GLASS HALF EMPTY?

YEAR 1 PROGRESS TOWARD RESOLVING DRINKING WATER ADVISORIES IN NINE FIRST NATIONS IN ONTARIO
Acknowledgments

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               The Council of Canadians

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**THANKS TO**  Assembly of First Nations

**TRIBAL COUNCILS**  Anishinaabeg of Kabapikotawangag Resource Council
                     Bimose Tribal Council
                     Keewaytinook Okimakanak/Northern Chiefs
                     Matawa First Nations Management
                     Mushkegowuk First Nations Council
                     Ogemawahj Tribal Council
                     Windigo First Nations Council

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This paper focuses on water services to First Nations. Under the constitutional division of powers, services in First Nations are an area of federal responsibility. Under the Constitution, First Nations, Inuit and Métis peoples are recognized as “Aboriginal peoples” with distinct rights. The term *Aboriginal* is equivalent to the term *Indigenous*, which is used to define a set of unique state obligations in international law.
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Status
- Glass Empty
- Glass Half Empty
- Glass Full
Legend of community assessment

**GLASS FULL**
DWA has been lifted or is highly likely to be lifted within the five year commitment.

**GLASS HALF FULL**
Efforts underway, but continued uncertainty about whether the DWA will be lifted within the five year commitment.

**GLASS EMPTY**
Unless current processes and procedures are reformed, unlikely that DWA will be lifted within the five year commitment.
Sheldon Oskineegish in the water treatment plant in Nibinamik First Nation.

(Photo credit: Rachel Plotkin)
Executive summary

After years of pressure from First Nations, Indigenous and social justice organizations, the incoming Liberal government committed to ending all First Nations long-term drinking water advisories (DWAs) within five years as part of its 2015 election platform.1 The issue has received significant attention, and the 2016 budget proposed to invest $1.8 billion over five years starting in 2016-17 on top of core funding to First Nations for water infrastructure, operations and management.2

Almost one year after the budget announcement, the process for attaining clean and safe drinking water for First Nations remains flawed. Changes must be made to this complex process for the federal government to maintain progress toward its goal of ending long-term DWAs. Funding alone will not resolve the issue.

A coalition of organizations has come together to monitor progress on resolving First Nations DWAs in Ontario, including the David Suzuki Foundation, Amnesty International, the Council of Canadians and Human Rights Watch. As of November 2016, Ontario has 81 DWAs in 44 First Nations, with 68 of those classified as long-term.3 The province claims the highest number of DWAs in the country.

The David Suzuki Foundation assessed progress toward ending long-term DWAs in nine First Nations in Ontario. Data were compiled from interviews, meetings, conferences, reports and media releases, to assess the progress and challenges First Nations face in attaining clean and safe drinking water. Each organization provided input and expertise based on work it has conducted on this issue.

Our research revealed that only three First Nations are on track or have had the DWA lifted; in three First Nations, efforts are underway but there is continued uncertainty about whether the DWA will be lifted within the five year commitment; and for three First Nations, unless current processes and procedures are reformed, it is unlikely the DWA will be lifted within the committed time frame. Constance Lake lifted its long-term DWA in 2016, but, shortly after, the water operator reported that $793,920 in repairs was needed.4 This demonstrates that solutions to drinking water issues cannot be quick fixes and need to be sustainable in the long term. Nonetheless, our report reveals some bright lights from investments in innovation, such as First Nations-led water programs that have emerged with support from the federal government and have been successful in resolving local water issues.

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3 A long-term DWA is one that has been in place for more than one year
4 Personal communication, Wesley Bova, manager of technical services, Matawa First Nations Management. January 17, 2016
Many First Nations experience chronic water issues, even when neighbouring municipalities enjoy access to safe, clean and reliable drinking water. These challenges are compounded by, and partially a result of, historical injustices First Nations face as a result of the legacy of colonialism, forced relocation, residential schools and systemic racism in Canada.5

The causes of DWAs are often attributed to technical factors like equipment malfunction, lack of disinfection and unacceptable microbiological quality,6 but past research by our organizations7 and current conversations with First Nation members and water technicians reveal the root causes behind the lack of progress in resolving DWAs. These, and our recommendations for addressing them, are outlined below:

1. A highly complex and cumbersome federal process

   **Recommendation:**
   - Work with First Nations to streamline and simplify the process for capital investments in water infrastructure by identifying roadblocks and reducing bureaucracy.

2. Lack of a regulatory framework to govern drinking water for First Nations

   **Recommendations:**
   - Work with First Nations to identify an appropriate regulatory framework.
   - Collaborate with First Nations in co-developing and implementing source water protection and restoration plans.

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6 According to Health Canada, 2016, the primary causes for DWAs were: disinfection (32%), equipment (30%), microbiological quality (18%), source water quality (6%), operation would compromise (8%), turbidity (6%). From AFN analysis of DWA reports.

3. Insufficient infrastructure funding and ineffective allocation process

**Recommendation:**
- Work with First Nations to establish federal funding levels and formulas for First Nations drinking water and sewage systems so that existing systems are not further degraded and water system repair and restoration is not subject to delay.

4. Lack of adequate resources for operations and management

**Recommendations:**
- Work with First Nations to establish federal funding levels and formulas that provide sufficient operations and management capacity to meet their needs.
- Eliminate the pay gap between water systems operators in First Nations and comparable municipalities.

5. Lack of First Nations decision-making power over resolving drinking water issues in their communities

**Recommendations:**
- Support First Nations-led approaches to drinking water that recognize the leadership of First Nations governments and organizations.
- At the request of First Nations, support development of collaboration between First Nations and provincial governments.
- Take into account context-specific issues for First Nations, such as appropriate construction seasons.
- Fulfil government commitments to implement the United Nations Declaration on the Rights of Indigenous Peoples, particularly free, prior and informed consent for laws and regulations related to First Nations water, and the UN-recognized human right to safe drinking water and sanitation endorsed by Canada.
6. Lack of transparency in federal monitoring of progress toward ending DWAs

**Recommendation:**
- Increase federal transparency and reporting of budget spending and progress toward ending long-term DWAs in First Nations.

7. Lack of holistic approach to addressing clean drinking water

**Recommendation:**
- Ensure that water issues are not addressed in isolation but are linked to wider issues such as housing, infrastructure, training and the impacts to watersheds from industrial activities.

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**WHAT ARE DRINKING WATER ADVISORIES?**

A drinking water advisory is a preventative measure implemented to protect public health when drinking water could be contaminated.8 DWAs can be classified into three categories, depending on the severity and nature of the problem.

From least to most severe, these categories are:

- **Boil water advisory/order:** Water is fine to drink and use after it has been boiled
- **Do not consume advisory/order:** Water cannot be consumed
- **Do not use advisory/order:** Water cannot be used or consumed

It is important to note that the number of advisories in place is constantly fluctuating, and is not exhaustive. A number of First Nations and health authorities report that many DWAs go unreported or remain voluntary.

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Water treatment plant in Shoal Lake 40.

© 2015 Amanda Klasing/Human Rights Watch
Introduction

Provision of safe drinking water in First Nations is managed at the federal level with responsibilities shared across many departments, including Environment and Climate Change Canada, Indigenous and Northern Affairs, and the First Nations and Inuit Health Branch of Health Canada. The issue of access to safe, clean drinking water has impacted First Nations for several decades, largely because of inadequate funding for water treatment plants, infrastructure, operations, maintenance and training. By the federal government’s own admission, “severe underfunding over the past decades has created this unacceptable situation.”

Significant additional resources will be required to close the resource gap.

DRINKING WATER ADVISORIES IN FIRST NATIONS ACROSS CANADA

In fall 2016, 151 drinking water advisories were in effect in First Nations across Canada. More than 100 water advisories are routinely in effect, with some First Nations living under advisories for nearly 20 years. Shoal Lake 40 First Nation has called for an end to a century of forced isolation while First Nation members have been subject to a boil water advisory for 20 years. Kitigan Zibi in Quebec has been under a do not consume order for over 17 years because of uranium contamination. Nazko First Nation in British Columbia was only recently able to drink its water after having been under a do not consume advisory because of high levels of arsenic and manganese for 17 years.

Most DWAs in First Nations are boil water advisories. However, a handful of First Nations are under do not consume orders, including: Potlotek (NS) Kitigan Zibi (Quebec), Bear Skin (ON), Wahta Mohawk (ON), Grassy Narrows (ON), Northwest Angle No. 33 (ON) God’s Lake First Nation (Manitoba), Pinaymootang First Nation (Manitoba) and Peter Ballantyne Cree Nation (Saskatchewan).

The number of people affected by each DWA can vary considerably. In some instances, a single DWA can mean as many as 5,000 people lack access to safe, clean drinking water. Yet for many First Nations the number of people affected is marked “Unknown” by Health Canada. Some of the longest advisories date as far back as 1995 (Neskantaga First Nation in Ontario), 1997 (Shoal Lake 40) and 1999 (Kitigan Zibi in Quebec).

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Under the typical federal process to address DWAs, First Nations seeking to update or upgrade their drinking water systems enter into a long process with several key steps.\(^{10}\) Funding is an important component of every stage of the process. Drinking water projects can range in cost from several hundred thousand to several million dollars. To obtain base funding and preliminary project approval from Indigenous and Northern Affairs Canada (INAC), First Nations must complete a feasibility study, often self-funded, or funded through programs like the Small Communities Fund (from Ontario’s Ministry of Infrastructure). From start to finish, First Nations drinking water projects often take between five and 10 years to complete at a minimum, with delays related to funding, seasonality and shifts in political priorities being far too common. In the meantime, First Nations can live for decades with unsafe water.

Framework for drinking water for First Nations

First Nations drinking water in Ontario is governed by a complex regulatory and policy scheme that involves many different actors. Part of the complexity relates to the fact that First Nations are not considered municipalities. Municipal drinking water falls under provincial responsibility, while First Nations drinking water falls under federal responsibility. Unlike municipalities in Ontario where drinking water is protected by a number of pieces of legislation and enforceable safe drinking water regulations, no binding federal standards hold any level of government accountable for clean drinking water in First Nations. By all legal standards, there have never been any regulations governing drinking water for First Nations. Provinces take into account federal drinking water quality guidelines in creating their own regulations, but the federal guidelines are not enforceable, and provincial laws generally do not apply to water and wastewater treatment in First Nations. This has left First Nations drinking water in a regulatory void.

SAFE DRINKING WATER FOR FIRST NATIONS ACT (2013)

First Nations and Indigenous and social justice groups have raised concerns about the Safe Drinking Water for First Nations Act that was introduced in 2012 to the Senate. Of particular concern is the fact that Senate bills do not require the federal government to identify resources for implementation of the bill.

In developing the act, many First Nations were not consulted and the act itself does not require consultation for the development of regulations for safe drinking water for First Nations. While high drinking water standards are needed in First Nations, the act failed to allocate sufficient funding to reach such standards.

The treaty relationship and constitutional protection of Indigenous rights are intended to ensure the full and meaningful participation of Indigenous peoples in decisions affecting their communities. The UN Declaration on the Rights of Indigenous Peoples and a wider body of international law also protect the right of Indigenous peoples to make their own decisions about their lives and futures. Measures as important as safe drinking water legislation must not be arbitrarily imposed; any law or regulations involving safe drinking for First Nations should be developed with the free, prior and informed consent of First Nations (see textbox on international commitments on page 24).\(^\text{11}\)

Findings

Nine First Nations with long-term DWAs across Ontario were surveyed by compiling data from conferences and interviews with tribal council representatives, water treatment operators, First Nations organizations and government officials. News reports and releases, and reports and information on Health Canada’s website were also reviewed to determine the likelihood that these First Nations will meet the government’s five-year commitment to end DWAs in First Nations.

Of the nine First Nations surveyed, we found three are very likely to have their DWA lifted within the five year commitment, or the DWA has already been lifted:

- Constance Lake First Nation
- North Spirit Lake*
- Slate Falls Nation*

For three First Nations, efforts are underway, but there is continued uncertainty whether the five-year deadline to lift the DWA can be met:

- Anishinabe of Wauzhushk Onigum
- Shoal Lake 40
- Obashkaandagaang

For three First Nations, unless current processes and procedures are reformed, it is unlikely the DWA will be lifted within the five year commitment:

- Wawakapewin First Nation*
- Northwest Angle No. 33
- Nibinamik First Nation

*These First Nations are involved in the Safe Water Project (see text box page 24).

See Annex 1 (page 27) for a description of each of these First Nations.
AAMJIWNAANG FIRST NATION:
A PROFILE OF CRITICAL DRINKING WATER ISSUES NOT COVERED BY DWAS

Tribal Council: Southern First Nation Secretariat
Population: 2,300 people
“Aamjiwnaang (pronounced am-JIN-nun) means “at the spawning stream”

“Water is sacred. We are made up of water just like parts of the surface of the earth. Water is our first teaching; it sustains life. Can you imagine a place where the water is considered toxic? This is life in Aamjiwnaang,” say two sisters, Vanessa and Lindsay Gray, who have lived in Aamjiwnaang First Nation (Sarnia) all of their lives.

There are 63 petrochemical facilities on the traditional territory of Aamjiwnaang First Nation. The facilities now completely encircle the First Nation. The region is also known as Chemical Valley and has been ranked by the World Health Organization as one of Canada’s top hotspots for air pollution. Residents experience high rates of cancer, asthma, high blood pressure, headaches, learning disabilities, birth defects, stillbirths, miscarriages and a low life expectancy. Polychlorinated biphenyl (PCBs) and mercury have been found in residents’ blood and hair.

Aamjiwnaang has the first documented case of endocrine disruption. The air and water supply has been so contaminated by the petrochemical industry that two girls are born for every boy. Under the United Nations recognition of the human right to water, governments must step in to ensure that third parties such as corporations or extractive industries aren’t destroying local water systems.

Despite the impacts the petrochemical industry is having on drinking water and residents’ health, Aamjiwnaang is not under a water advisory. There have been signs around Telford Creek warning First Nation members not to swim or touch the polluted waters of the creek.

What’s more, expansion of Line 9, a pipeline that carries 240,000 barrels of oilsands and Bakken crude oils per day from Sarnia to refineries in Quebec, was approved in September 2015 and is yet another threat to the First Nation’s water and health. Vanessa Gray, Sarah Scanlon and Stone Stewart turned off an Enbridge Line 9 pipeline valve to send the message that they want this pipeline stopped to protect water, climate and community health.

To date, First Nation members have called for a stop to an increase in pollution permits, decommissioning of Enbridge’s Line 9 and other pipelines, water monitoring, remediation, and recognition of Indigenous title and water rights. But these demands continue to be ignored to the detriment of the people of Aamjiwnaang First Nation, the waters and the air that people breathe.

The polluted waters in Aamjiwnaang First Nation are an example of why the federal government must expand its commitment beyond ending boil water advisories in First Nations. Some water advisories are more severe than boil water advisories, such as do not consume advisories. There are also Indigenous First Nations that do not have clean, safe drinking water but are not under any water advisory, like Aamjiwnaang First Nation. The federal government must commit to ensuring that every First Nation has clean drinking water.

Federal government: Assessment of progress

Over the course of our assessment of First Nations drinking water in Ontario, certain challenges emerged again and again. These challenges are summarized as follows:

1. A highly complex and cumbersome federal process

The process for resolving situations of unsafe drinking water infrastructure is extremely complex and filled with obstacles, leading to gaps and delays. INAC regularly conducts risk assessments for First Nations’ centralized drinking water systems across Canada. Based on these assessments and other variables, they create a priority ranking system that guides their funding allocation for First Nations water projects. The formulas used and the rankings themselves are extraordinarily confusing, which means many First Nations leaders are often unsure about where their First Nation stands or when they should expect to be eligible for capital funding.

During our conversations with First Nations, we heard that many often experience delays in receiving funding approval and then in receiving the funds. This is often accompanied by a lack of communication from the government regarding when the money will be disbursed. Funding commitments are also generally made one year at a time according to the government’s fiscal calendar, which can lead to difficulties for First Nations when it comes to the long-term planning, training and hiring processes for their water projects.14

Navigating this system involves completing excessive amounts of paperwork, technical expertise, time and understanding of bureaucratic processes. Often the complexity of this funding scheme leads First Nations to hire outside help from consulting firms to secure funding sources to pay for their First Nation’s infrastructure projects. INAC has reported that it is possible to move through the design, construction and commissioning stages of a water treatment plant in three years;15 however, the lived experience of many First Nations across Ontario puts the time frame between five and 10 years at minimum.

Recommendation:

- Work with First Nations to streamline and simplify the process for capital investments in water infrastructure by identifying roadblocks and reducing bureaucracy.

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2. Lack of a regulatory framework to govern drinking water for First Nations

There is no regulatory framework holding the federal government accountable to First Nations for safe drinking water in First Nations. This is largely because provincial laws and regulations that apply for municipalities in Ontario do not apply to First Nations, which are considered federal lands under federal jurisdiction. Enabling legislation passed in 2013 gave the government the authority to develop water and wastewater regulations for First Nations, under the Safe Drinking Water for First Nations Act (2013) (see text box on page 14), but it does not compel the government to do so. This means that no level of government is currently held accountable to ensure that First Nations drinking water is clean and safe. Engineers working in the field told us they apply provincial standards as guidance for their operations. However, because this is an informal approach, it does not empower the First Nation in its efforts to hold the federal government accountable when underfunding, equipment breakdown and other issues prevent them from living up to these standards.

There are also gaps in effective regulatory processes to protect water at its source. Source water protection (SWP) is the first step to ensuring clean and safe drinking water, as outlined in the multi-barrier approach advocated by the federal and provincial government.16 In Ontario, SWP plans are developed by the provincial government to protect municipal drinking water sources, but most northern First Nations fall outside the jurisdiction of these plans, which are developed through regional conservation authorities. Most First Nations do not have SWP plans.

Recommendations:

- Work with First Nations to identify an appropriate regulatory framework.
- Collaborate with First Nations in co-developing and implementing source water protection and restoration plans.

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3. Insufficient infrastructure funding and ineffective allocation process

First Nations have limited options to finance their water systems, and funding has historically been inadequate to resolve the drinking water crisis (see introduction). Further, funding options are often highly bureaucratic and complex.17

To compound this, First Nations often have limited access to additional or alternative funding sources. Unlike municipalities, First Nations must spend significant amounts of time investigating funding sources for drinking water projects. Often, this involves utilizing various funding sources, which must be secured at various stages of the project — to complete a feasibility study, contract an engineering firm, complete detailed design plans and ultimately to construct the plant. Most First Nations need to find numerous funding sources, some even within the same institution, to support their water projects. While most funding comes directly from INAC, some additional funding sources include the Small Communities Fund from Ontario’s Ministry of Economic Development, Employment and Infrastructure; the Clean Water and Wastewater Fund from Infrastructure Canada; and funding for pilot projects through INAC (such as the Safe Water Project).

Recommendation:

- Work with First Nations to establish federal funding levels and formulas for First Nations drinking water and sewage systems so that existing systems are not further degraded and water system repair and restoration is not subject to delay.

4. Lack of adequate resources for operations and management

Many of the technical service managers we spoke with at tribal councils in Ontario cited funding for operations and management as an issue for First Nation’s drinking water systems. It is generally agreed that outdated and deteriorating infrastructure are only one part of the drinking water problem. Without proper operations and management, water treatment plants that could have had lifespans of many decades fall into disrepair long before their expiration date. Barry Strachan, public works manager at the Keewaytinook Okimakanak Tribal Council, explains that in the 1990s the federal government invested a great deal of money into water infrastructure for First Nations. INAC did not, however, give due consideration to assisting First Nations’ plans to operate and maintain their water plants in the long term.18

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18 Personal communication, October 18, 2016, Barry Strachan, public works manager, Keewaytinook Okimakanak Tribal Council
The federal government funds 80 per cent of First Nations operations and management costs, leaving First Nations to come up with the remainder, something that, for many First Nations, is a challenge. However, even if the First Nation can come up with the remaining 20 per cent, the total budgeted estimate for operations and management is most often not enough to properly train and retain qualified water treatment operators, nor is it enough to finance necessary repairs to water plants. The funding formula used by INAC is based on an outdated model that does not necessarily bear resemblance to the actual operations and management costs of the facility. These issues demonstrate that simply funnelling money into infrastructure projects for First Nations is not enough. More careful consideration needs to be given to operations and management budgets to ensure water plants are sustainable over the long term.

INAC asset assessments have consistently found that the lack of qualified operators is a significant risk to safe drinking water in First Nations. However, INAC has failed to adequately address recruitment, training and retention of skilled technicians. Those working in the field have long been aware that major discrepancies exist between pay rates and training that municipal and First Nations water treatment operators receive. Some technical service advisers estimate this discrepancy to be around 40 per cent, meaning water treatment operators who work in First Nations will earn almost half of what they could make in municipalities. The Ontario First Nations Technical Service Corporation is researching this pay inequity. It’s clear that municipalities often have more money and flexible financing to attend to urgent capital needs in their infrastructure, ensure proper operation and maintenance, train and pay operators a competitive salary to encourage staff retention. This pay gap could make the retention of qualified First Nation operators difficult. Once they are trained, operators could start working for a third party or municipality, where they could earn significantly higher pay. Therefore, both INAC and the First Nations stand to lose their invested time and money in training operators when funding is not sufficient to pay a fair wage.

Recommendations:

- Work with First Nations to establish federal funding levels and formulas that provide sufficient operations and management capacity to meet their needs.
- Eliminate the pay gap between water systems operators in First Nations and comparable municipalities.

5. Lack of First Nations decision-making power over resolving drinking water issues in their communities

First Nations often don’t have enough control over the design and implementation of water systems in their communities. Many First Nations that we spoke with reported that negotiations with INAC for drinking water projects often do not leave very much space for First Nations-led decision-making.

New First Nations-led community programs like the Safe Water Project (see textbox page 24) have proven to be successful in putting First Nations individuals in positions of leadership to determine ways to address the drinking water crises in their communities, based on their own-first hand knowledge of what is needed. The Safe Drinking Water Project advances a First Nations-led approach that takes into account the specific context of each community to resolve ongoing water issues flowing from gaps in operations and management capacity. To date, it has focused on training and retaining qualified First Nations water operators and staff, with outcomes that support long-term sustainability rather than temporary solutions.

There is also a general lack of consideration for First Nations traditional knowledge and context-specific issues, such as seasonality, in government-led processes. Many First Nations are remote and can only be accessed by plane or in the winter months when ice creates winter roads. This makes construction season a huge consideration in many First Nations water projects. Construction can be delayed for entire seasons if funding is not secured in time. It is important to note that there are no considerations of seasonality with funding provided by INAC; funding is awarded according to fiscal year deadlines, which often causes bottlenecks.

Construction season is just one of many issues that affect northern and remote communities. Issues of equipment mobilization, access to skilled labour, logistical costs and geotechnical conditions all increase costs and need to be taken into account. These issues demonstrate that a one-size-fits-all solution to First Nations drinking water issues will never work, and that the context of each community must be considered.

TRILATERAL PROCESSES

There is some movement in Ontario toward trilateral agreements between the federal government, the province and First Nations governments. Ontario has created an Indigenous Drinking Water Projects Office under the Ministry of the Environment and Climate Change that brings technical expertise such as engineering to the table. This department has spent time on the road, visiting First Nations to gain insights into First Nation-specific drinking water needs while playing an advisory role to a number of First Nations in Ontario and the federal government.
CANADA’S INTERNATIONAL OBLIGATIONS

Ending DWAs in First Nations is a critical part of implementing the human rights to water and sanitation that Canada has endorsed. Beginning in 2010, the United Nations passed several resolutions recognizing the human right to water and sanitation, and again recognized these rights in the 2015 Sustainable Development Goals.

On May 9, 2016, INAC Minister Carolyn Bennett and Justice Minister Jody Wilson-Raybould announced at the UN in New York that Canada fully endorsed the Declaration on the Rights of Indigenous Peoples (UNDRIP). Article 19 makes clear that “States shall consult and cooperate in good faith with the indigenous peoples concerned through their own representative institutions in order to obtain their free, prior and informed consent before adopting and implementing legislative or administrative measures that may affect them.”

Recommendations:

- Support First Nations-led approaches to drinking water that recognize the leadership of First Nations governments and organizations.
- At the request of First Nations, support development of collaboration between First Nations and provincial governments.
- Take into account context-specific issues for First Nations, such as appropriate construction seasons.
- Fulfil government commitments to implement the United Nations Declaration on the Rights of Indigenous Peoples, particularly free, prior and informed consent for laws and regulations related to First Nations water, and the UN-recognized human right to safe drinking water and sanitation endorsed by Canada.

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6. Lack of transparency in federal monitoring of progress toward ending DWAs

Although the gaps in the regulatory regime make accountability for safe drinking water in First Nations murky, lack of transparency with respect to how INAC disburses funds and meets its stated objectives introduces a different accountability challenge. First Nations and watchdog organizations cannot adequately track whether or not INAC is working efficiently toward meeting drinking water goals in First Nations. Greater transparency is needed from INAC. The department’s progress on ending drinking water advisories within each First Nation in Canada, its method of assessment and its budget allocations should be made publicly available.

Recommendaition:

- Increase federal transparency and reporting of budget spending and progress toward ending long-term DWAs in First Nations.

7. Lack of holistic approach to addressing clean drinking water

Clean drinking water and wastewater are not policy issues that can be addressed in isolation; they are connected to various other critical issues that First Nations experience. Many variables affect drinking water, such as the level of repair of treatment plants, the capacity of the First Nation to safely monitor treatment plants, the level of repair of waste water systems, plumbing in housing, and drinking water sources. For instance, when addressing housing issues, ensuring that people’s homes are connected to safe, reliable drinking water and wastewater infrastructure must be a part of the process.

Yet these factors are typically looked at in isolation by the federal government. This compartmentalization of the potential challenges in attaining safe drinking water often fails to achieve long-term, viable solutions as it misses the bigger picture.

Further, addressing clean drinking water must take into consideration how weakened environmental legislation and damaging and polluting industries are threatening water sources. Governments and industries are putting drinking water at risk by promoting fracking, mega-dams, mining, oilsands development and pipelines. Many extractive projects are occurring on the traditional territories of Indigenous peoples. Governments must consider the impacts of these projects if they want to truly ensure clean drinking water for First Nations.

Recommendation:

- Ensure that water issues are not addressed in isolation but are linked to wider issues such as housing, infrastructure, training and the impacts to watersheds from industrial activities.
EXTRA CREDIT: SAFE WATER PROJECT

Over the past two years, programs like the Safe Water Project have emerged from the tribal council and First Nation-level to help address some of the challenges for First Nations drinking water. These programs take a First Nations-led approach that, with financial support from INAC, have managed to find innovative ways of addressing individual First Nations’ drinking water issues.

The Safe Water Project is an initiative by Keewaytinook Okimakanak (KO) Tribal Council that emerged in 2014 in response to the long-term BWAs in four of the six KO First Nations, including a 15-year chronic BWA in North Spirit Lake First Nation. The project goes into First Nations with the intent of building operational capacity, the primary aim being to lift DWAs imposed as a result of operational deficiencies. In a situation where the DWA cannot be addressed without capital upgrades, the path forward is identified, quantified and presented to First Nations leadership.

The project is coordinated by Barry Strachan, public works manager at the KO Tribal Council, who has been involved with these issues for more than 20 years. Strachan says that in the 1990s when most First Nations water infrastructure was put in place, those involved missed the boat on a major part: The focus was entirely on infrastructure, without any consideration for “the people who were going to be left with a legacy of what we were building.”

The project has three components:

1. Focused training and certification of local water operators
2. Operational support while local water operators pursue certification
3. Remote water quality monitoring technology

(continued on next page)
EXTRA CREDIT: SAFE WATER PROJECT (CONTINUED)

The project employs Level III water treatment operators at the tribal council, which acts as a hub for spare parts, counsel and operational support for each First Nation. The project also enables First Nations to obtain and own data on their water systems and operators, which will be critical for identifying needs and priorities in collaboration with the federal government.

The program has had incredible success over the past two years. Before the Safe Water Project, only one of 14 water treatment operators in First Nations represented by the KO Tribal Council were certified to the level of their plant. That number has since increased to seven of 14. Additionally, three of the four chronic BWAs in these First Nations were lifted within one year of project implementation. The project has expanded to a further 14 First Nations in the Sioux Lookout area (represented by three tribal councils: Windigo First Nations Council, Shibogoma First Nations Council, and the Independent First Nations Alliance), with a funding commitment of $4.148 million from INAC announced on October 12, 2016.

The approach taken by the Safe Water Project is unique because it takes into account the context of each First Nation rather than taking a one-size-fits-all approach. “We have a big idea, but we need to think small on this, and look at it on a community-by-community basis,” Strachan says. “We can’t paint one picture that will fit each of these communities.”

21 Personal communication, January 19, 2017, Barry Strachan, public works manager, Keewaytinook Okimakanak Tribal Council
Conclusion

As identified through our research, the federal government is not on track to fulfil its promise of ending all drinking water advisories in First Nations within the five year commitment. We therefore urge the government to implement the recommendations outlined in this report, redouble its efforts to advance successful First Nations-led initiatives, fulfil its fiduciary responsibility to First Nations, respect the United Nations Declaration on the Rights of Indigenous Peoples and ensure the human right to safe and clean drinking water. Although this report features a relatively small sample of First Nations, our conversations reveal trends about procedural challenges that apply more broadly. Our research indicates that momentum to end DWAs is growing, but government processes must be updated to ensure the provision of clean drinking water for First Nations.
Annex 1: First Nation assessments

Conducted by the David Suzuki Foundation

Slate Falls Nation

Tribal Council: Windigo First Nations Council

Population: 241 registered\(^\text{22}\)

**Part of the Safe Water Project**

**Status: GLASS FULL**

The Slate Falls First Nation in northwestern Ontario has lived with nine boil-water advisories since July 2004.\(^\text{23}\) After many years of discussions with INAC, the First Nation received a commitment of $11.6 million from the federal government on July 11, 2016, for a new water treatment plant. Construction is underway. According to Robert Popovic, operations and management technologist at Windigo First Nations Tribal Council, the plant is on schedule to be fully operational by December 2017.

Some of the major challenges the Slate Falls First Nation has faced include ageing infrastructure, lack of operations and training support for water treatment operators, and difficulties with maintenance, including frequent electrical fires. Several First Nations represented by the Windigo Council have been growing, which has increased infrastructure needs. Most of the First Nations represented by Windigo have infrastructure that was put in place more than 20 years ago and new investment is needed.

Federal funding for operations and management has not been enough to meet the needs of many First Nations. Even if the First Nation does come up with the 20 per cent of required operations and management funding, it is not usually enough to keep up with demands. Popovic explains that First Nations “are always running into deficits, and end up having to rob other programs to pay for it.”\(^\text{24}\)

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\(^{24}\) Personal Communication August 26, 2016, Robert Popovic, operations and management technologist, Windigo First Nations Council
Nibinamik First Nation

Tribal Council: Matawa First Nations Management Inc.

Population: 440 registered\(^{25}\)

**Status: GLASS EMPTY**

Nibinamik is a First Nation with approximately 200 in-community members. It is located roughly 500 kilometres north of Thunder Bay, and has no year-round road access. Access in summer is by air, and in winter by an ice road just north of Pickle Lake.

Nibinamik’s water treatment facilities were first installed in 1996. Although the treatment plant worked for a couple of years, it was not built to meet the capacity of the First Nation and has since experienced chronic problems and precautionary DWAs, the last of which was issued in 2013 and was never lifted.

The primary cause for the DWA is equipment-related. There are also problems with intake from the water source in winter as the source lake is sometimes blocked by ice. Some houses in the First Nation have problems with pipes snapping in winter. This First Nation was ranked as a Medium Risk System by the federal government more than 15 years ago.

Most First Nation members get their drinking water by taking a boat to a nearby lake, and boiling the water before drinking it. People also buy bottled water.

Nibinamik requires a water treatability study to identify the required water treatment process. As the First Nation uses a surface water source, the minimum treatment requirements include chemically assisted filtration with chlorination. A water treatment process engineer will identify and recommend the required treatment process. Ideally, terms of reference of the treatability study will be issued in the near future.\(^{26}\) Mobilization of materials is tied to the winter road. First Nation members do not feel they are a priority with government and doubt that government is on track to provide a permanent solution to their drinking water crisis.

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Constance Lake First Nation

Tribal Council: Matawa First Nations Management Inc.

Population: 1,508 registered

**Status: GLASS FULL**

The elders of Constance Lake still tell stories of the 1950s and 1960s, when people carried buckets of water from the river or lake. This was before a water treatment plant was built in 1973. Although water quality was fairly good at first, water would turn brown at some times during the year, staining clothes and dishes. It wasn’t until the 1990s that major drinking water issues started to emerge, with algae blooms proliferating in the lake. Health Canada issued boil water advisories in 2005, 2007, 2008 and 2010, and advisories have been ongoing. In 2010, the First Nation declared a state of emergency due to poor water quality. Something had to be done.

The Constance Lake First Nation took an innovative approach to solving its drinking water issues by leveraging federal, provincial and community funding, switching source water to more secure groundwater, creating a First Nation-based water management plan and engaging in knowledge transfer activities with other northern First Nations. The new water treatment plant became fully functional as of March 2016, lifting the First Nation’s long-standing boil water advisory. The First Nation contributed $933,087 toward plant design and construction, with the federal government kicking in $5.8 million and the Ontario Ministry of Environment and Climate Change providing $820,000.

Throughout the process of updating the water system, some of the challenges with Constance Lake’s drinking water included poor surface water quality from phosphorous loading and related algal blooms; high levels of iron and manganese in the groundwater supply; lack of seed funding or capital financing to meet federal government funding requirements, and lack of training opportunities for on-reserve First Nation members.

The Constance Lake First Nation boil water advisory was lifted in March 2016. However, since then, sodium levels have become elevated, which has caused the water treatment plant operator to issue a warning for people on sodium-restricted diets. This is a serious issue for a number of people in the First Nation. The existing treatment process could be augmented with reverse osmosis, at an estimated cost of $793,920.

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Northwest Angle No. 33

Tribal Council: Anishinaabeg of Kabapikotawangag Resource Council (AKRC)

Population: 466 registered

**Status: GLASS EMPTY**

Part of the Northwest Angle No. 33 First Nation lives in an area referred to as Angle Inlet, and these roughly 90 people are experiencing the most significant water issues. The First Nation declared a state of emergency in February 2016, after its source water tested positive for radionuclides, which have been associated with elevated levels of cancer in those exposed. According to First Nation members, people in the First Nation have been using the water and only found out this past year about the presence of radionuclides. The discovery was especially concerning because the First Nation is plagued by high cancer rates. Health Canada has committed to funding a cancer study for the First Nation, but details have yet to be revealed. Meanwhile, the federal government is paying to send bottled water to the First Nation.

According to a representative from the AKRC, communication between the federal government and tribal council has increased significantly in recent months. The First Nation has hired a company to come up with potential solutions to the radionuclide issue, and the federal government has indicated it will cover costs. Depending on the recommendations from this company, it may be possible to proceed with a feasibility study.

Some of the major challenges for Northwest Angle 33 involve infrastructure that is almost unoperational, largely as a result of band-aid solutions put in about 15 years ago. Lack of funding and proper training has also led to issues with operations and management of the water plant. The First Nation does not have the proper labs to test water, and water operators are often overwhelmed with their workload. Another issue that was raised by the community is that water operators working in Northwest Angle No. 33 earn far less than operators working in municipalities in Ontario.

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Anishinabe of Wauzhushk Onigum

Tribal Council: Anishinabe of Kabapikotawangag Resource Council (AKRC)

Population: 676 registered

**Status: GLASS HALF FULL**

Wauzhushk Onigum is an Anishinabe First Nation in northwestern Ontario that has been under boil water advisories on and off for several years as a result of poor water quality and algae blooms in the lake. Although the provincial and federal governments have each committed $278,780 for the First Nation’s water and wastewater updates, which they expect the First Nation to match, the First Nation has yet to see any funds at the time of writing. Terms of reference for a feasibility study are being drafted, and the study is expected to be complete by early 2018.

In the meantime, the federal government continues to supply the First Nation with bottled water. The First Nation’s water department issues drinking water advisories regularly, which are communicated through a website and hand-delivered notices. These advisories do not always make it onto Health Canada’s website, and often remain informal in nature. In 2001, the First Nation’s water system was assessed by the federal government as being high risk and has for the past 15 years been on and off Health Canada’s DWA list.

The promised funding would be used to upgrade a water treatment system that, according to First Nation councillor for operations and management Ed Skeid, is outdated by about 40 years. “The process is in its infant stages, and is slow,” Skeid says. The First Nation has to spend the money first and get reimbursed later, which presents a challenge. First Nations can be apprehensive about taking on this kind of debt, even when everything is approved and all the right papers have been signed. Another major issue for the First Nation is that of the 129 houses on reserve, about 60 are still not connected to any water treatment system and continue to draw water directly from the lake.

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35 Personal communication June 30, 2016, Ed Skeid, councillor for operations and management, Anishinabe of Wauzhushk Onigum
North Spirit Lake

Tribal Council: Keewaytinook Okimakanak (KO)

Population: 464 registered \(^{36}\)

**Part of the Safe Water Project**

**Status: GLASS FULL**

North Spirit Lake First Nation is the birthplace of the Safe Water Project, a First Nation-led program funded primarily by INAC and coordinated by public works manager Barry Strachan. The project focuses primarily on the operations and management of water systems in First Nations, by directing funding toward operator training, having qualified personnel at the tribal council level and investing in remote water quality monitoring technology. A boil water advisory has been in effect since 2001, but the success of the program means the advisory will be lifted in the near future.

The problem, according to Strachan, is twofold, and involves outdated infrastructure and a lack of operational and management support. According to Health Canada, the reason for the DWA is equipment related: a circuit board needs to be replaced. “It’s a pretty straightforward fix,” Strachan says. “The First Nation has been asking for funding for some time now, but it’s only recently that things have started to move forward.” North Spirit Lake First Nation was approved for an infrastructure upgrade in fall 2016, which would award the First Nation about $800,000 in federal funds.

“One of the biggest challenges in ensuring clean drinking water for First Nations,” Strachan explains, “is that there is no regulatory regime to meet.”

“We have guidelines, but no pressure that can be put on government because there is no regulatory regime to achieve it,” Strachan says. “We need regulation that will keep people accountable.” \(^{37}\)

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\(^{37}\) Personal communication October 18, 2016, Barry Strachan, public works manager, Keewaytinook Okimakanak Tribal Council
Shoal Lake 40

Tribal Council: Bimose Tribal Council

Population: 553 registered\textsuperscript{38}

\textbf{Status: GLASS HALF FULL}

Shoal Lake 40 First Nation is an Ojibway First Nation in Ontario located near the Manitoba border, with 289 of its 632 registered members living on the reserve. The First Nation is only accessed by boat or barge in spring, summer and fall, and over the ice in winter. For several weeks each year, the water is impassable by boat and the ice is too thin to cross. The First Nation is isolated during this period.

This is forced isolation. In the early 1900s, to pipe water from the lake bordering the First Nation to Winnipeg, the city of Winnipeg expropriated a several parcels of land from the First Nation and relocated the First Nation onto a human-made island.

Running water was installed in the First Nation in 1995 after pump houses were built. Shoal Lake 40 First Nation is a notable example of a water treatment system for surface water designed and built without capacity to filter out cryptosporidium, a practice that Health Canada warned against and that was out of compliance with provincial regulations. A drinking water advisory was instituted in 1997.

Since then, the First Nation has relied on bottled water brought to the 'island' by a barge or ice road.

The First Nation is awaiting multi-party funding for construction of Freedom Road to connect to the nearby TransCanada highway. With timely funding, completion could be achieved in two years. Preparations and approval processes are underway. The First Nation has submitted an application to INAC for the design of a community water treatment and distribution system but, at the time of writing, funding has not been approved. Although flagged as having an impact on water quality in Shoal Lake, at the time of writing, INAC has not advanced the First Nation's request to replace the failed solid and liquid waste disposal systems.

Obashkaandagaang First Nation

Tribal Council: Bimose Tribal Council

Population: 296 registered

**Status: GLASS HALF FULL**

Obashkaandagaang First Nation has been under persistent boil water advisories since 2008, related to major issues with water quality and volume. According to Phil Tangie, technical service officer at Bimose Tribal Council, wells in the First Nation are drying up and yield is diminishing, a phenomenon that has only been occurring over the past two years. The tribal council has received some funding from INAC to drill more wells and purchase additional filtration equipment, and the upgrades are in progress. They are expected to be complete by the end of this fiscal year, and if all goes forward as planned, there may be an opportunity for the First Nation to have its BWA lifted.

However, Tangie explains that the tribal council would prefer to prevent these types of problems altogether, rather than being reactive, as “it always costs more to deal with emergencies than to prevent them from happening in the first place.” Ideally, the First Nation is in need of a new water treatment plant, and while a proposal has been submitted, Tangie says this is a long-term goal.

When asked about the federal government’s five-year commitment, Tangie says, “there has been a little bit of action since our prime minister made the commitment. However, there is so much red tape and things get delayed, so we have to maintain focus on the real issues of the First Nations. All levels of government have to be reminded.”

According to Tangie, one of the major challenges is that First Nations need to spend money according to the government’s fiscal year. Rather than having decisions made according to the requirements of specific problems, First Nations get caught in a vicious cycle that is dictated by fiscal year ends. “They have to look at changing their process,” Tangie says about the federal government.

In the meantime, some of the main priorities for Bimose Tribal Council include development of a new “hub system”, a First Nation-driven project similar to the Safe Water Project that recently received funding from INAC. The proposal would fund a permanent water position on the council, and would provide operations and management support to First Nations as well as a central hub for spare parts, emergency funding and training.

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40 Personal communication August 30, 2016, Phil Tangie, technical service officer, Bimose Tribal Council
Wawakapewin First Nation

Tribal Council: Shibogoma First Nation Tribal Council

Population: 67 registered\(^{41}\)

**Part of the Safe Water Project**

**Status: GLASS EMPTY**

Wawakapewin or Long Dog Lake First Nation is a remote Oji-Cree First Nation 350 kilometres north of Sioux Lookout, Ontario. The First Nation has been under a boil water advisory on and off since March 4, 2004. The primary challenge for the First Nation’s drinking water is that the reserve sustains only a small population, with about 30 residents living there year-round. This means the cost of delivering safe drinking water on a per-household basis would be high, with estimates from an INAC-funded inspector report placing the cost for upgrading the system at $2.7 million.\(^{42}\) According to Ryan Jung, the First Nation’s water treatment operator, the system is in extremely poor condition and hasn't been properly maintained over the years, which creates a snowball effect that compounds difficulties in rehabilitating the current system to end the DWA.

Wawakapewin First Nation is one of the most remote First Nations in Ontario. In winter months, the First Nation has access to winter roads once the ice freezes. According to Jung, however, winters have been milder lately, making it hard to get trucks and supplies to the First Nation because the season isn’t that long. The length of time the winter road is open has gone from months to weeks, because of changes in the region’s climate. Most of the First Nation’s finances are directed simply toward getting supplies delivered, with next to nothing left over for operations and management. According to Jung, this has meant that “water has been put on the back burner” in terms of the First Nation’s issues. The First Nation is a on a well system, and although the water advisory recommends boiling all water before consumption, Jung says, “a lot of people in the First Nation still prefer to drink lake water... which is a headache as an operator.” Although the First Nation has not had significant discussions with INAC about upgrading its water treatment system, it recently joined the Safe Water Project and is using this avenue to explore potential solutions to water issues.\(^{43}\)

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\(^{43}\) Personal communication August 30, 2016, Ryan Jung, water treatment operator, Wawakapewin First Nation.