

Mississaugas of Scugog Island First Nation (MSIFN) Overall Responsible Operator (ORO) Desmond Verasammy stands near one of three small existing communal water systems. These systems only service a limited number of houses on the reserve.

Photograph by Toby VanWeston

Clean water is long overdue for

New water treatment plant will improve life for Durham Region reserve

Toby VanWeston The Chronicle

Canada is currently facing a crisis. Despite being one of the most developed countries in the world, many citizens are currently living in third-world conditions. Health Canada reports that as of October 31, there are currently 133 drinking water advisories across 90 First Nations communities in Canada. excluding British Columbia. There are some First Nation reserves across Canada with black, rancid water coming through water taps and shower heads. Some of the worst conditions exist in Manitoba or Alberta. But this problem affects the Durham Region as well. The reserve for the Mississaugas of Scugog Island First Nation (MSIFN) has been under water advisories since 2008. The community has recently taken steps forward to improving the conditions of their water supply. The reserve is in the process of building a new water treatment plant, which will make water safe for consumption.

tracted to oversee the development of the new water treatment plant.

The community living on the reserve is small. Verasammy estimates there are about 50 homes on the reserve, with around 100 residents. He notes some members live off the reserve, in British Columbia. A Statistics Canada census profile in 2011 lists the total population as 93. There was a growth of 29.2 per cent between 2006 and 2011.

Currently, there is no reliable water treatment plant servicing the community. There are three small communal systems, servicing limited groups of homes.

These communal systems are small shacks with standing room large enough for one to two people. In each system, water is treated by an iron filter or a water softener, a cartridge filter, and UV light, with chlorine added before going to the homes. The three communal systems collectively send filtered water to a total of 15 homes, all in close proximity. Anyone not connected to a communal system receives water through individual wells. sidered safe for drinking and other domestic uses after being boiled. The second is a Do Not Consume Advisories/Orders (DNCAs/ DNCOs). This means consumers, under any circumstances, should not drink the water even after the water is boiled. While considered unsafe for drinking, it may be used for other domestic purposes including dish washing and bathing. The last type of water advisory is Do Not Use Advisories/Orders (DNU-As/ DNUOs). This water is considered contaminated, and could cause illness if it touches the body.



outbreak. Seven people died.

"A lot of changes occurred after Walkerton. Especially regulations, and the whole notification procedures," says Motum.

What made the tragedy more regrettable was that it was largely preventable.

"What happened in Walkerton is that [water technicans] were getting the results, and finding out that they had E-coli. But no one was being made aware of it," says Motum.

In the aftermath of the tragedy, Stan Koebel, Manager of the Walkerton's Public Utilities Commission, and his brother Frank Koebel, foreman of the PUC, were charged for withholding information about the crisis when it first broke out. Stan was sentenced to a year in jail, and Frank received nine months of house arrest.

Steps were made to ensure this would never happen again. This incident resulted in tighter provincial regulations that are more carefully enforced. be chemical contamination, it could be other forms of contamination, where by just boiling it, you have not taken care of the problem. We have been under that consistently since 2008," explains Verasammy, MSIFN ORO.

Currently, the water on the reserve is not safe to drink at all. The water is still safe for use showering and bathing. However, residents of the reserve must use bottled water for drinking.

A new water treatment plant will change that.

The MSIFN secured a Small Communities Fund in 2015 in order to design and build the new treatment plant. The federal and provincial government each put forward \$1.1 million to go towards its construction. The total cost of the plant is \$3.3 million.

Construction will begin in the spring of 2017. Verasammy expects the process to take about a year, and estimates the plant will be fully operational in spring to summer

Desmond Versammy is the Overall Responsible Operator (ORO) for the Water Supply System on the reserve. Owner and Principal Consultant of CADE Inc., he was con"That's not the majority of the homes. The majority of the homes are serviced by private wells," explains Verasammy. "Overall, none of them meet the safe drinking water standards."

Verasammy explains these private wells use ground water, which is not filtered before it enters the homes.

"These are systems that were not engineered. They were just put in there based on what was available. They are not treated," says Verasammy. "If you don't treat the water, it's highly susceptible to contamination."

Health Canada has three types of water advisories. The first is Boil Water Advisories/Orders (BWAs/ BWOs). This means water is con-

the entire community will be connected by distribution piping.

Ron Motum is a professor in Durham College's Water Quality Technician program. He worked for 32 years in wastewater management for the Region of Durham. Motum says water regulations in Ontario today are stricter than they have been. He credits this to a particular tragedy. In 2000, an E. coli contamination broke out in the town of Walkerton, Ontario. In the community of less than 5,000 people, 2,300 became ill from the "There's a change in terms of notification, to make sure it's being responded to properly," says Motum. "A lot of the rules and regulations that came out of that have been implemented throughout all of the water systems. We have the most stringent rules and regulations in Ontario for drinking water now."

Health Canada has the Mississaugas of Scugog Island First Nation officially listed under 5 different water DWAs. Repairs and minimal changes have been done on the communal systems over the past eight years. These changes keep the systems operating, but have not improved the safety of drinking water.

"As we speak right now. We are under a drinking water advisory (DNDA). When you are under a (DNDA), it can be bacteria, it could of 2018.

Once the plant is built, distribution is the next concern. Additional construction will begin in 2017 to create pipelines, which will deliver the water to the community. Verasammy says this process has already begun.

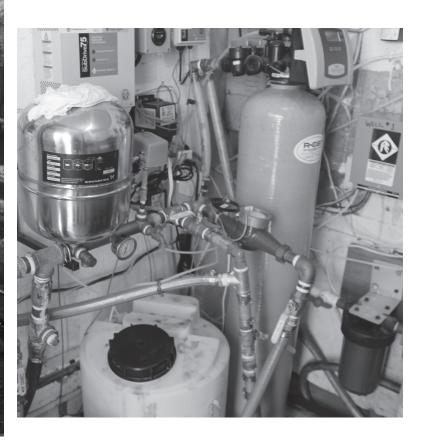
"Eventually, the entire community will be connected by distribution piping," he says.

In addition to the water treatment plant, one of the existing communal systems on the island will be upgraded.

It will service a new commercial complex, which is already in the process of construction. Across the street from the Great Blue Heron Casino, the site will be home to a Tim Hortons, a gas station, and a convenience store.

(Continued on page 7)





Photograph by Toby VanWeston

Desmond Verasammy enters a communal water system. The systems are small, only large enough for two people to stand in.

Scugog reserve

(From page 6)

"We are presently upgrading that. We are going to be providing water for that economic development that is going to service the public," says Verasammy.

The Great Blue Heron Casino has its own water treatment plant, but the plant is independent from the rest of the community.

"That's totally independent. It's a private system. They have two wells, and a treatment facility that only supplies the casino. It's operated by the casino staff," says Verasammy. "We have basically nothing to do with that."

Asked if it was possible for the community's water treatment plant to service the casino and the adjacent off-reserve community, Verasammy says it has been considered. The priority at the moment, however, is to complete the new water treatment and pipelines, establish safe water supply services for the entire MSIFN Community, and then have the long term DWA permanently removed from the community by Health Canada. After that, expansion into other areas will be explored. "The option of connecting the casino, and the surrounding community areas, are there. We're building our infrastructure with that vision," he says. "We will build and we will expand as we need to." Verasammy will oversee the construction of the plant, and the training and development of the operational staff. When his contract with the MSIFN is over, he will have ensured that a competent team is set up to maintain the water supply system in the future. "I'm committed to be here for the next 5 years," he says. "I will oversee the implementation of the plants. And getting them staffed appropriately, with training, to be able to

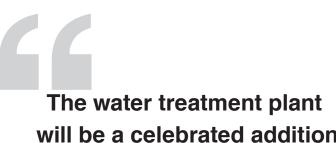
effectively operate these systems." Kelly LaRocca is the Chief of the Mississaugas of Scugog Island First Nation. LaRocca says that clean drinking water for the community is long overdue.

"Clean drinking water has been a long time coming for Scugog First Nation, and we are excited to come to enjoy what every other Canadian should be able to enjoy. As stewards of lake health, we are concerned about source water protection in addition to water treatment," she says. LaRocca is also optimistic about business ventures the water treatment plant will open up in the future.

a whole, Verasammy says there are no easy answers. His opinion is that each reserve needs to be handled individually.

"Identify what the problems are. Maybe conducting a feasibility study to look at what the options are, and selecting the best option," says Verasammy. "One community to the next may be different. Based on the size and the population. This is not something that is solved by a one size fit all."

Ron Motum believes that setting up proper water systems is only the beginning of a long relationship. He stresses that maintaining these systems is crucial.







to Scugog First Nation.

"We are excited at the economic development opportunities that a water treatment plant can bring for the community. The water treatment plant will be a celebrated addition to Scugog First Nation," says LaRocca.

The MSIFN is making progress towards ending a water problem, which has plagued the community for over eight years. A professional feasibility study carried out by the reserve determined that building a water treatment plant was the best course of action. This is not always the case for all reserves in the country.

Speaking about solving the larger water crisis, which faces Canada as

"It's not just upgrading the systems. It's also insuring that you have the funds and the support to keep it going."

Verasammy also notes there is a need for First Nations communities and the government to collaborate together in order for any kind of measure to be a success.

"Here's the other side. Even if you had a brand new water treatment plant, and you don't have the resources to operate it and maintain it, it wouldn't work would it? It would be compromised," explains Verasammy. "A commitment on both sides: the government and the community to come together and work on it. I believe that's the best approach."

Photographs by Toby VanWeston

(Top right photo) A closer look inside the existing communal systems. The systems only service three of the approximate 50 homes on the Island. (Middle) Future site of new commercial complex which will bring new business to the island reserve. (Bottom) The Great Blue Heron Casino on MSIFN.