

7.9 The Right to Clean Water

Story Extension for This Lesson:

This lesson is linked to two questions asked in the beginning of the intermediate story: “Why do we boil water before we use it?” and “Can we just boil the whole Bay?” A good entry point to connect the lesson with the intermediate story is this passage:

“... Can we just boil the whole Bay? That would be so much easier than boiling one pot at a time.” Sam wonders.

“I’m pretty sure that wouldn’t go well for the plants and animals in the water,” Alex responds. “But I wonder why people in other places have water coming out of their taps that they can drink and we don’t?”

“Well even if they aren’t boiling it, they must be doing something to it to make it drinkable, right?” Sam says.

“I guess it depends on whether their water is dirty too!” Alex hadn’t considered before that people might have different water sources in different communities. “I wonder where the Bay’s polluted water flows,” Alex says. “Is it a problem for other people?”

Grade: 7

Strand: Interactions in the Environment

Big Ideas:

- Ecosystems are in a constant state of change. The changes may be caused by nature or by human intervention. (Overall expectations 1 and 2)
- Human activities have the potential to alter the environment. Humans must be aware of these impacts and try to control them. (Overall expectation 1)

Overall Expectations:

1. assess the impacts of human activities and technologies on the environment, and evaluate ways of controlling these impacts
2. investigate interactions within the environment, and identify factors that affect the balance between different components of an ecosystem

Specific Expectations:

1.1 assess the impact of selected technologies on the environment

1.2 analyze the costs and benefits of selected strategies for protecting the environment

2.4 use appropriate science and technology vocabulary, including sustainability, biotic, ecosystem, community, population, and producer, in oral and written communication

2.5 use a variety of forms to communicate with different audiences and for a variety of purposes

3.8 describe ways in which human activities and technologies alter balances and interactions in the environment

3.9 describe Aboriginal perspectives on sustainability and describe ways in which they can be used in habitat and wildlife management

Inquiry Skills:

Inferring, Analyzing, Reporting

Instructions:

Part 1:

On the world's first "Water Day" on March 22, 2005, the United Nations (UN) announced a target for sanitation and clean water:

"To reduce by half the number of people that do not have access to safe drinking water and basic sanitation by the year 2015."

To lead this lesson, start by dividing your class into groups of four. In their small groups, students will jot down on pieces of chart paper answers to the following questions:

- Why do you think this target was unachievable? What factors lead to this unmet target?
- Name communities in Canada that do not have access to basic sanitation and clean drinking water? (Examples include Pikangikum, Kashechewan, Grassy Narrows)
- What is being done in communities that do have access to basic sanitation and clean drinking water?
- What are the short term and long term costs of not have basic sanitation and clean water?

To help students who are not familiar with water issues in First Nation communities, provide the following handouts:

- "A Decade of Despair in the Pikangikum First Nation", The Toronto Star
- "Pikangikum First Nation Water Aid Stalled by Limited Power Supply", CBC News

- "Remote Ojibwa Reserve Lies in Desperate Limbo" The Globe and Mail
- "Kashechewan: Water Crisis in Northern Ontario", CBC News
- "Social Emergency: Kashchewan Skin Problems Blamed on Poverty, Overcrowding", CTV News
- "Kashechewan Tragedy Greater Than Water Crisis", The Journal, Queen's University
- "Grassy Narrows First Nation Demands Cleanup of Mercury Contamination in Northern Ontario", CBC News
- "Grassy Narrows First Nation to Get Results of Dryden, Ont. Mill Site Mercury Tests", CBC News
- "Grassy Narrows First Nation Demands Action After Mercury Dump Site Revelation", CBC News

Post chart papers with student responses in your classroom. As a class, discuss what was written by each of the groups.

Part 2: Inquiry Challenge

How is it possible to solve this problem when the articles discussed do not have a solution? What are you going to do to help solve this problem? Where and how does science and technology fit when solving the water crisis? What factors do you need to consider when dealing with the water crisis?

Provide students with options on how they would like to present their solution. Students can create:

- | | |
|---|------------------------|
| • a formal report | • a speech |
| • a Power Point or Keynote presentation | • a drama presentation |
| • a poster board | • etc. |

Allow students the flexibility to showcase their solution.

Materials List:

9 Articles at the end of this lesson

Connections:

This lesson can be used in conjunction with the Language curriculum under the reading, writing, and communication strands. To complete this activity, students are required to produce a multimedia report of what they have learned.

Subject Area:

Environmental, English

Connects to:

Grade 7

Assessment Strategy:

It is recommended you focus your assessment on process skills. To help get you started on this path, a series of charts have been provided for you. Information provided in the charts - Introducing the Framework.

Handouts/Assessments:

- - Kashechewan Water Crisis
- - A Decade of Despair in Pikangikum First Nation
- - Grassy Narrows First Nation Demands Action
- - Grassy Narrows First Nation Demand Cleanup
- - Kashechewan Tragedy
- - Grassy Narrows First Nation Get Results
- - Pikangikum First Nation Water Aid Stalled
- - Remote Ojibwa Reserve
- - Social Emergency
- - Process-Skill-Infering-6
- - Process-Skill-Analyzing-9
- - Process-Skill-Reporting-12

Kashechewan: Water Crisis in Northern Ontario

Last Updated Nov. 9, 2006
[CBC News](#)

[CBC](#)

Kashechewan is a Cree First Nations community of about 1,900 people, 10 kilometres upstream from James Bay on the Albany River in Northern Ontario. The closest urban centre to the isolated town is Timmins, Ont., 400 kilometres to the south.

The community lies on the flood plain of the Albany and many of its buildings are susceptible to flooding in the springtime. There were two major evacuations in 2005 as a result of floods. Alan Pope, a special adviser to the federal Indian affairs minister recommended in November 2006 that the community be relocated to the outskirts of Timmins. The report suggests a number of other options, including moving the reserve to higher ground about 30 kilometres away or keeping the reserve in the same place. Alan Pope said his report could have implications for other remote reserves.

A new water treatment plant was built in 1995 to replace the old one that had deteriorated beyond repair. But some in the reserve say the new plant was built too small and couldn't handle the expansion the community underwent. Also, the intake pipe for the new treatment plant was placed downstream from the community's sewage lagoon, and tides from James Bay push the dirty water back and forth across the intake.

In October 2005, high E. coli levels were found in the reserve's drinking water and chlorine levels had to be increased to "shock" levels. This led to a worsening of common skin problems, such as scabies and impetigo. A quarter of the community's residents were airlifted to the Northern Ontario communities of Timmins, Sudbury and Cochrane. Another 250 were flown to Ottawa. The evacuation is estimated to have cost \$16 million.

Canadian Forces sent a water purification unit to the reserve, the same equipment it uses on its DART missions to disaster zones such as Kashmir and Sri Lanka.

Ontario Premier Dalton McGuinty pledged that the evacuees wouldn't return to Kashechewan until they are healthy and their home has a reliable source of clean water. He didn't say how long he thought it would take.

But Kashechewan is hardly unique among native communities for having substandard water. Nearly 100 reserves across Canada have boil-water advisories and one, the Kwikwutaineuk First Nation on an island off the B.C. coast, has had one in effect for nine years.

Source: <http://www.cbc.ca/news2/background/aboriginals/kashechewan.html>

A Decade of Despair in the Pikangikum First Nation

The reserve is home to 2,700 people next to a patch of pristine boreal forest that Canada hopes will be recognized as UNESCO World Heritage site. Yet for the last 15 years Pikangikum's leaders have been begging



whoever will listen for help.

An aerial view of the long-promised and now nearly completed construction of a new school in the remote Pikangikum First Nation. (FACEBOOK)

By ALLAN WOODS Quebec Bureau Mon., April 25, 2016

There were few images more jarring than that of Indigenous Affairs Minister Carolyn Bennett slopping through the muck around a ramshackle water pumping station in a red shawl, red socks and red rubber duck shoes during a recent visit to the Pikangikum First Nation.

The reserve is home to 2,700 people and located in northern Ontario, next to a patch of pristine boreal forest that Canada hopes will be recognized as UNESCO World Heritage site. Yet for the last 15 years, Pikangikum's leaders have been begging anyone who will listen for help.

Help for running water and indoor plumbing to replace the water stations and outhouses; help to upgrade its diesel-powered generating system or, better yet, to get hooked up to the electricity grid; help for a new school to replace the old one, which was built for 300 students and houses more than double that figure.

The community first requested funding for a new water system in 1999, more than 16 years ago. In 2007, then-Indian Affairs Minister Jim Prentice announced a \$46-million infrastructure program, including a water system, a new school and a modern electricity system in Pikangikum.

But nothing had happened by 2011, when the water system broke down, prompting a state of emergency.

The chief at the time, Gordon Peters, wrote a desperate letter to United Nations Secretary-General Ban Ki-moon that described sewage lagoons and a string of 16 suicides in his community between 2006 and 2009 that prompted an inquiry by the Ontario coroner.

"We are living in fourth-world conditions in a first-world state," read the letter, dated Oct. 12, 2011.

Things only got worse in Pikangikum. In January 2012, the school was temporarily closed after mould was discovered. Then, in November of that same year, the generators failed, leading to power outages in minus-20 temperatures and another state of emergency declaration.

That declaration prompted emergency funding for blankets, gas heaters and repairs to the generators, according to news reports at the time. But the emergency was never lifted. It remains in place to this day — more than four years later — as one of 28 ongoing emergencies on First Nations reserves in Ontario.

Pikangikum's chief and council declined interview requests, but allowed the Star to review a selection of the appeals, presentations and pleading letters it had sent to federal bureaucrats, aboriginal affairs ministers and even former prime minister Stephen Harper over the last decade.

"If you see first-hand how bad the situation is, Pikangikum believes, in spite of what has gone on in the past, that you will have no choice but to do the right thing," former chief Peter Quill wrote to then-Aboriginal Affairs Minister Chuck Strahl in July 2009.

"It is inconceivable that what is happening in Pikangikum can be tolerated in modern-day Canada."

That was followed by a letter to the prime minister in July 2012, expressing shock that, five years after the \$46-million infrastructure promise, not a dime had been delivered. It warned: "The consequences of not acting can be measured in human lives."

The next month, the federal government pledged to start work on a new school, but the other essential infrastructure promises — water, sewage and electricity — went unfulfilled.

"Despite numerous clear commitments from six ministers of the Department of Indian Affairs, I have met with Indian Affairs staff twice this year and I have been told, 'Sorry, there is no money,' " then-chief Paddy Peters wrote in another letter to the prime minister, this time in 2015.

The next time that Pikangikum made the news, it was because of a tragedy. In March of this year, a house fire killed six adults and three young children — aged four, two and eight months.

The traumatic deaths were met with condemnation and condolences, but no specific promises of cash. At the time, Bennett said that money in the recent federal budget was meant to improve on-reserve housing and that Pikangikum's plight was "a high priority" for the government.

The government said it is working to get the community connected to the electrical grid, which it believes is a first step toward alleviating other problems.

"Connection to the provincial grid is critical for the First Nation to be able to expand its infrastructure, help to alleviate overcrowding in homes, develop water and wastewater servicing in the community and contribute to the well-being of the First Nations' residents," a spokesperson said in a statement.

Source: <https://www.thestar.com/news/canada/2016/04/25/a-decade-of-despair-in-the-pikangikum-first-nation.html>

Grassy Narrows First Nation Demands Action After Mercury Dump Site Revelation

'No more fancy talk, no more studies. We just want it cleaned up,' Chief Simon Fobister says

By Bryce Hoyer, [CBC News](#) Posted: Jun 21, 2016 11:57 AM CT Last Updated: Jun 21, 2016 5:03 PM CT

The chief of Grassy Narrows First Nation says the community is still reeling after a former worker at the Dryden, Ont., paper mill revealed he was involved with dumping drums of toxic chemicals into a plastic-lined pit decades ago.

"We're very, very concerned," Chief Simon Fobister said Tuesday morning. Reed Paper's chemical plant in Dryden was a source of mercury contamination in the 1960s and '70s. Chemical leaching from the plant has been well documented and continues to cause public and environmental health concerns.

In a report released in May, environmental scientists determined that current mercury levels in the waters around where people in Grassy Narrows catch and eat fish suggest there is an unknown source of mercury contributing to the problem.

The Ontario Ministry of Environment and Climate Change says it's known about and monitored the dump site all along, but Fobister doesn't believe that.

"This is a new site that no one was aware of until this man admitted that there is another site that has barrels of mercury, and we don't know if those barrels of mercury are leaking into the water table and again contaminating the waterway," he said.

Mercury 'pooling around my shovel'

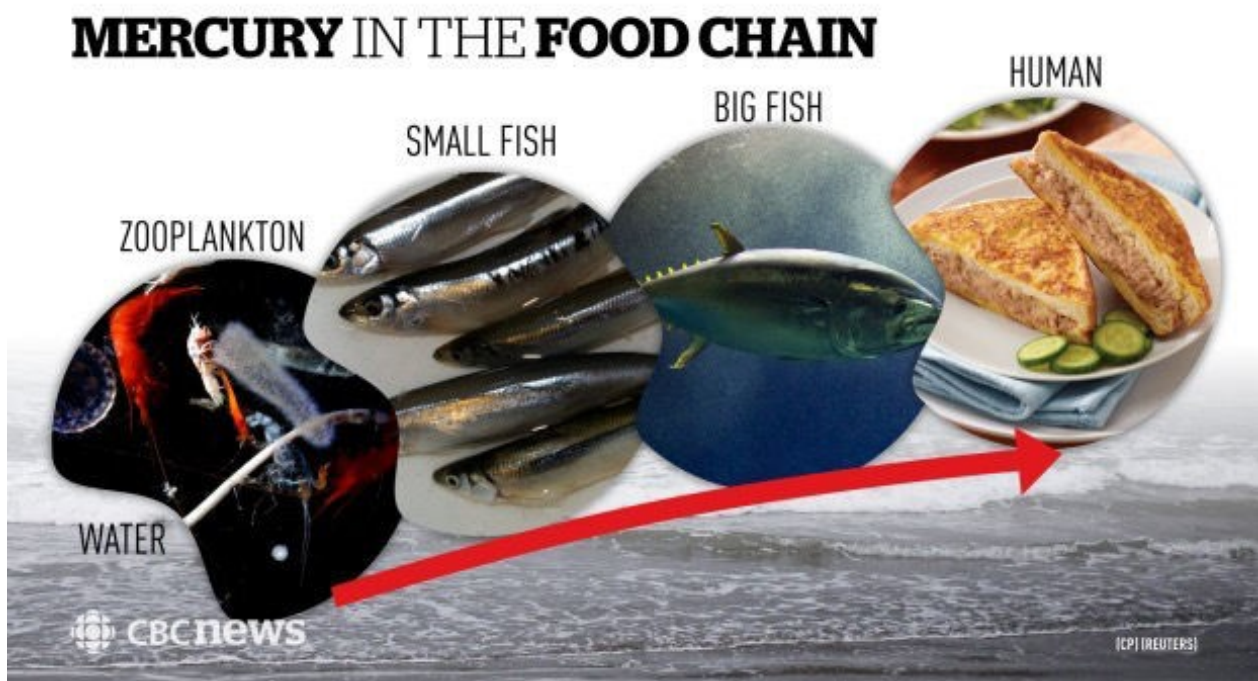
In an email sent in the summer of 2015 that was obtained this week by CBC News, former Reed Paper employee Kas Glowacki said feelings of guilt moved him to share what went on in 1972 when he worked as a labourer at the plant.

"I am writing this letter out of guilt and possibly to share some info you might not be aware of," Kas Glowacki wrote.

"I was amazed at the amount of mercury that was pooling around my shovel as I dumped it into the drums The drums were dropped, not placed, into the pit."

When a toxic chemical such as mercury leaks into a freshwater ecosystem, it is often absorbed by tiny aquatic invertebrates. Those little creatures are then consumed by minnows, which are devoured by larger fish that are then caught and eaten by humans.

As the mercury travels up through the food chain, mercury concentrations build up and magnify, "causing increasing levels of harm on higher order species such as predatory fish" and ultimately humans, **Environment and Climate Change Canada says.**



When mercury gets into the a water table, it's eventually absorbed by tiny primary consumers like zooplankton, which are then swallowed up by tiny minnows. The minnows are consumed by larger fish, "causing increasing levels of harm on higher order species such as predatory fish," birds and ultimately humans, Environment and Climate Change Canada says. (CBC News Graphics)

Fobister said to his knowledge, the site still hasn't been located, and he wants the Ontario government to step in and investigate.

He wrote to Ontario Environment Minister Glen Murray to explain how disconcerting Glowacki's letter has been to the community, where residents continue to suffer from mercury poisoning.

'No more fancy talk'

"No more fancy talk. No more studies. We just want it cleaned up," Fobister said.

Judy Da Silva from Grassy Narrows, who suffered from mercury poisoning at one time, said the letter points to a second dump site away "far from the place that the minister of environment said."

"All these years, we lived with this mercury poisoning, and we're always being minimized, always being told natural sedimentation will bury the mercury," Da Silva, who is also the environmental health co-ordinator at Grassy Narrows, said Tuesday.

"For us, for me, as a mother and grandmother, I feel it's a betrayal to my people, the Anishinabek, that this was not brought forward."

Ontario Premier Kathleen Wynne weighed in Monday, saying she is dispatching two government ministers and scientists to get to the bottom of the latest developments at Grassy Narrows.

"There's engagement right now to try to discern what this alleged source is," Wynne said. "I don't have all that information. I want to get to the bottom of it."

Fobister has asked for access to the mill site in hopes of tracking down the alleged dump site.

Mercury doesn't discriminate

Da Silva added that while Grassy Narrows and the surrounding area have been the hardest hit by toxic dumping from the old paper mill, if a second site exists and isn't uncovered, it could have far-reaching affects for other communities further downstream.



'It's a war zone. I can't say enough how we need that river to be cleaned up,' Judy DaSilva, the environmental health co-ordinator at Grassy Narrows First Nation, said at the end of May. 'Our relatives are dying.'

"Mercury doesn't stop in Grassy Narrows, it doesn't stop at Indigenous populations," Da Silva said.

"The mercury is not a racist mercury. It goes to other communities, and we're not the only ones in danger of this. Canadian society needs to really look at that and help us get the river cleaned up."

Grassy Narrows is about 55 kilometres northeast of Kenora, Ont., and about 225 km east of Winnipeg. It is also known as Asubpeeschoseewagong First Nation.

With files from Jody Porter and CBC Thunder Bay

Source: <http://www.cbc.ca/news/canada/manitoba/grassy-narrows-dryden-mercury-dump-site-1.3645474>

Grassy Narrows First Nation Demands Cleanup of Mercury Contamination

in Northern Ontario

'Are our lives worth less?' Grassy Narrows First Nations Chief Simon Fobister says

By Jody Porter, [CBC News](#) Posted: May 31, 2016 9:38 AM ET Last Updated: May 31, 2016 11:43 AM ET

The chief of Grassy Narrows First Nation in northern Ontario says mercury dumped in the waterways near his community nearly 60 years ago must be cleaned up.

Simon Fobister made the statement Tuesday, one day after scientists released research showing it is possible to remediate at least some of the lakes and rivers near Grassy Narrows.

"We know that our river can be made safe," Fobister said. "Are our lives worth less than others to the government?"

On Monday, Premier Kathleen Wynne said she would look into the report that was funded by Ontario through a provincial working group on Grassy Narrows.

"I haven't seen this particular report," Wynne said during question period in the legislature. "If there is a way to clean up that river without disturbing the mercury and making the situation worse, then obviously we want to look at that."

Natural recovery stalled

Last week, a spokesperson for Ontario's Ministry of Environment and Climate Change said "there is no evidence to suggest that mercury levels in the river system are such that any remediation, beyond continuing natural recovery is warranted or advisable."

The new research shows the natural recovery of the river system stalled about 30 years ago, according to the John Rudd, the lead author of the report.

"Now the ball is in her court," Fobister said at a news conference on Tuesday. "We don't want words. We want action. We want Ontario to fund the cleanup and make it happen."

Ontario Regional Chief Isadore Day noted the call for a cleanup comes a day after Ontario apologized for its role in the residential school system and promised to improve its relationship with Indigenous people.

"In the spirit of reconciliation, the Ontario government should do the right thing," Day said at the news conference.

'Political will'

Amnesty International Canada and the David Suzuki Foundation are backing the First Nations' demands.

There's "a great hope that justice will finally come to this community as a result of research that's been done by three very renowned scientists," said Faisal Moola, a scientist with the David Suzuki Foundation.

"That report was released yesterday and makes it very, very clear that the potential to clean up, to remediate the river is very, very high but that will only happen if there is political will," he said.

The Liberal MP for the Kenora riding, which includes Grassy Narrows issued a statement on Tuesday saying he is in favour of remediation.

"Efforts to remediate the mercury have been postponed long enough," Bob Nault said. "These new findings indicate that it is feasible to begin removing the chemical and work towards a healthier waterway."

Reed Paper in Dryden, Ont., dumped the mercury in the English-Wabigoon River in the 1960s and early 1970s, resulting in mercury poisoning among First Nations people who ate fish caught in the area.

An out of court settlement with the federal government, Ontario and the paper companies in 1985 established the Mercury Disability Board, which oversees compensation payments for people suffering mercury poisoning in the First Nations communities of Grassy Narrows and nearby Wabaseemoong (formerly Whitedog).

Fobister said there is an ongoing lawsuit between the province and the new owners of the paper mill to sort out liability for the contamination.

Source: <http://www.cbc.ca/news/canada/thunder-bay/grassy-narrows- demands-clean-up-1.3608731>

Kashechewan Tragedy Greater Than Water Crisis

A student's retrospective on teaching healthy living on the northern Ontario reserve

DECEMBER 1, 2005 [RACHEL BIGENWALD](#)

Every child dreams. In Canada we try to indulge the dreams of each child equally. Publicly funded education, universal health care and other social services draw people to Canada from every corner of the world so that they may hope for a better future for their children. Yet when it comes to our aboriginal peoples, the original people of this land, neglect and inequality are the reality.

The E. coli contamination crisis in Kashechewan that has unfolded over the last two months is only the tip of the iceberg when it comes to the problems faced by aboriginal people living on remote reserves. The problems go beyond the yellow water, which much of the time was not even available due to regular water outages. They go beyond the lack of reliable electricity. They go beyond the fact that there is no full-time doctor working in Kashechewan, so those who cannot be helped by a nurse must be flown by helicopter to southern hospitals. These problems are deeply rooted in the lack of opportunity to rise above the decrepit conditions in which many northern Canadian aboriginals find themselves.

Last summer I spent five weeks in Kashechewan teaching health education to the youth of the reserve through a program set up by Queen's Medical Outreach (QMO), a club and non-profit organization dedicated to traveling to places in need to teach healthy-living topics such as responsible sexuality, hygiene, conflict resolution, substance abuse and parenting. In the past, QMO has sent students to Guyana, Belize, Kenya, South Africa, northern Ontario and Nunavut. The tragedy is that I need only travel within my own province to witness third-world conditions.

For youth who have been exposed to stresses that would be considered unacceptable for the rest of Canada's children, the kids in Kashechewan dream high. One 10-year-old girl I met is a promising student who wants to be the first female Aboriginal to enter space. A little boy in grade one has a great talent for drawing. Another girl, a high school student, spends much of her time caring for her younger brother, but spends the rest of her time at the nursing station. She wants to learn everything she can because she hopes to one day be a nurse.

But how do you teach kids to stay healthy, to keep fighting for their dreams? How do you teach them to resist the temptation to follow a crowd of depressed community members? With little possibility for a healthy future, no foreseeable way to achieve their dreams, and an endless cycle of nowhere to go and nothing to do, it begins to look hopeless to many of these kids. This was the greatest dilemma I faced in those five weeks.

To anyone who is tempted to argue that the reserve members have the ability to lobby the government for their own rights, I would ask: how do people lobby for a right that they do not even know is due to them and have never had? If you have never had access to fruit, vegetables and milk because they are too expensive, how do ambitious teenagers convince the government that these are their rights? Even when Aboriginal peoples have lobbied the government, historically, the response has amounted to little more than empty promises.

A new location for the reserve or a new water purification system won't solve the problems at Kashechewan. The underlying social and economic issues that are intertwined into living on a reserve in northern Canada are beyond my comprehension, but that doesn't mean we can ignore them.

I did all that I could do: I taught children about healthy living and provided extra-curricular opportunities that some of these children had never had. I never before saw such enthusiasm as I did when about 100 children, aged 7 to 13, poured into the school gymnasium to attend the first dance class I offered.

Every May, these kids can count on Queen's students coming to teach and entertain them. So why do they not deserve to have learning opportunities year round? Why are their dreams less important than other children's?

Kashechewan is not the only case. There are people living on many reserves across Canada suffering the same deplorable conditions. In the words of George Bernard Shaw, "The worst sin toward our fellow creatures is not to hate them, but to be indifferent to them. That's the essence of inhumanity."

Source: <http://www.queensjournal.ca/story/2005-12-01/opinions/kashechewan-tragedy-greater-water-crisis/>

Pond sampling done after former mill worker says he dumped mercury in hidden pit

By Jody Porter, [CBC News](#) Posted: Jun 27, 2016 6:00 AM ET Last Updated: Jun 27, 2016 6:00 AM ET

A northern Ontario First Nation plagued by decades of mercury poisoning from a pulp and paper mill will get the results on Monday of a recent provincial government inspection of the mill site.

The testing was done on June 6 after a former worker at the mill described his work in the 1970s, dumping barrels of mercury into a plastic-lined pit.

The pit did not fit the description of contaminated sites known to government.

The former worker's allegations came to light just weeks after a government-funded report by research scientists showed an on-going source of mercury contamination in the waterways between the mill and Grassy Narrows First Nation.

"Three samples were taken at the Dryden wood waste site — two leachate collection pond samples and another from the cooling water channel," a spokesperson for the Ministry of Environment and Climate Change told CBC News.

The results will be released to people in Grassy Narrows when the Minister of Environment and Climate Change and the Minister of Indigenous Relations and Reconciliation visit the community on Monday.

Their visit comes as Premier Kathleen Wynne pledges to "get to the bottom" of the mercury reports.

The First Nation is asking for its own access to the mill site to search for the hidden mercury dump and test for contamination in the river upstream and downstream of the mill.

They also want an immediate clean up of all the mercury, including the nine tonnes that are known to have been dumped in the English-Wabigoon River by Reed Paper in Dryden, between 1962 and 1970.

"It has been too many meetings, too much talking and not enough to actually do something concrete for our people," said Grassy Narrows environmental health coordinator Judy DaSilva.

Wynne said she needs further information about whether a clean up is advisable because, she said previous reports show that disturbing the mercury already in the river could increase the contamination levels.

Source: <http://www.cbc.ca/news/canada/thunder-bay/mercury-test-results-grassy-narrows-1.3650059>

Pikangikum First Nation Water Aid Stalled by Limited Power Supply

Volunteers, charities willing to supply running water at one-tenth cost quoted in government studies

By Jody Porter, [CBC News](#) Posted: Feb 24, 2015 7:15 AM ET Last Updated: Feb 24, 2015 3:12 PM ET

Efforts to provide running water to homes in Pikangikum are being hampered by an inadequate power supply according to the head of a volunteer group working with the remote First Nation in northwestern Ontario.

The Pikangikum Working Group has installed water systems in 10 of the 450 homes in the First Nation, at a fraction of the price government studies said it would cost, organizer Bob White said.

Donations are available to continue the work, White said, but the First Nation's diesel-generated power supply can't handle the additional load of the water pumps and the water heaters.

"Now we can't supply the water systems because we don't have the power," White said.

The problems with the power supply made a suicide crisis earlier this year even more difficult for community, White said.

'Tragic loss'

Four people died, three by suicide, in January.

"In addition to the tragic loss of their children, the people of Pikangikum have had to withstand the loss of power to the whole community because the diesel generators failed," White wrote in a letter to supporters. "Surely it is time these, almost 3,000, people of Ontario, Canada have access to the same electrical grid you and I have access to."

Pikangikum has been fighting for decades for a connection to the Ontario power grid. The nearest transmission line is less than 100 kilometres away, but funding for the project is scarce.

For now the working group is looking at more pragmatic solutions, White said, such as switching to LED light bulbs throughout the community to conserve energy for water services.

A second suicide crisis

It was another suicide crisis that first brought White's attention to Pikangikum. In 2011, the engineer and community development expert was asked to comment on a **coroner's report on the death of 16 children in Pikangikum who died by suicide between 2006 and 2008.**

"What are engineers doing helping people that have a crisis in suicide?" White asks. "If you can help them achieve their basic human rights, we believe that will contribute to the health and welfare of the whole community."

So he and two other experts formed the working group and met with people in Pikangikum to determine their needs. There were many, but providing running water and sewage to homes seemed like the most achievable goal.

The Anglican Church of Canada helped raise \$100,000 for the project, and other donations doubled that, White said. That amount paid for cisterns, a water heater, and indoor plumbing for 10 of the most vulnerable families in the First Nation. White recently met with one of them.

"A young mother, in that house of 13 people, a little three-bedroom house, and that house was neat as a pin," he said recalling the visit. "And the seven kids were all scrubbed and clean and their hair was still wet and I asked the mother what benefit she received from the water system and she said, 'to be able to bathe my children.'"

One-tenth the cost

White said the working group is installing water systems for \$20,000 per house. Federal government studies peg the cost at \$200,000 per house.

"So there's something wrong with the costing, I think, with the studies," White said, while admitting his system of trucking water to holding tanks isn't as "robust" as the government's plan to pipe water to each home.

At first, White said the Anglican Church questioned whether it should be raising money through donations for a basic right, such as water, which should be provided by the government. White said the answer was clear.

"We can wait until the government does something, but that may take a long time and it may never come," he said. "Or we can do something now."

White said he remains optimistic that solutions can be found for the power supply and more water systems installed because so many Canadians are now engaged with the issue through their donations to the working group.

Source: <http://www.cbc.ca/news/canada/thunder-bay/pikangikum-first-nation-water-aid-stalled-by-limited-power-supply-1.2968295>

Remote Ojibwa Reserve Lies in Desperate Limbo

KAREN HOWLETT

PIKANGIKUM, ONT. — From Monday's Globe and Mail

Published Monday, Nov. 06, 2006 4:38AM EST

Last updated Tuesday, Apr. 07, 2009 2:08AM EDT

Every morning, Dean Owen parks his truck outside the graffiti-covered cinder-block water-treatment plant in Pikangikum and fills a 26-litre blue plastic jug with drinking water. Like most of the 2,300 residents of this remote Ojibwa community in Northwestern Ontario, Mr. Owen, his wife and four children live in a tiny, wood-frame house with no bathtub, no toilet and no furnace. The windows on his house are covered in café curtains. The door to his outhouse is held shut with a large tree log propped up against it. This is a catch-all ASF view; only displays when an unsupported article type is put in an ASF drop zone

Canada's colonial legacy has left many aboriginal communities living in abject poverty. But even by these dismal standards, Pikangikum stands out. It doesn't have enough houses for a population that has doubled in the past 20 years. Some of the dilapidated houses with plywood covering their broken windows are individually home to as many as 18 people. The one- storey clapboard school, built in 1986 for 250 students, has 780 students from junior kindergarten to Grade 12.

Makeshift classrooms have been set up in portable trailers as well as in the library and a storage room.

The geographic isolation of many native communities makes it easy for them to fall through the cracks. Pikangikum, 250 kilometres north of Kenora, is accessible only by air or water, except in winter when ice roads are built. But the reserve has its own unique problems that have made matters worse.

The community's elders trace the state of limbo throughout the reserve to 2001, when the federal government stripped the band council of several

management powers because it said local leaders were not able to manage the reserve's mounting social problems. Since then, it is as though somebody simply forgot about the place.

Pete Sarsfield, the head of the Northwestern Health Unit in Kenora who blew the whistle on Pikangikum's water crisis, said the reserve ranks right up there with Davis Inlet, the native community in Newfoundland and Labrador whose epidemic of drug abuse and teen suicide was revealed to the world in the early 1990s.

"I've been around the block," he said. "I've been to about 200 First Nations communities. This is one of the worst I've seen."

Dr. Sarsfield said health-care workers have found a higher incidence of gastrointestinal, skin and urinary tract infections on the reserve, compared with other aboriginal communities. In July, several young children suffering from kidney problems in Pikangikum had to be taken far from home for emergency medical care. Brian Peters, the school's janitor, said his seven-year-old son spent two weeks in a hospital in Winnipeg.

Native leaders say Pikangikum is one of three reserves in Ontario with a drinking-water crisis. Attawapiskat, a Cree community on the James Bay coast, recently declared a state of emergency. In Marten Falls, about 700 kilometres northwest of Sudbury, sewage waste has leaked into a river where the community gets its drinking water.

The crises reveal that little has been done to improve the quality of drinking water on reserves since a year ago when more than half the residents of Kashechewan were airlifted out. All four communities are part of the Nishnawbe-Aski Nation. Of the 49 reserves across the North it represents, 19 are under boil-water advisories.

In Pikangikum, the community's elders say the appalling, overcrowded living conditions make it a warehouse for social problems. This year alone, there have been 23 suicides on the 49 Nishnawbe reserves, including six in Pikangikum.

As his truck approaches a curve in the gravel road leading to the Northern Store, Mr. Owen slows and points to the large tree beside Pikangikum Lake where Tracy Quill ended her life. Tracy, a shy, quiet girl who liked to make beaded artwork, attached a rope to a tree branch and hanged herself on a warm day last July. She was 12 years old.

Tragically, Tracy is not alone. Three teenage boys killed themselves within days of each other in January. And in September, two women met a similar fate, including a 33-year-old teaching assistant on the reserve's only school.

Their deaths have left the tight-knit community, where most residents speak the traditional Ojibway language, deeply shaken.

"It just saddens me," said Mr. Owen, a 35-year-old former chief of Pikangikum. "It breaks my heart."

In 2001, it was Pikangikum's dubious status as Canada's suicide capital that led Ottawa to appoint an outside company to manage its financial affairs. The reserve fought the move in court and won. A federal court ruled in 2002 that the government's dealings with the reserve were "patently unreasonable."

But Pikangikum remained under outside management for another three years. And all the infrastructure projects under way at that time came to an abrupt halt, remaining in limbo to this day. The water plant where Mr. Owen fetches his drinking water was built in 1995, but only 20 of the 387 houses on the reserve are connected to it, leaving the rest without water and sewage services. The large blue pipes that were supposed to connect homes to the water-treatment plant sit discarded in fields around the reserve, stacked in bundles. Many residents get their drinking water from Pikangikum Lake.

The transformer purchased by the reserve to connect the community to the electricity power grid in Red Lake sits idle. The hydro poles that were supposed to form a transmission line to Red Lake, 100 kilometres south, lie rotting on the ground. Pikangikum relies on four diesel generators for its

electricity. But this is not adequate and there are frequent blackouts. Firewood is used for heating.

Indian Affairs officials said privately that progress at Pikangikum has been hindered because the reserve has a history of frequent changes in leadership. They said it takes time for a new chief to become familiar with the issues. Mr. Owen, for example, resigned as chief in April after only 14 months.

Native leaders asked Dr. Sarsfield at the health unit to conduct the study of its water and sewage systems. Mr. Owen said this was the community's cry for help.

"Our community is in a major crisis," he said. But instead of getting any help from government officials, all they do is point fingers at each other, he said. "As long as they're doing that, we're suffering."

In the wake of Dr. Sarsfield's report, which was tabled in the Ontario legislature by New Democrat Leader Howard Hampton, the department has agreed to provide \$2.1-million in short-term funding. The money will be used to install water storage tanks at many houses or use trucks to deliver water.

"Obviously these are issues that can't be resolved in nine months," said Bill Rodgers, a spokesman for Indian Affairs Minister Jim Prentice. "My main concern is the more immediate problem."

Mr. Hampton said the Ontario government also has a duty to act because it is responsible for drinking water in the province. But talks between Ottawa and Ontario aimed at resolving the drinking-water problems on reserves have all but stalled after federal-provincial relations hit a new low last week. Mr. Prentice refused to meet with his Ontario counterpart, David Ramsay, citing Premier Dalton McGuinty's "political grandstanding."

Amid the finger-pointing between Ottawa and Ontario, the community's elders worry that the short-term funding will be just a Band-Aid solution and that not much will change. In the meantime, members of the community, renowned for their resiliency, make the best of a bad situation. At the

school, shop teacher Pete Charbonneau's students make things the community needs desperately. The Grade 11 boys are building wooden outhouses. The Grade 11 girls are making wooden sleighs to transport water and other supplies.

Mr. Charbonneau, who came to Pikangikum from Sudbury three years ago, sees the problems afflicting the community's youth first-hand. One of his students, a 16-year-old girl, is in a hospital after she tried to kill herself.

"None of them dream," he said.

It is the community's elders who represent the thin line between hope and despair. Their dream is to one day have the community control its vast timber wealth.

For the past decade, the elders have worked to establish a plan to manage the traditional land of the Ojibwa and set the pace and direction of development. Those efforts culminated in July when the native-owned Whitefeather Forest Management Corp. signed a land-use deal with Ontario that will one day see the reserve reap the financial rewards of harvesting the wood on its land. The plan is undergoing an environmental assessment.

Employees of Whitefeather, which operates out of an office in Pikangikum's only hotel, have made maps, meticulously identifying more than 11,000 summer and winter trails on the 1.3-million hectare pristine wilderness site. They have also done an inventory of every tree, a process that took three summers to complete.

"Our community has solely depended on government handouts," said Paddy Peters, a former chief who runs Whitefeather. "This will create prosperity and success for our people."

'Social Emergency': Kashechewan Skin Problems Blamed on Poverty, Overcrowding

Josh Dehaas, CTVNews.ca

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A doctor sent to examine rashes and severe sores affecting children in a remote Ontario First Nations community says the problem is “not really a medical emergency but a social emergency.”

Dr. Gordon Green is one of three doctors flown this week to Kashechewan First Nation, after NDP MP Charlie Angus shared horrific images of the skin problems on social media.

No single cause for the skin problems has been determined but doctors found cases of eczema, a non-contagious skin disease, and a few suspected cases of scabies. Dozens of children have been affected, and at least three were airlifted out of the community for treatment.

Eczema is most commonly caused by genetics but may also be triggered by allergens and irritants. The condition can be aggravated by unsanitary conditions, according to Dr. Green.

Unsanitary homes are common in Kashechewan, where incomes are low and a regular-sized bottle of laundry soap sells for nearly \$37, compared to \$10 in Toronto. High prices are a result of the fact that the community is so isolated it can only be accessed by plane, boat or ice road.

“It creates real difficulty in trying to maintain usual measures of cleanliness,” said Dr. Green.

Scabies rashes, meanwhile, are caused by a tiny mite and mostly spread through skin-to-skin contact. The mite thrives in crowded living conditions that are very common in Kashechewan.

Chief Leo Friday said that skin problems are common on the reserve. “It’s a nightmare.”

Dr. Green also noted that there is mistrust in the local water system, but that the skin conditions do not appear to be water related.

Health Minister Jane Philpott, who is a doctor, said Monday that children are not suffering from a water-related condition. She said the water was tested and found to be safe within the past week.

Minister of Indigenous and Northern Affairs Carolyn Bennett said Wednesday that the images “exemplify problems with poverty and overcrowding.”

“Every kid deserves to grow up healthy,” Bennett told CTV’s Power Play, adding that she saw similar problems 40 years ago as a doctor in northern Ontario.

MP Angus, who represents the constituents of Kashechewan, said on Facebook Monday that a committee would look at “water safety, black mould and the issue of whether the sewage lagoon is leaking into the water system.”

“This crisis wasn’t accidental – it is systemic,” said Angus, who recently wrote a book about the government’s failures to meet commitments to First Nations people living on James Bay.

Nishnawbe Aski Nation Grand Chief Alvin Fiddler said Monday that the situation speaks to why northern Ontario First Nations leaders decided to declare a public health emergency last month.

"It was good to hear government officials commit to getting these children out for an assessment and hopefully treatment," Fiddler said.

"We also need to look at the longer term ... some of the determinants of health: housing, water, and education, everything else that contributes to the health and well-being of our families."

Budget promises \$8.4 billion

Bennett told Power Play that an \$8.4-billion plan announced in Monday’s federal budget will help close the gap in living standards between indigenous and non-indigenous Canadians.

Assembly of First Nations National Chief Perry Bellegarde called the funding commitment “historic” and “a significant first step,” but some have questioned whether it is sufficient.

Sheila North Wilson, Grand Chief of the northern Manitoba First Nations group MKO said the money is “a deposit on a historic reset,” but added that “it’s not enough.”

NDP Leader Tom Mulcair said Monday that the Liberals “broke their promises” including on the gap between education for on-reserve students and students in provincial schools.

Bennett told Power Play “there’s good money there for both the educational programs and probably twice as much as we had in the platform for the schools themselves.”

“We know kids can’t learn when it’s overcrowded and mouldy and they can’t feel good about themselves,” she added.

On the topic of on-reserve water quality, Bennett said the government “committed in the platform that the boil water advisories will end in five years,” calling that a “hard metric” that the government will be accountable for.

It’s unclear whether the \$1.8 billion devoted to ending more than 130 on- reserve boil water advisories will be sufficient, considering that a study last year found that \$2 billion spent on the problem between 2001 and 2013 led to “little progress.”

With a report from CTV’s Katie Simpson in Kashechewan and files from The Canadian Press

Source: <http://www.ctvnews.ca/canada/social-emergency-kashechewan- skin-problems-blamed-on-poverty-overcrowding-1.2830199>

Process Skill - Inferring

Process Skill	Students	Teachers	What This Skill Should Lead To
Inferring	□ deducing information from incomplete evidence using reasoning or logic. The information does not need to be factual or correct. (For example, “The grass is wet in the morning, so I infer that it rained overnight.” This is a valid inference, but not necessarily a correct one— the wet grass could be from morning dew or a sprinkler system.) □ clarifying observations as evidence □ making a connection between what is known and what is unknown □ creating a tentative understanding of the situation without knowing or being given the “answer”	□ guiding students to make logical connections from available evidence □ encouraging students to consider alternative inferences □ scaffolded and deliberate □ using a modified K-W-L chart to show the process of making an inference: replace “What I know,” “What I want to learn,” and “What I learned” with “What I know,” “What I observed,” and “What I infer”	□ improved observation and deduction skills □ the ability to identify and analyze available evidence □ improved literacy skills as inferencing skills are applied to make meaning of written texts

Teacher Notes:

Process Skill - Analyzing

Process Skill	Students	Teachers	What This Skill Should Lead To
Analyzing	☐ reviewing the investigation—what happened and why/how ☐ working with the data to identify trends, do calculations if necessary, and draw conclusions ☐ interpreting the data in different ways ☐ developing next steps based on questions that arise during the investigation ☐ searching for patterns, concrete and abstract, that represent what actually occurred ☐ getting unexpected results in an inquiry, and examining or assessing why those results occurred	☐ expecting and accepting varying results. The results of similar investigations can be very different depending on the many decisions students make in the course of conducting the investigation. ☐ prompting students to reflect on the investigation and giving them adequate time to do so: Did they get the results they expected? Can the results be explained? Where could the experimental method be improved? Are there any possible sources of error? ☐ giving students an opportunity to see other students' work, using strategies such as gallery walks, and to analyze the findings of the class ☐ taking the opportunity to assess students' learning, as reflected in their analysis	Analyzing data leads students to evaluate the validity of their findings and to check their results against their cognitive schema (i.e., Do the results make sense to me, and can I explain them?). Once the analysis is completed, students can communicate their findings in various ways to others.

Teacher Notes:

Process Skill - Reporting

Process Skill	Students	Teachers	What This Skill Should Lead To
Reporting	☐ sharing ideas, based on facts and evidence, with others ☐ using creative and original presentation formats ☐ using an extensive vocabulary, yet writing or speaking succinctly ☐ giving others the opportunity to understand the world as the reporter does	☐ encouraging connections, inferences, and predictions ☐ promoting the sharing of ideas and evidence in a logical and concise manner ☐ encouraging creativity and the use of technology ☐ differentiated. Permitting and encouraging different presentation formats allows all students to successfully communicate their findings. ☐ scaffolding the process for students. Students can start by using a structured report format which evolves into a more sophisticated self-structured format. ☐ a natural literacy link	Students acquire research, speaking, and presenting skills through reporting. It is this step in an inquiry that establishes the factual and investigative background that informs their investigation. They gain an improved sense of logical sequences and often improve their ability to use vocabulary. A skilled reporter knows how to summarize background information and present it in a manner that piques the audience's interest.

Teacher Notes: