



A Newsletter for Water and Wastewater Treatment Plant Operators!

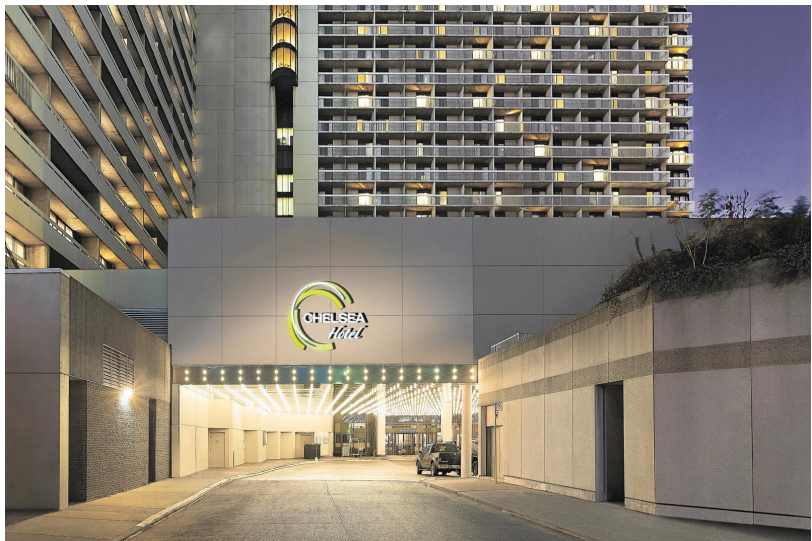
THE WATERDRUM

April 2018

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Thank you Toronto!!



On behalf of AWWAO, we would like to say thank you for hosting our 23rd AGM & Training Conference & Tradeshow at the Chelsea Hotel in downtown Toronto, Ontario.



CHELSEA
Hotel
TORONTO



Sponsored by:



Health
Canada

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Canada



Indigenous and
Northern Affairs Canada

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The meaning of the AWWAO logo as described by the artist:

- Tree—represents Mother Earth
- Sun—brings Life to our Environment
- Eagle—watches over the Environment
- Sky—ensures the Cycle of Water

ABOUT US

The Aboriginal Water & Wastewater Association of Ontario is an information source for water environment and Operator training and certification issues and technology. AWWAO’s members include professionals from Ontario First Nations, Environmental Health Officers, Tribal Councils, Municipal Suppliers and some Government Agencies.

AWWAO is dedicated to the transfer of information and concepts regarding all areas of the water environment. As members of the American Water Works Association (AWWA), the Ontario Water Works Association (OWWA), the Water Environment Federation (WEF) and the Water Environment Association of Ontario (WEAO), we provide an invaluable network for those involved in water and wastewater industry. AWWAO, through a partnering agreement with Keewaytinook Okimakanak and Health Canada co-operates and liaises with the above noted associations, and all provincial and federal government agencies. AWWAO has a volunteer seat on many of the various association’s committees.

AWWAO offers its members the opportunity to:

- ◆ Be updated and informed about issues that affect the water environment.
- ◆ Interact with persons in various fields of water expertise.
- ◆ Promote concerns of the membership through a collective voice.
- ◆ Exchange information and ideas to other members, the public and Chiefs and Council.

To date, the AWWAO consistently rank the training and certification of Plant Operators as its top priority. The attainment of Certification is widely recognized as essential to performing a good job, at a high level, in the water and wastewater treatment plant operations, and an indicator of a responsible and contributing community member.

MEMBERSHIP

\$200.00 Membership Fee for First Nations Water and Wastewater Treatment Plant Operators per operator. This Membership entitles the Operator(s) to the AWWAO Newsletter, monthly bulletin, Annual Report and the Annual General Assembly and Training Conference cost reimbursement, if applicable.

\$400.00 Membership Fee for Non-Operator, Public Works Management, Administration and Management of a First Nation or Non-First Nation. This Membership entitles the Member to the AWWAO Newsletter, monthly bulletins, and Annual Report.

Please Print

Name: _____

Name: _____

Name: _____

Name: _____

First Nation/Business: _____

Address: _____

Phone: _____ Fax: _____

E-mail: _____

VISION

Our Vision is to be the Association that best understands and satisfies the training, education, certification and licensing needs of Operators of Ontario First Nations. Our dedication to supporting Operators touches not only health, but safety, spirit and empowerment ... most of all knowledge.

OBJECTIVES

- ◆ To act as a voice and forum for First Nation Plant Operators in Ontario, publish a newsletter, promote communications and networking among Plant Operators and other persons interested in AWWAO’s objectives;
- ◆ Promote the importance of a safe and potable water supply and the highest standard of wastewater operations;
- ◆ Promote the development and delivery of continuing education and training programs for Plant Operators and others involved in water and wastewater treatment;
- ◆ Promote the importance of technical training in maintaining and upgrading the Operator’s knowledge of proper water and wastewater operation and maintenance requirements;
- ◆ Promote the importance of involving qualified Operator’s in the design, construction or upgrading of water and wastewater treatment plants;
- ◆ Promote the importance of proper training, certification and licensing of Operators;
- ◆ Promote the importance of enhanced lab testing of potable water and monitoring of wastewater effluents; and
- ◆ Promote the importance of establishing an effective Operations & Maintenance Management Plan to ensure proper care is performed for the assets.

MISSION STATEMENT

We are a member oriented, non-profit Association, providing province-wide and year-round high-quality services and an annual forum for the First Nations Water and Wastewater Treatment Plant Operators, allowing for networking opportunities at the same time. We are committed to providing high quality information on the water and wastewater industry through the quarterly newsletter. We are dedicated to promoting, preserving and protecting the water, natural resources and environment through the education, training and networking of the Ontario First Nations Water and Wastewater Treatment Plant Operators.

The Aboriginal Water and Wastewater Association of Ontario’s newsletter is published quarterly by the AWWAO at Box 20001, RPO, Riverview Postal Outlet, Dryden, Ontario P8N 0A1
Tel: (807) 216-8085
E-mail: info@awwao.org

Advertising opportunities and/or submission or request of information, please contact the AWWAO Coordinator.



AWWAO Board of Directors

The Aboriginal Water and Wastewater Association of Ontario was very pleased to have hosted the 23rd Annual General meeting and Training Conference and Tradeshow at the Chelsea Hotel in downtown Ontario. The conference was held during the week of February 26, 2018.

The Board of Directors, along with the AWWAO coordinator worked hard to bring you this conference. With great success, AWWAO has hosted several conference though our 23 year history. After more than 23 years, membership is still growing and we look forward to it every year.



The conference welcomed water and wastewater professionals from across Ontario. The purpose of the conference was to promote the development of continuing education and training for Plant Operators and others involved in water and wastewater treatment.

The 3rd Annual Tradeshow showcased a wide variety of options for attendees and businesses to engage and interact with each other. We had 34 vendors this year! The vendors put on an excellent show for those attending the tradeshow. Interactive displays and live demos were available to keep things interesting. Throughout the conference, attendees had the opportunity to network, socialize and explore challenges in the protection and treatment of our water supply.

A big thank you to Health Canada and Indigenous and Northern Affairs for funding this event and for their continued support.



We would also like to thank Walkerton Clean Water Centre, Keewaytinook Centre of Excellence and World Water Operator Training Company for providing us with the training courses.

It is fair to conclude that the conference was a great success! So many people have contributed in so many ways to turn this event into a smoothly running meeting with many very interesting presentations and a very good atmosphere for discussion and networking.



AWWAO Membership

AWWAO Memberships expire each year and must be renewed no later than the start of the fiscal year or by the second Monday in April as per the AWWAO By-Law NO. 1, Section 7.3. Association membership is mandatory for those operators wishing to attend the Annual General Assembly and Training Conference. In 2018 AWWAO has seen new faces and welcomed new members, both Regular and Associate to the Association.

Total Regular Membership 2018: 102

Total Associate Membership 2018: 8

23rd Annual Conference Registration



**2013/14
Conference
Attendance:
87**

**2014/15
Conference
Attendance:
69**

**2015/16
Conference
Attendance:
96**

**2016/17
Conference
Attendance:
99**

**2017/2018
Conference
Attendance:
120**



First Nation Operators: 84

Board of Directors: 7

Trainers: 5

Speakers: 4

Others: 20

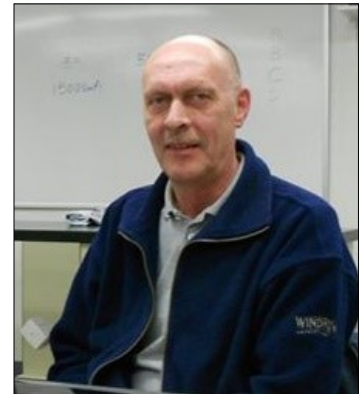


23rd Annual Conference Registration



23rd AGM & Training Conference & Tradeshow

AWWAO would like to thank all of the instructors!!



23rd AGM & Training Conference & Tradeshow

AWWAO would like to express out thanks to the 34 exhibitors for sharing their knowledge and expertise at the 3rd Annual Tradeshow!!!



23rd AGM & Training Conference & Tradeshow



23rd AGM & Training Conference & Tradeshow



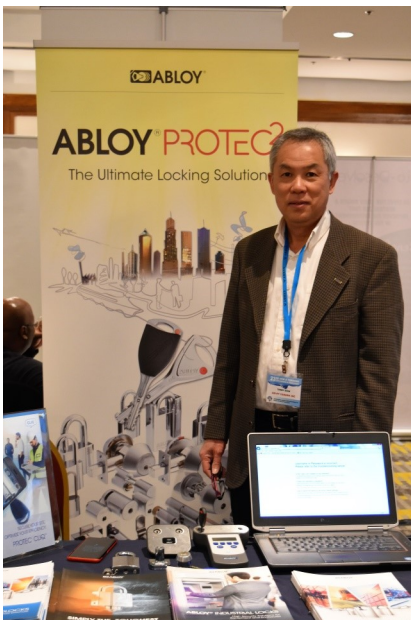
23rd AGM & Training Conference & Tradeshow



23rd AGM & Training Conference & Tradeshow



23rd AGM & Training Conference & Tradeshow



Annual General Meeting

This year's Annual General Meeting (AGM) was held at the Chelsea Hotel, Toronto ON February 28, 2018. The agenda was distributed to all members in attendance for their review and reference. There was a total of 35 First Nation Operators in attendance.

The AWWAO directors presented the organizational past fiscal year's financial and legal activities to the membership at the AGM.

AWWAO thanks the membership for attending and encourages members to keep an open dialogue throughout the year.



6th Annual Water Taste Challenge Judges

The AWWAO would like to thank the volunteers (Carol Siegfried, Arden Bruyere, Jag Saini and Kendra Driscoll) for judging in the 6th Annual Water Taste Challenge. We sincerely appreciate your time and effort in making our contest a success.



Guest Speakers

AWWAO would like to thank our honored speakers Ken Kokanie, Daniel Izso, Lisa Christie and Jim Brown who have shared their very interesting and exclusive presentations providing the conference attendees with new information for thinking and further development.



Ken Kokanie -Capital Management Officer



Daniel Izso– Certification Officer



Lisa Christie -Program Manager



Jim Brown -Operations Manager

“Clean safe drinking water is scarce in many First Nations today. Yet many Canadians take it for granted, living in larger towns and cities we waste it and rarely even think about it. Yet everyone knows that water is the foundation of life.”

verna cachene, yellow quill first nation



Conference report: AWWAO



Mar 14, 2018

Toronto hosts a successful 23rd annual Aboriginal Water & Wastewater Association of Ontario's Conference and Tradeshow.

Held February 27 – March 1, 2018, in downtown Toronto, the event gathered water and wastewater professionals from across the province to participate in training courses, network with suppliers and government representatives, and celebrate achievements in protecting public health.

The [Aboriginal Water and Wastewater Association of Ontario](#) (AWWAO) is an information source for water environment, operator training, certification issues, and technology. Its members include professionals from Ontario First Nations, environmental health officers, Tribal Councils, municipal suppliers and some government agencies.

Over 84 operators attended the event, some travelling from far away as Kenora, which is located near Ontario's border with Manitoba.

Training courses delivered by Walkerton Clean Water Centre, Keewaytinook Centre of Excellence and World Water Operator Training, covered advanced groundwater systems, iron and manganese control, WHMIS, health and safety, nutrient removal, and distribution systems.

Also on display were a wide variety of suppliers and consultants serving the water and wastewater industry. In the exhibition area, 34 companies showcased their products and services while networking with attendees.

A tradition of the AWWAO event is the coveted First Nations Water Taste Challenge award that was presented at the banquet on February 28. The challenge involves a panel of judges weighing the taste and appearance of tap water produced by reserve water systems.



Conference report: AWWAO



Judges of the First Nation's Water Taste Challenge looked at taste, clarity, appearance and overall thirst quenching satisfaction.

Judges were asked to swish and swirl the water sample and base their judgement on the taste, clarity, appearance and overall thirst quenching satisfaction of the treated water, awarding a value ranging from 0-5 for each criteria. A winner from the North region and the South region is then chosen.



Winners of the AWWAO's First Nation's Water Taste Challenge, North Region winner Edward Black, Wahgoshig First Nation. South Region winner Jonathon Riberdy, Zhiibaahaasing First Nation .



Conference report: AWWAO



AWWAO Operator of the Year winner, Frederick Dubeau, Chippewas of Nawash.

AWWAO Operator of the Year winner Frederick Dubeau, Chippewas of Nawash.

Also recognized at the banquet was the AWWAO Operator of the Year award. This award recognizes the important role that water treatment operators play in their communities.

AWWAO Chairperson Ian Fortin presented the Operator of the Year Award to Frederick Dubeau from Chippewas of Nawash.

Next year Thunder Bay will host the 2019 AWWAO conference and tradeshow. The event rotates between north and south each year to represent and accommodate the geographic scope of the association's members.

For more information on the Aboriginal Water and Wastewater Association of Ontario, visit: www.awwao.org

Has your email address recently changed (e.g. john@company.com to johnsmith@company.com)? Not a problem! Please send us a note requesting that we update your email address, and we'd be happy to take care of it.



Ottawa may be neglecting its best bet for ending drinking-water advisories: training operators

New research shows that water systems on First Nations reserves operated by people lacking adequate training are more likely to experience drinking-water advisories that last longer, **Matthew McClearn** writes



John Owl, an infrastructure technician, takes a sample from a tanker delivering fresh water before it can be transferred to reservoirs on the Serpent River First Nation on December 19, 2016.

Fred Lum/The Globe and Mail

MATTHEW McCLEARN Published January 29, 2018

Research from the University of Guelph's engineering school has discovered that water systems on First Nations reserves operated by people lacking adequate training are more likely to experience drinking-water advisories that last longer. This conclusion suggests the federal government may be neglecting its best option for ending advisories: supporting efforts to train operators of First Nations water systems.

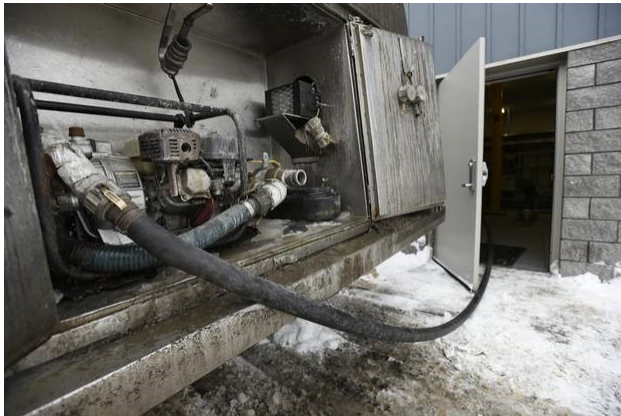
The federal government has promised to eliminate all drinking-water advisories, which Health Canada recommends be issued when drinking water is deemed unsafe. They occur frequently on many reserves. Professor Ed McBean and his students gathered data on 1,526 advisories issued on 776 First Nations drinking-water systems between the beginning of 2004 and the end of 2014, and studied what troubled systems had in common.

"If your operator's not particularly well trained, or not trained to the level where they understand all the elements of their system, you're more likely to have trouble," Dr. McBean said.

Indigenous Services Canada (one of two successor departments to the recently dissolved Indigenous and Northern Affairs Canada) plans to end all long-term advisories (those in place longer than one year) for systems it finances by March, 2021. There are 91 such advisories; 40 have been eliminated since November, 2015, and 26 new ones have surfaced.



Ottawa may be neglecting its best bet for ending drinking-water advisories: training operators



Previously under a 'Do Not Drink' advisory, the Serpent River First Nation has a new water treatment plant drawing water from Georgian Bay. With the plant operating at low capacity, a water tank has been bringing in fresh potable water from Sudbury to fill the town's reservoir.

Most advisories instruct residents to boil water so it can be consumed safely, but other advisories prohibit consumption, or sometimes even use. The consequences to affected communities can be considerable. As they drag on, some remote communities are forced to fly in bottled water and then cope with the resulting waste problem. In others, weary citizens may begin to disregard the advisory, risking their health.

Information published on its website indicates the department strongly favours engineering solutions to meet its goal. ISC's proposed solution for ending 32 advisories is to build a new water-treatment plant. Some combination of plant repairs, upgrades and expansions are the next most-cited solutions. Although there's little doubt many reserves suffer from inadequate infrastructure, ISC's stated solutions appear to overlook the human element. Operator training is mentioned as part of the solution for only one community, God's Lake, in northeastern Manitoba, which is to receive "technical assistance and training."

Data provided by ISC show training-focused funding trended upward during the course of this decade, but is dwarfed by the approximately \$2-billion committed in the 2016 budget over five years to improve water and wastewater delivery on reserves. The vast majority of that is earmarked to improve water and wastewater infrastructure; the remainder is reserved for improved testing and monitoring of water quality. Training appears to have become an afterthought.

But for Dr. McBean, the prescription arising from his research is obvious. "It follows that if [operators] had additional training, then they would be able to be more pro-active at getting rid of the boil-water advisory."

He's not the only one who has made that suggestion.

A 'startlingly low' rate of certification

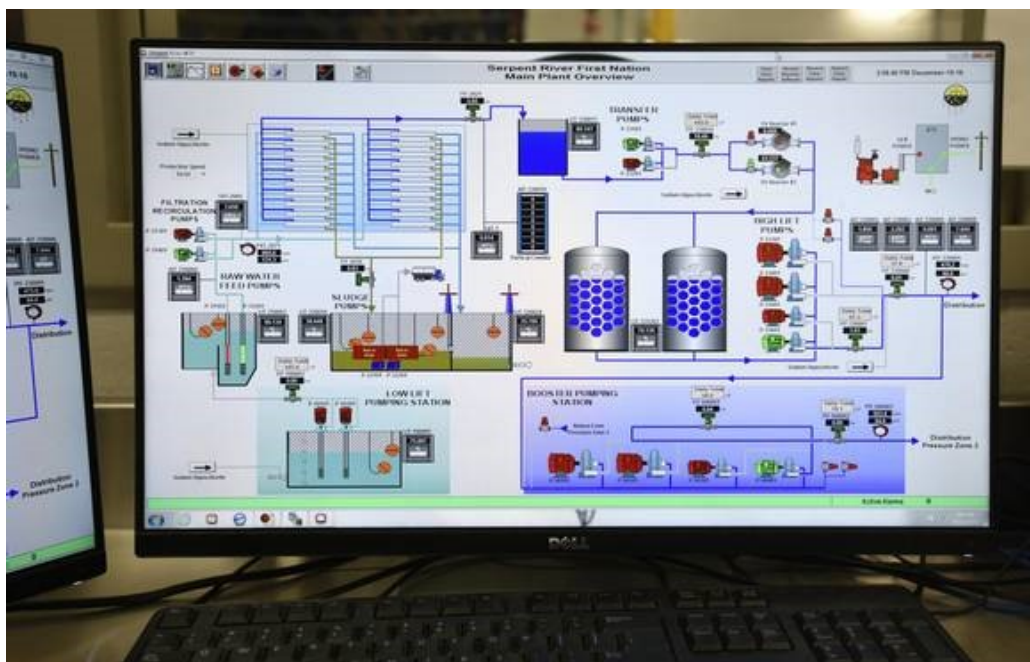
In 2007, the standing Senate committee on aboriginal peoples demanded "a comprehensive, long-term training program." A 2011 report by engineering firm R.V. Anderson Associates Ltd. said additional training "could be a low-cost, short-term way to reduce the number of high-risk systems." Steve Hrudehy, professor emeritus of the University of Alberta's medicine faculty who served on the Expert Panel on Safe



Ottawa may be neglecting its best bet for ending drinking-water advisories: training operators

Drinking Water for First Nations more than a decade ago, made the same point in a written submission to the House of Commons standing committee on aboriginal peoples in 2013.

“To date, the emphasis has been on funding facilities without sufficiently increased emphasis on tackling the more challenging task of training and supporting competent, responsible operators for every facility,,” he wrote.



A monitor shows the status of various steps in the treatment of water at the treatment plant on the Serpent River First Nation.

There has been much improvement since the early 2000s, when less than 10 per cent of First Nations operators were certified. The laissez-faire environment for unqualified operators changed after the May, 2000, E. coli outbreak in Walkerton, Ont., that killed five people. A provincial inquiry found Walkerton's water-utility operators were experienced, but had no formal training. They didn't understand the health risks arising from contaminated drinking water, nor did they appreciate the gravity of their failure to monitor and treat the community's water properly.

"There was a rush to certification because of the tragedy," said Wes Morriveau, vice-chair of the Aboriginal Water Wastewater Association of Ontario (AWWAO), who became an operator around that time. "They didn't want anything like that to happen on a First Nation. The training at that time was so increased that I could have gone to training every week."

More than two-thirds of those operating ISC-funded systems were certified in 2016. But lately, the rate of progress has slowed, and the corollary is that nearly one-third of First Nations operators remain unqualified. "It's startlingly low, the number of certified operators, " said Graham Gagnon, an engineering professor at Dalhousie University who has worked with First Nations Chiefs across Atlantic Canada on water initiatives.



Ottawa may be neglecting its best bet for ending drinking-water advisories: training operators

Natuashish, a remote reserve in Labrador, offers an example of how unqualified operators can complicate efforts to provide safe drinking water. This community of approximately 1,000 was built in the early 2000s to house the Mushuau Innu, whom the federal government relocated from nearby Davis Inlet. It's more than 1,000 kilometres northwest of St. John's, and far from any road network.

The new community included a water-treatment plant and distribution system. It has been subject to several advisories in recent years, the longest of which lasted 46 days. But documents obtained through the federal Access to Information Act reveal long-standing concerns by ISC employees about how that system was operated and maintained. In one February, 2012, e-mail, ISC employee Joe McKinnon wrote that "there were no qualified [personnel] assigned to maintain the water treatment plant." During the 2014-15 and 2015-16 fiscal years, ISC inspectors gave the operators the worst score possible for risk, and expressed serious concerns about record-keeping.

"It would appear that the operator/staff are comfortable operating the water system at this level of service risk as this has been their standard for many years," engineer Kriss Sarson wrote in an April, 2016, e-mail. "There is no 'easy' solution to this. They have had an engineer on-site for 1.5 years, and staff have [made] very little effort to respond to the engineer's efforts to build capacity."

Repeated attempts to reach the First Nation for comment were unsuccessful; voice mailboxes for several band officials were full, and other voice mails received no response.

Looking beyond certification to high education

Lysane Bolduc, director of ISC's water and wastewater program, said her department supports operator training in three ways. First, it provides annual funding to First Nations to operate and maintain their water systems; bands can allocate portions of that to training as they see fit. Secondly, ISC's Circuit Rider Training Program dispatches water- and wastewater-system experts through a "circuit" of reserves to provide hands-on training to operators and help them obtain certifications; 515 First Nations participate. And thirdly, ISC regional offices fund ad hoc training for operators upon request, which enables them to attend conferences and training sessions.

Other organizations, often funded by ISC, play a crucial role. For example, Thompson Rivers University offers a water- and wastewater-technology diploma in British Columbia. The first batch of First Nations operators graduated from that program in 2010; last year several of them established a new organization, the First Nations' Operator Waters Net of British Columbia & Yukon Territory, to help more colleagues get certified. Richard Inkster, a director, said his new group is already looking beyond certification to higher education in engineering and other disciplines. "Right now, we hire a lot of these professional people to come in and do the work," he said. "Now, we're trying to see about getting our own younger people to get university degrees, so we can have our own people to turn to."



Ottawa may be neglecting its best bet for ending drinking-water advisories: training operators



Some critics argue ISC's protocols which state that water-systems operators must meet the certification requirements is among the most significant obstacles to further progress for the Indigenous communities. The Keewaytinook Centre of Excellence in Dryden, Ont., offers dozens of courses to both Indigenous and municipal operators and trains more than 250 operators every year.

In Dryden, Ont., the Keewaytinook Centre of Excellence offers dozens of courses to both Indigenous and municipal operators; program manager Denis Nault said it trains 250 or more operators each year. The Ontario First Nations Technical Services Corp. and AWWAO offer training at annual conferences. "There's at least a dozen communities I could think of, off the top of my head, that have levelled up at least one level of certification in the last year," AWWAO chair Ian Fortin said.

'It starts to fall apart right from there'

What to do about uncertified operators presents a dilemma for both the federal government and First Nations. ISC's protocols state that water-systems operators must meet the certification requirements of the province in which they work. "Implicit in that is that the provinces are going to regulate the First Nation," Mr. Gagnon said. "They don't. So it starts to fall apart right from there."

Some critics argue this regulatory gap is among the most significant obstacles to further progress. "The person who has Grade 9 may not be the guy we want running our water plant," said Barry Strachan, public-works manager for the Keewaytinook Okimakanak tribal council in Northern Ontario, in an interview in 2016. "But without a regulation that stipulated, 'Well, that guy can't operate a water plant,' nothing will change." The lack of regulations means First Nations operators may not receive sufficient time or funding from their employers to get and maintain their certifications, Mr. Gagnon added.

Meanwhile, AWWAO and B.C.'s First Nations' Operator Waters Net both hope to promote programs intended to accommodate older operators who can't meet full certification requirements. A high-school diploma is a prerequisite for certification in most provinces, a barrier for many older operators. "Some of these guys have been in these water plants for 30 years, they can operate those plants blindfolded," Mr. Morriseau said. "Realistically, if they're not certified, their First Nation could fire them and throw them out the door. Which is going to make a bigger problem: You're not going to have an operator at all."

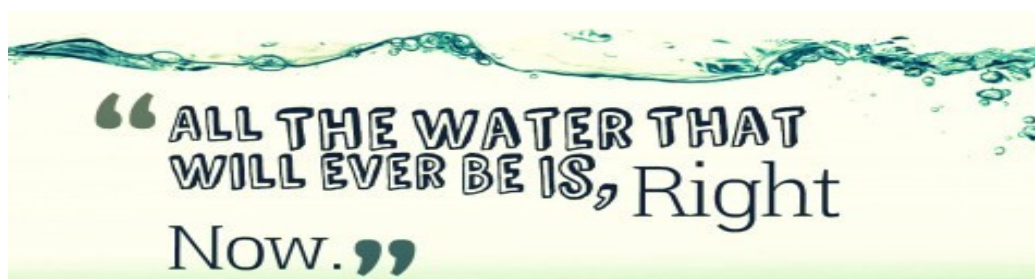
Ottawa may be neglecting its best bet for ending drinking-water advisories: training operators



Bottled water is left by the door of a home on the Serpent River First Nation December, 2016.

Even where qualified operators can be found, reserves frequently complain the money ISC provides to reserves for operations and maintenance is insufficient to retain them. Band councils typically pay significantly less than municipalities and the private sector, and cash-strapped reserves also require water-treatment operators to perform other jobs, such as running wastewater facilities and driving snowplows. "Sometimes we'll get a guy who's really good ... he gets certified and down the road, a municipality has a job offer in the newspaper and they want to pay him \$15 an hour more than what he's getting on the First Nation," Mr. Morriseau said. "All of a sudden he's packing and leaving." R.V. Anderson's 2011 report suggested ISC introduce monetary incentives "to increase operator retention and certification."

Despite the federal government's promised surge in funding to end drinking-water advisories, First Nations operators and the organizations hoping to train them say they continue to operate in a climate of austerity. AWWAO is funded by ISC and Health Canada, but treasurer Steve Laronde said the resources available for training have declined over time. He and Mr. Fortin now worry their organization's funding will be slashed next fiscal year. "We don't know where we're going to be even two years down the road," Mr. Fortin added. "I don't even know if the organization will exist."



Practical Certification Examinations for drinking water operators working in First Nations

Aboriginal Water and Wastewater Association of Ontario has partnered with the Ontario Water and Wastewater Certification Office and the Ministry of the Environment and Climate Change to deliver practical certification examinations for experienced drinking water operators working in First Nation communities. AWWAO is very excited about partnering with OWWCO and MOECC to roll out this initiative, which we hope will be a benefit to First Nation operators wishing to participate in the certification program.

Practical certification examinations provide an alternative path to certification for experienced operators who may have difficulty passing the written provincial certification exams. Through these examinations, operators will have the opportunity to demonstrate their knowledge in a one-on-one assessment at the facility where they work.

On March 2 the MOECC, OWWCO and AWWAO held a training session for the practical certification examination assessors in Toronto.

Practical certification examination assessor training session

