Canadian Environmental Law Association
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‘F’ for Effort: Ontario is falling behind on getting lead out of school drinking water

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Executive Summary

The Canadian Environmental Law Association (CELA) is calling on the province of Ontario to stop allowing children to be exposed to dangerous amounts of lead in school drinking water.

Lead has long been a known health hazard, but updated research shows that it is even more dangerous than previously thought. No amount of lead exposure is safe, and it can be particularly harmful to children's health.

In response to this new knowledge, the federal government and the majority of provinces and territories have changed course on how they approach the issue — shifting from a focus on limiting lead exposure to preventing it altogether.

Since 2019, all but two provinces and territories have adopted Health Canada's strengthened limit on lead in water of 5 parts-per-billion (ppb). Only Ontario and Saskatchewan allow levels to climb to the outdated 10ppb limit before acting.

Some regions have gone even further to protect children's health by seeking to identify and eliminate sources of lead in school drinking water. Transparent and detailed reporting from Quebec, which has emerged as a national leader in getting lead out of school drinking water, demonstrates how policies informed by modern research can be extremely effective in keeping lead exposure in school as low as possible.

Ontario, however, is stuck in the past.

This report shows that despite being one of the first provinces and territories to regulate lead in school drinking water back in 2007, Ontario students are still being exposed to lead today.

Ontario's nearly 20-year-old approach to addressing lead in school drinking water instructs schools to only act when lead exceeds the outdated 10ppb limit. A product of its time, the regulation also allows schools to use mitigation methods that only temporarily reduce lead exposure instead of working towards eliminating it.

No amount of lead exposure is safe and Ontario must update their approach to monitoring, responding to, and communicating about school water quality in a way that reflects the true risk to children's health, including:

1. **Recognize that no amount of lead is safe:** Strengthen the action threshold for lead in school drinking water from 10ppb to 5ppb;
2. **Get the lead out:** Respond to lead exceedances with solutions that will eliminate exposure instead of relying on ones that will only temporarily reduce it;
3. **Share vital information:** Provide accessible data about the state of school drinking water quality and the province's progress towards lead-free schools.

Lead Exposure and Children's Health

Lead is a toxic heavy metal that was commonly used in pipes prior to 1975, and plumbing solder and fixtures until the 1990s.[1] While lead has long been known to be hazardous to health, updated research shows that it is even more dangerous than previously known.

No amount of lead is safe and even low levels of exposure are linked to potentially life-altering impacts on children's brain development, including:

- Decreased IQ
- Decreased attention span
- Motor skill weaknesses
- Behavioural problems[1]

In response to this new understanding of the harms of lead, the government of Canada released updated guidance in 2019 recommending that lead levels in water be kept as low as possible and strengthening the recommended maximum acceptable concentration of lead from 10ppb to 5ppb.[1] Seven years later, Ontario is one of only two provinces and territories that have not adopted the 5ppb standard.[2-3]

This means that in too many of the institutions that are meant to equip the next generation with the knowledge and skills they need to succeed, Ontario's current laws and regulations allow children to drink water that could impair their ability to do so.

Lead Testing in Ontario Schools

In 2007, Ontario introduced O. Reg. 243/07, which required schools to test for, respond to, and report on lead levels in drinking water. Nearly 20 years later, Ontario students continue to be exposed to dangerous amounts of lead and the scope of the problem is likely being underreported.

At the time that O. Reg. 243/07 was developed, it was believed that consuming some water that contained at or below the limit of 10ppb of lead was not an "undue risk to health."[4] Based on this understanding, schools can be exempt from annual testing if their results are consistently below 10ppb.[5]

Despite the fact that the province has since internally recognized that there is no "safe" level of lead,[6] no action has been taken to rescind exemptions based on lead levels that are now understood to be harmful to health. This means that schools where the water would be considered unsafe to drink in most of the country are allowed to test as few as one tap every three years for lead.[5]

Each year, the province of Ontario releases school lead testing data to the public, but due to testing exemptions the results are likely an underrepresentation of the true scope of the problem.

The following rankings show which school boards and schools reported the highest number of lead tests that exceeded the Ontario 10ppb limit for lead and Health Canada's recommended limit of 5ppb.

School Board Ranking by # of Tests over 10ppb in 2024/25[7]

RANK*	SCHOOL BOARD	EXCEEDANCES	
		Over 10ppb	Over 5ppb
1	Ottawa Carleton District School Board	**104**	156
2	Dufferin Peel Catholic District School Board	**40**	85
3	Toronto District School Board	**30**	53
4	Peel District School Board	**23**	46
5	Grand Erie District School Board	**23**	45
6	Ottawa Catholic School Board	**22**	47
7	Conseil Scolaire de District Catholique des Aurores Boréales	**19**	24
8	Upper Canada District School Board	**19**	41
9	Durham District School Board	**15**	34
10	Hastings and Prince Edward District School Board	**15**	32

School Ranking by # of Tests over 10ppb in 2024/25[7]

RANK*	SCHOOL NAME	SCHOOL BOARD	EXCEEDANCES Over 10ppb	Over 5ppb
1	Beaver River Public School	Durham District School Board	**15**	33
2	Val Des Bois	Conseil Scolaire de District Catholique des Aurores Boréales	**12**	14
3	Orleans Wood ES	Ottawa Carleton District School Board	**8**	8
4	Fallingbrook Community ES	Ottawa Carleton District School Board	**8**	9
5	Major Ballachey Publlic School	Grand Erie District School Board	**8**	13
6	St. Francis of Assisi Sep S	Dufferin Peel Catholic District School Board	**7**	9
7	Easthill Elementary School	Hastings and Prince Edward District School Board	**7**	15
8	Sherwood Secondary School	Hamilton-Wentworth District School Board	**6**	11
9	Manor Park Public School	Ottawa Carleton District School Board	**5**	6
10	St. Kevin Sep S	Dufferin Peel Catholic District School Board	**5**	10

*Ranking inclusive of all public school boards, public school authorities, and the provincially-run Provincial and Demonstration Schools Branch, accounting for 83 individual boards/authorities. In places where the same number of tests over 10ppb were recorded, rank was determined based on test results and vulnerability of school population.

Total # exceedances may include multiple tests from the same tap and is inclusive of tests over, but not equal to, the respective limit as-per provincial testing methodology.

Time to Modernize Ontario School Drinking Water Protections

When Ontario introduced O. Reg 243/07, the province was a national leader in school water safety. Today, Ontario's failure to keep up with scientific knowledge has put us at the bottom of the class.

Since 2019, all but two provinces and territories have heeded Health Canada's guidance on the true dangers of lead and adopted the 5ppb limit. Some jurisdictions have gone even further to protect children's health by implementing evidence-informed policies that have been successful in working towards the goal of eliminating lead exposure in schools. It is time for Ontario to do the same.

No amount of lead exposure is safe, and Ontario must update their approach to monitoring, responding to, and communicating about school water quality in a way that reflects the true risk to children's health, including:

1. **Recognize that no amount of lead is safe:** Strengthen the action threshold for lead in school drinking water from 10ppb to 5ppb;
2. **Get the lead out:** Respond to lead exceedances with solutions that will eliminate exposure instead of relying on ones that will only temporarily reduce it;
3. **Share vital information:** Provide accessible data about the state of school drinking water quality and the province's progress towards lead-free schools.

1. Recognize that no amount of lead is safe

In 2007, it was believed that consuming water that contained at or below 10ppb of lead was not a significant health risk,[4] but today, research shows that there is no safe dose of lead, especially for children.[1] Ontario's regulations concerning lead in school drinking water must be changed to reflect this, starting with reducing our action threshold for lead from 10ppb to 5ppb.

Ontario should emulate the actions of other provinces and territories that have responded to new knowledge about the harms of lead with decisive action.

Health Canada's guidance was issued in March 2019, and by October of the same year Quebec became the first to adopt the 5ppb lead limit as part of a larger province-wide push to reduce children's exposure to lead.[8]

The province instructed schools to test all taps and fountains within the span of approximately 12 months, and new guidance was created about how to respond to lead exceedances when they were found.[9] Additionally, an inventory of all school drinking water fixtures was created in order to facilitate annual reporting on the number of taps and fountains that were not in compliance with the 5ppb standard for lead.[9]

In the interim, all untested fixtures could only be used after "flushing" before each use, wherein the tap is run for a certain amount of time to rid the system of water that could have been sitting in contact with lead plumbing.[9] In some cases, entire schools used bottled water until testing could be completed and effective solutions applied.[10]

Quebec's strong response is in stark contrast to Ontario, where, despite the fact that internal documents from the Ministry of Environment, Conservation and Parks say there is no "safe" level of lead exposure, no action has been taken to modernize O. Reg. 243/07 to reflect this.**

Ontario's lack of transparency around if or why no decision has been made on adopting the 5ppb limit on lead was critiqued by the Auditor General in March of 2025.[11] To date, no further information has been provided, even following a direct request for information by provincial policy makers.[12]

New knowledge about the true risk of lead exposure raises serious questions about if Ontario is doing enough to protect children in public schools. It is past time for Ontario to modernize O. Reg. 243/07 in a way that recognizes the true risk of lead exposure, and this must include adopting the 5ppb limit on lead in school drinking water.

2. Prevent Lead Exposure

In order to respond appropriately to the knowledge that no amount of lead exposure is safe, Ontario must modernize O. Reg. 243/07 in a way that prioritizes the elimination of lead sources.

Lead levels are often highest after water has been in contact with lead plumbing for an extended period of time. Instead of responding to this issue by prioritizing the replacement of lead infrastructure or installing filters to protect against lead exposure, O. Reg. 243/07 relies heavily on flushing, wherein the water is run through the entire plumbing system and at individual taps and fountains. The goal of this is to remove water that may have been in contact with lead plumbing for a prolonged period of time.

**Changes to O. Reg. 243/07 have been made since it was introduced in 2007, but do not address 2019 guidance from the federal government.

CELA's analysis of school water records suggests that the first and often only response when water fixtures exceed 10ppb of lead is to increase the flushing time at that specific tap or fountain.[13]

The problem with Ontario's reliance on flushing is twofold: it is ineffective in the short-term and has no impact on eliminating lead exposure in the long-term.

While flushing can reduce lead concentration for a short time, research shows that lead can return to dangerous levels just minutes or hours afterwards.[14-15] Flushing requirements can also last for as few as 24 months, at which time the fixture is returned to regular use without any permanent solution in place or even a follow-up test to assess the water quality.[16]

Lead Testing Need to Know

When testing a water fixture for lead, it is common for two samples to be taken:

Standing Sample: Water is collected after it has sat unused for an extended period of time, often a minimum of 6 hours. This test is meant to mimic what the water quality would be like if someone drank from a tap first thing in the morning.

Flushed Sample: This sample is collected after water has been run through the tap for a certain amount of time. This sample can represent the presence of lead in the plumbing system, as opposed to in fountain or tap components themselves.

Reliance on flushing is not consistent with the knowledge that no amount of lead is safe, and examples of how this plays out in Ontario schools paint a concerning picture, showing that compliance with O. Reg. 243/07 does not necessarily mean safety.

Case Study: Flushing failures in an Ottawa school***

When high lead levels were found at a water bottle filling station in an Ottawa elementary school, once-daily flushing was relied on to get the fixture back into compliance with O. Reg. 243/07.

This case study shows that despite evidence that flushing was ineffective at reliably reducing lead levels to below even the outdated 10ppb limit, the school was never required to take any further action.

Despite the application of O. Reg. 243/07, it is likely that young children are still being exposed to lead at this fixture today. Issues like this will continue to happen until O. Reg. 243/07 is updated to prioritize the removal of lead infrastructure and installation of filters.

Discovery of a lead exceedance:

In September of 2020, an Ottawa school tested a newly-installed water bottle filling station and found high levels of lead:

Standing Test: 136ppb
Flushed Test: 68.3ppb

Ottawa Public Health instructed the school to take the fixture out of use, flush water through it on a daily basis and conduct new tests.

The following four re-samples all exceeded the 10ppb limit on lead in drinking water, but it should be noted that these results could have been impacted by infrequent use of the entire plumbing system during school closures for the COVID-19 pandemic.

Filling Station Returned to Use:

In February of 2021, Ottawa schools reopened for in-person learning. Two compliant flushed samples were collected and the fixture was returned to use:

Flushed Resample 5: 2.61ppb
Flushed Resample 6: 6.48ppb

Second Exceedance:

Despite not being required to re-test the fixture, the water bottle filling station was tested in July 2022 and again exceeded the 10ppb limit on lead in drinking water.

Standing Test: 49ppb
Flushed Test: 12ppb

The school was instructed to take the filling station out of use, continue flushing, and conduct re-tests. This is despite the fact that a flushing intervention had already been in place when the exceedance was recorded.

Filling Station Returned to Use:

The fixture was returned to use after two compliant tests were submitted in August 2022:

Flushed Resample 1: 8ppb
Flushed Resample 2: 8ppb

As of December 2025, no further testing has been done on this water bottle filling station.

What does this case study tell us?

This case study highlights some of the glaring weaknesses in Ontario's outdated approach to mitigating lead exposure in schools:

1. **Water from this fixture would be considered unsafe in almost all other provinces and territories:** Only one of the 10 rounds of testing conducted at this filling station was below the 5ppb MAC for lead. No amount of lead is safe, but O. Reg. 243/07 allows children to continue being exposed to it at this fixture

2. **No long-term intervention has been put in place:** Flushing was the only intervention used, even though it was shown to not be effective. Given that O. Reg. 243/07 allows flushing interventions to end after as little as 24 months, it is possible that this water bottle filling station has been returned to regular use with no increased daily flushing time or requirement to re-test.

3. **Community members do not know about the risks:** The school was not required to tell community members about the lead exceedances, meaning that students and staff cannot make an informed decision about using this water fixture.

***Case study supported by documents acquired through FIPPA request A-2025-08405 and in correspondence with Ottawa Public Health and the Ottawa Carleton District School Board.

The weaknesses in Ontario's lead mitigation measures is even more evident when compared to Quebec, where the required responses to a lead exceedance are informed by the principle that no amount of lead exposure is safe.

In conjunction with the province's 2019 adoption of the 5ppb standard and campaign to test all school water fixtures, an updated mitigation guide was put in place that prioritizes the replacement of lead infrastructure where possible and the installation of filters when replacement is not feasible.[9]

Under this guidance, per-use flushing (as opposed to Ontario's once-daily approach) is the lowest-tier intervention and only used in situations where the flushed sample is under 5ppb, the fixture is a necessary water source, and a more effective solution is not immediately available.[9]

Quebec does not consider per-use flushing interventions to be a long-term solution and it is instead used in only the lowest-risk scenarios until more effective measures can be taken. Annual testing of such taps or fountains is encouraged.[18]

Temporarily reducing lead exposure is not good enough. In order to make real progress on protecting children's health, Ontario should follow the example of Quebec and shift our focus to permanently eliminating the risk of lead exposure in schools.

The province must modernize the lead mitigation measures in O. Reg. 243/07 to prioritize permanent or proven-effective solutions such as the replacement of lead infrastructure and use of filtration devices.

3. Clear communication about lead in school drinking water

Ensuring that information about lead in school drinking water is accurate and accessible is an important factor in building community trust, informing healthy decision-making and keeping the province accountable. Ontario is falling behind other provinces and territories when it comes to province-wide and community-specific transparency and communication.

Despite having collected nearly 20 years-worth of data, it is not possible to determine what real progress has been made to get lead out of school drinking water in Ontario since 2007.

In Quebec, a report about drinking water testing in public and private schools is published bi-annually in an accessible format that clearly demonstrates what progress is being made. This report includes a count of how many school taps and fountains are in compliance with the 5ppb standard, which keeps communities informed and the government accountable.

Quebec's consistent reporting has demonstrated the clear success of their approach to getting lead out of school drinking water. Since completing screening of all taps and fountains in the summer of 2021, 61 per cent of non-compliant taps in public school have been corrected.[19]

In contrast, the province of Ontario's approach to communicating about lead in schools includes releasing an annual spreadsheet of raw data[7] and providing a percentage of compliant tests taken as part of the Chief Drinking Water Inspector's annual report.[20]

Providing vital information as a raw data file creates barriers to accessibility for those who do not have the time or skills to analyse it. Additionally, the test results do not show how many or which fixtures have been tested, making it impossible to determine if a large number of exceedances at one school represents many non-compliant fixtures, or multiple tests on just a few taps or fountains. School officials have said this lack of specificity can create a "misleading," picture of water quality in specific schools.[21]

At the community level, Ontario schools are not required to inform the school community when lead exceedances are found or provide information about what steps are being taken to remedy the problem.

Other provinces and territories, including British Columbia[22], Quebec[9] and the Northwest Territories[23], have communication and reporting policies in place that are proportionate to the serious health risks associated with lead exposure. In all of these regions, community members are immediately notified when a lead exceedance is discovered and information is provided about what action is being taken.

This clear communication builds trust by demonstrating shared concern for children's health and supports healthy decision-making by initiating conversations at school and home about which water fixtures should and should not be used for drinking.

Lead in school drinking water is a serious public health issue and Ontario must update how they report on it to ensure that the information is accessible, accurate and clearly demonstrates what progress is being made towards the elimination of lead in school drinking water.

Conclusion

In the nearly 20 years since Ontario began addressing the issue of lead in school drinking water, our knowledge about the dangers of lead have changed, but our laws and regulations have not.

Despite privately acknowledging that there is no known "safe" level of lead exposure, the province has failed to change the way we test for, respond to, and communicate about lead in schools to reflect this reality.

Instead, Ontario students are allowed to drink water that would be considered unsafe in the majority of the country. We fail to make progress towards removing lead from schools by relying on ineffective and temporary mitigation measures, and there is no clear or accessible data about the state of school water quality or how it has changed over time.

The majority of other provinces and territories have responded to new scientific knowledge about lead with the seriousness it deserves by adopting the 5ppb limit on lead in drinking water and decisively working to eliminate lead exposure in schools.

It is past time that Ontario emulated this behavior and modernized their approach to getting lead out of school drinking water in ways that will ensure that our students have the same level of safety and opportunity that is enjoyed by children across the country.

Calls to Action

1. **Recognize that no amount of lead is safe:** Strengthen the threshold for lead in school drinking water from 10ppb to 5ppb;
    a. Rescind testing exemptions based on the 10ppb limit.
    b. Re-test all fixtures against the 5ppb limit.

2. **Get the lead out:** Respond to lead exceedances with solutions that will eliminate exposure instead of relying on ones that will only temporarily reduce it;
    a. Once-per-use flushing of fixtures with known lead content should be the lowest-tier approach and not considered a long-term solution.
    b. Solutions to fix points of lead exposure, such as replacement of lead infrastructure, installation of filters or removal of unnecessary fixtures from use, should be prioritized.

3. **Share vital information:** Provide accessible data about the state of school drinking water quality and the province's progress towards lead-free schools.
    a. Ensure that school communities have accurate and timely information about water quality in their school and action being taken to remedy problems.
    b. Create and annually report on an inventory of all school water fixtures in order to demonstrate the scope of the problem and progress made towards a lead-free future.

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