



Minister's Annual Report on Drinking Water 2018

Read an overview of our programs, policies and initiatives to protect drinking water in Ontario.

Minister's message

As the Minister of the Environment, Conservation and Parks, I am proud to share my first annual report on the state of Ontario's drinking water. This year's report highlights the key actions we're taking to protect our drinking water and how we'll continue to ensure it remains among the best protected in the world.

Our key actions to protect and manage our water resources are outlined in our newly released [made-in-Ontario environment plan \(https://prod-environmental-registry.s3.amazonaws.com/2018-11/EnvironmentPlan.pdf\)](https://prod-environmental-registry.s3.amazonaws.com/2018-11/EnvironmentPlan.pdf) to help protect and conserve our air, land and water, address urban litter and waste, increase our resilience to climate change and help all of us do our part to reduce greenhouse gas emissions.

In Ontario, our water is protected by strict health-based drinking water standards, comprehensive legislation and strong monitoring, reporting and enforcement that ensure the quality, safety and quantity of our drinking water is held to the highest standard. I'm proud to share that in the last year, 99.8 per cent of more than 518,000 test results from municipal residential drinking water systems met Ontario's strict drinking water quality standards.

At the same time, we know that there is room for improvement and we know that there are challenges ahead.

Water resources in Ontario face many pressures, including population growth, rapid development, aging infrastructure and invasive species. The changing climate is compounding the situation, with droughts and floods, extreme storms and declining ice cover causing shoreline erosion, warmer water and harmful algae. Litter, plastics and micro-plastics found in the Great Lakes and inland waterways are a growing problem.

Our Great Lakes, inland waterways and groundwater are the foundation of Ontario's economic prosperity and wellbeing – supplying water to our communities, sustaining traditional activities of Indigenous peoples, supporting Ontario's economy, and providing healthy ecosystems for recreation and tourism.

That's why we're working together with partners, stakeholders and communities to conserve and manage our water and water resources.

For example, we are implementing the Lake Simcoe Protection Plan to reduce excessive phosphorus that can cause toxic blue-green algae, and target new and emerging stressors. We are also supporting the Muskoka Watershed Conservation and Management Initiative to identify risks and issues facing this watershed and contribute to the development of a broader approach on watershed management.

We are proposing to extend the moratorium on new and increasing permits to take groundwater to produce bottled water. This will allow enough time to complete the review of policies, programs and science to ensure they protect vital water resources while keeping Ontario open for business. We're also continuing to work with the federal government and other provinces and territories to manage plastic waste and pollution of our water sources in a way that's good both for the economy and environment.

While the federal government and First Nations share primary responsibility for ensuring there is safe drinking water on First Nation reserves, the province is continuing to provide support to Indigenous communities and

organizations to help address their local challenges, when asked.

Thanks to local source protection committees and conservation authorities Ontario has source protection plans being implemented across 38 watershed based areas. These locally developed plans identify and protect areas where drinking water is vulnerable to contamination and depletion.

Working together, we can help protect water resources. Through our environment plan, we're collaborating with Ontarians, our partners and stakeholders to tackle tough challenges and make real, tangible progress toward ensuring water use and water security for future generations.

Sincerely,

The Honourable Rod Phillips
Minister of the Environment, Conservation and Parks

Ontario's drinking water standards

Ontario has [150 strict, health-based drinking water standards \(https://www.ontario.ca/laws/regulation/030169?search=e+laws\)](https://www.ontario.ca/laws/regulation/030169?search=e+laws) that help ensure high quality drinking water is delivered from source to consumer. These standards help protect Ontarians from bacteria, chemicals and radiation and ensure our drinking water is safe and reliable.

Drinking water science is constantly evolving so it is important that Ontario's drinking water standards reflect the best scientific findings and advice available. Ontario works with [Health Canada \(https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/water-quality.html\)](https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/water-quality.html) to ensure that its drinking water protection framework is effective, our drinking water is safe, and we base changes to standards on evidence, research and in consultation with the [Ontario Advisory Council on Drinking Water Quality and Testing Standards \(http://www.odwac.gov.on.ca/\)](http://www.odwac.gov.on.ca/).

In 2018, there was one revision to Ontario's drinking water standards which updated the standard for arsenic from 0.025 mg/L to a more stringent value of 0.010 mg/L. The ministry provided a two year phase-in period for this amendment, which came into effect on January 1, 2018, to provide drinking water system owners with enough time to make any system upgrades to address the updated standard.

More information about this amendment is available on the [Environmental Registry \(http://www.ebr.gov.on.ca/ERS-WEB-External/displaynoticecontent.do?noticeId=MTI1MDg0&statusId=MTkxMzU2&language=en\)](http://www.ebr.gov.on.ca/ERS-WEB-External/displaynoticecontent.do?noticeId=MTI1MDg0&statusId=MTkxMzU2&language=en).

Emerging Issues

The province tracks issues that may affect water quality to ensure our evidence-based standards are effective. The province is working hard to address emerging issues, including blue-green algae, the impacts of climate change and the presence of plastics in water. The province monitors these issues and assesses how they may have an impact on drinking water so we can plan and take the correct protective action.

Blue-green algae

Ontarians across the province are frustrated by algae that fouls our waterfront and can affect the quality of the water we drink.

Blue-green algae, also called cyanobacteria, occur in a wide variety of environments including lakes, ponds and rivers. When conditions are conducive, blue-green algae can increase to form a large mass or scum in the water

called a bloom. These blooms can produce toxins that may be harmful to people and wildlife. Blue-green algae thrives where there is calm water, warm temperatures, and available nutrients such as nitrogen and phosphorus.

The amount of blue-green algae reported in Ontario has increased over the last year. As of November 9, 2018, there were 66 confirmed reports of blue-green algae compared to 54 in 2017.

Ontario has a comprehensive protocol in place for responding to harmful algae. This protocol ensures collaboration with [local health units](http://www.health.gov.on.ca/en/common/system/services/phu/locations.aspx) (<http://www.health.gov.on.ca/en/common/system/services/phu/locations.aspx>) and local medical officers of health to manage incidents, including quick screening of algae samples to identify potential toxins.

In 2018, we used new technology to detect algae in surface water samples at a rate faster than before. This technology takes pictures of microscopic particles in water samples at a rapid rate, allowing us to measure thousands of particles in minutes.

In addition to the work done by [public health units](http://www.health.gov.on.ca/en/common/system/services/phu/locations.aspx) (<http://www.health.gov.on.ca/en/common/system/services/phu/locations.aspx>) to screen for blooms and toxins, Ontario responds to public questions and reported sightings of algae. If you think you see blue-green algae, stay out of the water (that includes your pets and livestock) and call the [Spills Action Centre](https://www.ontario.ca/page/report-pollution-and-spills) (<https://www.ontario.ca/page/report-pollution-and-spills>) (1-800-268-6060) and your [local public health unit](http://www.health.gov.on.ca/en/common/system/services/phu/locations.aspx) (<http://www.health.gov.on.ca/en/common/system/services/phu/locations.aspx>).

Find [more information](https://www.ontario.ca/page/ministers-annual-report-drinking-water-2018#section-6) (<https://www.ontario.ca/page/ministers-annual-report-drinking-water-2018#section-6>) below about our actions to address blue-green algae.

Resilience to climate impacts

While naturally occurring blue-green algae can be harmful there are additional risks to our water resources associated with climate change.

Our government's [environment plan](https://prod-environmental-registry.s3.amazonaws.com/2018-11/EnvironmentPlan.pdf) (<https://prod-environmental-registry.s3.amazonaws.com/2018-11/EnvironmentPlan.pdf>) includes more information on how we're working to reduce harmful algae and make water more resilient to other climate impacts.

Plastics

Concentrations of various sizes plastic have been found to be particularly high near-shore around densely populated areas in the Great Lakes, and there is increasing public and scientific concern. Plastic pollution (food packaging, cigarette butts, plastic bags and plastic bottles) can break down into "micro-plastics". Micro-plastics are pieces of plastic ranging in size from 100 nanometres (or a tenth of the width of a human hair) to 5 millimetres (length of a red ant). Micro-plastics can come in the form of fragments, microbeads, line/fibres, foam, film and production pellets. In addition to the breakdown of litter, micro-plastics may come from personal care products, clothing fibers and building materials.

Monitoring and collaborative research in Lake Ontario and Lake Erie have found a variety of micro-plastics in lakes, streams, wastewater, sand and fish.

In 2017 the province began collaborating with academic partners to examine sources of micro-plastics in Lake Simcoe and Lake Ontario to examine how micro-plastics may affect the safety of fish that people eat. We expect to complete the study by 2020 and it will contribute to better management of micro-plastics in freshwater to protect fish and human health.

The ministry is following Health Canada's initiatives on micro-plastics in the environment and will monitor research aimed at methods to analyze micro-plastics in drinking water as well as the effectiveness of treatment

methods to remove micro-plastics in drinking water systems. Although the understanding of the human health impacts of exposure to micro-plastics via food and water is in its early stages, the ministry is following the work of agencies such as the World Health Organization and research reports in academic journals aimed at improving our understanding of micro-plastics.

Through the [environment plan \(https://prod-environmental-registry.s3.amazonaws.com/2018-11/EnvironmentPlan.pdf\)](https://prod-environmental-registry.s3.amazonaws.com/2018-11/EnvironmentPlan.pdf), our government is committed to reduce plastic waste in Ontario. We will work with other provinces, territories and the federal government to develop a plastics strategy to reduce plastic waste and limit micro-plastics that can end up in our lakes and rivers. We will seek federal commitment to implement national standards to address recyclability and labelling for plastic products and packaging, to improve recycling and to reduce costs of recycling in Ontario. We will also work to ensure the Great Lakes and other inland waters are included in national and international agreements, charters and strategies that deal with plastic waste and have implications for Ontario.

Key findings from the Chief Drinking Water Inspector's Annual Report 2017-2018

Ontario's Chief Drinking Water Inspector reports annually on the performance of Ontario's regulated drinking water systems. Data associated with the [2017-2018 Chief Drinking Water Inspector's report \(https://www.ontario.ca/page/2017-2018-chief-drinking-water-inspector-annual-report\)](https://www.ontario.ca/page/2017-2018-chief-drinking-water-inspector-annual-report) is available on Ontario's [Data Catalogue \(https://www.ontario.ca/data/drinking-water-quality-and-enforcement\)](https://www.ontario.ca/data/drinking-water-quality-and-enforcement).

This year's results show that Ontario's drinking water continues to be among the best protected in the world.

Municipal and laboratory results

More than 80 per cent of Ontario residents get drinking water from the city or town they live in through a municipal residential drinking water system. These systems are inspected each year to make sure they are following Ontario drinking water regulations. All laboratories licensed by the province to perform drinking water testing are inspected twice annually. These laboratories must send the province all drinking water test results for which they are licensed.

Test and inspection results for 2017-18 show that Ontario's municipal residential drinking water systems and licensed laboratories follow the rules to protect people's health.

- Drinking water supplied by municipalities was tested over 518,000 times and 99.8 per cent of tests met Ontario's drinking water quality standards.
- All municipal drinking water systems were inspected once and laboratories that test drinking water were inspected twice.
- Seventy-five per cent of municipal systems scored 100 per cent on their inspection.
- Sixty-six per cent of laboratory inspections scored 100 per cent.

Compliance and enforcement activities

Inspectors help make sure the regulated community follows Ontario's drinking water laws. Where that is not the case, they may issue orders to ensure compliance with the applicable legislation.

- Nine orders were issued to owners and operators of private systems that supply water to residences such as trailer parks. As an example, one of these orders directed the owner of a trailer park to hire a qualified person to run the system.
- Four orders were issued to systems serving four designated facilities. A designated facility serves people who can be especially vulnerable to illness, such as children or the elderly.
- Five orders were issued to four licensed laboratories.

Charges were laid for more serious violations:

- Eight systems that supply drinking water to residences such as trailer parks and retirement homes and two drinking water testing laboratories were convicted and fined for a total of \$314,500.

Lead testing

Ontario has the most stringent testing regime in the entire country and is the only province that requires lead testing in drinking water from all schools and child care centres.

Work has been done over decades to reduce children's exposure to lead, however, lead enters water through contact with plumbing that contains lead or was constructed using lead solder. Ongoing diligence is required to protect the health of the children who attend these facilities.

On July 1, 2017, the province made changes to the [regulation \(https://www.ontario.ca/laws/regulation/070243\)](https://www.ontario.ca/laws/regulation/070243) that help better protect children from lead in drinking water by expanding testing requirements. Every tap or fountain used for drinking water or to prepare food or drink for children in schools and child care centres must be tested for lead.

The test results from drinking water samples show that the vast majority of schools and child care centres do not have issues with lead in their drinking water. Nearly 96 per cent of more than 87,000 test results in 2017-18 met Ontario's standard for lead in drinking water at schools and child care centres. Test results improved when water was flushed through the pipes before the sample was taken. Over 97 per cent of flushed samples met Ontario's standard for lead. The fact that fewer flushed test results exceeded the standard than standing test results is consistent with previous years and demonstrates that flushing works.

Actions to protect water sources

Ontario's lakes, rivers, streams and groundwater are drinking water sources. Protecting these water sources helps preserve drinking water and the environment for future generations.

Ontario has a comprehensive drinking water source protection program to protect these water sources. There are source water protection plans for nearly 450 municipal drinking water systems that cover an area where 95 per cent of Ontario's population live. Source protection plans contain locally developed policies to help protect sources of municipal drinking water.

Eighteen source protection regions have reached the stage where they provide an annual report on their progress. All source protection regions are moving forward with implementation of their local plans to protect drinking water sources. Municipalities updated their official plans to show where drinking water areas that need protection are located. On average, 89 per cent of policies that address significant risks are being implemented or are completed.

Our government's [environment plan \(https://prod-environmental-registry.s3.amazonaws.com/2018-11/EnvironmentPlan.pdf\)](https://prod-environmental-registry.s3.amazonaws.com/2018-11/EnvironmentPlan.pdf) commits to ensuring the knowledge gained through the drinking water source protection program helps inform our water management programs.

Find more information on [local source protection plans \(https://www.ontario.ca/page/source-protection\)](https://www.ontario.ca/page/source-protection) and their associated annual reports.

Updates to regulations

A new regulation and changes to a regulation came into effect on July 1, 2018 that improve the protection of drinking water sources and reduce burden.

The new [regulation \(https://www.ontario.ca/laws/regulation/180205\)](https://www.ontario.ca/laws/regulation/180205) helps ensure sources of drinking water for new or expanding municipal drinking water systems are protected before treated water is provided to the public.

Complimentary amendments were also made to another [regulation \(https://www.ontario.ca/laws/regulation/070287\)](https://www.ontario.ca/laws/regulation/070287) to make it easier to remove areas from source protection plans if they are no longer relevant, for example when a well is decommissioned. This change ensures that landowners, businesses, municipalities and others are not required to implement policies in areas where they should not apply.

You can read [additional information \(https://ero.ontario.ca/notice/013-1839\)](https://ero.ontario.ca/notice/013-1839) about the regulatory changes.

Better access to information

In addition to regulatory changes, updates were made to the [Source Protection Information Atlas \(https://www.gisapplication.lrc.gov.on.ca/SourceWaterProtection/Index.html?viewer=SourceWaterProtection.SWPViewer&locale=en-US\)](https://www.gisapplication.lrc.gov.on.ca/SourceWaterProtection/Index.html?viewer=SourceWaterProtection.SWPViewer&locale=en-US). The atlas is an online interactive map accessible to anyone that shows if and how a property is impacted by a source protection plan. Ontarians can go online, read the annual report for their source protection region and know how their drinking water sources are being protected. We estimate that the [atlas \(https://www.gisapplication.lrc.gov.on.ca/SourceWaterProtection/Index.html?viewer=SourceWaterProtection.SWPViewer&locale=en-US\)](https://www.gisapplication.lrc.gov.on.ca/SourceWaterProtection/Index.html?viewer=SourceWaterProtection.SWPViewer&locale=en-US) will save taxpayers \$2.4 million a year versus doing a paper search for the same information.

Actions to protect the Great Lakes and inland waters, including Lake Simcoe

Building on previous successes, our government will continue efforts to protect water quality and ecosystems of the Great Lakes. This includes keeping coastlines and beaches clean, protecting native species and safeguarding against invasive species such as Asian carp or Phragmites, and reducing harmful algae by continuing partnerships and negotiations with the federal government under agreements and plans such as the Canada-Ontario Great Lakes Agreement (COA) and the Canada-Ontario Lake Erie Action Plan. Since signing the eighth COA in 2014, Ontario has directly invested \$15.3 million per year in programs.

Our government's environment plan commits us to review and update Ontario's Great Lakes Strategy to continue to protect fish, parks, beaches, coastal wetlands and water by reducing plastic litter, excess algae and contaminants along our shorelines, and reducing salt entering waterways to protect our aquatic ecosystems.

We will also work with municipalities and other partners to increase transparency through real-time monitoring of the sewage overflows from municipal wastewater systems, which too often flow into Ontario's lakes and rivers. We must step up efforts to ensure the public is aware and that proper monitoring occurs.

As part of the implementation of the [Lake Simcoe Protection Plan \(https://www.ontario.ca/page/lake-simcoe-protection-plan\)](https://www.ontario.ca/page/lake-simcoe-protection-plan), the Ontario government funded academic research to better understand how groundwater can impact surface water in Lake Simcoe. Researchers mapped and identified key areas where groundwater flowed into and out of the lake. They found evidence to suggest that sand, and water trapped within it, can hold onto E.coli and then transfer the bacteria to surface water and affect water quality.

In addition to this research, the province supported work to reduce the amount of road salt entering Lake Simcoe from melting ice and snow. The province provided funding for the [Smart About Salt Council \(http://www.smartaboutsalt.com/\)](http://www.smartaboutsalt.com/) to train industrial, commercial and institutional property owners to use less road salt. The [Smart About Salt Council \(http://www.smartaboutsalt.com/\)](http://www.smartaboutsalt.com/) also developed an online training program to reach more property owners, and did further follow up to ensure the skills learned are being used.

In addition, our government's [environment plan \(https://prod-environmental-registry.s3.amazonaws.com/2018-11/EnvironmentPlan.pdf\)](https://prod-environmental-registry.s3.amazonaws.com/2018-11/EnvironmentPlan.pdf) commits to building on the ministry's monitoring and drinking water source water protection activities to ensure that environmental impacts from road salt use are minimized. We will work with municipalities, conservation authorities and other partners to promote best management practices, certification and road salt alternatives.

Excess phosphorus has long been known to put significant stress on the water quality of Lake Simcoe. It has led to lower levels of oxygen in the lake that is essential for coldwater fish such as lake trout and lake whitefish.

The government will continue to implement the Lake Simcoe Protection Plan to protect and restore important natural areas and features of the lake, and initiate review of the plan before June 2019.

Actions to address blue-green algae

Phosphorus is a key contributor to blue-green algae, which can impact water quality and threaten drinking water and people's health. Phosphorus enters our waterways from many sources, including runoff from agricultural lands, urban centres, sewage treatment plants and septic systems. Actions by the agricultural sector, municipalities and conservation authorities are helping to reduce phosphorus loadings and potential impacts from algae on our drinking and recreational waters.

In particular, the Great Lakes, including Lake Erie, are vitally important for our drinking water, quality of life and prosperity. We are working to restore them so that we can continue to enjoy their benefits for this and future generations. The action plan to reduce phosphorus loadings to Lake Erie released by Canada and Ontario in February 2018 identifies more than 120 federal, provincial and partner actions using mandatory and voluntary approaches, to help achieve the goal of reducing phosphorus entering Lake Erie by 40 per cent.

Actions in the [Canada-Ontario Lake Erie Action Plan \(https://www.ontario.ca/page/canada-ontario-lake-erie-action-plan\)](https://www.ontario.ca/page/canada-ontario-lake-erie-action-plan) include encouraging effective techniques to keep phosphorus on farmland and out of the waterways, improving wetland conservation, and upgrading municipal wastewater treatment and collection systems. The action plan will be reviewed and revised as needed over time to ensure continued progress towards achievement of targets.

The area around Lake Erie has the largest concentration of commercial greenhouses in all of North America, with nearly 2,000 acres of greenhouse vegetable production in the region. This enormous agricultural success increases the need to manage phosphorus to preserve the Lake Erie watershed and economy.

Ontario is supporting best management practices and a whole-farm approach to reduce phosphorus entering bodies of water. In 2018, the province worked with greenhouse growers to encourage nutrient recycling and reduce phosphorus going into major lakes, with a priority on the Leamington and Thames River areas.

Nutrient recycling involves collecting unused fertilizer and water and re-applying it to plants so that it is absorbed and does not enter waterways. The province is working with greenhouse growers to apply this recycling principle to their businesses, helping them meet regulatory requirements while saving money on fertilizers.

To further ensure regulatory compliance and help reduce phosphorus discharges into bodies of water, the Ontario government conducted inspections of greenhouse facilities. The province is using a risk-based approach to inspections, and addresses non-compliance that is identified during an inspection. Over 383 inspections have occurred since 2010.

Beyond inspections, the province implemented a compliance strategy to inform growers of the requirement to obtain approval from the ministry to discharge wastewater. These approvals help prevent excess wastewater, including phosphorus, from discharging into the lake. By the end of August 2018, the province received 182,

and approved 136 Environmental Compliance Approval applications for greenhouse stormwater management facilities.

Education is also an effective way to encourage compliance. The province continued to provide factsheets and postcards at greenhouse grower conferences to help inform growers of their regulatory obligations and direct them to information on how to reduce the impact of their greenhouses on local watersheds.

Conservation authorities and the [Ontario Ministry of Agriculture, Food and Rural Affairs](http://www.omafra.gov.on.ca/english/) (<http://www.omafra.gov.on.ca/english/>) also assisted by providing water sampling, on-farm technical assistance and funding for growers to apply best management practices and reduce soil and nutrient loss.

Our scientists monitored water quality as part of the [Great Lakes Surveillance Program](https://www.ec.gc.ca/scitech/default.asp?lang=en&n=3F61CB56-) (<https://www.ec.gc.ca/scitech/default.asp?lang=en&n=3F61CB56->), sharing water quality data and observations with local municipalities, water treatment plant operators, health units and conservation authorities. This water sampling helps identify water quality trends, such as potential blue-green algae, emerging issues, and where there may be non-compliance by growers in the area.

Ontario also works with municipalities, local medical officers of health and other partners to respond to blue-green algae in the Great Lakes and other drinking water sources. As part of that collaboration, municipal drinking water systems conduct rigorous, proactive and frequent monitoring of raw water to help ensure early detection. A procedure is also in place to respond to surface water blooms.

Read more in [our environment plan](https://prod-environmental-registry.s3.amazonaws.com/2018-11/EnvironmentPlan.pdf) (<https://prod-environmental-registry.s3.amazonaws.com/2018-11/EnvironmentPlan.pdf>) about how we're working to improve the management of wastewater and storm water and reduce blue-green algae.

Further actions to support watershed management

In addition to our work to address blue-green algae in the Great Lakes and inland lakes, the province moved forward on its broader support for watersheds throughout Ontario.

In February 2018, draft watershed planning guidance was posted to the [Environmental Registry](http://www.ebr.gov.on.ca/ERS-WEB-External/displaynoticecontent.do?noticeId=MTMzOTI3&statusId=MjAzNzEw&language=en) (<http://www.ebr.gov.on.ca/ERS-WEB-External/displaynoticecontent.do?noticeId=MTMzOTI3&statusId=MjAzNzEw&language=en>). It provides direction to municipalities and other planning authorities about watershed and subwatershed planning to inform land use planning and infrastructure decision making.

Ontario is also investing \$5 million in a [Watershed Conservation and Management Initiative](https://news.ontario.ca/ene/en/2018/8/ontario-helping-protect-the-muskoka-watershed.html) (<https://news.ontario.ca/ene/en/2018/8/ontario-helping-protect-the-muskoka-watershed.html>) to better identify risks and issues facing the Muskoka Region. This initiative allows the community and province to work together to protect this area as a vibrant hub of Ontario's tourism industry. In addition, the government will match tax-deductible donations from people and businesses to the Muskoka initiative, and any funding from other levels of government, up to a total of another \$5 million.

Effective watershed management is important to the people in our communities, especially at times when watersheds are facing stresses such as increased development and flooding caused by severe weather events.

This initiative will also help us develop a more comprehensive approach to watershed management, which can inform current actions and future development.

Actions for First Nation communities

Ontarians often see clean drinking water as an integral part of living in our province. However, many people in First Nation communities do not have the benefit of safe drinking water and instead live with long-term drinking

water advisories.

The federal government and First Nations share primary responsibility for ensuring there is safe drinking water on First Nation reserves. When asked, Ontario provides its expertise to support safe, sustainable water infrastructure in these communities.

The province continues to work with First Nation communities to provide technical advice and help resolve long-term drinking water advisories. As of November 2018, there were 46 long-term drinking water advisories impacting 25 First Nation communities in Ontario and progress is being made on advisories still in effect.

The province collaborated with Political-Territorial Organizations, Tribal Councils and their member communities to assess existing water infrastructure against Ontario standards and support the development of long-term community water infrastructure plans.

As of November 2018, we completed 47 water and six wastewater assessments.

The province worked with Tribal Councils to develop strategies for sustainable operations and maintenance to help First Nation communities identify what they need to operate and maintain their drinking water system.

When people have suffered for a long time without safe drinking water they can lose confidence that water from the tap is safe to use. We've worked on a strategy to promote awareness of, and confidence in new community drinking water infrastructure so that once people have access to clean drinking water they will use it.

The [Walkerton Clean Water Centre \(https://www.wcwc.ca/en/training/first-nations-zone/\)](https://www.wcwc.ca/en/training/first-nations-zone/) also helped by working with First Nation partners to develop training programs for drinking water operators in First Nation communities, managers, and community leaders.

Forty-six people completed an entry-level course for operators of First Nation drinking water systems since November 2017. The course is the first step to becoming certified as a drinking water operator. We developed a practical, on-site exam option for the entry-level course with the [Aboriginal Water and Wastewater Association of Ontario \(http://www.awwao.org/\)](http://www.awwao.org/). It is now available for operators who may not be able to leave their community.

With support from the province and the government of Canada, the [Ontario First Nations Technical Services Corporation \(http://ofntsc.org/\)](http://ofntsc.org/) piloted a training program with 16 First Nation communities to support the development of source water protection plans on reserve.

Conclusion

All Ontarians, from First Nation communities to large urban municipalities, expect and deserve safe drinking water. Protecting drinking water not only protects people's health, it also supports Ontario businesses that depend on a healthy environment to succeed, and is helping foster made-in-Ontario innovation.

Working together, we can help conserve and manage our water resources. Protecting the environment is a responsibility of all of us who call Ontario home. We will continue to work in partnership with other provinces, neighbouring jurisdictions, the federal government, municipalities, Indigenous communities, business and local partners to help protect our environment and ensure we pass on a cleaner environment to future generations.

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