



HUMAN
RIGHTS
WATCH

MAKE IT SAFE

Canada's Obligation to End the First Nations Water Crisis



Make it Safe

Canada's Obligation to End the First Nations Water Crisis

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SUMMARY AND RECOMMENDATIONS



Youths walk along the road in Neskantaga First Nation, a remote community in Northern Ontario which has been on a boil water advisory since 1995. © 2015 Samer Muscati/Human Rights Watch

Canada, one of the wealthiest countries in the world, is also one of the most water-rich. The province of Ontario shares the Great Lakes—which contain 18 percent of the world’s fresh surface water—with the United States. Access to sufficient, affordable, and safe drinking water and adequate sanitation is easy for most Canadians. But this is not true for many First Nations indigenous persons. In stark contrast, the water supplied to many First Nations communities on lands known as reserves is contaminated, hard to access, or at risk due to faulty treatment systems. The government regulates water quality for off-reserve communities, but has no binding regulations for water on First Nations reserves.



Drinking water advisories alert communities when their water is not safe to drink. In Canada, these advisories are highly concentrated in First Nations communities. They exist for 134 water systems—90 of them in Ontario Province—in 85 First Nations reserves across Canada, as of January 2016. Many of these drinking water advisories for reserves persist for years, sometimes for decades. They are indicative of the broader systemic crisis that leaves many First Nations persons facing daily challenges just to access safe water for drinking and hygiene—a fundamental human right easily enjoyed by most Canadians.

On March 22, 2016, auspiciously World Water Day, new Prime Minister Justin Trudeau announced his government's budget, with significant funds to address failing infrastructure in First Nations communities. With nearly CAD\$4.6 billion to be invested in infrastructure in indigenous communities over the next five years, including for water and wastewater systems, this is a promising announcement.

Financial commitment alone, however, will not solve the water and wastewater crisis on First Nations reserves. Along with infrastructure investments, the government should remedy a range of problems that contribute to the water crisis. These include: the lack of binding regulations on water quality on First Nations reserves; persistent under-funding and arbitrary budgeting for water system costs, including capital, operation, and maintenance costs; lack of support for household water and wastewater systems; worsening conditions of source water; and lack of capacity and support for water operators.

Human Rights Watch conducted research in First Nations communities in the province of Ontario between July 2015 and April 2016 to understand the human impacts of this crisis, and to understand why the problem persists. We conducted a water and sanitation survey with 99 households, home to 352 people, in Batchewana, Grassy Narrows, Shoal Lake 40, Neskantaga, and Six Nations of the Grand River First Nations. Human Rights Watch conducted an additional 111 qualitative interviews with chiefs and council members in these and other First Nations communities, residents, water operators, educators, environment and health experts, academics, and staff of





Walter Sakanee, an elder living in Neskantaga First Nation, has had difficulty fighting infections in his legs. He relies on his family members to collect safe drinking water for him in blue plastic jugs from a reverse osmosis machine located at the community's water treatment plant. He is not able to access the plant on his own due to his physical disability. © 2015 Samer Muscati/Human Rights Watch



Roxanne Moonias, mother to an infant with a chronic illness, demonstrates one of the steps she takes to ensure her baby is not exposed to contaminants in the water. Roxanne lives in Neskantaga First Nation and says that it takes her an hour each time to properly wash and rinse his bottles. © 2015 Samer Muscati/Human Rights Watch



Installed in 2009, a reverse osmosis machine is the only source of clean drinking water in Neskantaga First Nation. According to government reports, the machine breaks down at least a few times a year and bottled water must be flown in for about CAD\$15,000 a month.



Beverages for sale in Neskantaga First Nation. Safe drinking water in the community's only store is more expensive than sugary drinks. © 2015 Samer Muscati/Human Rights Watch



Josephine Mandamin, from the Wikwemikong Unceded Indian Reserve and known as the Water Walker, pictured after a water ceremony and elder circle in Whitefish River First Nation. © 2015 Samer Muscati/Human Rights Watch



aboriginal representative organizations. Human Rights Watch also attended an elder circle celebrating water and its cultural significance. We found that the Canadian government has violated a range of international human rights obligations toward First Nations persons and communities by failing to remedy the severe water crisis.

IMPACT OF THE WATER CRISIS

Contaminants in drinking water on First Nations reserves visited by Human Rights Watch included coliform, *Escherichia coli* (*E. coli*), cancer-causing Trihalomethanes, and uranium. Some of these are naturally occurring, some likely result from poor wastewater management on and off reserves, and others result from organic material in dirty source water reacting with chemicals meant to disinfect it. Exposure to these types of contaminants can have health impacts that range from serious gastrointestinal disorders to increased risk of cancer.

Our research found that while the most severe public health concerns—water-borne illnesses and related deaths—have mostly been avoided through water advisories, the social costs and human rights impact of the crisis are considerable. In communities like Neskantaga and Shoal Lake 40 First Nations, where advisories have existed for approximately 20 years each, a whole generation of children grew up unable to drink the water from the taps. Individuals from this generation are starting to have their own children, and to despair.

The daily hardship of living under a water advisory for years means that some people become frustrated and drink it without boiling or otherwise treating it—risking exposure to contaminants. Others use tainted water for bathing or for household tasks, such as washing dishes or clothes. Some avoid the water at all costs, but do not have sufficient safe water to meet their daily needs. Many households surveyed by Human Rights Watch reported problems related to skin infections, eczema, psoriasis, or other skin problems, which they believed were associated with water conditions in their homes. Whether or not a direct causation between exposure to the water provided to their households and these conditions can be established, the water crisis does decrease



Pipe in Shoal Lake 40 First Nation which has been under a boil water advisory since 1997. The pipe delivers raw lake water to a pump house for disinfection, before it is pumped out to households for domestic use. © 2015 Amanda Klasing/Human Rights Watch

the quality and quantity of water available for hygiene. Some reported that their doctors told them there was a direct correlation. Many people also reported changing hygiene habits, including limiting baths or showers for children, based on concerns about water quality.

Debora C., a woman in Grassy Narrows First Nation, explained how difficult it was to manage her 9-year-old son's recurrent rash: "I kept taking him to the clinic and they kept saying it was eczema. His belly and buttocks got really red, oozy and it spread. The ointment [they gave me] didn't work. I took him again." Finally, her son

was diagnosed with a skin disease that resists most antibiotics. She cannot bathe him in the tap water in her home, and uses bottled water in large jugs:

I sponge him with bottled water from the jugs, clean him that way.... My son has scarring now from where the rash broke out. [It's] not inflamed now... But he will have an inflammation once in a while, it won't go away [totally] because of the water, but now we know how to control [the infection].



Pump house in Shoal Lake 40 First Nation where raw lake water is mixed with chlorine disinfectant before being pumped out to households. © 2015 Amanda Klasing/Human Rights Watch

Caregivers, often women like Debora, shoulder a greater burden of care, work, and worry to ensure that at-risk individuals—children, elders, and people with disabilities or serious illnesses—avoid exposure to unsafe water. Roxanne M., a young mother in Neskantaga First Nation, described to Human Rights Watch the hour-long process she underwent daily to wash bottles for her 4-month-old infant with a rare heart condition. “It was a concern about how to bathe my son and how I was going to wash his bottles,” she said. The process to secure safe water for her baby’s bath took about two hours every other day. Washing her baby’s bottles to avoid contamination

also took an hour—every day. “It makes me feel tired, exhausted. It’s stressful,” she said.

Lower-income or financially struggling families on First Nations reserves feel the water crisis intensely, and struggle with the cost of coping. This is particularly true for households not serviced by community systems. One in five First Nations household in Ontario relies on a private well for drinking water, and 57 percent of households rely on a household septic system. The cost to monitor quality and maintain the safety of these systems



A contractor works to connect a household to a neighbor's well in Batchewana First Nation. The household had been without water for over a year after its second well had run dry. © 2015 Amanda Klasing/Human Rights Watch



can be difficult to afford—and, the capital costs needed to rehabilitate failed systems are often prohibitively high.

The poor water and sanitation situation in First Nations contributes to the severe housing shortage on reserves. There are long waiting lists for housing, and overcrowding is common. Yet communities cannot increase their housing without upgrades to water and wastewater infrastructure.

Finally, the crisis impacts the cultural rights of First Nations persons. According to custom and tradition among many communities, women are the keepers and protectors of waters. Many First Nations persons see water as living, and as a form of medicine. Not being able to drink the water from their own community is distressing to some. Ceremonies, customary fishing and hunting practices, and ways of teaching children and sharing traditional knowledge are impacted when water is contaminated.

WHY THE PROBLEM PERSISTS

The drinking water crisis on reserves can be resolved, and yet it has persisted for decades. Canada has frequently acknowledged its many challenges in addressing the problem. Since 1977, the federal government has investigated, made recommendations, and committed



Filters provided by Batchewana First Nation to a household with poor quality well water. Without the filters the water is unusable even for bathing or cleaning; and households must always use bottled water for drinking.

© 2015 Samer Muscati/Human Rights Watch

funds to remediate the water and wastewater situation on the reserves. Yet the problem remains acute. The government's own audits show a pattern of overpromising and underperforming, without sufficient monitoring of whether money that is invested results in positive outcomes. Simply put, investments of billions of dollars over decades have not translated into safe drinking water for thousands of First Nations persons living on reserves.

Absence of Regulations

A primary contributor to this inertia is the legal discrimination that exists related to the regulation and protection of drinking water for First Nations reserves. Provincial and territorial regulations governing safe drinking water and sanitation, which operate to protect the health of most Canadian residents, do not extend to First Nations reserves.

For decades, the federal government did not take appropriate action to ensure residents on First Nations reserves benefited from equal protection before the law—to this day there are no drinking water regulations on reserve. It is unsurprising, then, that this disparate system of regulations has led to disparate outcomes in access to safe drinking water and sanitation. Systems have been designed, constructed, and operated on reserves without the kind of legal standards and protections that the government has adopted for all other Canadians. Since 2006, the federal government has used contract law to govern safe drinking water on reserve. But even with contractual clauses in funding agreements between the federal government and First Nations, members of First Nations communities live without comparable protections and access to safe drinking water and sanitation as Canadians living off reserves.

The impact of this can be observed in the duration of water advisories on reserves, even for relatively new water systems. Of the dozens of drinking water advisories in effect on systems in Ontario First Nations, at least 57 of them are for systems less than 25 years old and 12 are for systems less than 15 years old. In at least two cases, the advisory was put in place within a few years of construction. At least one government contractor raised concerns in the mid-1990s that the government was funding systems on First Nations reserves in Ontario that would not be accept-

able off reserve. Yet the practice continued, and to date, many reserve systems fall below provincial standards.

The Federal Government's Role

The Constitution Act, 1867, grants the federal government jurisdiction over “Indians and lands reserved for the Indians”—in effect governing most aspects of life on reserve, including governance of First Nations. Under this provision, the Canadian Parliament first passed the Indian Act in 1876, which has been amended many times since but remains in force today. While the federal government has devolved many social services to First Nations to administer on reserve, it remains the primary source of revenue for communities. First Nations chiefs and councils are accountable to members on reserve for providing services, including owning and operating water and wastewater systems on reserve. Their power to govern, however, is significantly limited by the far-reaching role of the federal government instituted by the antiquated and discriminatory Indian Act.

Except in rare cases, all capital costs and a portion of operation and maintenance costs for systems come from the federal government. In practice, Indigenous and Northern Affairs Canada (INAC)—the federal department with jurisdiction over reserves—has considerable authority over water and wastewater on reserve. The buck literally stops with INAC, and yet, 36 percent of the drinking water advisories in place in 2015 on water systems in Ontario First Nations had been in place for over 10 years.

Part of this can be attributed to unpredictable and often insufficient funding from the federal government to build, operate, maintain, and monitor water and wastewater systems. The federal government funds a portion of operations and maintenance costs for First Nations' public water and wastewater systems on reserves, leaving a standard 20 percent deficit for the First Nations to cover. The federal government does not evaluate the ability of First Nations to make up the difference, despite limited community resources.

INAC faces a number of funding constraints, including a 20-year-old arbitrary cap on base funding growth. Between 1996 and 2015, INAC's base budget was limited



A drinking water tower in Grassy Narrows First Nation, which has been under a boil water advisory since 2014. Grassy Narrows declared a state of emergency in 2015 when leaders discovered the water was contaminated with disinfectant by-products that have been linked to cancer. © 2016 Alexandra Kotowski/Human Rights Watch



Six Nations of the Grand River (SNGR) is the largest First Nation community in Ontario, with nearly 12,000 residents on the reserve. SNGR's new state of the art water treatment facility, built in 2013, services less than half of the households, while the majority of SNGR residents still get their water from private wells or cisterns. © 2016 Rod Whitlow

to an annual 2 percent increase—regardless of population growth, inflation, or need. The United Nations special rapporteur on the rights to water and sanitation has warned that imposing this type of cap can slow down the progressive realization of human rights, or worse, lead to retrogression. While the budget under Prime Minister Trudeau lifts the cap, its legacy is enduring, with new investments needed to make up ground lost under the arbitrary scheme.

Remarkably, despite the strain of this funding cap, INAC has also failed to spend substantial funds over five recent fiscal years, and sent more than \$1 billion in funds back to the Treasury Board as “surplus.” INAC has consistently struggled to spend budgeted funds, meaning that in many years, tens of millions of promised dollars for First Nations have gone unspent. Some lapsed funding is expected, but INAC’s lapses were significant and not publicly explained.

Other Challenges

In addition to regulatory and funding problems, lack of source water protections and government support for private water and wastewater systems contributes to the crisis on reserves.

The quality of source water has a direct impact on drinking water. While water treatment is designed to make source water safe to drink, heavily contaminated source water can make water treatment more difficult and expensive. Ontario has more First Nations water systems that rely on surface water and “groundwater under the direct influence of surface water” (GUDI) than any other province—meaning water quality is directly related to watershed and source water conditions.

For the most part, source water protection falls under provincial law in Canada, because the watershed extends outside the reserve. This makes it legally and logistically difficult for First Nations to engage on the issue. In practice, First Nations cannot effectively carry out their culturally-understood obligation to protect water—either on or off reserve. First Nations leaders raised consistent concerns with Human Rights Watch about the lack of consultation regarding commercial activities that

impact their traditional territories and the waters within it. In many cases, the lakes, rivers, and streams that contribute to the source water for these communities have deteriorated because of pollutants from industries, and growing municipalities.

Households dependent on private wells or wastewater systems on reserves are in an even more precarious situation than those served by public water systems. There is no dedicated government funding to upgrade, operate, maintain, or monitor these systems. Nearly one in five households on reserves in Ontario use these private wells. Households on well systems in Human Rights Watch’s survey reported contamination ranging from coliform and *E. coli* to uranium. For the most part, First Nations and these individual households are left to fend for themselves.

CANADA’S LEGAL OBLIGATIONS

The right to water entitles everyone, without discrimination, “to have access to sufficient, safe, acceptable, physically accessible and affordable water for personal and domestic use.” Likewise, the right to sanitation entitles everyone, without discrimination, to “have physical and affordable access to sanitation, in all spheres of life, that is safe, hygienic, secure, and socially and culturally acceptable and that provides privacy and ensures dignity.” The Canadian government’s failings with respect to water and sanitation constitute a violation of these rights for many First Nations persons living on reserves in Ontario.

Canada has an obligation to act to eliminate discrimination in law and fact, and ensure adequate safe drinking water and sanitation on reserves. While there is no dispute that the government has invested money to address this issue, the fact remains that a significant number of First Nations persons in Ontario cannot drink the water in their homes. The federal government has failed to address factors that contribute to this crisis. International human rights bodies and experts have raised concerns about Canada’s failure to do so.

In February 2016, nine First Nations women from communities across Ontario traveled to Geneva to tell the United Nations Committee on Economic, Social and Cultural



Pictograph of Mishibijiw on the shores of Lake Superior. Mishibijiw is an Ojibwe water spirit and this site is considered sacred to Batchewana First Nation. © 2015 Samer Muscati/Human Rights Watch

Rights (CESCR) that filthy water is making their families sick and undermining their spiritual relationship with water. Linda Redsky of Shoal Lake 40 First Nation told the Committee, “The problem is inequality and institutionalized discrimination that ensures that settler communities get essential services while Indigenous communities do not.... My boy, Adam, has eczema. His and my grandsons’ entire lives have been lived under a boil water order. I should not have to take them to Winnipeg so that they can have a clean bath.”

With the Trudeau government’s budget announcement and stated commitment to bring the water and wastewater systems in First Nations communities up to the standard of comparable communities off reserves within five years, there is hope that this problem will be resolved. But past failures should not be repeated. New investments in water and wastewater infrastructure on First Nations reserves should be accompanied by enforceable regulations, sufficient funds for capital, operation, and maintenance costs for community and household systems, and mechanisms to track progress. Canada should establish an independent First Nations water commis-



A drawing by the grandson of Chief Dean Sayers, Batchewana First Nation, highlighting the importance of Mishibijiw.
© 2015 Samer Muscati/Human Rights Watch

sion with authority to monitor and evaluate water policy and outcomes that affect First Nations.

Decades of failure to fulfill the rights to water and sanitation have caused lasting damage to First Nations communities. It is time for Canada to make it safe.

RECOMMENDATIONS

TO THE GOVERNMENT OF CANADA

- In collaboration with First Nations, develop a plan for addressing water and sanitation conditions on reserves that allows for long-term and sustainable solutions beyond the current five-year budget. The plan should have:
 - » Quantifiable targets;
 - » Sufficient and consistent budget allocations;
 - » A fixed timeframe for initial implementation;
 - » Commitments for ongoing operation and maintenance support;
 - » A time-bound commitment to end long-term drinking water advisories and reduce risk level of high-risk water and wastewater assets on reserves; and
 - » Specific recommendations, funding, and measures related to private or household-level water and wastewater systems.
- Direct Indigenous and Northern Affairs Canada (INAC) to prioritize capital allocations for First Nations communities under long-term drinking water advisories.
- Establish an independent First Nations water commission to monitor and evaluate government performance related to water and wastewater on First Nations, including specifically the outcomes related to government water and wastewater funding commitments. In its work, the commission should take into account indigenous customs, laws, and practices.
- Work closely with First Nations to promulgate enforceable drinking water and sanitation regulations:
 - » In a manner consistent with communities' rights under Canadian law and international law;
 - » With sufficient funding and technical support for First Nations to meet these standards; and
 - » Under an appropriate timeline for full enforcement that permits First Nations to bring all systems up to the safety standards established by the regulations.
- Engage First Nations on the cultural aspects of water in order to identify culturally acceptable, sustainable water policy and practical solutions on reserves.
- Set up an inter-ministerial or cabinet-level working group concerning First Nations water and wastewater systems to ensure collaboration and information sharing among departments, and to regularly report to the First Nations water commission.
- Identify lessons learned from past funding commitments for First Nations water and wastewater systems, and prevent replication of past failures.

TO THE PARLIAMENT OF CANADA

- Reform or repeal problematic portions of the Safe Drinking Water For First Nations Act, including provisions that could render First Nations financially liable for past federal government failures, and ensure that all legislative measures taken to address the water crisis are supported with the necessary resources and funding to secure effective implementation.
- Adhere to international legal standards related to indigenous peoples in current and future legislation addressing First Nations. Respect the rights set out in the United Nations Declaration on the Rights of Indigenous Peoples in laws related to water resources.

TO INDIGENOUS AND NORTHERN AFFAIRS CANADA (INAC)

- Identify water and wastewater systems funded by INAC that fall below the standards in the *Guidelines for Canadian Drinking Water Quality* and fix these systems immediately.
- Establish a fair, transparent process for determining financial support for water and wastewater systems on reserves, including a formula for calculating capital, operation, and maintenance funding levels. Ensure that funding levels take into consideration the population, resources, remoteness, health and safety concerns, and water and wastewater assets.
- Assess water and wastewater assets annually, and ensure funding commitments keep pace with investment needs.
- Help First Nations develop accessible and easy to understand communications about risks to water and wastewater systems in their communities.
- Establish clear and transparent internal oversight of funding for water and wastewater systems under the new budget.
- Work closely with First Nations technical and community experts and ensure that new system designs allow for population growth, account for sustainable life-cycle costs, and are adaptable to decreased source water quality over time.
- Draw on technical water and wastewater expertise from other federal departments, and from provincial, territorial, or municipal governments.
- Work with water operators on reserves to understand their training needs and address the need for coordination that allows for lone operators to take time off.

TO HEALTH CANADA

- Support research to monitor skin or other hygiene-related health concerns associated with poor drinking water quality or drinking water advisories on reserves.
- Ensure water operators on reserves have regular and consistent access to water quality testing supplies.
- Provide greater support for the monitoring of private household drinking water systems, including wells.

TO TRIBAL COUNCILS

- Encourage water system knowledge-sharing among First Nations supported by the councils, including about design options and training.
- Help similar communities share experiences in water and wastewater systems on reserves, and encourage shared innovation and similar design so that operators can work across neighboring systems, and spare parts are interoperable, when emergencies arise.

TO THE GOVERNMENT OF ONTARIO

- Work with federal departments and First Nations to support source water protection planning for waters affecting First Nations reserves, treaty lands, and traditional territories. For plans that have already been approved by Ontario without adequate First Nations collaboration, support remediation co-management plans to ensure First Nations can actively participate in the protection of their source waters off reserve.
- Engage First Nations communities in meaningful consultation, consistent with international standards, for all activities affecting treaty lands and traditional territories, and the water therein.
- Develop robust and formal inter-governmental mechanisms with federal departments and First Nations for sharing expertise and traditional knowledge specific to water as it pertains to source protection, water and wastewater infrastructure, treatment, and monitoring.
- Expand and enhance provision of in-kind technical/engineering expertise and capital funding that support safe drinking water on reserves.

Methodology

This report is based on research conducted by Human Rights Watch senior researchers in Ontario, Canada between July 2015 and April 2016.

While recognizing the uniqueness of every First Nation community, Human Rights Watch focused its research in five communities that represent a range of demographic, geographic, water or wastewater asset, and resource diversity. The communities that participated were Batchewana First Nation, Grassy Narrows First Nation, Shoal Lake 40 First Nation, Neskantaga First Nation, and Six Nations of the Grand River. Ninety-nine households, home to 352 people on these 5 First Nations reserves, participated in a Human Rights Watch survey on the rights to water and sanitation. Human Rights Watch conducted surveys with the assistance of community-based researchers. It also conducted 68 qualitative interviews with individuals or officials living in these communities.

In addition, Human Rights Watch researchers interviewed 43 chiefs, councilors, and water operators of other First Nations communities; other environment and water experts; academics; and staff of aboriginal representative organizations. It received special assistance from Chiefs of Ontario to arrange these interviews. Human Rights Watch attended an elder circle celebrating water hosted by the Anishinabek Nation (Union of Ontario Indians), the United Chiefs and Councils of Mnidoo Mnising, and Chief Shining Turtle of Whitefish River First Nation.

Most interviews were conducted in English. A small number of interviews with elders were conducted in Ojibway or Oji-Cree with English interpretation. Interviews were conducted individually in private settings, except in a few instances where interviewees preferred to speak in small groups. This report uses pseudonyms for participants in the survey and other interviewees, where requested or appropriate, to protect their privacy. In a few cases, follow-up interviews were conducted telephonically or via Skype.

Interviewees provided verbal informed consent to participate. Upon request by the ethics committee of Six Nations of the Grand River Council, survey participants in this community provided written informed consent. Individuals were assured that they could end the interview at any time or decline to answer any questions, without any negative

consequences. All participants were informed of the purpose of the interview, its voluntary nature, and the ways information would be collected and used.

Survey questions addressed the core content of the rights to water and sanitation, including the quality, quantity, accessibility, and affordability of water and sanitation. The survey also asked questions on related human rights, including adequate housing, health, and education, and about impacts on caregivers.

No interviewee received compensation for providing information. Human Rights Watch did give a small amount of tobacco to some interviewees, as is customary.

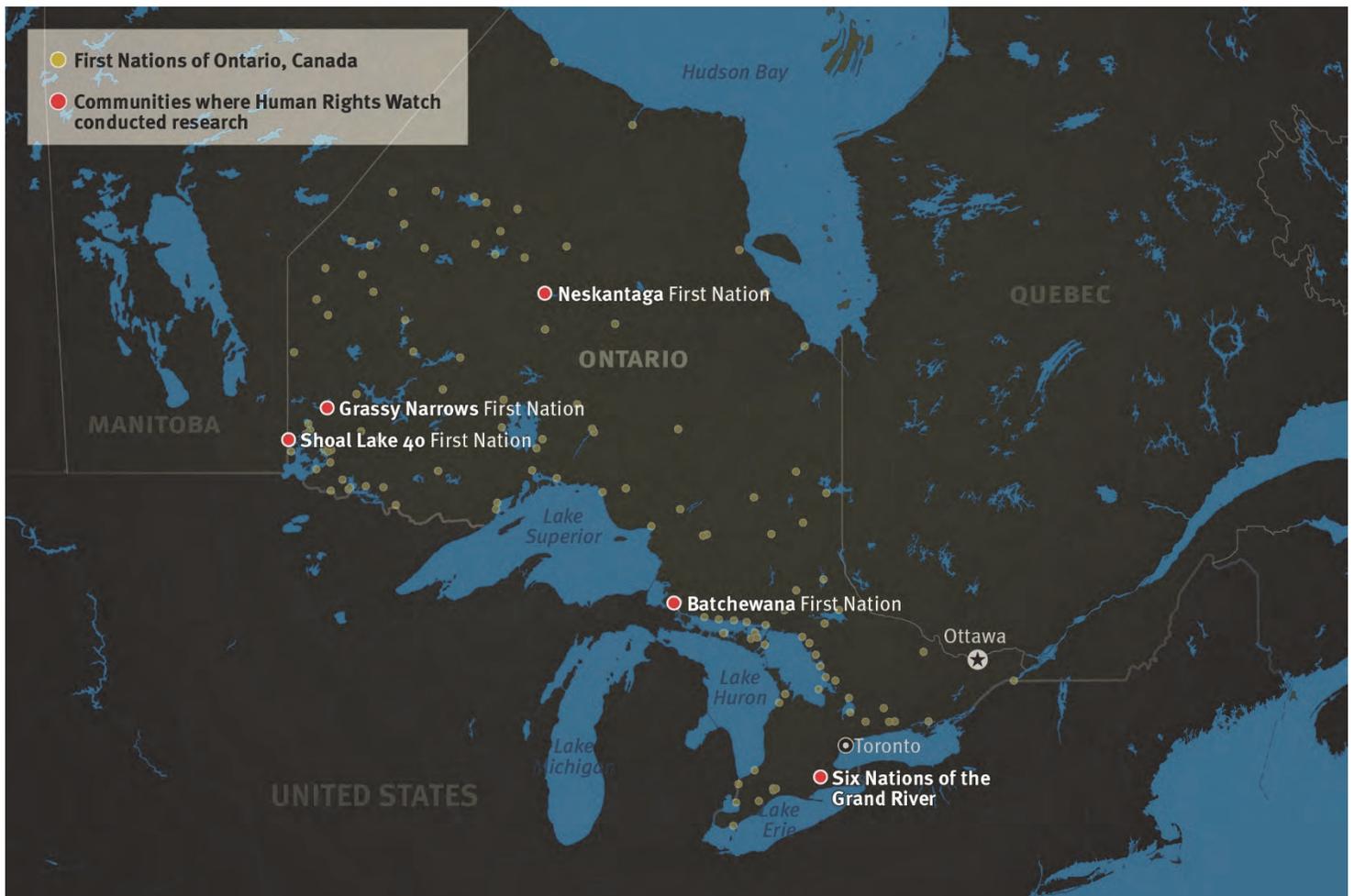
Human Rights Watch reviewed documents, reports, policies, and files from multiple sources, including responses to government information requests made by other individuals or organizations. It compiled existing data on water and wastewater assets, budget allocations, demographics, and water advisories, and analyzed the data for patterns related to high-risk assessments and long-term water quality advisories. Water advisory and risk data existed at the water and wastewater system level while funding data was available at the band—First Nation—level. In total, Human Rights Watch compiled government data for 191 water systems distributed among 137 communities belonging to 133 distinct First Nations. Data was not available for every variable of every water system.

Human Rights Watch submitted a letter to the ministers of Indigenous and Northern Affairs and of Health of the government of Canada on April 19, 2016. The letter provided a summary of Human Rights Watch’s findings, included specific questions for the government, and offered to publish the government’s response. As of May 23, 2016, no written response was received. Human Rights Watch will publish any response received after this date on the organization’s website, linking to this report. Human Rights Watch did speak with INAC staff about our findings on several occasions.

The report uses the term “Indian” with quotation marks and for the purposes of consistency with the language of Canadian laws governing the relationship with indigenous peoples in Canada.

Unless otherwise specified, the dollar currency referred to in this report is the Canadian dollar.

First Nations in the Report



Batchewana First Nation

Batchewana First Nation is located in northern Ontario along the shore of Lake Superior. Residents live in three reserves, each with a unique water and sanitation situation. The majority of the reserve bordering the city of Sault Ste. Marie is connected to the city's water and wastewater system through a service agreement. The other households have private wells and septic systems. Problems with the well water range from high turbidity (meaning cloudiness from particles) and high sulfur content to uranium contamination. Parts of the community's Obadjiwan reserve have had their wells dry up.

Grassy Narrows (Asubpeeschoseewagunk) First Nation

Grassy Narrows First Nation is an Ojibway First Nation with approximately 950 people living on its reserve located on the Wabigoon-English River in Western Ontario. In the 1960s, INAC relocated the community from its traditional settlements on islands and peninsulas to the southeast of its current location, with the promise of electricity and other services. Grassy Narrows First Nation learned in the 1970s that a chemical plant tied to a paper mill had dumped 9,000 kilograms of mercury into its watershed, contaminating its fisheries. A single public water treatment plant and two community wells supply the community's drinking water. All three are currently under "do not consume" orders. The wells have tested positive for high uranium content, and the community water system has tested positive for a cancer-causing chemical that is a by-product of disinfection.

Neskantaga First Nation

Situated on the banks of Attawapiskat Lake in Northern Ontario, Neskantaga First Nation is a remote Oji-Cree community accessible only by plane or winter ice roads. Approximately 300 registered members live on the reserve. The main settlement in the reserve, previously known as Lansdowne House, was relocated beginning in the 1980s, with the promise of better services, including housing, water, and sanitation. The community's water system, funded by INAC and built in 1991, was placed on a boil water advisory in February 1995. The advisory was never lifted.

Shoal Lake 40 First Nation

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. In the early 1900s, in order to pipe water from the lake bordering the reserve to Winnipeg, the city of Winnipeg expropriated a strip of land from the reserve and relocated the community onto a man-made island. Running water was installed in the community in 1995 after the construction of pump houses. A drinking water advisory followed in 1997. Since then, the community has relied on bottled water brought to the island by a barge or ice road.

Six Nations of the Grand River

Six Nations of the Grand River (SNGR) is the largest First Nation community in Ontario, with nearly 12,000 residents on reserve. SNGR constructed a state of the art water treatment facility in 2013. While INAC provided approximately CAD\$14 million dollars to construct the plant, SNGR had to take out a loan to fund the remaining capital costs. The facility services households in the town of Oshweken and those close enough to be connected, providing them with piped drinking water and wastewater services. But the majority of SNGR residents still get their water from private wells or cisterns. The construction of the plant did not include a significant expansion of service lines to reach households on private systems. Approximately 300 to 400 households on the reserve lack access to household water and wastewater services, and rely on trucked water and private outhouses or portable toilets.

I. Water and Sanitation Conditions on First Nations Reserves

Most Canadians have easy access to sufficient and affordable clean water and adequate sanitation. Canada has abundant water resources.¹ Lakes cover more of Canada's area than any other country in the world. Canada and the United States share the Great Lakes, which contain 18 percent of the world's fresh surface water.² Despite contamination risks, Canada's water quality is among the best in the world, ranking 4 out of 17 peer OECD countries.³ Most Canadians are able to take advantage of this abundant, high quality water. Average daily residential water use was 251 liters per person in 2011.⁴ Almost every Canadian has access to improved sanitation—mostly flush toilets.⁵ While cost varies by province, the average monthly flat rates for water and sewer services in 2009 were a combined CAD\$36.13.⁶ The median annual income for all family types that year was \$68,410, making this affordable for most households.⁷ In addition, drinking water quality is strictly governed for most Canadians by provincial and territorial laws and regulations. These statistics suggest that most Canadians do not struggle to enjoy their rights to water and sanitation.

In stark contrast, indigenous people living on Canada's First Nations reserves experience an astonishingly different reality.⁸ Together with Inuits and Métis, First Nations people

¹ Statistics Canada, "Water resource characteristics, by drainage region," 2013, <http://www.statcan.gc.ca/pub/16-201-x/2010000/t230-eng.htm> (accessed April 19, 2016).

² Statistics Canada, "Section 2: Canada's water supply—stocks and flows," 2013, <http://www.statcan.gc.ca/pub/16-201-x/2010000/part-partie2-eng.htm> (accessed April 19, 2016).

³ The Conference Board of Canada, "Water Quality Index," undated, <http://www.conferenceboard.ca/hcp/details/environment/water-quality-index.aspx> (accessed April 19, 2016).

⁴ Environment and Climate Change Canada, "Residential Water Use in Canada," February 17, 2016, <http://www.ec.gc.ca/indicateurs-indicators/default.asp?lang=en&n=7E808512-1> (accessed April 19, 2016).

⁵ See, for example, World Bank, "Data: Improved Sanitation Facilities," <http://data.worldbank.org/indicator/SH.STA.ACSN> (accessed May 20, 2016).

⁶ Environment and Climate Change Canada, "2011 Municipal Water Pricing Report: Municipal Water Pricing 2009 Statistics," 2012, <http://www.ec.gc.ca/Publications/992156D4-2599-4026-9B4C-47855D26CCB8/2011MunicipalWaterPricingReport2009Statistics.pdf> (accessed April 19, 2016).

⁷ Statistics Canada, "Median total income, by family type, by province and territory (All census families)," 2015, <http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/famil108a-eng.htm> (accessed January 7, 2016).

⁸ This report uses "indigenous" and "First Nations" interchangeably. We recognize "indigenous" is the terminology used by the United Nations and in applicable human rights standards, but also that other terms, such as "First Nations" and "Aboriginal" are commonly used in Ontario and Canada.

constitute approximately 4.3 percent of Canada’s population.⁹ Many First Nations people live on land called reserves, which fall within the jurisdiction and responsibility of the federal government and are often pockets of poverty, poor health, insufficient and unsafe housing, high unemployment, and inadequate education.¹⁰ Today, there is a water crisis on First Nations reserves, with 135 drinking water advisories in effect in 86 First Nations communities across Canada (excluding British Columbia).¹¹ As a federal auditor general report put it, “[w]hen it comes to the safety of drinking water, First Nations communities do not benefit from a level of protection comparable with that of people living off reserves.”¹²

Water Advisories on Ontario’s First Nations Reserves

Ninety water advisories—put in place by First Nations on the advice of Health Canada—were in effect in 45 of Ontario’s 133 First Nations reserves as of January 2016.¹³

Human Rights Watch analyzed public drinking water advisory data for Ontario reserves available through Health Canada for most of 2015. According to this analysis, the majority

⁹ UN Human Rights Council, Report of the Special Rapporteur on adequate housing, Mission to Canada, U.N. Doc. A/HRC/10/7/Add.3, February 17, 2009, <http://www2.ohchr.org/english/bodies/hrcouncil/docs/10session/A.HRC.10.7.Add.3.pdf> (accessed April 19, 2016), para. 69; see also, Indigenous and Northern Affairs Canada (INAC), “2014-15 Financial Overview,” July 2014, http://www.aadnc-aandc.gc.ca/DAM/DAM-INTER-HQ-AI/STAGING/texte-text/fin_overview_2014_1406217230189_eng.pdf (accessed April 19, 2016), p. 11.

¹⁰ Indian Act, (1876 as amended in 1880, 1894, 1920, 1927, 1951, 1985), R.S.C. 1985, sec. 2(1), <http://laws-lois.justice.gc.ca/eng/acts/I-5/page-1.html#h-3> (accessed April 19, 2016). The Indian Act defines reserves as “tract[s] of land, the legal title of which is vested in Her Majesty, that has been set apart by Her Majesty for the use and benefit of a band.” INAC, “2014-15 Financial Overview,” p. 11. See, for example, Office of the Auditor General of Canada, “Status Report of the Auditor General of Canada to the House of Commons, Chapter 4: Programs for First Nations on Reserve,” 2011, http://www.oag-bvg.gc.ca/internet/English/parl_oag_201106_04_e_35372.html#hd5f (accessed March 21, 2016), p. 7.

¹¹ See Health Canada, “Drinking Water Advisories in First Nations Communities,” January 31, 2016, <http://www.hc-sc.gc.ca/fniah-spnia/promotion/public-publique/water-dwa-eau-aqep-eng.php> (accessed April 19, 2016).

¹² Office of the Auditor General of Canada, “Report of the Commissioner of the Environment and Sustainable Development to the House of Commons, Chapter 5: Drinking Water in First Nations Communities,” 2005, <http://www.oag-bvg.gc.ca/internet/docs/c20050905ce.pdf> (accessed January 7, 2016), p. 26.

¹³ See Health Canada, “Drinking Water Advisories in First Nations Communities,” January 31, 2016, <http://www.hc-sc.gc.ca/fniah-spnia/promotion/public-publique/water-dwa-eau-aqep-eng.php> (accessed April 19, 2016). There are three levels of water advisories: boil water advisory/order is used “to advise the public that they should bring their tap water to a rolling boil for at least one minute before drinking and using for other purposes, such as brushing teeth. This is usually recommended when disease-causing bacteria, viruses or parasites are found in the drinking water system”; do not consume advisory/order (alternatively called “do not drink advisory/order”) is used “to inform the public that they should not consume their tap water for drinking; brushing their teeth; cooking; washing fruits and vegetables; making infant formula or other drinks, soups or ice cubes; for bathing infants and toddlers or feeding pets...These advisories are issued when the water system contains a contaminant that cannot be removed from the water by boiling”; and, do not use advisory/order is used “to advise the public that they should not use their tap water for any reason. These advisories are issued when the water system contains contamination that cannot be removed from the water by boiling, consumption of the water poses a health risk, and exposure to the water when bathing could cause skin, eye or nose irritation.” Ibid.

of public water systems operated on First Nations in Ontario had at least one water advisory in place during the year, while 20 percent of these were revoked at some point.¹⁴ Human Rights Watch was able to identify the revocation date for 10 of these advisories, and determined that all advisories revoked in 2015 also began in 2015 and were in place

First Nation and Reserve Governance

Section 91(24) of the *Constitution Act, 1867*, grants the federal government jurisdiction over “Indians and lands reserved for the Indians”—in effect making First Nations persons wards of the state.¹⁵ The *Indian Act*, first passed in 1876 under the foregoing provision, and subsequent laws codify this jurisdiction, and govern most aspects of life on reserves, including governance.¹⁶ The *Indian Act* has been a primary instrument of Canada’s policy of colonization, a policy which, according to the Truth and Reconciliation Commission of Canada, “suppressed Aboriginal culture and languages, disrupted Aboriginal government, destroyed Aboriginal economies, and confined Aboriginal people to marginal and often unproductive land.”¹⁷ After nearly 150 years, the *Indian Act* still “renders almost all decisions made by a First Nations government subject to the approval of [INAC].”¹⁸

According to the Act, a reserve is a tract of land to which the “Crown”—the Canadian government—has legal title. It is set apart for the collective use and benefit of a “band”— a group of “Indians.”¹⁹ Most communities prefer to use the name “First Nation” rather than band. There is no private ownership of land on reserves. Some First Nations have established their own land registry-type systems. Reserves should not be confused with traditional territory, which encompasses a much larger land area that include traditional hunting, fishing, or sacred grounds but are not within a reserve’s borders.

¹⁴ Health Canada, “Drinking Water Advisories in First Nations Communities,” December 31, 2016, <http://www.hc-sc.gc.ca/fniah-spnia/promotion/public-publique/water-dwa-eau-aqep-eng.php> (accessed January 29, 2016); Health Canada, “Drinking Water Advisories in First Nations Communities,” December 31, 2016, <http://www.hc-sc.gc.ca/fniah-spnia/promotion/public-publique/water-dwa-eau-aqep-eng.php> (accessed March 15, 2016); Health Canada, “Drinking Water Advisories in First Nations Communities,” November 30, 2015, <http://www.hc-sc.gc.ca/fniah-spnia/promotion/public-publique/water-dwa-eau-aqep-eng.php> (accessed January 29, 2016); Health Canada, “Drinking Water Advisories in First Nations Communities,” March 31, 2015, <http://www.hc-sc.gc.ca/fniah-spnia/promotion/public-publique/water-dwa-eau-aqep-eng.php> (accessed June 1, 2015).

¹⁵ Parliamentary Information and Research Service, “Safe Drinking Water in First Nations Communities,” Publication No. o8-43-E, May 28, 2010, p. 1, citing *Constitution Act, 1867*.

¹⁶ A new law adopted in April 2015, First Nations Elections Act (S.C. 2014, c. 5), creates a process by which bands can opt out of the electoral system set up by the Indian Act to be governed by this new act. It allows for four-year terms.

¹⁷ Truth and Reconciliation Commission of Canada, “Honouring the Truth, Reconciling for the Future Summary of the Final Report of the Truth and Reconciliation Commission of Canada,” 2015, http://www.trc.ca/websites/trcinstitution/File/2015/Honouring_the_Truth_Reconciling_for_the_Future_July_23_2015.pdf (accessed May 11, 2016), p. 133. Aboriginal people is a term which refers to First Nations, Métis, and Inuit peoples collectively.

¹⁸ Human Rights Council, Report of the Special Rapporteur on the rights of indigenous people: Mission to Canada, July 2014, U.N. Doc. A/HRC/27/52/Add.2, para. 5, 39.

¹⁹ The report uses the term “Indian” with quotation marks and only for the purposes of consistency with the language of Canadian laws governing the relationship with indigenous peoples in Canada.

First Nations range in population size. Some are very small, less than a hundred people. Eighty-one First Nation reserves in Ontario have a population of 500 people or less.²⁰ Several reserves in Ontario have more than 2,000 people.

According to the *Indian Act*, each band has its own governing band council, usually consisting of one chief councilor (chief) and several councilors. Band members choose the chief and councilors by elections. The Act requires elections to be held every two years.

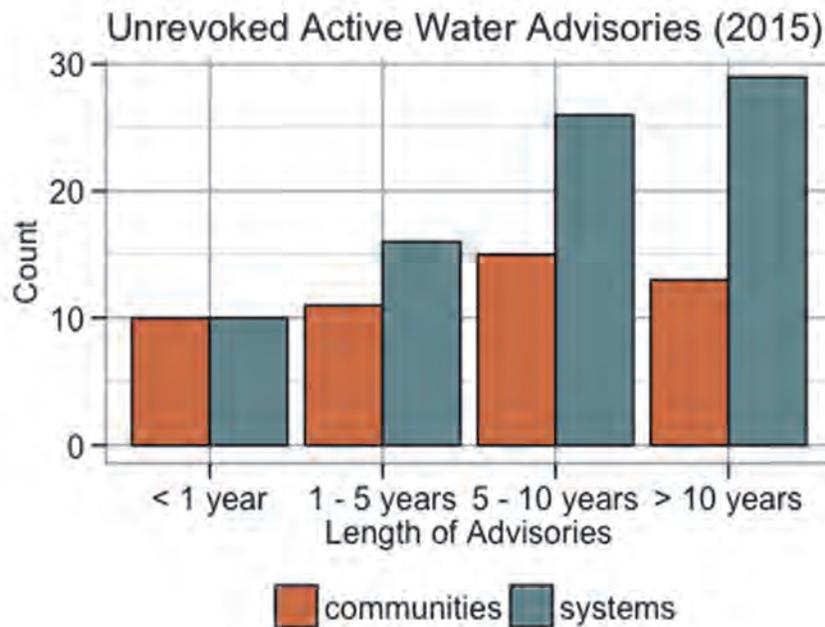
The *Indian Act* also regulates the management of “Indian” reserve lands, “Indian” moneys, and other resources—including requiring the Minister of INAC to manage certain moneys belonging to First Nations and to approve or disallow First Nations by-laws. First Nations can determine their own membership, but only receive federal funding for members who are “status Indian.” The *Indian Act* defines the criteria for “status,” and INAC apportions funding accordingly for “status Indian” members living on reserves. A member can live off reserve and retain voting rights, but the First Nation will not receive funding for that member. Likewise, non-band members can live on a reserve. Non-members do not have voting rights and the First Nation will not receive funding for that resident. In addition, a First Nation is not necessarily coterminous with a reserve. Some First Nations maintain multiple reserves.

In practice, First Nations chiefs and councils are accountable to members on and off reserves, and to non-members on reserves. Their power to govern, however, is significantly limited by the far-reaching role of the federal government under the *Indian Act*.

for a median length of 11 days (mean = 34 days). According to the data reviewed by Human Rights Watch, no longer-term advisories (meaning advisories lasting longer than a year) ended in 2015.

As of December 31, 2015, 80 percent of these water advisories—81 water systems used by 44 unique communities—remained unrevoked. Several of these communities have been under water advisories for over 15 years. Of the 90 drinking water advisories in Ontario First Nations communities, 55 (68 percent) have been in place since 2010 or earlier, 29 (36 percent) over 10 years, another 26 (32 percent) between 5-10 years, another 16 (20 percent) 1-5 years, and 10 (12 percent) were in place less than a year.

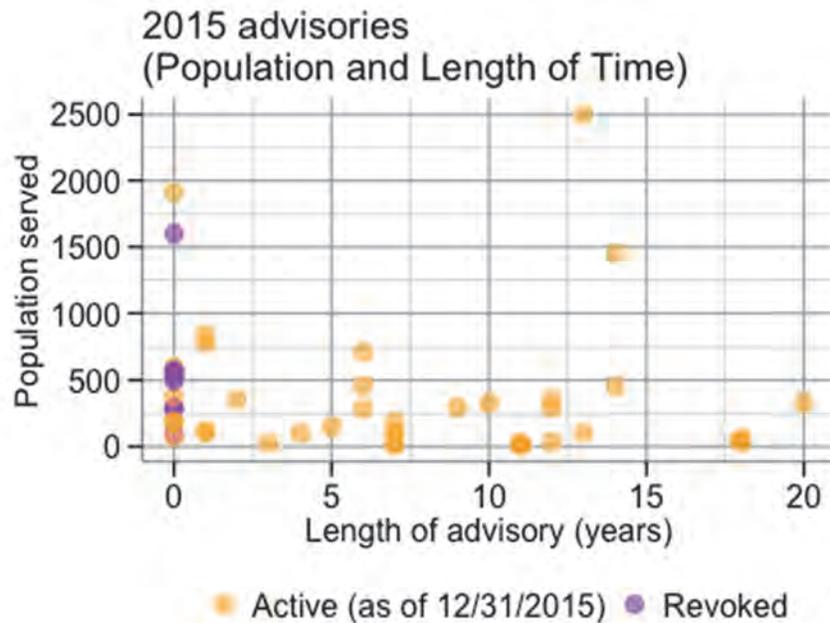
²⁰ INAC, “Aboriginal Demographics from 2011 National Household Survey,” May 6, 2013, <https://www.aadnc-aandc.gc.ca/eng/1370438978311/1370439050610> (accessed May 20, 2016).



Communities with a population of 500 or less are most affected by drinking water advisories, but not uniquely so. Several larger communities have experienced advisories lasting more than five years.

Aging infrastructure cannot be isolated as the driver for these advisories. Many communities—such as Shoal Lake 40 and Neskantaga First Nations—just received systems for running water in the mid-1990s. Only 5 of the systems in Ontario under advisory are 30 years old or older. At least 57 of the community systems under advisory in Ontario were built after 1991, and 12 were built from 2001 on, after the notorious Walkerton water contamination crisis in 2000, in which 7 people died from a water-borne *Escherichia coli* (*E. coli*) outbreak.²¹

²¹ Health Canada, “Drinking Water Advisories in First Nations Communities,” December 31, 2016, <http://www.hc-sc.gc.ca/fniah-spnia/promotion/public-publique/water-dwa-eau-aqep-eng.php> (accessed January 29, 2016), and INAC, “National Assessment of First Nations Water and Wastewater Systems, Ontario Regional Roll-Up Report: Final,” January 2011, https://www.aadnc-aandc.gc.ca/eng/1314634863253/1314634934122#chp2_1 (accessed January 7, 2016).



The advisories indicate that there is a risk for or actual contaminants in water on First Nations reserves, including coliform, *E. coli*, cancer-causing Trihalomethanes, and uranium. Some of these are naturally occurring, some likely result from poor wastewater management on and off reserves, and others result from organic material in dirty source water reacting with chemicals meant to disinfect it. Exposure to these types of contaminants can have health impacts that range from serious gastrointestinal disorders to increased risk of cancer.

An assessment of water and wastewater systems on First Nations reserves was conducted by a consultant engineering firm paid by the federal government in 2009 according to terms of reference developed by Indigenous and Northern Affairs Canada (INAC), a federal department with a mandate to support Aboriginal people and Northerners.²² The assessment analyzed 807 water systems serving 560 First Nations reserves. Published in 2011, this audit provides the most recent comprehensive data for water and wastewater

²² Indigenous and Northern Affairs Canada is the applied title of the federal Department of Indian Affairs and Northern Development. This applied title became effective in November 2015. The previous applied title was Aboriginal Affairs and Northern Development Canada. This report uses the current applied title of the department, unless using direct quotations.

assets on reserves.²³ The assessment found that 39 percent of these reserve systems were high risk, 34 percent medium risk, and 27 at low risk.²⁴ The percentage of at-risk systems was higher in Ontario than in other provinces, with 45.5 percent at high risk and only approximately 16 percent at low risk.²⁵

Risk Scores Explained

A risk score does not directly equate to drinking water quality. The 2011 independent assessment of water and wastewater systems on First Nations reserves relied on INAC guidelines for assessing risk, which follow a “multi-barrier” approach for water management. Understood as a source-to-tap approach to water management, this approach attempts “to prevent the presence of water-borne contaminants in drinking water by ensuring effective safeguards are in place at each stage of a drinking water system.”²⁶

The assessment determined a risk score for each component of a system: source water—10 percent; system design—30 percent; operations—30 percent; records and reporting—10 percent; and operator training and experience—20 percent. An overall system risk is determined by combining these individual risk scores. A high overall risk means that there are “[m]ajor deficiencies in most of the components. Should a problem arise—for example, there is an acute contamination in the source water (a boat accident with leaking gasoline) or a power shortage—the system and management as a whole is unlikely to be able to compensate, thus there is a high probability that any problem could result in unsafe water. Issues should be addressed as soon as possible.”²⁷

The assessment report distinguishes between risk score and water quality. Drinking water advisories connote unsafe drinking water, and are likely to occur more frequently or for longer durations in high-risk systems. However, high-risk systems can produce safe water; likewise, low-risk systems can have problems that lead to a drinking water advisory.²⁸

²³ INAC, “National Assessment of First Nations Water and Wastewater Systems,” January 2011, https://www.aadnc-aandc.gc.ca/DAM/DAM-INTER-HQ/STAGING/texte-text/enr_wtr_nawws_rurnat_rurnat_1313761126676_eng.pdf (accessed March 25, 2016).

²⁴ *Ibid.*, p. ii.

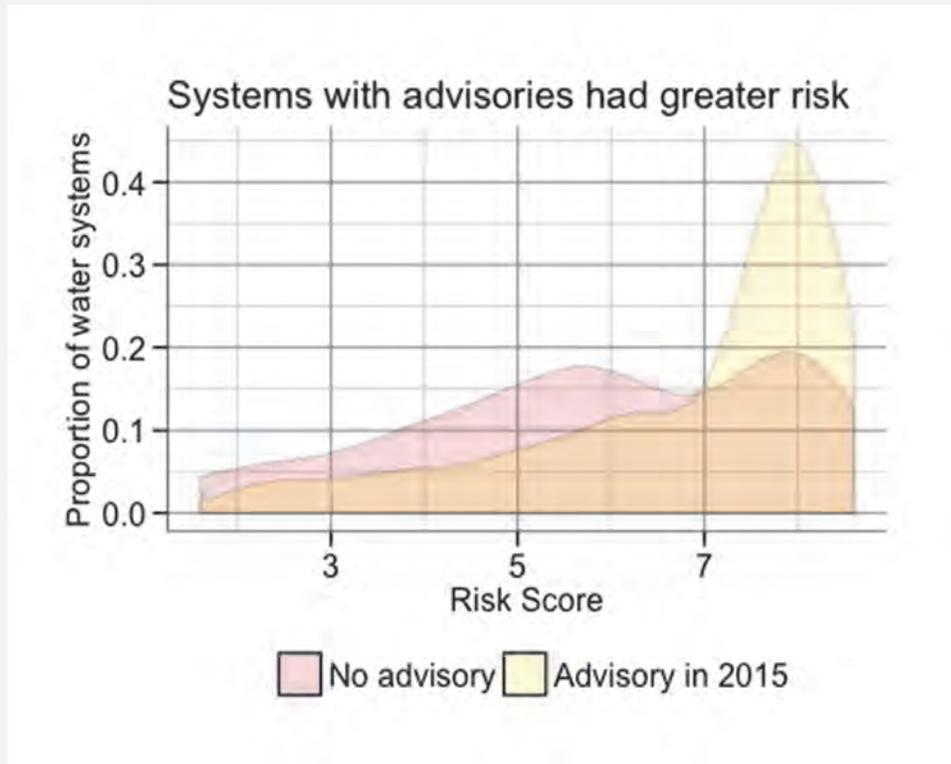
²⁵ INAC, “National Assessment of First Nations Water and Wastewater Systems, Ontario Regional Roll-Up Report: Final,” January 2011, https://www.aadnc-aandc.gc.ca/eng/1314634863253/1314634934122#chp2_1 (accessed April 19, 2016), p. 11.

²⁶ INAC, “National Assessment of First Nations Water and Wastewater Systems: Glossary of Terms and Acronyms,” January 2001, https://www.aadnc-aandc.gc.ca/DAM/DAM-INTER-HQ/STAGING/texte-text/enr_wtr_nawws_rurnat_rurnat_1313761126676_eng.pdf (accessed March 25, 2016). Likewise, medium risk is defined as: minor deficiencies in several components, or major deficiencies in one or two components. Should a problem arise, the system and management can probably compensate for the problem, but the noted deficiencies makes this uncertain, thus there is a medium probability that any problem could result in unsafe water. Issues need to be addressed. And, low risk as: minor or no deficiencies with the system or management. Should a problem occur, it is likely that the system and management as a whole will be able to compensate and continue to provide safe water while the issue is being resolved. *Ibid.*

²⁷ *Ibid.*

²⁸ *Ibid.*

Human Rights Watch data analysis demonstrates that systems with drinking water advisories in 2015 had a slightly higher average risk score compared with the systems that did not have advisories (6.8 to 5.8 respectively). Examining a density plot reveals that a greater proportion of the systems that had advisories were identified as very high risk.²⁹



Past Government Responses to Water and Sanitation Problems

According to the *Indian Act* and other laws, the federal government together with First Nations chiefs and councils are responsible for addressing water and sanitation problems on reserves. However, in practice, the federal government holds the purse strings and calls most of the shots.

For nearly forty years, the federal government has taken steps to address the water and wastewater crisis on reserves. A 1977 memorandum by Prime Minister Pierre Trudeau to Cabinet articulated a new federal policy to improve quality of life on reserves. Among other

²⁹ Data evaluating the quality of water systems existed for 159 water systems. Seventy-one of these systems were also the systems that had water advisories in 2015, allowing us to examine whether the risk scores assigned to these systems were associated with boil water advisories.

goals, the policy intended “to provide Indian homes and communities with the physical infrastructure that meets commonly accepted health and safety standards, is similar to that available in neighboring, non-Indian communities or comparable locations, and is operated and maintained according to sound management practices.”³⁰ The Canadian government has failed to achieve this goal. Conditions on many reserves today still do not meet commonly accepted standards.

The Royal Commission on Aboriginal Peoples conducted a broad inquiry in 1996 that specifically addressed water and sanitation. The commission determined that a strategy was needed to bring infrastructure—including water supplies and waste management—in Canada’s indigenous communities up to generally accepted Canadian standards of health and safety.³¹ The commission recommended that the government provide additional resources for water and sewage systems “to ensure that adequate facilities and operating systems are in place in all First Nations communities within five years.”³² In 1997 the government issued a national action plan and framework for action, committing to improve infrastructure and allocate additional resources to water and sewage needs.³³

The Walkerton contamination in 2000 brought drinking water safety for all Canadians to the attention of the government and public. *E. coli* contamination of the drinking water in the non-native Ontario municipality of Walkerton resulted in seven deaths and hundreds of illnesses.³⁴ A formal inquiry addressed the incident, but also looked more broadly at drinking water in Ontario, including for First Nations communities. According to the inquiry

³⁰ INAC, “Report of the Expert Panel on Safe Drinking Water for First Nations,” November 2006, <http://publications.gc.ca/site/eng/298371/publication.html> (accessed April 19, 2016), p. 22, citing 1977 Memorandum of Cabinet (original unavailable).

³¹ Canada Royal Commission on Aboriginal Peoples, “People to people, nation to nation: *Highlights from the report of the Royal Commission on Aboriginal Peoples*,” 1996, Cat. no. Z1-1991/1-6E, <http://www.aadnc-aandc.gc.ca/eng/1100100014597/1100100014637#toc> (accessed April 19, 2016).

³² Canada Royal Commission on Aboriginal Peoples, “*Report of the Royal Commission on Aboriginal Peoples, Volume 3: Gathering Strength, Chapter 4 – Housing*,” 1996, [http://www.collectionscanada.gc.ca/webarchives/20071124060708/http://www.ainc-inac.gc.ca/ch/rcap/sg/si1_e.html#Volume 3](http://www.collectionscanada.gc.ca/webarchives/20071124060708/http://www.ainc-inac.gc.ca/ch/rcap/sg/si1_e.html#Volume%203), (accessed April 19, 2016). See also, Canada Royal Commission on Aboriginal Peoples, “*Report of the Royal Commission on Aboriginal Peoples, Volume 5: Renewal: A Twenty-Year Commitment*,” 1996, [http://www.collectionscanada.gc.ca/webarchives/20071124124720/http://www.ainc-inac.gc.ca/ch/rcap/sg/sk1_e.html#Renewal: A Twenty-Year Commitment](http://www.collectionscanada.gc.ca/webarchives/20071124124720/http://www.ainc-inac.gc.ca/ch/rcap/sg/sk1_e.html#Renewal:A%20Twenty-Year%20Commitment) (accessed April 19, 2016).

³³ INAC, “Gathering Strength-Canada’s Aboriginal Action Plan,” 1997, <http://www.ahf.ca/downloads/gathering-strength.pdf> (accessed April 19, 2016).

³⁴ The Honourable Dennis R. O’Connor, “Part One: A Summary Report of the Walkerton Inquiry: The Events of May 2000 and Related Issues,” 2002, http://www.archives.gov.on.ca/en/e_records/walkerton/report1/index.html#summary (accessed April 19, 2016).

report, “water is not provided for aboriginal people at the standards that generally prevail through Ontario.”³⁵

First Nations Water and Wastewater Actors and Responsibilities

Three federal departments share responsibilities with First Nations for safe drinking water and sanitation on reserve.

- Indigenous and Northern Affairs Canada (INAC) provides capital funding and advice for design and construction of water and sanitation systems. The department funds training for First Nations staff, including water operators, and supports First Nations with 80 percent of operating and maintenance costs. INAC also sets non-binding water and wastewater protocols for reserves, but these are more like guidelines, and are not enforceable.³⁶
- Health Canada ensures monitoring of drinking water on reserves by verifying, reviewing, interpreting, and disseminating the results of tests carried out by a mixture of community and federal authorities, and supports First Nations in identifying water quality problems. The department provides advice on drinking water safety and sewage disposal.³⁷ Health Canada also funds or delivers community-based health promotion and disease prevention programs; primary, home, and community care services; and programs to control communicable diseases and address environmental health issues.
- Environment Canada regulates wastewater discharge into federal waters and provides advice on source water protection.³⁸
- All three federal government departments review proposed water and wastewater infrastructure designs for reserves.
- In most cases, the First Nation owns, operates, and manages its water and wastewater systems, with government involvement. Except in rare cases, all funds for capital costs for systems come from the federal government. First Nations must self-fund 20 percent of operation and maintenance cost. First Nations hire water operators, mostly from their community. Since 2006, First Nations design and construct facilities in accordance with standards established by INAC and incorporated into funding agreements. The First Nation is also responsible for issuing drinking water advisories, either on the recommendation of Health Canada or, in emergency situations, on their own initiative.³⁹

³⁵ The Honourable Dennis R. O’Connor, “Part Two Report of the Walkerton Inquiry: A Strategy for Safe Drinking Water,” 2002, http://www.archives.gov.on.ca/en/e_records/walkerton/report2/index.html (accessed April 19, 2016), p. 486.

³⁶ INAC, “Roles and Responsibilities: Who is Responsible for Water and Wastewater Services in First Nations Communities,” December 19, 2012, <http://www.aadnc-aandc.gc.ca/eng/1314034319353/1314034564208> (accessed April 19, 2016).

³⁷ Ibid.

³⁸ Ibid.

³⁹ Ibid.

The inquiry found that: the infrastructure in Aboriginal communities was obsolete, absent, inappropriate, or of low quality; an insufficient number of operators had technical training and certification; testing and inspection was inadequate; microbial contamination was frequent; and “distribution systems, especially on reserves, are sized to deliver half the water available per capita to other Ontarians.”⁴⁰ The inquiry raised concern that there existed no enforceable federal or provincial standards related to drinking water on First Nations reserves—and recommended such standards be adopted.⁴¹

INAC, as one former employee explained to Human Rights Watch, became very concerned that it had dozens of “potential Walkertons” under its authority and “freaked out because they knew they would be liable.”⁴² Between 2001 and 2002, INAC inspected systems on reserves and Health Canada assessed drinking water monitoring. In 2003, both departments began implementing a new five-year plan, the First Nations Water Management Strategy. The federal government committed an additional \$600 million over 5 years, approximately 25 to 30 percent more than what INAC was projected to devote to water and wastewater during that period.⁴³

Another water-related tragedy was averted in 2005 when, after INAC failed to act, the Ontario provincial Minister of Aboriginal Affairs ordered the evacuation of almost 1,000 residents from the Kashechewan reserve due to contamination of drinking water with *E. coli*—the same bacteria that led to deaths in Walkerton.⁴⁴ The evacuation occurred after the community had been under a boil water advisory for more than two years.

The same year, the Office of the Auditor General of Canada presented a report to the House of Commons that, among other issues, assessed drinking water in First Nations communities.⁴⁵ The report concluded, “When it comes to the safety of drinking water, residents of First Nations communities do not benefit from a level of protection

⁴⁰ Ibid.

⁴¹ Ibid, p. 490.

⁴² Human Rights Watch interview with former INAC employee (name withheld), Montreal, Quebec, July 8, 2015.

⁴³ INAC, “Summative Evaluation of the First Nations Water Management Strategy,” December 2007, http://www.aadnc-aandc.gc.ca/eng/1100100012016/1100100012033#sub1_1 (accessed April 3, 2016).

⁴⁴ Standing Senate Committee on Aboriginal People, “Safe Drinking Water for First Nations,” May 2007, <http://www.parl.gc.ca/Content/SEN/Committee/391/abor/rep/repo8juno7-e.htm> (accessed April 19, 2016), p. 1.

⁴⁵ Office of the Auditor General of Canada, “Report of the Commissioner of the Environment and Sustainable Development to the House of Commons, Chapter 5: Drinking Water in First Nations Communities,” 2005, <http://www.oag-bvg.gc.ca/internet/docs/c20050905ce.pdf> (accessed April 19, 2016).

comparable to that of people who live off reserves.”⁴⁶ The Auditor General found that this could be attributed partly to the lack of laws and regulations governing drinking water in First Nations communities—unlike in other communities in Canada.⁴⁷ It also found that the design, construction, operation, and maintenance of many water systems in First Nations communities were deficient, and the federal departments involved suffered management weaknesses.⁴⁸ Lastly, it found that the technical assistance and capacity-building on delivery of safe drinking water for First Nations communities was fragmented.⁴⁹ It noted the government lacked a comprehensive plan with timeframes and resources for dealing with at-risk water systems and the impact (effectiveness) of increased funding was not monitored.⁵⁰ “The fact of funding, not success, has served as an index of support, effort, commitment, and good will,” it said.⁵¹

In response, the Minister of INAC and the National Chief of the Assembly of First Nations (the national aboriginal representative organization for First Nations in Canada) announced a Plan of Action for Drinking Water in First Nations Communities calling for adherence to protocols, training, remediation, and for a panel of experts to advise on a regulatory regime.⁵² In November 2006 the new Expert Panel on Safe Drinking Water for First Nations issued its report, finding that the critical element for water safety was the capacity of facilities and operators—local staff hired by First Nations—and sufficient resources.⁵³ The panel said regulations “must be coupled with adequate investment in human resources and physical assets.”⁵⁴

⁴⁶ *Ibid.*, p. 1.

⁴⁷ *Ibid.*

⁴⁸ *Ibid.*

⁴⁹ *Ibid.*

⁵⁰ *Ibid.*

⁵¹ Constance Macintosh, “Testing the Waters: Jurisdictional and Policy Aspects of the Continuing Failure to Remedy Drinking Water Quality on First Nations Reserve,” *Ottawa Law Review*, Volume 39:1, 2007-2008, p. 70.

⁵² Parliamentary Information and Research Service, “Safe Drinking Water in First Nations Communities,” Publication No. o8-43-E, May 28, 2010, p. 3.

⁵³ INAC, “Report of the Expert Panel on Safe Drinking Water for First Nations,” November 2006, p. 60.

⁵⁴ Parliamentary Information and Research Service, “Safe Drinking Water in First Nations Communities,” p. 7, summarizing the conclusion of INAC, “Report of the Expert Panel on Safe Drinking Water for First Nations,” November 2006, p. 60.

II. Impact of Poor Water and Sanitation Conditions

The human and social costs of the water and sanitation crisis on First Nations reserves are profound. The poor quality of water on reserves has an impact on health and hygiene, with acute impacts on at-risk individuals—children, elders, and people with disabilities. It exacerbates burdens on caregivers, and hardships on low-income families. Poor water and sanitation also negatively impact the rights to housing and to cultural life for First Nations communities.

Impacts on Health and Hygiene

Many households surveyed by Human Rights Watch reported problems related to skin infections, eczema, psoriasis, or other skin problems that they thought either were related to or exacerbated by the water conditions in their home. Many also reported changing hygiene habits, including limiting baths or showers for children, because of concerns about water quality. Limiting baths can have a direct impact on hygiene, and therefore on health.

Information about health and hygiene risks is inconsistently available for First Nations communities, resulting in some households unknowingly using water that authorities have declared unsafe. The Human Rights Watch survey found that members of many households felt they did not have sufficient information about the quality of their water supply or about alternatives when their water was declared at risk. Fifty-seven of the 99 households surveyed reported that they did not think that, or know whether, the quality of their water was sufficient for bathing. For others, despite knowing that the authorities had declared their tap water was not safe to drink, the inconvenience of living under a drinking water advisory—for years, if not decades—means that they sometimes drink unsafe water without boiling or treating it.⁵⁵

When a drinking water advisory is issued for a community system, First Nations leaders, Health Canada, and INAC work together to respond and provide a limited amount of safe

⁵⁵ See, for example, Human Rights Watch survey interview with Gerald B., Shoal Lake 40 First Nation, August 19, 2015, and Human Rights Watch survey interview with Nancy K., Six Nations of the Grand River, November 20, 2015.

drinking water to households. This may be through providing 20-liter bottles of water, or through community treated water collection points.

While this focus on drinking water alternatives is insufficient, it has helped many families secure at least a minimal amount of safe drinking water. But there is no comparable response for providing sufficient alternative water for hygiene. Many First Nations residents, especially caregivers of children, told Human Rights Watch that their loved ones suffered from skin conditions they believe resulted from bathing in contaminated water, or from being unable to bathe or wash hands regularly. The community health director in Grassy Narrows First Nation told Human Rights Watch, “the lack of clean water translates into poor hygiene.”⁵⁶

A 2013 study found a high rate of cases of infection from community-associated methicillin-resistant *Staphylococcus aureus* (CA-MRSA)—a major cause of skin and soft tissue infections among other diseases—in northwest Ontario, home to 28,000 indigenous individuals on remote reserves.⁵⁷ The study found an increase in cases of infection attended by the main regional referral health center between 2008 and 2013. CA-MRSA often presents as a skin infection and is associated with poor hygiene, such as a lack of hand washing.⁵⁸ The study suggested that the increase may be due to the absence of running water.⁵⁹

At least one household in the Human Rights Watch survey had a confirmed case of MRSA. Debora C., from Grassy Narrows, said her 9-year-old son was diagnosed with MRSA in 2015:

⁵⁶ Human Rights Watch interview with Wayne H., health director, Grassy Narrows First Nation, February 3, 2016.

⁵⁷ Jill Muileboom et al., “Community-associated methicillin-resistant *Staphylococcus aureus* in northwest Ontario: A five-year report of incidence and antibiotic resistance,” *Canadian Journal of Infectious Diseases and Medical Microbiology*, volume 24(2) (2013) <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3720013/> (accessed April 6, 2016). Community-associated methicillin-resistant *Staphylococcus aureus* (CA-MRSA) is the cause of certain skin and soft-tissue infections, endovascular infections, pneumonia, septic arthritis, endocarditis, and sepsis, among other types of infections. It is resistant to front-line antibiotic treatments like penicillin. CA-MRSA strains differ from older strains of MRSA because they can occur in healthy people who have not been in health care settings. CA-MRSA can spread rapidly among people in a community. See, Michael Z. David and Robert S. Daum, “Community-Associated Methicillin-Resistant *Staphylococcus aureus*: Epidemiology and Clinical Consequences of an Emerging Epidemic,” *Clinical Microbial Reviews*, 2010 Jul; 23(3): 616–687, <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2901661/> (accessed April 19, 2016).

⁵⁸ Centers for Disease Control, “Methicillin-resistant *Staphylococcus aureus* (MRSA) Infections,” undated, <http://www.cdc.gov/mrsa/> (accessed December 19, 2015).

⁵⁹ Muileboom et al., “Community-associated methicillin-resistant *Staphylococcus aureus* in northwest Ontario: A five-year report of incidence and antibiotic resistance,” *Canadian Journal of Infectious Diseases and Medical Microbiology*.

I kept taking him to the clinic and they kept saying it was eczema. His belly and buttocks got really red, oozy and it spread. The ointment [they gave me] didn't work. I took him again. His blood was tested. The practitioner said it was MRSA.... I sponge him with bottled water from the jugs, clean him that way.... My son has scarring now from where the rash broke out. [It's] not inflamed now... But he will have an inflammation once in a while, it won't go away [totally] because of the water, but now we know how to control [the infection].⁶⁰

Like many other families, Debora C. rations her children's baths. "My kids miss one day, bathe every two days," she said. She worries about letting them bathe any more often, and does not have enough bottled water for baths with water she knows is safe. She explained, "If my son has a cut, [it] will turn into a rash and I have to take him to the clinic to take antibiotics. So, my son misses a lot of school."⁶¹

Walter S., a father of four children, three under the age of three, reported that members of his family were diagnosed with scabies last year. He believes that the sores were related to the water, because the medicine his family received from the health center had not worked.⁶² "It's hard to tell the one-year-old and nine-month-old not to scratch. It's hard to be the bad guy about it all.... My oldest hides in the bathroom to itch," he said.⁶³ He told Human Rights Watch that the situation is very hard on him as a parent.⁶⁴ In the past, the community's trauma team helped deliver water to households that needed extra help, and Walter said that "really helped out." But he said that stopped when the funding was cut in 2015.⁶⁵

Community water is often treated with chlorine. A significant number of households reported to Human Rights Watch that they believed the water they used for hygiene made

⁶⁰ Human Rights Watch survey interview with Debora C., Grassy Narrows First Nation, February 4, 2016.

⁶¹ Ibid.

⁶² Human Rights Watch survey interview with Walter S., Neskantaga First Nation, October 21, 2015.

⁶³ Ibid.

⁶⁴ Ibid.

⁶⁵ Ibid.

them or their children itch, and some suspected this was due to the chlorine.⁶⁶ While chlorine, when used correctly, can safely disinfect water, the World Health Organization recognizes that exposure to chlorine and hypochlorite is associated with episodes of dermatitis.⁶⁷

Other respondents complained about health problems they believe stemmed from the water they used for hygiene, though they did not know whether contaminants, treatment chemicals, or other factors were the cause. “We have scabs and our hair is falling out,” reported one elder living in a large household in Neskantaga First Nation. “The children [in the house] have scabs if they take baths too frequently.”⁶⁸ A grandfather in Neskantaga First Nation reported, “If [my] granddaughter bathes too frequently, her color changes and she gets a rash.”⁶⁹ A mother of an 11-month-old baby reported similar problems:

When [my son] was a newborn, I would use water from the [reverse osmosis dispenser], but it was hard to bathe him every day. So I use the tap water. When he was 4 months old, his face got swollen. [I was told] he has eczema. I want to bathe him every day, but it has to be every two to three days. [When we travel to] Thunder Bay, his skin isn’t like this [when I bathe him in the water there].⁷⁰

A mother of three young children in Grassy Narrows First Nation reported limiting their bath time, and was concerned about her daughter’s rough skin: “My daughter, her skin, is almost like eczema. I keep taking her to the clinic, they give her cream, it goes away, and [then it] comes back up.”⁷¹

⁶⁶ See, for example, Human Rights Watch survey interview with Sally F., Neskantaga First Nation, October 21, 2015; Human Rights Watch survey interview with Harold M., Neskantaga First Nation, October 22, 2015; Human Rights Watch survey interview with Saul K., Shoal Lake 40 First Nation, August 19, 2015.

⁶⁷ World Health Organization, *Chlorine in Drinking-water: Background document for development of WHO Guidelines for Drinking-water Quality* (Geneva: WHO, 2003), http://www.who.int/water_sanitation_health/dwq/chlorine.pdf (accessed April 6, 2016).

⁶⁸ See, Human Rights Watch survey interview with Robert T., Neskantaga First Nation, October 21, 2015.

⁶⁹ Human Rights Watch survey interview with George B., Neskantaga First Nation, October 21, 2015.

⁷⁰ Human Rights Watch interview with Stacy K., Neskantaga First Nation, October 21, 2015. Reverse osmosis is a type of water filtration system. In Neskantaga First Nation, there is one filtration machine at the water treatment plant. Community members can fill up water jugs for their households’ consumption. Neskantaga First Nation does not receive money from INAC to operate or maintain the reverse osmosis system. A couple of times a year, the machine breaks down. INAC then provides bottled water to community members, at a cost of about \$15,000 a month.

⁷¹ Human Rights Watch survey interview with Marie S., Grassy Narrows First Nation, February 4, 2016.

Households in Shoal Lake 40 First Nation reported similar problems, which they believed to be caused by the water. For example, Tricia M. reported, “[Our household] doesn’t have perfect skin—dryness, rashes, eczema—from directly bathing in this stuff.”⁷² Linda R., a mother in Shoal Lake 40 First Nation, said her foster son had a recurring rash, and she kept taking him to the doctor. “On the fourth or fifth time, I went in [the doctor] asked me ‘do you have treated water in your community?’ I said, ‘no we don’t.’ ‘Well, there’s your problem,’ he said.”⁷³ She said her son occasionally asks if they can rent a hotel room off the reserve so he can take a proper bath.

A man in Rankin reserve of Batchewana First Nation said his foster children bathe in dirty well water, and have skin problems. “Our foster kids have issues. There have been some issues—skin issues, red, dried out, rashes,” he said.⁷⁴ Another Batchewana resident lamented similar problems. “The water stinks, it stains things,” she said. “My child has eczema, and the water irritates it.”⁷⁵ A household member in the Goulais reserve of Batchewana First Nation with uranium contamination in her well reported, “Access to bathing is a problem. We’ve had hair loss.... The water burns, and our hair is thinner. [The water] stinks, it’s not healthy... I would love to have a bath again.”⁷⁶

Some families choose to treat their own bath water with household bleach. One woman who cares for foster children in Shoal Lake 40 First Nation started doing so after one of the girls was showering with lake water and had an infection on her arm for months.⁷⁷ A mother of six living in Six Nations of the Grand River also reported using bleach to treat her well water after a doctor told her that her children’s dry skin was related to their water.⁷⁸ “Bleach is our answer to everything when we have water problems here. That’s what everyone says, just put bleach in it,” she said.⁷⁹

Skin infection outbreaks raise alarm bells about water risks, but communities sometimes lack information or distrust the information provided by the government. For example, in

⁷² Human Rights Watch survey interview with Tricia M., Shoal Lake 40 First Nation, August 19, 2015.

⁷³ Human Rights Watch interview with Linda R., Shoal Lake 40 First Nation, August 20, 2015.

⁷⁴ Human Rights Watch survey interview with John K., Batchewana First Nation, October 23, 2015.

⁷⁵ Ibid.

⁷⁶ Human Rights Watch survey interview with Florence B., Batchewana First Nation, October 22, 2015.

⁷⁷ Human Rights Watch interview with Ann C., Shoal Lake 40 First Nation, August 20, 2015.

⁷⁸ Human Rights Watch survey interview with Pauline J., Six Nations of the Grand River, November 20, 2015.

⁷⁹ Ibid.

March 2016 news spread that 16 babies and children had oozing and scabby skin lesions in the northern Ontario reserve of Kashechewan First Nation.⁸⁰ This same community was evacuated in 2005 due to *E. coli* contamination in its water.⁸¹ The community's last boil water advisory was issued in November and revoked in December 2015.⁸² After the March 2016 public outcry, the federal Minister of Health stated that the lesions were not a result of poor water quality, and recent tests found that water there met safety standards.⁸³ However, community members continued to voice concern about water quality, and demanded more information.

Impacts on At-Risk Populations

Poor water and sanitation conditions on reserves in Ontario have a disparate and negative impact on at-risk populations, including people with disabilities, recovering from surgeries or health conditions, the elderly, children, and pregnant women. They face both health concerns and challenges with physical access to alternative water when water advisories warn them against using the water from their taps.

Respondents in 39 households surveyed by Human Rights Watch reported that the household had at least one individual with a special need for good quality water for drinking or hygiene—such as an infant or a person with a suppressed immune system. Likewise, 24 households reported having at least one individual with a special need for a higher quantity of water for drinking or hygiene—with reasons ranging from particular need for good quality water for persons with disabilities, recovering from surgeries, or with chronic illness.

Members of 18 households reported that poor water and sanitation conditions negatively impacted the persons in the household with special health needs. Respondents from eight households said that a doctor or medical professional suspected that an illness or health problem in the household was related to water and sanitation conditions. One 64-year-old

⁸⁰ “Kashechewan family wants answers after baby plagued by skin infections,” *CBC News*, March 18, 2016, <http://www.cbc.ca/news/canada/sudbury/kashechewan-water-health-skin-rash-1.3498710> (accessed March 21, 2016).

⁸¹ Standing Senate Committee on Aboriginal People, *Safe Drinking Water for First Nations*, May 2007, p. 1.

⁸² Health Canada, “Drinking Water Advisories in First Nations Communities,” November 30, 2015, <http://www.hc-sc.gc.ca/fniah-spnia/promotion/public-publique/water-dwa-eau-aqep-eng.php> (accessed December 16, 2015).

⁸³ “Kashechewan family wants answers after baby plagued by skin infections,” *CBC News*, March 18, 2016, <http://www.cbc.ca/news/canada/sudbury/kashechewan-water-health-skin-rash-1.3498710> (accessed March 21, 2016).

elder in Shoal Lake 40 being treated for a chronic illness uses a wheelchair and has had several surgeries.⁸⁴ He has a central catheter, known as a PICC line, for long-term administration of medicine. He said:

It's a high risk for me to get into the tub. If the water should get into the PICC line, that is straight to my blood line. I could develop a virus or an infection. If that infection goes to the spinal cord, then you die. I use lots of hand sanitizer.⁸⁵

Gerry K., recovering from multiple back and neck surgeries in Grassy Narrows, related similar concerns:

I haven't showered in a while. I use wipes from the hospital. Ever since [my first surgery six years ago], I've been in and out of the hospital with infections where they have done the surgery... [They] never gave special instructions, [just] told me not to take a shower because of the water... [I wash with] bath towels they gave to me. They never told me anything [about when to stop].⁸⁶

In the absence of clean water from the tap, drinking water can be physically hard to reach or inaccessible to some people on reserve. Where there are community water points for treated water, people need to walk to the facility and carry the water back, or have access to transport. Ontario's brutally cold winters make this all the more difficult, with weather often subzero and snow and blustery winds that can be life-threatening. An elder in Neskantaga First Nation had no water service due to a broken water pipe, and had to collect water from the water plant. "It's a struggle for me getting water," she said. "It's not easy in the winter."⁸⁷ She relies on help, or resorts to water from a nearby lake.

Even when bottled water is available, people with disabilities, the elderly, children, and pregnant women may have difficulty managing the weight. For example, the standard 20-liter bottles delivered to households in Batchewana and Shoal Lake 40, and available for

⁸⁴ Human Rights Watch interview with Rob S., Shoal Lake 40 First Nation, August 20, 2015.

⁸⁵ Ibid.

⁸⁶ Human Rights Watch survey interview with Gerry K., Grassy Narrows First Nation, February 2, 2016.

⁸⁷ Human Rights Watch interview with Rhonda Z., Neskantaga First Nation, October 22, 2015.

pick-up in Grassy Narrows, weigh nearly 20 kilograms. Ann C., the wife of an elder with physical disabilities in Shoal Lake 40, explained: “As we get older, it’s difficult to carry up [the 20-liter jugs] to the house. The hard part is walking up the hill and putting the water in and out of the boat.”⁸⁸

Impacts on Caregivers

Caregivers—most often women—of children, elderly, and people with disabilities told Human Rights Watch that the poor water conditions in their communities made their care work more burdensome and time-consuming, and increased their worry about loved ones.

Caregivers of young children, for example, expressed concern about the children swallowing water while bathing. “My son has a baby, he was a newborn at the time [we learned we had uranium in our water],” said one woman. “So I bathed that baby in bottled water because their skin is so sensitive and you don’t know if it will get in the mouth. We are told not to brush our teeth with that water, and you can’t boil it out... It’s a huge problem.”⁸⁹

Poor quality water can add hours to simple caregiving tasks. A mother in Neskantaga First Nation described the hour-long daily process to wash bottles for her 4-month-old infant with a rare heart condition.⁹⁰ She bathes him in water that she or her partner collects from the community’s reverse osmosis machine at the water treatment plant. It takes 10 minutes to walk to the treatment plant, and longer to walk back uphill with the water. Her partner often goes by bike, balancing water bottles on the handlebars as he rides. To bathe the baby, every two days she boils the water then lets it cool in a small tub. This takes about two hours. To wash her baby’s bottles, she first rinses the milk out with tap water. Then she boils water from the reverse osmosis machine with the bottles. She then washes them in the sink, again with the treated plant water. This takes an hour. “It makes me feel tired, exhausted. It’s stressful,” she said.⁹¹

⁸⁸ Human Rights Watch interview with Ann C., Shoal Lake 40 First Nation, August 20, 2015.

⁸⁹ Human Rights Watch interview with Geraldine S., Batchewana First Nation, October 6, 2015.

⁹⁰ Human Rights Watch interview with Roxanne M., Neskantaga First Nation, October 20, 2015.

⁹¹ Ibid.

A mother in Grassy Narrows said the “do not consume” advisory in her community “made life a lot harder.”⁹² She has to monitor her kids’ time in the shower and make sure they do not use tap water to brush their teeth. Debora C., whose son was diagnosed with MRSA, struggles to balance caregiving with her job. “I have been missing work to take care of a child that gets sick or going to appointments.”⁹³ Karen K., a mother in Grassy Narrows, said she no longer lets her 7-year-old son take baths, and gives him a shower just once a week. In between, she wipes him down. Her husband had skin rashes, and various family members often had flu-like symptoms. She does not know the cause, but worries about the water. “It’s highly stressful,” she said. “I don’t like thinking this is how we are going to live forever.”⁹⁴

A mother in Batchewana First Nation whose well water is not potable and has a strong smell described the stress of keeping her kids clean: “We worry if the kids will get teased because their clothes smell. Our son is autistic, [so we] worry about teasing.”⁹⁵

Evelyn W., a woman in Six Nations of the Grand River caring for her 93-year-old mother, recounted her struggle to provide care after her well went dry. For two months, they lived without running water, until she could secure funds to fix a broken pump. Her mother has a condition that causes diarrhea, so living without piped water for laundry and bathing was difficult. Evelyn told Human Rights Watch: “Especially having [her disorder], she gets diarrhea quite a bit.... It makes a big difference when you don’t have running water. [I had to] get pails of water, a pan to boil it in the pails, I had [to keep] it in the bathroom.”⁹⁶

Evelyn W. took out a loan to get the water running again, but it tested positive for bacteria contamination and was unsafe to drink. Her mother gets bladder infections, so she needs enough safe water to drink.⁹⁷ She buys potable water for the household, but even that is a challenge. “My husband has to get the jugs [of water refilled]; I can’t leave [my mother] alone,” she said.⁹⁸

⁹² Human Rights Watch survey interview with Cheryl R., Grassy Narrows First Nation, February 4, 2016.

⁹³ Human Rights Watch survey interview with Debora C., Grassy Narrows First Nation, February 4, 2016.

⁹⁴ Human Rights Watch survey interview with Karen K., Grassy Narrows First Nation, February 4, 2016.

⁹⁵ Human Rights Watch survey interview with Dora W., Batchewana First Nation, October 22, 2015.

⁹⁶ Human Rights Watch survey interview with Evelyn W., Six Nations of the Grand River, November 13, 2015.

⁹⁷ Ibid.

⁹⁸ Ibid.

Impacts on Lower-Income Families

Lower-income or financially struggling families on First Nations reserves feel the water crisis intensely, and struggle with the cost of coping. The average median total income for First Nations people ages 25 to 54 in 2005 (latest available data) was just over CAD\$14,000 for those living on reserves—compared to the 2013 median income for all Canadians of \$76,550.⁹⁹ For the 19 percent of households on private wells and 57 percent on household wastewater systems, the costs associated with operation and maintenance can be difficult to afford, and the capital costs needed to rehabilitate failed systems are often prohibitively high.

Some households in First Nations reserves have no water source or sanitation system on their property, and cannot afford to put in a well, cistern, or septic system. One household that collects rain runoff from their roof into a cistern told Human Rights Watch, “I prefer a well, but cannot afford one.”¹⁰⁰

Others have gone into debt to deal with failing water or sanitation systems. Evelyn W. said she took out a \$5,000 loan to fix her well, and if she had not gotten the loan, she would have lived without running water.¹⁰¹

Some households struggle to afford the monthly costs of water, particularly in Six Nations of the Grand River, where many households purchase trucked water for wells or cisterns and bottled water for drinking. One single mother told Human Rights Watch she spent \$120 per month to fill her cistern with water for household usage, and an additional \$10-15 a week on drinking water. She described rationing water toward the end of the month, when money was too tight to purchase more. She tells her four kids to take short showers. “It’s crazy,” she said. “You have to budget your needs and prioritize against access to water.”¹⁰²

⁹⁹ Statistics Canada, “Median total income is lower for Aboriginal people,” 2015, <http://www.statcan.gc.ca/pub/89-645-x/2010001/income-revenu-eng.htm> (accessed April 19, 2016); Statistics Canada, “Median total income, by family type, by province and territory (All census families),” 2015, <http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/famil108a-eng.htm> (accessed April 19, 2016).

¹⁰⁰ Human Rights Watch survey interview with Joseph B., Six Nations of the Grand River, December 1, 2015.

¹⁰¹ Human Rights Watch survey interview with Evelyn W., Six Nations of the Grand River, November 13, 2015.

¹⁰² Human Rights Watch survey interview with Crystal R., Six Nations of the Grand River, November 12, 2015.

Impact on Cultural Life

First Nations people in Ontario consider water sacred: water purifies, cleanses, and gives life to the environment and all living things.¹⁰³ Likewise, many First Nations persons in Ontario recognize a relationship with and responsibility to care for water. They have ceremonies, knowledge, customary laws, and ways of teaching children about their special relationship with water.¹⁰⁴ An elder respected for her knowledge about water explained, “My relations with the water from the rivers, lakes, and from the creeks, they are very close to me, they are my family.”¹⁰⁵ Chief Dean Sayers of Batchewana First Nations said, “We are part of the water and the land. We are that. I serve it and I know it.”¹⁰⁶

In many First Nations communities, women are considered the keepers and spiritual protectors of waters.¹⁰⁷ According to elders’ teachings and tradition, “Women are the water carriers and life givers,” and are “responsible to speak for water.”¹⁰⁸ Carol N., an elder living in Batchewana First Nation, explained, “Water for us is sacred, spiritual.... Water is also a medicine.”¹⁰⁹

Many elders described water as living, and that all of the components of water are important to the health of a person. Not being able to drink the water from their own community is distressing to some. Poor water quality may have a negative impact on ceremonies when source water used in the ceremonies cannot be consumed directly. It can also have an impact on traditional practices, including hunting and fishing. Pollutants can make fish harmful to eat, and if water from springs, streams, and lakes is not safe for drinking throughout traditional territories, hunters and trappers cannot stay out on the land for long periods without returning to communities for water provisions.

¹⁰³ See, for example, Anishinabek, “Anishinabek Traditional Knowledge & Water Policy Report,” 2009, <http://www.anishinabek.ca/download/Water%20Report.pdf> (accessed January 7, 2016), p. 5.

¹⁰⁴ Chiefs of Ontario, “Water Declaration of the Anishinabek, Mushkewoguk and Onkewhonwe in Ontario,” October 2008, <http://www.chiefs-of-ontario.org/node/76> (accessed January 19, 2016).

¹⁰⁵ Josephine Mandamin, Water Grandmother, Mnidoo Minising Elders Council Gathering, Whitefish River First Nation, September 15, 2015.

¹⁰⁶ Human Rights Watch interview with Chief Dean Sayers, Batchewana First Nation, October 8, 2015.

¹⁰⁷ Chiefs of Ontario, “Water Declaration of the Anishinabek, Mushkewoguk and Onkewhonwe in Ontario,” October 2008, <http://www.chiefs-of-ontario.org/node/76> (accessed January 19, 2016).

¹⁰⁸ Josephine Mandamin, Water Grandmother, Mnidoo Minising Elders Council Gathering, Whitefish River First Nation, September 15, 2015; and, Rita (last name unknown), Women’s Water Commission, Mnidoo Minising Elders Council Gathering, Whitefish River First Nation, September 15, 2015.

¹⁰⁹ Human Rights Watch interview with Carol N., Batchewana First Nation, October 6, 2015.

The right to water entitles people to water that is culturally acceptable, and the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) recognizes indigenous peoples' right to maintain and strengthen their spiritual relationship with traditionally owned or occupied lands, territories, waters, coastal seas, and other resources and to uphold their responsibilities to future generations in this regard.¹¹⁰ However, in practice, First Nations persons cannot engage fully in their relationship with water when it is contaminated.

Water is also fundamental to the continuance of cultural knowledge for many First Nations peoples. As one scholar notes, "Our relationship to water also plays a vital role in passing on knowledge to younger generations."¹¹¹

Human Rights Watch found that culture and traditional practices continue to play a significant role in First Nations persons' water use and consumption. Thirty-two households surveyed by Human Rights Watch reported getting water for consumption from open waters or traditional water sources, including for ceremonial use and for use while hunting or fishing. In Neskantaga First Nation, 78 percent of the households that responded to the survey reported getting water from a traditional source, mostly from a spring or lake. Elders said they prefer the taste of the water from the spring.¹¹²

Recognizing the role of water in the exercise of their cultural rights, the Canadian government should ensure First Nations members have the opportunity to express their spiritual relationship to water in consultations and policy discussions around responses to the water crisis. Chief Shining Turtle from Whitefish River First Nation told Human Rights Watch that, for a water consultation to work, it must be a "process guided through ceremony, before a consultation. If you don't do that, there is a disconnect that happens. Things go into disarray...[Ceremony] is not a frustration of the process, but [a recognition

¹¹⁰ See, UN Committee on Economic, Social and Cultural Rights, General Comment No. 15, The Right to Water, U.N. Doc. E/C.12/2002/11, adopted January 20, 2003, para. 12(c) (i). United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), adopted September 13, 2007, G.A. Res. 61/295, U.N. Doc. A/61/L.67 and Add.1 (2007), para. 25, 32, www.un.org/esa/socdev/unpfii/documents/DRIPS_en.pdf (accessed February 14, 2015). Canada issued a statement formally supporting the UNDRIP three years after voting against its passage in September 2007 at the UN General Assembly. See, Canada's Statement of Support on the United Nations Declaration on the Rights of Indigenous Peoples, November 12, 2010, <http://www.aadnc-aandc.gc.ca/eng/1309374239861/1309374546142> (accessed February 14, 2015).

¹¹¹ Deborah McGregor, "Traditional Knowledge: Considerations for Protecting Water in Ontario," *The International Indigenous Policy Journal*, volume 3(3), September 2012, p. 3.

¹¹² See, for example, Human Rights Watch survey interview with Andrew S., Neskantaga First Nation, October 20, 2015.

of] a sacred process. It's part of the natural laws."¹¹³ Such ceremonies may involve praying over and sharing water, consuming berries, or other similar symbolic acts. Incorporating cultural practices in policy discussions about water may facilitate sharing of traditional knowledge about watersheds or the environment, which may in turn assist the government and First Nations to identify more sustainable solutions to water challenges facing First Nations. Some elders feel that "cultural or traditional teachings about water are a key factor missing from current decision making processes regarding water."¹¹⁴

While the cultural significance of water and the impact of the water crisis on First Nations cultural rights may require further research, it is clear that culture plays a role in First Nations persons' enjoyment of the right to water. The federal government should engage First Nations on the cultural aspects of water in order to identify culturally acceptable, sustainable water policy and practical solutions on reserves.

Impact on Housing

The poor water and sanitation situation in First Nation communities is also contributing to a housing crisis. As one chief stated, "what good is a house without water?"¹¹⁵

There is a severe housing shortage, with national estimates ranging from a need for 35,000 to 85,000 new units.¹¹⁶ There are long waiting lists for housing, and overcrowding in many reserve communities.¹¹⁷ Many communities cannot extend their housing stock without upgrades to water and wastewater infrastructure. Some communities need to extend systems to service lots. Others have systems that do not operate at sufficient capacity to safely provide new households with water. The 2011 INAC assessment found that

¹¹³ Human Rights Watch interview with Chief Shining Turtle, Whitefish River First Nation, August 7, 2015.

¹¹⁴ Chiefs of Ontario, "Aboriginal Traditional Knowledge & Source Water Protection: First Nations' Views on Taking Care of Water," March 2006, pp. 22, 24.

¹¹⁵ Statement by Chief Shining Turtle, Assembly of First Nations Annual General Assembly, side event on housing, July 9, 2015, as transcribed by Human Rights Watch.

¹¹⁶ Senate Standing Committee on Aboriginal Peoples, "Housing on First Nation Reserves: Challenges and Successes," February 2015, <http://www.parl.gc.ca/Content/SEN/Committee/412/appa/rep/rep12jun15-e.pdf> (accessed April 6, 2016), p. 6, citing Assembly of First Nations, "Pre-Budget Submission to the House of Commons Standing Committee on Finance," August 12, 2011, p. 4, and to Karl Carisse, Senior Director, Innovation and Major Policy Transformation Directorate, INAC, "Proceedings of the Standing Senate Committee on Aboriginal Peoples," Issue No. 1, 2nd Session, 41st Parliament, November 26, 2013, p. 1:32.

¹¹⁷ Senate Standing Committee on Aboriginal Peoples, "Housing on First Nation Reserves: Challenges and Successes," p. 16-17.

approximately 20 percent of water systems and approximately 25 percent of wastewater systems were operating at or above per capita capacity.¹¹⁸

Servicing lots (i.e., connecting them to basic infrastructure) to allow for house construction is very expensive in many communities, and federal housing programs have not included sufficient funds for servicing lots.¹¹⁹ One of the most expensive elements of servicing lots for housing is the investment in water and sewage infrastructure. There are various estimates about the cost of such investment per lot, ranging from \$30,000 to more than \$150,000.¹²⁰

Serviced by both a communal water system (through an agreement with the municipality of Sault Ste. Marie) and individual wells, Batchewana First Nation is an example of how water problems contribute to the housing shortage. The community has just completed building homes on its last serviceable lot tied to the communal water system. It will have to negotiate a new contract with the municipality nearby to extend the water lines further—and it will need capital investments from INAC. Otherwise, Batchewana First Nation’s only other option is to build in areas of the community serviced by individual wells and septic systems.

The director of housing estimates the First Nation spends about \$18,000 to service a new house lot for private water and septic systems. However, she notes, “There is no budget within the operation and maintenance to deal with individual water and wastewater challenges,” of which there are many in the community—from wells that go dry to contamination.¹²¹ “We operate at a deficit from what INAC gives us.... In Goulais (one of the community’s four reserves) alone we spent \$44,000 on bottled water—had to draw from programming. We spend over \$100,000 on just bottled water and filtration systems.”¹²²

¹¹⁸ INAC, “National Assessment of First Nations Water and Wastewater Systems, Ontario Regional Roll-Up Report: Final,” January 2011, https://www.aadnc-aandc.gc.ca/eng/1314634863253/1314634934122#chp2_1 (accessed January 7, 2016).

¹¹⁹ Senate Standing Committee on Aboriginal Peoples, “Housing on First Nation Reserves: Challenges and Successes,” p. 40.

¹²⁰ INAC, “National Assessment of First Nations Water and Wastewater Systems, Ontario Regional Roll-Up Report: Final,” Annexes.

¹²¹ Human Rights Watch interview with Trudy Boyer, housing director, Batchewana First Nation, October 6, 2015.

¹²² *Ibid.*

Even so, Batchewana is determined to keep building: “We will continue to build there to house our people, and we will continue to provide them clean drinking water,” said Trudy Boyer, housing director. “There is just no money.”¹²³

Measures to attempt to make water safe can also pose risks in homes, for example, mould growth. The Standing Senate Committee on Aboriginal Peoples noted in its 2015 interim report on housing that there may be a link between mould growth in homes, a significant problem in First Nations housing, and long-term boil water advisories.¹²⁴ The report points to one community as an example, saying, “boiling water for so many people contributes to moisture in the home and eventual mould growth.”¹²⁵ Very few respondents to the Human Rights Watch survey reported mould growth, which may relate to the fact that alternative sources for drinking were available. Nevertheless, one household in Neskantaga First Nation did report that it boiled water for washing dishes. Fawn M. said that it took her about an hour to boil the water for dishes, and that mould was starting to appear on the ceiling.¹²⁶

¹²³ Ibid.

¹²⁴ Senate Standing Committee on Aboriginal Peoples, “Housing on First Nation Reserves: Challenges and Successes,” February 2015, <http://www.parl.gc.ca/Content/SEN/Committee/412/appa/rep/rep08feb15b-e.pdf> (accessed April 6, 2016), p. 18; US Centers for Disease Control and Prevention, “Facts about Mold and Dampness,” June 2014, http://www.cdc.gov/mold/dampness_facts.htm#note (accessed April 19, 2016).

¹²⁵ Senate Standing Committee on Aboriginal Peoples, “Housing on First Nation Reserves: Challenges and Successes,” p. 18.

¹²⁶ Human Rights Watch survey interview with Fawn M., Neskantaga First Nation, October 19, 2015.

III. Barriers to Safe Drinking Water and Sanitation on First Nations Reserves

The right to water entitles everyone, without discrimination, “to have access to sufficient, safe, acceptable, physically accessible and affordable water for personal and domestic use.”¹²⁷ The government of Canada has an obligation to respect, protect, and fulfill this and other economic, social, and cultural rights, progressively and to the maximum of its available resources. The absence of safe water does not automatically indicate a human rights violation has occurred. Likewise, the fact that the government has taken some action and invested some money toward addressing the water and sanitation crisis on reserves does not indicate that the government has fully met its obligations in relation to the relevant rights.

In Canada, there is no dispute that the government has invested money—billions of dollars over decades—to address this issue. The fact remains that a significant number of First Nations persons in Ontario cannot drink the water in their homes—often for long periods. The question remains why this is the case. This section considers whether government action or inaction has constituted a barrier to the realization of the rights to water and sanitation on reserve.

While the specific sets of facts that lead to unsafe water in each individual community may be unique, the fact that there are so many drinking water advisories and high-risk systems points to systemic problems. A number of factors have contributed to the lack of safe drinking water and sanitation on First Nations reserves, including the absence of a regulatory framework, challenges in funding, no federal government support for private water and wastewater systems, degraded source waters, and a lack of consistent training and support for water operators. This section puts these issues in the wider systemic context, and provides examples of how this has played out in the five diverse communities where Human Rights Watch conducted research.

¹²⁷ Committee on Economic, Social and Cultural Rights, General Comment 15, The right to water U.N. Doc. E/C.12/2002/11, para. 2 and United Nations General Assembly, “The human rights to safe drinking water and sanitation,” Resolution 70/169, U.N. Doc. A/RES/70/169, December 17, 2015. Likewise, the right to sanitation entitles everyone, without discrimination, to “have physical and affordable access to sanitation, in all spheres of life, that is safe, hygienic, secure, and socially and culturally acceptable and that provides privacy and ensures dignity.”

Absence of a Regulatory Framework

Water and sanitation systems for most Canadians—i.e., those who live off reserves—are governed by strict guidelines and protocols on water quality. If there are system failures, provincial or territorial officials can be held accountable. There are no such regulations governing the management of drinking water and sanitation on reserves in any First Nations communities across Canada, including in Ontario, and reserves do not fall under the jurisdiction of provincial regulations.

Under current Canadian law, only the federal government has the authority to pass binding regulations that would apply on First Nations reserves. To date, the federal government has failed to promulgate regulations on water quality and sanitation for reserves. The *Indian Act* directly limits the authority of the First Nations to address the regulatory gap themselves. The federal government’s failure—over decades—to ensure residents on First Nations reserves enjoy the same protections against the risks of poor water and sanitation as Canadians off reserves is a form of discrimination against members of First Nations communities.¹²⁸

This section first explores the impact of this regulatory gap, with specific examples from communities. It details recent efforts by the government to address the regulatory gap that have, to date, been unsuccessful.

To its credit, since 2006, INAC has set out protocols for the design, construction, operation, maintenance, and monitoring of drinking water systems in First Nations reserves. But these protocols are not binding.¹²⁹ While First Nations and contractors working on First Nations systems are meant to comply with these protocols, INAC itself recognizes that they can only be enforced via the terms of a contract, and are not backed

¹²⁸ See Human Rights Watch, Submission on the sixth periodic report of Canada to the United Nations Committee on Economic, Social and Cultural Rights, January 29, 2016, http://tbinternet.ohchr.org/_layouts/treatybodyexternal/Download.aspx?symbolno=INT%2fCESCR%2fCSS%2fCAN%2f22906&Lang=en (accessed April 5, 2016); see also, UN Committee on Economic, Social and Cultural Rights, General Comment No. 20, Non-discrimination in economic, social and cultural rights (art. 2, para. 2, of the International Covenant on Economic, Social and Cultural Rights), U.N. Doc. E/C.12/GC/20 (2009).

¹²⁹ INAC, “Protocols for Decentralised Water and Wastewater Systems in First Nations Communities,” 2010, https://www.aadnc-aandc.gc.ca/eng/1100100034991/1100100034996#chp1_2 (accessed January 20, 2016); INAC, “Protocol for Centralised Drinking Water Systems in First Nations Communities,” 2010, <https://www.aadnc-aandc.gc.ca/eng/1100100034998/1100100035000> (accessed January 20, 2016); and INAC, “Protocol for Centralised Wastewater Systems in First Nations Communities,” 2010, <https://www.aadnc-aandc.gc.ca/eng/1100100035002/1100100035004> (accessed January 20, 2016).

by regulations.¹³⁰ In the absence of regulations and prior to the protocols, the federal government funded and facilitated water and sanitation system designs for reserves that did not meet standards required of water and sanitation systems elsewhere in Canada, including in the province of Ontario. Many of these systems remain out of compliance with provincial standards off reserves and are under drinking water advisories.

Impact of the Regulatory Gap

The design and construction of treatment systems for surface water (as opposed to ground water) is a good example of the impact of this regulatory gap. Since 1968, the federal government has issued and periodically updated *Guidelines for Canadian Drinking Water Quality (GCDWQ)* that set out maximum acceptable concentrations of microbiological, chemical, and radiological contaminants and provide technical guidance on treatment.¹³¹ For surface water or surface water-impacted groundwater systems, these guidelines state that treatment should include physical removal methods—such as chemically assisted filtration—in addition to disinfection.¹³²

Ontario’s provincial Ministry of Environment had enforceable regulations requiring this type of filtration since 1987.¹³³ Under provincial regulations, water systems built in Ontario off reserves have to meet these specifications. But on reserves, these regulations do not apply. As late as the mid-1990s, INAC supported the construction of drinking water systems on reserves that did not have this filtration capacity, and could not meet these standards.

A public health consultant for Health Canada warned INAC in 1996 that it was funding systems that failed to meet the regulatory requirements of the provincial government, creating a “potentially high risk situation.”¹³⁴ The consultant warned that systems being built for surface water sources in First Nations communities in Ontario lacked proper

¹³⁰ INAC, “Water and Wastewater Infrastructure Investment Report: April 2012 – March 2013,” <https://www.aadnc-aandc.gc.ca/eng/1403198954861/1403199074561#chp4> (accessed January 20, 2016).

¹³¹ Federal-Provincial-Territorial Committee on Drinking Water, “Guidelines for Canadian Drinking Water Quality,” October 2014, http://www.hc-sc.gc.ca/ewh-semt/pubs/water-eau/sum_guide-res_recom/index-eng.php (accessed March 17, 2016).

¹³² *Ibid.*

¹³³ Ministry of Environment, Ontario, “Treatment Requirements for Municipal and Communal Water Works Using Surface Water Sources,” Policy No. 15-14-1, effective December 31, 1987, under the legislative authority of the Ontario Water Resources Act (R.S.O. 1980), sec. 7(1)(d), sec. 23 and sec. 44.

¹³⁴ See letter dated November 1996, on file with Human Rights Watch.

filtration to treat for *Cryptosporidium*—a potentially fatal diarrhea-causing parasite.¹³⁵ The consultant also said that Health Canada “relied upon [INAC’s] technical people to follow the local jurisdiction, i.e., provinces or territories” and noted that Ontario did have a filtration requirement for all surface water sources.¹³⁶ Human Rights Watch has no information about INAC’s response, if any, to the consultant’s letter, but the July 1999 version of the INAC manual for contractors, which provided level of service standards for water, did require filtration to address *Cryptosporidium* risks.¹³⁷

Even after the consultant’s warning and the adjustments to the contractor manual, INAC kept funding water systems with sub-standard designs. The INAC-funded 2011 study found that 23 First Nations communities in Ontario drawing surface water failed to meet the GCDWQ standards based on design alone, or both design and operation. As of 2015, 18 of these were under a drinking water advisory.¹³⁸ Eight of these communities also failed to meet GCDWQ Maximum Acceptable Concentration (MAC) guidelines for bacteria in 2011.¹³⁹ Systems in 18 of these 23 communities were built after the 1987 provincial regulations, and 13 were built in 1996 or later—after the Health Canada consultant had put the government on notice that it was funding flawed systems. Seven were built in 1999 or later, after the INAC manual was published.

The asset assessment does not specify whether the design failures in all of these cases relate to surface water filtration. Nevertheless, these surface water systems were built with design failures at a time when the government was actively investing large sums of money to improve drinking water on reserves.¹⁴⁰ They were designed and constructed with INAC funding and oversight, and yet the 2011 assessment found the designs did not meet

¹³⁵ See letter dated November 1996, on file with Human Rights Watch.

¹³⁶ *Ibid.*

¹³⁷ INAC, “Corporate Manuals Systems Indian Programs Volume 1 Capital Facilities and Maintenance: Appendix A Levels of Service Standard: Water and Sewage System,” July 28, 1999, http://www.aadnc-aandc.gc.ca/DAM/DAM-INTER-HQ/STAGING/texte-text/wat_1100100010625_eng.pdf (accessed May 9, 2016).

¹³⁸ INAC, “National Assessment of First Nations Water and Wastewater Systems, Ontario Regional Roll-Up Report: Final,” January 2011, https://www.aadnc-aandc.gc.ca/eng/1314634863253/1314634934122#chp2_1 (accessed January 7, 2016), and Health Canada, “Drinking Water Advisories in First Nations Communities,” December 31, 2015, <http://www.hc-sc.gc.ca/fniah-spnia/promotion/public-publique/water-dwa-eau-aqep-eng.php> (accessed March 15, 2016).

¹³⁹ INAC, “National Assessment of First Nations Water and Wastewater Systems, Ontario Regional Roll-Up Report: Final.”

¹⁴⁰ Between 1995 and 2003 the federal government spent about \$1.9 billion on water and wastewater systems on reserves, most of it on drinking water. See Office of the Auditor General of Canada, “Chapter 5: Drinking Water in First Nations Communities,” p. 6.

provincial standards for drinking water drawn from surface water—some of which, like the filtration requirement, had been in place for at least a decade.

Other Examples of Design Failures

Grassy Narrows First Nation’s treatment system, which INAC installed in 1993, also has design problems. According to the water operator, the system “was not designed to have enough contact time [with water disinfectants]. It’s impossible to achieve the necessary contact time.... [T]he water is unsafe as a result of poor design. [Our technical support from the tribal council] recognized that right away.”¹⁴¹ As soon as Ontario’s stricter regulations came into force after the 2000 Walkerton disaster, the Grassy Narrows system “became immediately non-compliant [with off-reserve provincial regulations] and should have been on a drinking water advisory,” according to the community’s water operator.¹⁴²

The community instituted a boil water advisory only in 2014 after the Council requested Ontario’s Ministry of the Environment and Climate Change (MOECC) initiate monitoring for the community’s drinking water under the province’s Drinking Water Surveillance Program, a post-Walkerton initiative.¹⁴³ According to Health Canada, the boil water advisory was put in place due to “recent information brought to [Health Canada] re: major [water treatment plant] deficiencies.”¹⁴⁴ INAC’s 2011 asset assessment noted that the system did not provide proper treatment for surface water.¹⁴⁵ The community issued a state of emergency and “do not consume” advisory on the public system in August 2015, after further testing by the MOECC found high turbidity levels in the water and disinfectant by-products that have been linked to cancer.¹⁴⁶

Neskantaga First Nation, under a water advisory since 1995, has similar water treatment design failures. According to an advisor to Neskantaga First Nation’s council, “[t]he water was designed to circulate the system, instead there are three dead ends—the chlorination can’t circulate. It was put in in the 1990s, and it was a flawed system from the start.”¹⁴⁷ According to the Neskantaga’s chief and council, the idea for the design came from a senior bureaucrat in INAC who told council leaders at the time, “It worked in my cottage, it should work in your community.”¹⁴⁸ For Neskantaga’s council, this sort of patronizing comment demonstrates the challenge of working with INAC. “This is the systematic attitude that exists within the government,” said Chief Wayne Moonias.¹⁴⁹

¹⁴¹ Human Rights Watch interview with Larry K., Sr., water operator, Grassy Narrows First Nation, February 3, 2016.

¹⁴² Ibid.

¹⁴³ Ontario Ministry of the Environment and Climate Change, Letter to Chief Roger Fobister, Asubpeeschosesewagunk (Grassy Narrows) First Nation, July 23, 2014, on file with Human Rights Watch.

¹⁴⁴ Health Canada, FNIHB, “Advisory Status Report,” December 31, 2015, on file with Human Rights Watch.

¹⁴⁵ INAC, “National Assessment of First Nations Water and Wastewater Systems, Grassy Narrows First Nation, English River Site Visit Report - FINAL,” December 2010, on file with Human Rights Watch.

¹⁴⁶ Grassy Narrows First Nation, “Grassy Narrows declares State of Emergency over drinking water,” August 27, 2015, <http://freegrassy.net/2015/08/27/grassy-narrows-declares-state-of-emergency-over-unsafe-drinking-water/#sthash.HovLPM5L.dpuffollowed> (accessed May 10, 2016). See also, Human Rights Watch interview with Randy Fobister, deputy chief, Grassy Narrows First Nations, February 2, 2016.

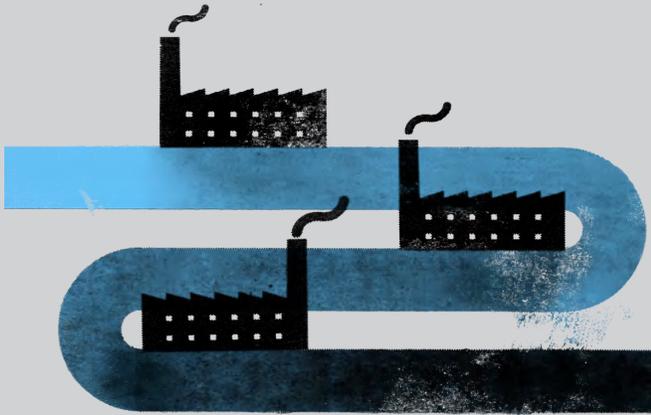
¹⁴⁷ Human Rights Watch interview with Roy Moonias, advisor to Chief and Council, Neskantaga First Nation, October 19, 2015.

¹⁴⁸ Human Rights Watch interview with Chief Wayne Moonias and Council, Neskantaga First Nation, October 19, 2015.

¹⁴⁹ Ibid.

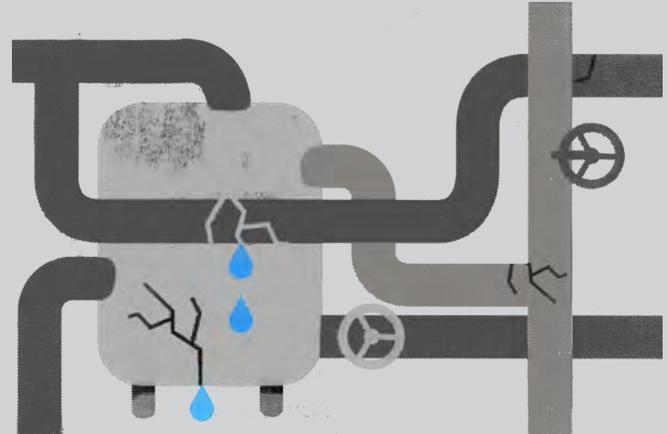
THE WATER CRISIS AT GRASSY NARROWS FIRST NATION

PROBLEMS FROM SOURCE TO TAP



SOURCE WATER

Grassy Narrows First Nation gets its drinking water directly from Grassy Narrows Lake, part of the English River system. While many watersheds in Southern Ontario have source protection plans, most in Northern Ontario—like the English River system—do not. The English River system has a long history of contamination. In the early 1970's, Grassy Narrows First Nation learned that a factory, Dryden Chemicals, upstream in the water system had dumped 9,000 kilograms of mercury into the water. The mercury was carried downstream and contaminated fish in Grassy Narrows' territory. Mercury, a heavy metal that can cause serious health effects and even death, has never been removed from the water system. The raw water Grassy Narrows draws its drinking water from is also under the influence of off-reserve hydro damming, sewage, mining, logging, and factory effluents as well as some pollutants from communities living on the reserve. One of the sewage lift stations in the system is located meters from the intake valve of the community's water plant—in the case of overflow, raw sewage would be released into the lake very near where the community draws its drinking water.



DESIGN

Grassy Narrows First Nation draws water from a lake serviced by a water treatment plant built in 1993. This plant does not meet basic Canadian water quality guidelines. It is not designed to filter out *Cryptosporidium* or *giardia*, two protozoa that can cause severe gastro-intestinal problems and diarrhea. In addition, the plant lacks the ability to provide sufficient “contact time” with chemical disinfectants—chlorine—to ensure these chemicals have enough time to kill bacteria in the water. Furthermore the plant does not have a backup power supply— not even a generator for the water tower. Several years ago the water in the water tower froze, causing damage to the plant and leaving people without water for several days. A study funded by the federal government in 2011 stated that the plant does not provide proper treatment for surface water.

OPERATION

The federal government funds a portion of operations and maintenance costs for First Nations' public water and wastewater systems on reserves, leaving a standard 20 percent deficit for the First Nations to cover. The operations and maintenance budget is supposed to cover everything from running communities' treatment plants, including paying for power, purchasing chemicals and supplies, to maintaining the distribution system and monitoring wa-

ter quality. These funds also go to pay the people who operate the system—often technicians from the First Nation. The federal government does not evaluate the ability of First Nations to make up the difference between what it pays and the total operations and maintenance costs, despite limited community resources. Most First Nations like Grassy Narrows do not have sufficient operation and



maintenance funds for the communities' water systems and have to make difficult decisions. It often means that individual operators have to work long hours or without sufficient back up personnel.

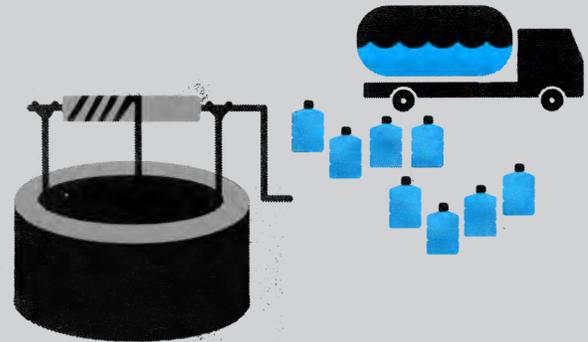
DISTRIBUTION

The distribution lines for the water system in Grassy Narrows only cover part of the community. There are approximately 80 people serviced by wells in two areas of the community—Snake Point and the Mission. The water from both these wells has been found to exceed recommended levels of uranium. People living here receive water trucked from the main water system, but there have been problems with bacteria in the trucked water system. Also, people living in the areas serviced by wells do not have the same level of protection in the case of home fires, because the trucked system does not have enough pressure to use to put out fires.

TAP

People living in Grassy Narrows First Nation cannot drink the water coming from their taps. In 2014, the federal government recommended that the community put a boil water advisory in place. Due to insufficient contact time with disinfectants and inadequate filtration, the water could

not be guaranteed as safe to drink without families boiling it before use. These risks have been present in the system since 1994. In July 2015, community leaders declared a state of emergency and put the community under a do not consume advisory—indicating the water had contaminants that could not even be boiled out. A water test found levels of disinfectant by-products exceeding



health guidelines. These are chemicals created when highly turbid water (i.e. water with lots of dirt and other organic compounds in it) reacts with the chlorine used to treat it. These chemicals are linked to cancer. They have been found in high levels in the community's water as early 1999, including when water at a daycare center was tested. Currently, people in Grassy Narrows drink only bottled water, but some people complain about rashes or other skin conditions that they believe are linked to the water quality. According to Health Canada "all major deficiencies [in the system] must be addressed and remedied" before the advisory can be lifted. This requires either significant investment in repairs and upgrades or a new system altogether.



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*. INAC constructed a pumped water treatment system drawing from source water in 1995 that had no filtration.¹⁵⁰ An elder in his sixties who remembers discussions with INAC in the mid-1990s when the system was new told Human Rights Watch, “I don’t think [INAC] has listened to us.... They designed [the system] and plopped it out on the reserve.”¹⁵¹ From the day the water treatment system opened, it was out of compliance with provincial regulations. The First Nation declared a boil water advisory less than two years later, which is still in place two decades later.

Kavin R. was the water operator in Shoal Lake 40 until 2016, and explained how the system works: “There is no filter system...It’s just chlorination... There is nothing we can do about it. We can’t get off the boil water advisory.”¹⁵² He went on to say, “I don’t know why they chose this system. It’s the worst.”¹⁵³ Kavin compensated for the system’s design flaw by using large amounts of chlorine, sometimes above the recommended limit set by the province.¹⁵⁴ Kavin told Human Rights Watch, “I worry big time. I just keep the chlorine levels high.”¹⁵⁵

Design failures are not limited to surface water systems. Analyzing the 2011 assessment data alongside the 2015 drinking water advisories in Ontario demonstrates that 25 percent of communities under advisory exceeded maximum acceptable concentration of bacterial contamination “by design,” meaning that the assessment concluded the system design was the main contributing factor. Human Rights Watch cannot conclude definitively that a regulatory regime would have prevented design failures in these cases. Nevertheless, a regulatory regime would provide binding standards that would mitigate the risk of design failures in new construction, which contribute to the high number of drinking water advisories.

¹⁵⁰ Health Canada produces periodic status reports on drinking water advisories. It notes that Shoal Lake 40’s boil water advisory is due to inadequate treatment and that the long-term remedial measure is “install a full water treatment plant.” See Health Canada, FNIHB, “Advisory Status Report,” December 31, 2015, on file with Human Rights Watch.

¹⁵¹ Human Rights Watch interview with Rob S., elder, Shoal Lake 40 First Nation, August 20, 2015.

¹⁵² Human Rights Watch interview, Kavin R., water treatment operator, Shoal Lake 40 First Nation, August 20, 2015.

¹⁵³ Ibid.

¹⁵⁴ Ibid.

¹⁵⁵ Human Rights Watch interview with Kavin R., water treatment operator, Shoal Lake 40 First Nation, August 20, 2015.

Steps Towards Regulation

The federal government has made some effort in recent years to adopt regulations to govern water quality and sanitation on reserves. Parliament passed the Safe Drinking Water for First Nations Act, which entered into force in November 2013 and called for promulgation of regulations.¹⁵⁶ However, the First Nations have objected to the Act and the regulation process it requires. They assert that in passing the law, the government ignored recommendations, including by the Expert Panel on Safe Drinking Water for First Nations, that regulatory efforts should go hand in hand with significant federal government investments to ensure First Nations had the resources to comply with the legislation and regulations. They also assert that the government did not appropriately consult with First Nations.

The current condition of water and wastewater assets on reserves makes the promulgation of regulations difficult to achieve. Some First Nations leaders suspect that the proposed regulations are a surreptitious way to pass financial or even criminal liability for failing systems on to First Nations. They assert that the government mismanaged water system designs, and now is passing faulty infrastructure off to First Nations to deal with the problems. These leaders point to the recommendations of the Expert Panel, which recognize the need for enforceable regulations but only if sufficient investment is made to remedy existing problems in the water management systems. The Act itself deemed the First Nations the owners of water systems, and they believe the regulations will only deepen the potential liability for the First Nations. As one chief explained to Human Rights Watch, “It’s as if the government bought a faulty car and rode around in it for 100,000 miles, then gave you the keys and said ‘now it’s yours, congratulations,’ but you don’t have the money to keep it running.”¹⁵⁷

Leaders also assert that the law was passed without due consultation with indigenous communities.¹⁵⁸ In December 2015 a special Assembly of Chiefs sponsored by the Assembly of First Nations passed a resolution on safe drinking water for First Nations,

¹⁵⁶ Safe Drinking Water for First Nations Act (S.C. 2013, c. 21), November 1, 2013, <http://laws-lois.justice.gc.ca/PDF/S-1.04.pdf> (accessed January 7, 2016).

¹⁵⁷ Human Rights Watch interview with Chief Shining Turtle, Whitefish River First Nation, August 7, 2015.

¹⁵⁸ See also, Statement of MP Carolyn Bennet, “Safe Drinking Water for First Nations Act Government Orders,” June 6, 2013, <https://openparliament.ca/bills/41-1/S-8/?page=3> (accessed May 25, 2016), stating “The Liberal Party has heard consistently in the Senate, in the House of Commons and in discussions outside Parliament that there were not appropriate consultations with first nations on this bill.”

which declared that the Act “was developed without meaningful consultation with First Nations, is contrary to inherent authority of First Nation governments and does not reflect the principles of Customary Laws regarding water.”¹⁵⁹ The resolution called for the repeal of the Act.

The resolution also called for repeal because the Act did not guarantee government funds for human resources or physical assets.¹⁶⁰ At the same assembly, the chiefs established a First Nations Water, Infrastructure and Housing Commission to engage the federal government on the issue of water governance, among other topics.¹⁶¹

Most First Nations leaders acknowledge the need for enforceable laws and regulations to extend safe water protections to First Nations, but they want these regulations to be promulgated in a manner consistent with communities’ rights under Canadian law and the United Nations Declaration on the Rights of Indigenous Peoples, and to be accompanied by financial support.¹⁶²

Prime Minister Trudeau issued a mandate letter to his newly appointed Minister of Indigenous and Northern Affairs, Carolyn Bennett, on November 13, 2015. As part of her mandate, Trudeau asked that she:

Undertake, with advice from the Minister of Justice, in full partnership and consultation with First Nations, Inuit, and the Métis Nation, a review of laws, policies, and operational practices to ensure that the Crown is fully executing its consultation and accommodation obligations, in accordance with its constitutional and international human rights obligations, including Aboriginal and Treaty rights.¹⁶³

¹⁵⁹ Assembly of First Nations, “Safe Drinking Water for First Nations,” Resolution no. 76/2015, December 10, 2015, <http://www.afn.ca/uploads/files/resolutions/res-sca-2015.pdf> (accessed May 10, 2016).

¹⁶⁰ Assembly of First Nations, “Safe Drinking Water for First Nations,” Resolution no. 76/2015, December 10, 2015.

¹⁶¹ Assembly of First Nations, “First Nations Water, Infrastructure and Housing Commission,” Resolution n. 74/2015, December 10, 2015.

¹⁶² See, for example, discussions among First Nations technical operators and leaders, Chiefs of Ontario First Nations Working Group on Water Meeting, March 23, 2016, notes on file with Human Rights Watch.

¹⁶³ Prime Minister Trudeau, “Minister of Indigenous and Northern Affairs Mandate Letter,” November 13, 2015, <http://pm.gc.ca/eng/minister-indigenous-and-northern-affairs-mandate-letter> (accessed May 19, 2016).

Human Rights Watch received information from aboriginal representative groups and INAC officials that INAC hosted a three-day meeting in mid-May 2016 to explore how to proceed in regard to regulations under the Safe Drinking Water for First Nations Act. This is a positive development; however, Human Rights Watch has been alerted by some in attendance that in fact the Act and regulations were not discussed.

Funds for Water and Wastewater Systems

First Nations provide services on reserves that provincial, territorial, and municipal governments typically provide off reserves—including water and wastewater services. While municipalities in Canada can fund water and wastewater services through taxes, user fees, and provincial and federal subsidies, the federal government—and INAC in particular—is the primary source of funding for First Nations for the provision of water and wastewater services on reserves. Canada’s human rights obligations related to the rights to water and sanitation require not only that its laws, regulations, and policies be in line with its human rights obligations, but also that financing strategies and budgets are as well.¹⁶⁴

Understanding the funding structure and allocation level is fundamental to any analysis of the Canadian government’s efforts to meet its obligations related to the rights to water and sanitation. As noted, states have an obligation to allocate the maximum available resources to realize progressively certain human rights obligations—of which there are many and among which states may have to make difficult choices. The fact that Canada funds water and wastewater systems on reserve is not sufficient to meet its obligations. Rather, this funding should take into account the full cost of progressive realization and not allow for retrogression, a human rights term that suggests a backsliding on rights. Even for rights subject to the principle of progressive realization, including the rights to water and sanitation, governments have immediate obligations to eliminate discrimination with respect to those rights.

¹⁶⁴ See, UN Special Rapporteur on the human rights to water and sanitation, “Realising the Human Rights to Water and Sanitation: A Handbook by the UN Special Rapporteur Catarina de Albuquerque—Volume 3: Financing, budgeting and budget tracking for the realisation of the human rights to water and sanitation,” 2014, p. 5.

Lack of an appropriate funding mechanism for First Nations—excerpt from *2011 Status Report of the Auditor General of Canada to the House of Commons*

The federal government uses contribution agreements to fund the delivery of services on First Nations reserves. Through these agreements, First Nations receive a certain level of funding to provide various programs and services in their communities. We see several problems with the use of this funding mechanism for the provision of core government services. One problem is that, while the agreements state the services or actions to be provided, they do not always focus on service standards or results to be achieved.

The timing for provision of funds under contribution agreements is also problematic. Most contribution agreements must be renewed yearly. In previous audits, we found that the funds may not be available until several months into the period to be funded; one reason is that new agreements cannot be finalized until departments have reviewed documentation and confirmed that funds from the previous period were used appropriately. Consequently, First Nations must often reallocate funds from elsewhere to continue meeting community service requirements. [...]

The use of contribution agreements between the federal government and First Nations may also inhibit appropriate accountability to First Nations members. It is often unclear who is accountable to First Nations members for achieving improved outcomes or specific levels of services. First Nations often cite a lack of federal funding as the main reason for inadequate services. For its part, INAC maintains that the federal government funds services to First Nations but is not responsible for the delivery or provision of these services.

Contribution agreements involve a significant reporting burden, especially for small First Nations with limited administrative capacity. Communities often have to use scarce administrative resources to respond to numerous reporting requirements stipulated in their agreements. We followed up on INAC's efforts to reduce the reporting requirements of First Nations and found progress to date to be unsatisfactory even though the Department had taken various actions.

The use of contribution agreements to fund services for First Nations communities has also led to uncertainty about funding levels. Statutory programs such as land claim agreements must be fully funded, but this is not the case for services provided through contribution agreements. Accordingly, it is not certain whether funding levels provided to First Nations in one year will be available the following year. This situation creates a level of uncertainty for First Nations and makes long-term planning difficult. In contrast, legislation may commit the federal government to provide statutory funding to meet defined levels of service. A legislative base including statutory funding could remove the uncertainty that results when funding for services depends on the availability of resources.

In addition to poor water and wastewater conditions, people living on First Nations reserves experience insufficient and unsafe housing, high unemployment, gender-based

violence, inadequate education, and poverty.¹⁶⁵ The government has many urgent problems to address, yet it has identified addressing the water and wastewater conditions on reserves as a priority. It has often pointed to the fact of funding as evidence that it is making progress.

The federal budget announced in March 2016 included important investments in First Nations water and wastewater infrastructure, including CAD\$1.8 billion over 5 years to “address health and safety needs, ensure proper facility operation and maintenance, and end long-term boil water advisories on reserves.”¹⁶⁶ It commits \$141.7 million over 5 years to improve the monitoring and testing of on-reserve community drinking water.¹⁶⁷ While these are welcome announcements, the investments have to be managed better than past infusions of funds.

How Water and Wastewater is Funded on Reserve

For more than thirty years, INAC has practiced a policy of devolution, whereby over 85 percent of First Nations programming is devolved to First Nations, which administer funds that INAC transfers to them through funding agreements. In addition to base funding that the government provides to First Nations for core operations—office space, salaries, and travel expenses for band officers and administrators—INAC covers capital, operation, and maintenance costs of water and wastewater systems.

Minor capital allocations are annual allocations based on a per capita formula that takes into consideration geographic remoteness—to cover renovations, housing, transportation, rehabilitation, septic and water systems, school additions, access roads, upgrades, restoration and new constructions, electrification, and waste management.¹⁶⁸ A Senate committee found in 2015 that minor capital funding is insufficient to address all of these

¹⁶⁵ See, for example, Office of the Auditor General of Canada, “Status Report of the Auditor General of Canada to the House of Commons, Chapter 4: Programs for First Nations on Reserve,” 2011, http://www.oag-bvg.gc.ca/internet/English/parl_oag_201106_04_e_35372.html#hd5f (accessed March 21, 2016), p. 7.

¹⁶⁶ INAC, “Budget 2016 Highlights – Aboriginal and Northern Investments, Indigenous Investments,” 2016 <https://www.aadnc-aandc.gc.ca/eng/1458682313288/1458682419457#ind> (accessed April 3, 2016).

¹⁶⁷ Ibid.

¹⁶⁸ See for example, Standing Senate Committee on Aboriginal People, “On-Reserve Housing and Infrastructure: Recommendations for Change,” June 2015, <http://www.parl.gc.ca/Content/SEN/Committee/412/appa/rep/rep12jun15-e.pdf> (accessed May 25, 2016), p. 10.

capital needs, and First Nations make difficult choices on how to distribute this funding.¹⁶⁹ Minor capital allocations can also be made for projects valued at less than \$1.5 million. Major capital allocations are for project proposals costing more than \$1.5 million— including the design and construction of upgrades and new water or wastewater systems. INAC also funds 80 percent of the cost of operating and maintaining systems.¹⁷⁰ Under funding agreements, First Nations take on the responsibility for the construction, upgrading, and day-to-day management of water and wastewater systems.¹⁷¹

The capital costs for water and wastewater infrastructure can be quite high, and the federal government is not able to pay for this over time. Instead, INAC makes major capital allocations for systems in lump sums. According to a Senate report, federal investments do not keep pace with the growing infrastructure deficit on reserve.¹⁷² As a result, there is a substantial list of First Nations waiting for capital infrastructure investments.

Commitments to Increase Water and Wastewater Spending

For two decades, the Canadian government has invested significant amounts of money into water and wastewater systems on reserves, above the base budget amount. Between 1995 and 2003 the federal government spent about \$1.9 billion on water and wastewater systems on reserves, most of it on drinking water.¹⁷³ Of that, \$217 million was invested in the First Nations Water Management Strategy (2003-2006, 2006-2008), and an additional \$60 million for the Plan of Action for Drinking Water in First Nation Communities (2006-2008). Yearly investments for the 10 years between 2006 and 2015 ranged from approximately \$189 million to \$325 million.¹⁷⁴ In addition, according to government estimates, the total federal allocation through the First Nations Water and Wastewater Action Plan (FNWWAP), initiated in 2008, was about \$3.1 billion through fiscal year 2015-

¹⁶⁹ Senate Standing Committee on Aboriginal Peoples, *Housing on First Nation Reserves: Challenges and Successes*, February 2015, p. 40.

¹⁷⁰ Office of the Auditor General of Canada, “Report of the Commissioner of the Environment and Sustainable Development to the House of Commons, Chapter 5: Drinking Water in First Nations Communities,” 2005, <http://www.oag-bvg.gc.ca/internet/docs/c20050905ce.pdf> (accessed January 7, 2016).

¹⁷¹ *Ibid.*, p. 1.

¹⁷² Senate Standing Committee on Aboriginal Peoples, *Housing on First Nation Reserves: Challenges and Successes*, February 2015, p. 40.

¹⁷³ Office of the Auditor General of Canada, “Chapter 5: Drinking Water in First Nations Communities,” p. 6.

¹⁷⁴ INAC, “2014-15 Financial Overview,” July 2014, http://www.aadnc-aandc.gc.ca/DAM/DAM-INTER-HQ-AI/STAGING/texttext/fin_overview_2014_1406217230189_eng.pdf (accessed February 16, 2015), p. 8.

2016.¹⁷⁵ Altogether, the federal government expenditure for water and wastewater infrastructure on reserves over the past two decades exceeds \$5 billion.

How does the cost of drinking water on reserves stack up?

Providing safe drinking water and sanitation can be costly, particularly when factoring in remoteness or small sizes of communities. But the high price tag for water and wastewater on reserves is not inconsistent with what it costs off reserve. For example, Toronto Water distributes clean drinking water to 3.4 million residents and businesses in the city of Toronto and portions of the York region, and provides wastewater services to 2.8 million residents. The 2015 recommended operating budget for Toronto Water was \$422.45 million, on top of \$782.40 million allocated towards a projected \$11.04 billion capital plan budget. An additional \$658.2 million was allocated as a capital reserve contribution.¹⁷⁶

Despite these investments, the number of high-risk systems and drinking water advisories remains stubbornly high and significant new and sustained investment is needed. The 2011 asset assessment estimated that Canada would need to invest an additional \$4.7 billion in capital costs over 10 years to bring systems in line with INAC protocols and keep up with population growth.¹⁷⁷ Projected operation and maintenance costs totaled an additional \$419 million per year.¹⁷⁸

Why Such Significant Investment Needs Remain

The 2011 asset assessment revealed not only the staggering capital investments needed, but highlighted the cost of adequate, on-going operation and maintenance costs. The practice of topping off base funding with additional water and wastewater funding does not provide the stability needed to ensure significant and consistent operation and maintenance funding. Instead, a 2013 evaluation of the FNWWAP criticized the plan's funding as variable, short-term, and unpredictable.¹⁷⁹ The report also found that infrastructure was not meeting its life-cycle expectancy, which it tied to poor design,

¹⁷⁵ INAC, "2014-2015 Report on Plans and Priorities, First Nations Water and Wastewater Action Plan," <https://www.aadnc-aandc.gc.ca/eng/1420658157414/1420658186376> (accessed March 21, 2016).

¹⁷⁶ Toronto Water, "Background: Toronto Water recommended 2015 Capital and Operating Budgets," March 2015, https://www1.toronto.ca/City%20OF%20Toronto/Strategic%20Communications/City%20Budget/2015/PDFs/TW%20Budget%20Backgrounder%202015%20final_rev.pdf (accessed April 2, 2016).

¹⁷⁷ INAC, "National Assessment of First Nations Water and Wastewater Systems," January 2011.

¹⁷⁸ *Ibid.*

¹⁷⁹ INAC, "Evaluation of the First Nations Water and Wastewater Action Plan: Final Report," 2013, <http://www.aadnc-aandc.gc.ca/eng/1399311311048/1399311463605> (accessed April 19, 2016).

operating over-capacity, or insufficient investment in maintenance.¹⁸⁰ Whatever the cause, the 2013 evaluation determined that “fragmented and unpredictable short-term funding influxes such as FNWWAP” did not lead to long-term progress.¹⁸¹

One of the key drivers of this unpredictable approach of program-based funding influxes was an arbitrary cap on budget growth imposed on INAC’s base funding over the past 20 years. Between 1996 and 2015, INAC’s base budget was limited to an annual two percent increase—regardless of population growth, inflation, or need. The United Nations special rapporteur on the rights to water and sanitation warned that imposing this type of cap can slow down the progressive realization of human rights, or worse, lead to retrogression.¹⁸² Known as the “two percent cap,” the policy was meant to ensure that, even in times of austerity, the INAC budget would at a minimum increase at this rate. While intended as a “protection,” this arbitrary limit did not take into account rising costs and population growth on reserves.¹⁸³ As a result, the cap inhibited reasonable growth.

Fortunately, the approach to budgeting for services on First Nations reserves is changing. The Trudeau government announced that it would work toward funding models for services on reserves that provide “sufficient, predictable and sustained funding.”¹⁸⁴ Prime Minister Trudeau announced in December 2015 that the new budget would remove the two percent cap.¹⁸⁵ However, the impact of the cap is enduring, with new investments needed to make up ground lost under the arbitrary scheme.

Remarkably, despite the strain of this funding cap, INAC failed to spend substantial funds over 5 recent fiscal years, and sent more than \$1 billion in funds back to the Treasury

¹⁸⁰ *Ibid.*, p. 19.

¹⁸¹ *Ibid.*

¹⁸² See, UN Special Rapporteur on the human rights to water and sanitation, “Realising the Human Rights to Water and Sanitation: A Handbook by the UN Special Rapporteur Catarina de Albuquerque—Volume 3: Financing, budgeting and budget tracking for the realisation of the human rights to water and sanitation,” 2014, p. 17.

¹⁸³ Statement by Francois Weldon, Director General, Aboriginal and External Relations, INAC, in response to questions by the United Nations Committee on Economic, Social and Cultural Rights, in the event of Canada’s Sixth Periodic Review, February 25, 2016.

¹⁸⁴ INAC, “National Funding Agreement Models,” 2015, <https://www.aadnc-aandc.gc.ca/eng/1322746231896/1322746482555> (accessed March 21, 2016).

¹⁸⁵ Statement by the Prime Minister of Canada after delivering a speech to the Assembly of First Nations Special Chiefs Assembly, December 8, 2015, <http://pm.gc.ca/eng/news/2015/12/08/statement-prime-minister-canada-after-delivering-speech-assembly-first-nations> (accessed March 21, 2016).

Board as “surplus.”¹⁸⁶ According to a *CBC News* analysis of a redacted report about lapsed funding, INAC stood out from other departments both as a “serial” lapser and as the only social-service department in this position. Unexpected delays in procurement or in construction often occur, which could explain some funding lapses. But INAC’s lapses were regular and significant, while communities struggled to meet basic water and sanitation needs.¹⁸⁷ This occurred despite INAC implementing new internal mechanisms in fiscal year 2008-2009 to try to stem its serial problem of lapsed spending.¹⁸⁸

Lapsed funding is a particular frustration to First Nations leaders. “Money went back to the Treasury Board. Imagine if they had reinvested that into First Nations communities,” Chief Wayne Moonias said. “Over one billion dollars, they took back.... [The Conservative government was] raving about surpluses. We had to starve or suffer for [Prime Minister] Harper to get his surplus.”¹⁸⁹ Likewise, Chief Dean Sayers expressed his anger: “One billion dollars that they didn’t expend – of our money! They didn’t spend it for us, didn’t spend it on water.”¹⁹⁰

The reasons for such significant amounts of lapsed funding are not clear based on publicly available documents. However, there is a risk that institutional or structural problems persist that could hamper timely expenditure of recent budget allocations.

Another inhibitor of long-term progress is the standard 20 percent deficit in operation and maintenance funding (pursuant to the 80 percent/20 percent cost sharing noted above).¹⁹¹

¹⁸⁶ See, for example, INAC, “Audit of Expenditure Management Monitoring,” September 15, 2009, <https://www.aadnc-aandc.gc.ca/eng/1100100011353/1100100011355> (accessed May 5, 2016). See also, Dean Beeby, “Aboriginal Affairs spending shortfall amounts to \$1B, internal document says,” *CBC News*, June 5, 2015, <http://www.cbc.ca/news/politics/aboriginal-affairs-spending-shortfall-amounts-to-1b-internal-document-says-1.3100937> (accessed April 19, 2016).

¹⁸⁷ *Ibid.*

¹⁸⁸ According to the a 2010 internal audit, “Ongoing monitoring of expenditures relative to budget is critical for timely and appropriate resource allocation decisions given the increasing priorities of the Department, coupled with continuous resource constraints. Historically, the Department has struggled with timely re-allocation decisions.” See INAC, “Audit of Expenditure Management Monitoring,” September 15, 2009, <https://www.aadnc-aandc.gc.ca/eng/1100100011353/1100100011355> (accessed May 5, 2016). INAC launched a new initiative in the 2008/2009 fiscal year that required managers to bring expenditures up to 2.5 percent of their budget by the end of the fiscal year, with the intent that INAC has a whole would limit its lapsed spending to 5 percent. *Ibid.*

¹⁸⁹ Human Rights Watch interview with Chief Wayne Moonias and Council, Neskantaga First Nation, October 19, 2015.

¹⁹⁰ Human Rights Watch interview with Chief Dean Sayers, Batchewana First Nation, September 16, 2015.

¹⁹¹ INAC, “Evaluation of the First Nations Water and Wastewater Action Plan: Final Report,” 2013, <http://www.aadnc-aandc.gc.ca/eng/1399311311048/1399311463605> (accessed April 19, 2016), p. 19

No First Nations councilors or First Nation staff whom Human Rights Watch interviewed knew exactly how INAC calculates operation and maintenance costs. Many of them told Human Rights Watch that the actual amount First Nations have to contribute ends up being more than 20 percent. The Auditor General reported in 2005 that cost estimates for INAC's contribution had not been updated for years, and that "INAC ignores whether or not First Nations have other resources to meet this requirement" of funding the remaining 20 percent.¹⁹²

Many First Nations have little or no income generating activity and are unable to cover their contribution to operation and maintenance costs. Across all reserves Human Rights Watch visited, First Nations leaders and operators said that they had insufficient own source revenue to cover their 20 percent share of the costs of operating and maintaining water and sanitation systems. If First Nations are unable to meet their contribution, costs have to be cut, which may mean fewer operators or delays on simple repairs. These little cut corners in individual communities can add up. For example, the 2011 asset assessment identified more than \$10 million in unaddressed operations and maintenance repairs, separate from any upgrade or construction costs.

Backlog of First Nations Seeking Capital Investment

In practice, INAC has considerable authority when systems no longer provide safe drinking water. Even where INAC does not have direct authority, for example, with the operation of water systems, its role as funder gives it, in practice, the ultimate authority in determining when, and often which, solutions will be implemented. This is demonstrated in Health Canada's "Procedure for Addressing Drinking Water Advisories in First Nations Communities South of 60°," which Health Canada developed to provide guidance to chiefs and councils of First Nations after a drinking water advisory has been issued.¹⁹³ According to the procedure, the community should submit a plan of action for INAC and Health Canada to review, yet "any major commitments will have to be confirmed with INAC."¹⁹⁴ The procedure also states, "where the public health and safety are at risk and the First Nations community is unable to address the issue, INAC has the authority...to take action to

¹⁹² Office of the Auditor General of Canada, "Chapter 5: Drinking Water in First Nations Communities," p. 6.

¹⁹³ Health Canada, "Procedure for Addressing Drinking Water Advisories in First Nations Communities South of 60°", 2007.

¹⁹⁴ *Ibid.*, pp. 6-7.

remedy the situation.”¹⁹⁵ The buck literally stops with INAC, and yet 36 percent of the drinking water advisories in place in 2015 in First Nations in Ontario had been in effect for over 10 years.

Part of the challenge INAC faces, however, is that due to the constraints discussed above, there are insufficient funds to address all proposed water and wastewater infrastructure upgrades at one time. INAC has created a prioritization ranking system that takes into consideration the impact of a proposed project on the health and safety of community members.¹⁹⁶ Presumably a drinking water advisory would make a community a priority within the ranking system, since newer systems are less prone to boil water advisories.¹⁹⁷ However, some First Nations with long-term boil water advisories have languished on this prioritization list, and INAC has denied (or postponed) funding for projects in communities that are not deemed “high-risk.”¹⁹⁸

For example, Shoal Lake 40 First Nation’s efforts for over a decade to get INAC funds to construct a new water system for the community have so far been futile. As early as 2003, INAC funded a feasibility study for water treatability and new design.¹⁹⁹ INAC identified Shoal Lake 40 First Nation as a priority community in its 2006 *Plan of Action for Drinking Water in First Nations Communities*, and declared in the plan’s first progress report that the design phase would be completed in 2007 and that construction would follow.²⁰⁰ The second progress report stated that the re-design would be completed by February 2008, with construction beginning in spring 2008.²⁰¹ The final progress report of the Action Plan

¹⁹⁵ Ibid., p. 4.

¹⁹⁶ INAC, “Water and Wastewater Infrastructure Prioritization: Information for the Minister,” January 19, 2015, on file with Human Rights Watch.

¹⁹⁷ INAC, “Evaluation of the First Nations Water and Wastewater Action Plan: Final Report,” 2013, <http://www.aadnc-aandc.gc.ca/eng/1399311311048/1399311463605> (accessed April 19, 2016).

¹⁹⁸ INAC, “Evaluation of the First Nations Water and Wastewater Action Plan: Final Report,” 2013, <http://www.aadnc-aandc.gc.ca/eng/1399311311048/1399311463605> (accessed April 19, 2016).

¹⁹⁹ Human Rights Watch interview with Cuyler Cotton, advisor, Shoal Lake 40 First Nation, August 9, 2015. Human Rights Watch reviewed a copy of two water treatability/ feasibility studies funded by INAC. See also, INAC, “Plan of Action for Drinking Water in First Nations Communities - Progress Report,” January 17, 2008, <http://www.aadnc-aandc.gc.ca/eng/1100100034958/1100100034966#appa> (accessed May 12, 2016).

²⁰⁰ INAC, “Plan of Action for Drinking Water in First Nations Communities - Progress Report,” December 7, 2006, <http://www.aadnc-aandc.gc.ca/eng/1100100034978/1100100034980#chp5> (accessed May 12, 2016).

²⁰¹ INAC, “Plan of Action for Drinking Water in First Nations Communities - Progress Report,” January 17, 2008, <http://www.aadnc-aandc.gc.ca/eng/1100100034958/1100100034966#appa> (accessed May 12, 2016).

in 2010 said only that the design phase was approved and in progress.²⁰² In October 2010, INAC informed the chief and council of Shoal Lake 40 First Nation that it was cancelling the project, due to costs.²⁰³ At the time, Chief Erwin Redsky described his reaction: “It took us off guard... Completely.”²⁰⁴ According to Redsky, INAC told him that the water system will remain cost prohibitive, and therefore not a priority for funding, until the community gains road access.²⁰⁵

As the backlog for capital funding requests grows, years-long delays between the design phase and construction are not rare. After 20 years on a boil water advisory, INAC confirmed in a letter to Neskantaga First Nation on October 9, 2015 that it would fund the project design of a new treatment plant in fiscal year 2016-2017. This was three years after INAC funded a water treatability study, which recommended the new plant.²⁰⁶ Chief Shining Turtle of Whitefish River First Nation complained that the delay made the design outdated, as it did not reflect inflation and other changes.²⁰⁷

Private Household Wells, Cisterns, and Septic Systems

INAC funds community water and wastewater systems on reserves that serve five or more households. Smaller systems, often only servicing one household, fall outside of the operation and maintenance funding provided by INAC. Yet public water and wastewater systems—which pipe water to homes or make it available at collection points, and enable removal of wastewater—do not reach many households on First Nations reserves in Ontario. A large proportion of households have private, individual wells or cisterns for their drinking or household water, and septic tanks for wastewater. These private systems have their own risks, and these households may have less information on quality and fewer alternatives than those on public, community systems.

²⁰² INAC, “Plan of Action for Drinking Water in First Nations Communities - Progress Report,” 2010, <https://www.aadnc-aandc.gc.ca/eng/1100100034932/1100100034943#chp7> (accessed August 9, 2015).

²⁰³ Crystal Greene and Alexandra Paul, “So Near, so far: At the mouth of the aqueduct there’s no water to drink,” *Winnipeg Free Press*, January 8, 2011 (<http://www.winnipegfreepress.com/breakingnews/so-near-so-far-113126539.html>) (accessed May 12, 2016).

²⁰⁴ *Ibid.*

²⁰⁵ Human Rights Watch interview with Chief Erwin Redsky, Shoal Lake 40 First Nation, August 19, 2015.

²⁰⁶ INAC, “Plan of Action for Drinking Water in First Nations Communities - Progress Report,” January 17, 2008, <http://www.aadnc-aandc.gc.ca/eng/1100100034958/1100100034966#appa> (accessed May 12, 2016).

²⁰⁷ Chief Shining Turtle, Whitefish River First Nation, Letter to Standing Senate Committee on Aboriginal Peoples, October 17, 2014, on file with Human Rights Watch.

According to INAC, as of 2011, 69 percent of households on reserves in Ontario received piped water services. Of the rest, 19 percent of homes were serviced by individual wells, while the remaining 12 percent were supplied by truck delivery or reported no water service.²⁰⁸ As for wastewater, the 2011 INAC assessment found that 53 out of the 120 communities assessed relied solely on private wastewater systems, i.e., septic systems or outhouses.²⁰⁹ Even in the communities with public wastewater systems, 57 percent of the homes were nevertheless serviced by private systems; 5 percent relied on truck hauling for wastewater management; and 3 percent had no reported sanitation service at all.²¹⁰

Private wells and any water system that services less than five households fall outside the scope of INAC's financial support and other departments' water quality monitoring. First Nations or individual households must cover the cost of private systems. Households with private systems also have to figure out their own water quality monitoring, as their systems are not regularly tested by Health Canada nor by the Ontario Ministry of the Environment and Climate Change, unless requested. Heavy metal testing, such as for uranium, is often the responsibility of the homeowner. Human Rights Watch spoke with individuals in 21 households in Batchewana First Nation and Six Nations of the Grand River serviced by private household wells, and 5 households that relied on trucked or rainwater to fill cisterns. At least 17 of those households had contamination or other problems in their private system, such as uranium, coliform, and *E. coli* contamination, high sulfur content, and high turbidity of the water.

A capital projects manager in one community told Human Rights Watch about challenges with private wells. "If there is an outbreak of *E. coli* or coliform, there are situations [wells] not monitored on a regular basis, and when it happens [we don't have regulations on] what should we do or how to manage," he said.²¹¹ Worse still, communities cannot get technical support or funding to address the challenges related to household systems. The same manager described the difficulties he faced in addressing the problem of uranium contamination of wells in his community, a known problem since at least 1999.

²⁰⁸ INAC, "National Assessment of First Nations Water and Wastewater Systems, Ontario Regional Roll-Up Report: Final," January 2011, https://www.aadnc-aandc.gc.ca/eng/1314634863253/1314634934122#chp2_1 (accessed January 7, 2016).

²⁰⁹ Ibid, p. 7.

²¹⁰ Ibid.

²¹¹ Human Rights Watch interview with Edmund D., capital projects coordinator, Batchewana First Nation, October 6, 2015.

Since receiving the positive tests for high levels of uranium in several households, the Batchewana First Nation has taken steps to address exposure in the short term by delivering bottled water to affected households. Not having specific training in this particular aspect of water treatment, the capital projects manager has reached out repeatedly for assistance from the federal government. In response, a Health Canada official suggested that a test well program be implemented, requiring at least three test wells be dug.²¹² The official then reminded the manager that INAC protocols specifically highlight that First Nations water projects apply only to five or more connections—so the test well program could not be funded.²¹³ Ultimately, the government recommendation was to stop further housing development in two of the First Nation’s three habitable reserves “until there is a cost effective means identified for safe drinking water.”²¹⁴ With all serviceable lots already full in its primary reserve, this recommendation would be an effective moratorium on new housing in the community, which has at least an 80-person waitlist for new housing.

In one meeting with INAC staff, the capital projects manager said he was asked, “Why are you building here?” He told Human Rights Watch, shrugging, “If you put us in a certain position and place, and we have to fend for ourselves we will do the best we can... to tell us ‘why are you building here,’ I don’t have an answer ...We are building because we have to survive one way or another.”²¹⁵

The Chief of Batchewana First Nation raised concerns about accountability when it comes to the construction of private wells, cisterns, or septic systems. “What happens if there is negligence on the part of the contractor? Who has the authority? Who signs off on inspections? Health Canada makes recommendations, but [these] only are recommendations, not mandates.”²¹⁶ He is concerned that without enforceable regulations, it is difficult to hold contractors to any specific standard. “[There is provincial

²¹² Ibid.

²¹³ Ibid.

²¹⁴ Ibid.

²¹⁵ Ibid.

²¹⁶ Human Rights Watch interview with Chief Dean Sayers, Batchewana First Nation, September 16, 2015.

law] all of them are supposed to follow, but there is no enforcement on federal lands,” he said.²¹⁷

Source Water Problems

The quality of source water has a direct impact on drinking water. While water treatment is designed to make source water safe to drink, heavily contaminated source water can make water more difficult, and more expensive, to treat. Ontario has more First Nations water systems that rely on surface water and “groundwater under the direct influence of surface water” (GUDI) than any other province. Out of 158 community water systems in Ontario, 107 rely on surface water or GUDI.²¹⁸ In these communities, water quality is directly related to watershed and source water conditions.

First Nations peoples, chiefs, and experts across Ontario repeatedly expressed concern that their lakes, rivers, and streams are severely degraded, including due to agricultural run-off, industrial activities, and dangerous waste disposal from private vacation homes—called cottages—mainly from off reserve. As one chief lamented, “we are surrounded by water and it’s no good. It’s adequate and treatable water that we need.”²¹⁹ According to one First Nation environment specialist, INAC engineers have told communities that source water quality is less important because, with the right technology and operators, “all water can be treated.”²²⁰ But many First Nations lack the technology and trained operators to deal with tainted water, and doing so is costly.

Source water protection, therefore, is important for ensuring sustainable access to safe drinking water. Source water protection planning identifies threats and establishes policies and procedures to prevent contamination.²²¹ The *Protocol for Safe Drinking Water in First Nations Communities* has required First Nations to put together source water plans with relevant stakeholders since 2006.²²² Yet only 11 percent of First Nations in Ontario had

²¹⁷ Ibid.

²¹⁸ INAC, “National Assessment of First Nations Water and Wastewater Systems,” January 2011, p. 5.

²¹⁹ Human Rights Watch interview with Chief Greg Peters, Munsee Delaware First Nation, Montreal, July 8, 2015.

²²⁰ Human Rights Watch interview with First Nation water technician (name withheld), Toronto, March 23, 2016.

²²¹ INAC, “National Assessment of First Nations Water and Wastewater Systems, Ontario Regional Roll-Up Report: Final,” p. 31.

²²² INAC, “Protocol for Safe Drinking Water in First Nations Communities,” 2006, <https://www.aadnc-aandc.gc.ca/eng/1100100034913/1100100034920> (accessed April 6, 2016).

a source water protection plan in 2011.²²³ The reasons include lack of funding and challenges in engaging relevant stakeholders. A recent study looking at protection programming in a few First Nations in southern Ontario found that because First Nations funding arrangements for water and wastewater are already insufficient to cover operation and maintenance costs, communities do not have resources for source protection programming.²²⁴ As one legal scholar notes, it is difficult for communities to engage stakeholders who impact water on their territorial lands and reserves: “One must ask why any upstream industrial or commercial body, or provincial or municipal body for that matter, would voluntarily agree to enter discussions with a First Nation.”²²⁵

For the most part, source water protection falls under provincial law in Canada, making it difficult for First Nations to engage on the issue. In practice, First Nations cannot effectively carry out their culturally-understood obligation to protect water—either on or off reserve. The challenge is even greater for source waters off reserve, in traditional territories, as there is currently no formal and consistent pathway for First Nations to engage practically in such protections. The members of First Nations with whom Human Rights Watch spoke said they had lost control over their source waters, and expressed grave concern about degradation of these waters. Chief Shining Turtle of Whitefish River First Nation said, “There is a change in the health of the water... it’s declining. The fish, the plants, the fish are sick.”²²⁶

The consultation officer in Shoal Lake 40 told Human Rights Watch that provincial governments and industry routinely fail to notify, much less consult with, First Nations about upstream activities that might affect their watersheds. “They don’t approach us. We find out indirectly about certain things,” he said.²²⁷

First Nations leaders raised consistent concerns with Human Rights Watch about the lack of consultation regarding commercial activities that would impact their traditional territories and the waters within it. In the absence of consultation, some communities turn

²²³ INAC, “National Assessment of First Nations Water and Wastewater Systems, Ontario Regional Roll-Up Report: Final.”

²²⁴ Thomas Dyck, Ryan Plummer, and Derek Armitage, “Examining First Nations’ approach to protecting water resources using a multi-barrier approach to safe drinking water in Southern Ontario, Canada,” *Canadian Water Resources Journal* volume 40:1, p. 215.

²²⁵ Macintosh, “Testing the Waters,” p. 80.

²²⁶ Human Rights Watch interview with Chief Shining Turtle, Whitefish River First Nation, August 7, 2015.

²²⁷ Human Rights Watch interview with Darryl R., consultation officer, Shoal Lake 40 First Nation, August 20, 2015.

to public protest. In December 2002, Grassy Narrows First Nation established a blockade to prevent a logging company from exercising its rights under logging permits on the community's traditional territory issued by the province, while concurrently pursuing an injunction and other remedies via the court system. However, as one legal scholar noted, "The fact that Grassy Narrows believed logging would cause erosion that would compromise their watershed had no legal or persuasive relevance from the perspective of either the province or the industry stakeholder."²²⁸

Sewage Removal and Treatment

Proper sewage removal and treatment are important not only for the health and safety of individuals, but also for the protection of source water. As of 2011, 67 of 133 First Nations communities in Ontario had a public wastewater system, 20 of which were operating at or beyond their estimated capacities.²²⁹ Other communities have no public wastewater system or, even when there is a public system, many households use private wastewater systems because they are not connected to the public one. The Standing Senate Committee on Aboriginal Peoples reported on the conditions in one Ontario community: "[R]esidents are confronted with regular sewage problems including backups that cause sewage to flow back into their toilets, bathtubs and sinks because of inadequate wastewater infrastructure."²³⁰

Sewage removal and treatment is a major challenge for many First Nations communities. In 2011, Shoal Lake 40 First Nation declared a state of crisis, in part due to its inability to treat sewage. According to its declaration:

Leakage [of septic fields] and frequent pump-outs are an ever-increasing problem. Both create health concerns, not to mention the smell...septic fields are leaking into [the community's] nearby untreated drinking water source... Our community has a pumper truck but we do not have a secure place to dump sewage or a secure way to get there... In response to all

²²⁸ Macintosh, "Testing the Waters," p. 92.

²²⁹ INAC, "National Assessment of First Nations Water and Wastewater Systems, Ontario Regional Roll-Up Report: Final," p. 9.

²³⁰ Senate Standing Committee on Aboriginal Peoples, "Housing on First Nation Reserves: Challenges and Successes, February 2015," p. 19.

these challenges and costs, consideration has been given to dumping on the man-made island. Result: Sewage disposal presents a health risk.²³¹

By August 2015, the chief said, the truck that pumped out septic tanks had “nowhere to take” the sewage, and was “dumping it on the island ... which can get into our water source that our kids bathe in.”²³² Shoal Lake 40’s drinking water comes directly from the surface water surrounding the island. The water operator in the community lamented, “We need a sludge pit. At some point [the raw sewage] will reach the water.”²³³

A number of households in Grassy Narrows First Nation and Neskantaga First Nation reported using old outhouses when the septic systems or public wastewater systems failed. These outhouses are not monitored or maintained by any authority.

First Line of Defense: Protecting Water Operators on First Nations Reserves

Canada’s investment in water and wastewater on reserves extends to the training and retention of First Nations water technicians and operators. While this report does not constitute an audit of Health Canada and INAC’s efforts regarding water operators, Human Rights Watch did speak with water and wastewater operators on reserves about operation and maintenance, monitoring water quality, training, and certification. The operators also discussed procedures for issuing emergency water advisories. Operators are the first line of defense against water and sanitation disasters. To ensure success in efforts to build capacity of operators, there needs to be more equipment-specific training and greater attention to operator health and safety, including mental health and stress levels.

Operators told Human Rights Watch that they noted improvements in training and certification programs and the technical support received through tribal councils. However, many operators told us that they still lacked training, especially on the specific equipment they used. A highly skilled technician working on a sophisticated reserve system noted that she and her staff never received formal training on a new piece of equipment. “We would get something by trial and error,” she said.²³⁴ This operator, an engineer by training, had education and training to fill in the gaps. But many water operators on reserves have limited formal education and training, and virtually no support. As one operator explained, “[There is] nothing there to tell you how to operate.... My basic job is to get water from the lake to the houses, and that’s it....I’d like to do something [more], but I can’t....They don’t teach us how to operate [the systems].”²³⁵ Wilfred S., the water operator in Neskantaga First Nation, told Human Rights Watch that on his first day taking over the system, he was just given the key to the plant. He stood

²³¹ Shoal Lake 40, “Community Declaration of State of Crisis and Action,” June 13, 2011.

²³² Human Rights Watch interview with Chief Erwin Redsky, Shoal Lake 40 First Nation, August 19, 2015.

²³³ Human Rights Watch interview with Kavin R., water treatment operator, Shoal Lake 40 First Nation, August 20, 2015.

²³⁴ Human Rights Watch interview with L.B., water technician, Akwesasne First Nation, June 26, 2015.

²³⁵ Ibid.

in front of a diagram of the piped system and tried to make sense of it, and studied a handbook on the system. “I learned by myself, by the book,” he said. “I had to follow the book the first time [I started running the system.]”²³⁶ Larry K., Sr., an operator in Grassy Narrows First Nation, had a similar experience. “I was handed over the keys....The training came a year later.”²³⁷

Wilfred has been the operator for over nine years, and has now received more training. With that comes knowledge of the limitations of what operators can do without further training. For example, Wilfred knows that cleaning the distribution lines would help some with the water quality issues in Neskantaga First Nation: “I know what has to be done,” he says, but he does not have the training or tools to do it.²³⁸

This lack of training can be a health and safety concern for operators. In Shoal Lake 40, the former operator explained that he did not know when he started working about the health risks associated with the treatment chemicals. “Now we know how volatile the chemicals are that we use,” he said. “The main thing is chlorine... I should have rubber gloves, a face shield, apron.”²³⁹ He has received more technical support through his tribal council, but even so lacks funding to implement the safety measures. “I bring glasses, no face shield. It’s expensive,” he said.²⁴⁰

All of the operators Human Rights Watch spoke to expressed that they felt over-worked and under-supported. Most worked very long hours. Without enough trained back-up technicians in the communities, some were unable to take any days of leave. They expressed frustration at their inability to solve their communities’ water issues, and felt immense pressure to keep the water safe for their families and friends to drink.

²³⁶ Human Rights Watch interview with Wilfred S., Neskantaga First Nation, October 20, 2015.

²³⁷ Human Rights Watch interview with Larry K., Sr., water operator, Grassy Narrows First Nation, February 3, 2016.

²³⁸ Ibid.

²³⁹ Human Rights Watch interview with Kavin R. water treatment operation, Shoal Lake 40 First Nation, August 20, 2015.

²⁴⁰ Ibid.

IV. International Legal Obligations

The federal government has failed to ensure that this basic right [to safe drinking water] is provided to all Aboriginal Canadians. The health and safety of up to half a million Canadians in 600 First Nations communities has been threatened. That is not acceptable.

— Jim Prentice, former Minister of INAC, September 29, 2005²⁴¹

Canada has ratified numerous human rights treaties that contain obligations related to water and sanitation, including the International Covenant on Economic, Social and Cultural Rights (ICESCR), the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), the Convention on the Rights of the Child (CRC), the Convention on the Rights of Persons with Disabilities (CRPD), and the International Covenant on Civil and Political Rights.²⁴² Canada has also endorsed the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP).²⁴³ That Declaration recognizes indigenous peoples' right to determine and develop priorities for the development or use of their lands or territories and recognizes indigenous peoples' right to maintain and strengthen their spiritual relationship with traditionally owned or occupied lands, territories, waters,

²⁴¹ Jim Prentice, former Minister of INAC, "News Release: Prentice demands safe drinking water for First Nations Communities," September 29, 2005, cited in Macintosh, "Testing the Waters," p. 90.

²⁴² International Covenant on Economic, Social and Cultural Rights (ICESCR), 19 December 1966, ratified by Canada 1976, 993 U.N.T.S. 3, Can. T.S. 1976 No. 46, 6 I.L.M. 360, entered into force 3 January 1976, ratified by Canada 1976; Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), adopted December 18, 1979, G.A. res. 34/180, 34 U.N. GAOR Supp. (No. 46) at 193, U.N. Doc. A/34/46, entered into force September 3, 1981, ratified by Canada 1981; Convention on the Rights of the Child (CRC), adopted November 20, 1989, G.A. Res. 44/25, annex, 44 U.N. GAOR Supp. (No. 49) at 167, U.N. Doc. A/44/49 (1989), entered into force September 2, 1990, ratified by Canada 1991; International Covenant on Civil and Political Rights (ICCPR), adopted December 16, 1966, G.A. Res. 2200A (XXI), 21 U.N. GAOR Supp. (No. 16) at 52, U.N. Doc. A/6316 (1966), 99 U.N.T.S., entered into force March 23, 1976; Convention on the Rights of Persons with Disabilities (CRPD), adopted December 13, 2006, G.A. Res. 61/106, Annex I, U.N. GAOR, 61st Sess., Supp. (No. 49) at 65, U.N. Doc. A/61/49 (2006), entered into force May 3, 2008.

²⁴³ United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), adopted September 13, 2007, G.A. Res. 61/295, U.N. Doc. A/61/L.67 and Add.1 (2007), para. 25, 32, www.un.org/esa/socdev/unpfii/documents/DRIPS_en.pdf (accessed February 14, 2015). Canada issued a statement formally supporting the UNDRIP three years after voting against its passage in September 2007 at the UN General Assembly. See, Canada's Statement of Support on the United Nations Declaration on the Rights of Indigenous Peoples, November 12, 2010, <http://www.aadnc-aadnc.gc.ca/eng/1309374239861/1309374546142> (accessed May 25, 2016). On May 9, 2016, Minister of Indigenous and Northern Affairs Canada announced it officially removed its objector status to the declaration. CBC News, "Canada officially adopts UN declaration on rights of Indigenous Peoples," May 10, 2016, <http://www.cbc.ca/news/aboriginal/canada-adopting-implementing-un-rights-declaration-1.3575272> (accessed May 12, 2016).

coastal seas, and other resources, and to uphold their responsibilities to future generations.²⁴⁴

A number of international human rights bodies or experts have raised concerns specifically about Canada's failure to fulfill First Nations peoples' rights to water and sanitation.²⁴⁵ For example, after its February 2016 review of Canada, the United Nations Committee on Economic, Social and Cultural Rights (CESCR), which monitors governments' compliance with the ICESCR, noted its concern about "the restricted access to safe drinking water and to sanitation by the First Nations as well as the lack of water regulations for the First Nations living on reserves." It urged Canada to "live up to its commitment to ensure access to safe drinking water and to sanitation for the First Nations while ensuring their active participation in water planning and management," and to "bear in mind not only indigenous peoples' economic right to water but also the cultural significance of water to indigenous peoples."²⁴⁶

Right to Water

The right to water entitles everyone, without discrimination, "to have access to sufficient, safe, acceptable, physically accessible and affordable water for personal and domestic use."²⁴⁷ Various resolutions from the United Nations General Assembly and Human Rights Council affirm that the right to safe drinking water is derived from the right to an adequate standard of living.²⁴⁸ The right to an adequate standard of living is enshrined in human rights instruments ratified by Canada, such as the ICESCR, CEDAW, CRPD, and the CRC.

²⁴⁴ UNDRIP articles 32 and 25 respectively.

²⁴⁵ See, for example, UN Committee on the Elimination of Discrimination against Women, "Concluding observation of the Committee on the Elimination of Discrimination against Women Canada," CEDAW/C/CAN/CO/7, November 7, 2008, paras. 43-44, http://tbinternet.ohchr.org/_layouts/treatybodyexternal/Download.aspx?symbolno=CEDAW/C/CAN/CO/7&Lang=En (accessed May 25, 2016); UN Committee on Economic, Social, and Cultural Rights, "Consideration of Reports Submitted by States Parties under articles 16 and 17 of the Covenant Concluding Observations, Canada," E/C.12/CAN/CO/4, E/C.12/CAN/CO/5, May 22, 2006, para. 17, <http://www.refworld.org/publisher,CESCR,CONCLOSURES,CAN,45377fa30,o.html> (accessed May 25, 2016).

²⁴⁶ UN Committee on Economic, Social, and Cultural Rights, "Consideration of Reports Submitted by States Parties under articles 16 and 17 of the Covenant Concluding Observations, Canada," E/C.12/CAN/CO/6, March 4, 2016, paras. 43-44.

²⁴⁷ United Nations General Assembly, "The human rights to safe drinking water and sanitation," Resolution 70/169, U.N. Doc. A/RES/70/169, December 17, 2015.

²⁴⁸ *Ibid.* See also, UN Human Rights Council resolution 15/9 of September 2010, resolution 16/2 of March 2011, resolution 18/1 of September 2011 and resolution 21/2 of September 2012.

The CESCR, in its General Comment 15 on the right to water, noted that an aspect of the core content of the right to water is that water required for personal or domestic use must be safe. This means it must be free from microbes and parasites, chemical substances, and radiological hazards that constitute a threat to a person’s health.²⁴⁹

The committee also stated that a “violation of the obligation to fulfill” the right to water can occur when there is “insufficient expenditure or misallocation of public resources which results in the non-enjoyment of the right to health by individuals or groups.”²⁵⁰

The United Nations special rapporteur on the rights to water and sanitation has also noted that in situations of emergency, states “have an obligation to provide culturally appropriate services directly.”²⁵¹ She also noted that violations of the right to water may result from a failure to act, to implement comprehensive plans and strategies to ensure full realization of the rights in the long term, to regulate non-state actors, and as an unintended consequence of policies, programs, and other measures.²⁵²

Right to Sanitation

The right to sanitation entitles everyone, without discrimination, to “have physical and affordable access to sanitation, in all spheres of life, that is safe, hygienic, secure, and socially and culturally acceptable and that provides privacy and ensures dignity.”²⁵³ As with the right to water, the right to sanitation is derived from the right to an adequate standard of living.²⁵⁴

²⁴⁹ The Committee on Economic, Social and Cultural Rights is the UN body responsible for monitoring compliance with the ICESCR. UN Committee on Economic, Social and Cultural Rights, General Comment No. 15, The Right to Water, U.N. Doc. E/C.12/2002/11, adopted January 20, 2003, para. 12(b).

²⁵⁰ CESCR General Comment No. 15, para. 44(c).

²⁵¹ United Nations, report of the independent expert on the issue of human rights obligations related to access to safe drinking water and sanitation, “Common violations of the human rights to water and sanitation,” June 30, 2014, UN Doc. A/HRC/27/55, para. 53.

²⁵² United Nations, report of the independent expert on the issue of human rights obligations related to access to safe drinking water and sanitation, “Common violations of the human rights to water and sanitation,” June 30, 2014, UN Doc. A/HRC/27/55, para. 85.

²⁵³ United Nations General Assembly, “The human rights to safe drinking water and sanitation,” Resolution 70/169, U.N. Doc. A/RES/70/169, December 17, 2015.

²⁵⁴ *Ibid.* See also, UN Human Rights Council resolution 15/9 of September 2010, resolution 16/2 of March 2011, resolution 18/1 of September 2011 and resolution 21/2 of September 2012.

The United Nations special rapporteur on the rights to water and sanitation has stated that states should “ensure that the management of human excreta does not negatively impact on human rights.”²⁵⁵

Right to Health

The right to the highest attainable standard of health is found in article 25 of the Universal Declaration of Human Rights and in international treaties binding upon Canada, including the ICESCR and the CRC.²⁵⁶

The CESCR, in its General Comment 14 on the right to health, has interpreted the ICESCR to include:

[T]he requirement to ensure an adequate supply of safe and potable water and basic sanitation [and] the prevention and reduction of the population’s exposure to harmful substances such as radiation and harmful chemicals or other detrimental environmental conditions that directly or indirectly impact upon human health.²⁵⁷

The right to health encompasses the right to healthy natural environments.²⁵⁸ This right involves the obligation to “prevent threats to health from unsafe and toxic water conditions.”²⁵⁹

The CESCR has stated that a “violation of the obligation to fulfill” the right to health can occur when there is “insufficient expenditure or misallocation of public resources which results in the non-enjoyment of the right to health by individuals or groups.”²⁶⁰

²⁵⁵ United Nations, report of the independent expert on the issue of human rights obligations related to access to safe drinking water and sanitation, July 1, 2009, UN Doc. A/HRC/12/24, para. 64; see also UN Committee on Economic, Social and Cultural Rights, Statement on the Right to Sanitation, U.N. Doc. E/C.12/2010/1 (2010).

²⁵⁶ Universal Declaration of Human Rights (UDHR), adopted December 10, 1948, G.A. Res. 217A(III), U.N. Doc. A/810 at 71 (1948), art. 25; ICESCR, art. 12; Convention on the Rights of the Child, art. 24.

²⁵⁷ UN Committee on Economic, Social and Cultural Rights, General Comment No. 14: The right to the highest attainable standard of health, U.N. Doc. E/C.12/2000/4, adopted August 11, 2000, para. 15.

²⁵⁸ ICESCR, art 12; CESCR General Comment No. 14, para. 15.

²⁵⁹ CESCR General Comment No. 15, para. 8; see also CESCR General Comment No. 14, para. 15.

²⁶⁰ CESCR General Comment No. 14, para. 52.

Right to Housing

The poor water and sanitation situation in First Nation communities is related to challenges in realizing other human rights—with housing as a primary concern. Overcrowding is the norm on reserves, but many communities cannot extend their housing stock without upgrades to their water and wastewater infrastructure. The right to housing is found in article 25 of the Universal Declaration of Human Rights, as a part of the right to an adequate standard of living, and in international treaties binding upon Canada, including the ICESCR.²⁶¹

The CESCR, in its General Comment 4 on the right to adequate housing, has interpreted the right to include:

[C]ertain facilities essential for health, security, comfort and nutrition. All beneficiaries of the right to adequate housing should have sustainable access to natural and common resources, safe drinking water, energy for cooking, heating and lighting, sanitation and washing facilities, means of food storage, refuse disposal, site drainage and emergency services.²⁶²

The CESCR has stated parties to the treaty should “give due priority to those social groups living in unfavourable conditions by giving them particular consideration.”²⁶³

Right to Information

The CESCR, in its General Comment 15 on the right to water, has noted that a core obligation of states under the right to water is that individuals have the right to seek, receive, and impart information concerning water issues.²⁶⁴ The CESCR has also noted that “[i]ndividuals and groups should be given full and equal access to information concerning water, water services and the environment, held by public authorities or third parties.”²⁶⁵

²⁶¹ Universal Declaration of Human Rights (UDHR), adopted December 10, 1948, G.A. Res. 217A(III), U.N. Doc. A/810 at 71 (1948), art. 25; ICESCR, art. 11(1).

²⁶² UN Committee on Economic, Social and Cultural Rights, General Comment No. 4: The right to the adequate housing, U.N. Doc. E/1992/23, adopted January 1992, para. 8(b).

²⁶³ CESCR General Comment No. 4, para. 11.

²⁶⁴ CESCR General Comment No. 15, para. 12(c).

²⁶⁵ CESCR General Comment No. 15, para. 48.

The CESCR, in the General Comment 12 on the right to health, has stated that a “core obligation” of states under the right to the highest attainable standard of health is:

To provide education and access to information concerning the main health problems in the community, including methods of preventing and controlling them.²⁶⁶

Right to Nondiscrimination

Core international human rights treaties expressly prohibit discrimination and require the parties to these conventions to take measures to eradicate all forms of discrimination against individuals.

The CESCR, in its General Comment No. 20 on non-discrimination in economic, social and cultural rights, recommended that states parties adopt “specific legislation that prohibits discrimination in the field of economic, social and cultural rights. Such laws should aim at eliminating formal and substantive discrimination, attribute obligations to public and private actors and cover the prohibited grounds discussed above. Other laws should be regularly reviewed and, where necessary, amended in order to ensure that they do not discriminate or lead to discrimination, whether formally or substantively, in relation to the exercise and enjoyment of Covenant rights.”²⁶⁷

²⁶⁶ CESCR General Comment No. 14, para. 44(d).

²⁶⁷ CESCR General Comment No. 20, para. 37.

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Ohnekashon:a

Onen ehnon:we ientsitewakie:rate ne ohnekashon:a tsi rawe:ren tsi enkahnekonionke ne tsiionhontsia:te. Ne ehnon:we nitewehtha ne aionkwahatana:wen non:nen enionkwaniatathen. Niatekasatstenhsera:ke tewaienete:ritsi ieiohneken:shon, tsi iokenno:res, tsi iaonhawi:nes tanon tsi kaniatarahron:nion. Khenska tsi entewahwenon:ni ne onkwanikon:ra ne iorihwa:ke tsi entewatkawe ne kanonhwaratonhtshera.

Ehtho niihtonhak ne onkwanikon:ra.

The Waters

We give thanks to all the Waters of the world for quenching our thirst and providing us with strength. Water is life. We know its power in many forms waterfalls and rain, mists and streams, rivers and oceans. With one mind, we send greetings and thanks to the spirit of Water.

Now our minds are one.²⁶⁸

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²⁶⁸ Greeting to the Natural World: Water, Thanksgiving Address of the Haudenosaunee.

MAKE IT SAFE

Canada's Obligation to End the First Nations Water Crisis

Canada is one of the most water-rich countries in the world, yet many indigenous (First Nations) people face daily challenges just to access safe water for drinking and hygiene—a fundamental human right easily enjoyed by most other Canadians. Drinking water advisories exist for 134 water systems—90 of them in Ontario— in 85 First Nations reserves across Canada, alerting communities that their water is not safe to drink.

Make It Safe: Canada's Obligation to End the First Nations Water Crisis finds that the water crisis on First Nations reserves has persisted for decades due to the lack of regulations governing water quality for reserves, insufficient and arbitrary funding, tainted source water, and lack of capacity and support for water system operators. As a result, water on many reserves is not safe. Contaminants include coliform, *Escherichia coli* (*E. coli*), cancer-causing Trihalomethanes, and uranium.

Health impacts of exposure to such contaminants can range from serious gastrointestinal disorders to increased risk of cancer. The water crisis also decreases the quality and quantity of water available for drinking and hygiene. Caregivers shoulder extra burdens to ensure that children, elders, and others avoid exposure to unsafe water. The crisis also impacts the cultural rights of First Nations persons.

New investments in water and wastewater infrastructure on First Nations reserves announced by Prime Minister Justin Trudeau should be accompanied by enforceable regulations, sufficient and rational funding, and oversight. Canada should establish an independent First Nations water commission to monitor and evaluate water policy, funding, and outcomes.



View of Lake Huron from the shore of Kettle and Stony Point First Nation, located in Southern Ontario.

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