathered in this project, embracing collaboration, and empowering diverse voices, Canada can forge a path toward sustainable water management and stronger Indigenous-government relations (Simms et al., 2016).



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