Application for Review of Lead in Drinking Water Standard under the Environmental Bill of Rights

Submitted on behalf of Laura Tanguay, Canadian Environmental Law Association, and Justin Pulleybank, President of the Ontario Municipal Water Association.

March 28th, 2024

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SUBJECT-MATTER OF REQUESTED REVIEW

The Applicants hereby request a review of the following existing legislation and regulation:

The *Safe Drinking Water Act*, 2002, S.O. 2002, c. 32 ("*SDWA*").

Ontario Drinking Water Quality Standards, O Reg 169/03 ("O. Reg 169/03")

Subsection 61(1) of the *Environmental Bill of Rights* ("*EBR*") provides that an Application for Review may be filed where two persons resident in Ontario (Applicants) believe that existing legislation "should be amended, repealed or revoked in order to protect the environment." The *SDWA* is prescribed for the purposes of Applications for Review under Part IV of the *EBR*: see O.Reg.73/94, subsections 3(1), 6(1), 7(1), and 7(2.1) .

The purposes of the SDWA are to recognize that the people of Ontario are entitled to expect their drinking water to be safe; and, to provide for the protection of human health and the prevention of drinking-water health hazards through the control and regulation of drinking-water systems and drinking-water testing. It is in the public interest to review and revise *SDWA* and O. Reg 169/03, as the legislative and associated regulatory standard for lead in drinking water are incomplete, outdated, and inadequate to protect the environment and public health, particularly for fetuses and children. The failure to review and revise the existing legislation and regulation would lead to unnecessary risk to the health of people in Ontario.

Health Canada's 2019 federal drinking water guideline lowered the recommended Maximum Allowable Concentration for lead in drinking water to 5 µg/L, half of Ontario's current standard in O. Reg 169/03, schedule 2. The scientific literature demonstrates the deleterious effects of even very small amounts of lead and does not support a standard of 10 µg/L. Immediate revision of the SDWA and O. Reg 169/03 is necessary to ensure that Ontarians are no longer exposed to unsafe levels of lead in drinking water.

REASONS FOR REQUESTED REVIEW

As detailed above, the Applicants request that the Ministry undertake the requested review and revise the *SDWA* and *Drinking Water Quality Standards* regulation (O. Reg. 169/03) to better protect the environment and safeguard human health and safety from the risks of lead in drinking water by making the standard consistent with the Health Canada Guidelines of 5 µg/L.

Furthermore, additions to the current mechanism of ensuring safe drinking water in Ontario need to be implemented to adequately address the issue of lead in drinking water, including requirements to replace lead service lines ("LSLs") within 10 years, mapping requirements to demonstrate where LSLs are in Ontario, and generous provincially funded grant programs to supply interim measures such as filters, and to support replacement initiatives, especially for low-income owners and tenants.

(a) *The Health Hazard Caused by Lead in Ontario's Drinking Water*

> There is no safe amount of lead for human consumption. Lead exposure can cause significant harm to human health, particularly in vulnerable populations. Drinking water that contains even small amounts of lead, for any length of time, can be a health risk for consumers.[1]

The effects of lead and human health are studied based on blood lead levels (BLLs).[2] Lead exposure has been confirmed to cause reduced cognitive capabilities, increases in blood pressure and renal dysfunction in adults.[3] Children up to six years old are more sensitive to the effects of lead because they are still developing, both cognitively and physically, meaning their bodies can absorb lead at higher rates than adults.[4] High lead exposure and BLLs in children have been associated with reductions in intelligence quotients (IQ) levels and neurodevelopmental impacts.[5]

In 2019, Health Canada reduced the recommended Maximum Allowable Concentration ("MAC") for lead drinking water from 10 µg/L (expressed as a maximum concentration in milligrams per litre) to 5 µg/L.[6] However, there is no known safe level for lead.[7] Limiting lead exposure as much as is reasonably possible is the only way to protect the health of Ontario residents and the environment.

Blood lead levels in Canadians have declined over 70% in the past 40 years due to ongoing efforts to reduce lead exposure from a variety of sources.[8] Health Canada found that blood lead levels have dropped by more than 45% between 2009 and 2019 in children between the ages of 3 and 5, showing that governmental actions to reduce lead exposure to the public is leading toa healthier public.[9] However, Health Canada's findings and the scientific literature demonstrate that there are serious, ongoing impacts to human health from lead at its current levels and efforts must be made to eliminate exposure.

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[1] Health Canada. "Water Talk - Lead in drinking water", (11 October 2016), online: *Canada.ca*<https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/water-quality/water-talk-minimizing-exposure-lead-drinking-water-distribution-systems.html#s1>.

[2] Federal-Provincial-Territorial Committee on Drinking Water & Federal-Provincial-Territorial Committee on Drinking Water, 15 March 2017, Lead in Drinking Water ["Lead in Drinking Water"].

[3] Lead in Drinking Water.

[4] Flushing and sampling for lead.

[5] Lead in Drinking Water.

[6] Guidelines for Canadian Drinking Water Quality: Guideline Technical Document – Lead [Can Tech Guide].

[7] Department of Environment and Climate Change, 2022, Province of Nova Scotia [*Province of Nova Scotia*]; Can Tech Guide at 68.

[8] Ministry the Environment, Conservation and Parks. "Flushing and sampling for lead", (2023), online: *ontario.ca*<https://www.ontario.ca/page/flushing-and-sampling-lead>. ["Flushing and sampling for lead"].

[9] Flushing and sampling for lead.

(b) Current Standard in Ontario is Not Being Met

Drinking water samples from homes in Ontario have routinely exceeded the lead in drinking water standard of 10 µg/L.[10] For example, the City of Hamilton (a region with a metropolitan population of approximately 785,184) confirmed that more than 10 percent of lead samples taken from residential plumbing systems with municipal water service lines exceeded the existing standard of 10 µg/L due in large-part to LSL connections.[11] Currently, there is no interim requirement for operators of drinking water systems to ensure that the water provided to residents served by lead service lines is under the 10 µg/L standard. Ontario lacks a mandatory province-wide notification mechanism to caution potentially exposed residents. Additionally, Ontario does not currently provide provincially funded programs that support the public in protecting themselves against harmful lead concentrations in their drinking water systems.[12] Thus, much of the onus for support to persons and communities who are at risk of lead exposure falls on municipalities or individuals.

There are some municipal programs for water filters and lead tests for under-resourced residents impacted by the effects of lead in drinking water. For example, in the 2021-2022 Annual Report for Drinking Water Quality produced by the City of Thunder Bay, it was believed that there were 6,000 publicly owned and 8,5000 private lead service line connections to the City of Thunder Bay's Water Distribution system.[13] In 2022, approximately only 132 publicly owned lead service line connections were replaced, roughly 2.2% of the City's LSLs. The city council approved a water filter program at the cost of approximately $600,000.00 annually to protect populations in the interim.[14] Without statutory removal deadlines present in the *SDWA*, municipal drinking water system operators responsible for the maintenance and quality of drinking water distribution systems can continue to slowly replace LSLs or choose to focus on other drinking water issues. Although the City of Thunder Bay has introduced local programs to promote the interim health of residents impacted by lead in drinking water (such as offering loan repayment plans to replace LSL connections or providing water filter pitchers to impacted residents),[15] there is no provincial requirement for other drinking water system operators who maintain systems with exceeding lead

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[10] CELA, Blog: Get the Lead Out … It's 2022 Already" (2022) online: https://cela.ca/blog-get-the-lead-out-its-2022-already/.

[11] CELA, https://cela.ca/wp-content/uploads/2022/10/Application-for-review_MMAH.pdf;
Albertson, Dave & Susan Girt. "Getting the lead out: The City of Hamilton's Corrosion Control Program," (30 January 2023), online: *Water Canada* <https://www.watercanada.net/feature/hamilton-corrosion-control-program/#:~:text=(The%20maximum%20acceptable%20concentration%20(MAC,is%2010%20micrograms%20per%20litre>.

[12] Ontario Ministry of Environment, Conservation and Parks. "Minister's Annual report on drinking water (2022)", (2022), online: *ontario.ca* <https://www.ontario.ca/page/ministers-annual-report-drinking-water-2022>.

[13] City of Thunder Bay. "City of Thunder Bay- 2022 Annual Report Drinking Water Quality", (2022), online: *City of Thunder Bay* <https://www.thunderbay.ca/en/resourcesGeneral/inops/Environment/TB2176Water-Report-for-2022--web-Accessble.pdf> [Thunder Bay Report]

[14] Rinne, Gary. "City spends another $600K this year on water filters for homeowners", (8 February 2023), online: *TBNewsWatch.com* <https://www.tbnewswatch.com/local-news/city-spends-another-600k-this-year-on-water-filters-for-homeowners-6466028> ["Rinne- City spends another 600k"].

[15] Thunder Bay Report, *supra* note 22 at 16.

levels to adopt interim protections to mitigate risks beyond their statutory obligation to test and report the presence of lead.

This is not only an issue in Thunder Bay. In 2022 the City of Toronto, approximately 22,000 residential customers (or approximately 20% of residential units) are served through city-owned LSL connections.[16] While this number may be slightly lower today, no comprehensive replacement program has been undertaken.[17] The province should mandate municipally owned lead service lines be replaced.

As reported in a 2020 investigation led by academics and journalists, twenty-five Ontario municipalities did not know *how many* lead connections on public and private property were supplying homes, and another 16 municipalities provided estimates totalling more than 180,000 approximate consumers served by LSL connections.[18] These "estimates" illustrate the necessity of accurate mapping statistics, as municipal drinking water operators, regulatory bodies, and residents are not fully aware of the scope of the issue and the total number of households that would be impacted by LSL connections.

(c) Lowering Ontario's lead in drinking water standard to 5 µg/L

Other provinces such as British Columbia,[19] Alberta,[20] Québec,[21] Manitoba,[22] Prince Edward Island,[23] and Nova Scotia[24] have adopted the recommendation of 5 µg/L from Health Canada as legally binding standards. Ontario has not adopted these Health Canada guidelines as its provincial standard; Ontario has maintained one of the highest acceptable prescribed standards in the nation

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[16] City of Toronto. "Lead & drinking water", (27 June 2022), online: *City of Toronto* <https://www.toronto.ca/services-payments/water-environment/tap-water-in-toronto/lead-drinking-water/>.

[17] City of Toronto, "Priority Lead Water Service Replacement Program" , (undated) online: *City of Toronto* <https://www.toronto.ca/services-payments/water-environment/tap-water-in-toronto/lead-drinking-water/priority-lead-water-service-replacement-program/>.

[18] G'mez, Paz. "Municipalities must lead in getting the lead out", (5 February 2020), online: *Hamilton Spectator*<https://www.thespec.com/opinion/contributors/municipalities-must-lead-in-getting-the-lead-out/article_6691d575-66fa-57c6-9ffc-84d93089f5c9.html>.

[19] HealthLinkBC. "Lead in drinking water", (14 November 2022), online: *Lead in Drinking Water | HealthLink BC*<https://www.healthlinkbc.ca/healthlinkbc-files/lead-drinking-water#:~:text=The%20Guidelines%20for%20Canadian%20Drinking%20Water%20Quality%20set%20a%20maximum,water%20as%20low%20as%20possible>.

[20] Government of Alberta. "Drinking water safety", (2023), online: *MyHealthAlberta.ca Government of Alberta Personal Health Portal* <https://myhealth.alberta.ca/Alberta/Pages/Common-questions-about-lead-and-drinking-water.aspx>.

[21] "Regulation respecting the quality of drinking water", (2001), online: *Légis Québec*<https://www.legisquebec.gouv.qc.ca/en/document/cr/q-2,%20r.%2040>.

[22] Government of Manitoba. (2023), online: *Lead in Drinking Water* <https://www.gov.mb.ca/sd/water/drinking-water/lead/index.html#:~:text=In%20March%202019%2C%20Health%20Canada,water%20quality%20standard%20in%202020>.

[23] Government of Prince Edward Island. "Lead in drinking water", (8 February 2021), online: *Lead in Drinking Water*<https://www.princeedwardisland.ca/en/information/environment-energy-and-climate-action/lead-drinking-water>.

[24] Department of Environment and Climate Change. "Drinking water quality and treatment: Drinking water", (1 April 2009), online: *novascotia.ca* <https://novascotia.ca/nse/water/waterquality.asp>.

for lead in drinking water, being two-times higher than Heath Canada's recommendation at 10 µg/L. In a 2019 year-long investigation across 11 cities in Canada, out of 12,400 tests conducted on lead levels in drinking water supplies, one third of the tests exceeded the Health Canada standard of 5 µg/L.[25] The issue of lead in drinking water remains in schools. A 2019 report found that over 2,400 Ontario schools and daycares, where those at risk of contamination are among the most vulnerable, exceeded the federal guideline of 5 µg/L but are permitted to continue at those levels due to Ontario's less stringent 10 µg/L standard.[26]

(d) Exposure to lead in Ontario's drinking water systems from lead service lines

In Canada, one of the remaining primary sources of lead exposure are drinking water systems, particularly those drinking water systems with lead service line ("LSL") connections.[27] LSL connections are water service pipes, usually maintained by the municipality or operator of the municipal water service line, that are a part of the water main. LSL connections link private-owned plumbing systems to provincially regulated drinking water distribution systems. The presence of lead service line connections causes lead concentrations in drinking water distributed to consumers.

Lead service line connections were used in older properties throughout the province when building drinking water infrastructure, having since been phased out. The water main connects to the property line, where many government bodies maintain that replacing the property water line is the obligation of the property owner.

Health Canada recognizes that lead is mostly present in drinking water from lead-containing pipes and plumbing fixtures leaching into municipalities' drinking water systems.[28] Without mandatory requirements to replace LSL connections, there is a legislative vacuum in Ontario, without obligations on the province or local water distribution operator to secure the quality of drinking water. While many individual municipalities have introduced programs to replace LSL connections, there is no obligation that they do so and municipal programs are uneven and underfunded across the province.

Lead standards in Ontario's drinking water are currently governed through the provincially enacted *SDWA*. There are no provisions in this legislation or its regulations that set long-term goals on how the province will eliminate or lower the public's exposure to lead present in their drinking water. This means that drinking water system operators who maintain systems with LSL connections have no incentive to replace these harmful portions of functioning water systems. Without long-

[25] Cribb, Robert. "Is there lead in your tap water? Canada-wide investigation exposes dangerous levels of toxic metal", *Toronto Star* (4 November 2019), online: <https://www.thestar.com/news/investigations/2019/11/04/is-there-lead-in-your-water-canada-wide-investigation-exposes-chronic-extreme-exceedances-of-toxic-metal.html>.

[26] Russell, Andrew. "Drinking water at thousands of Ontario schools, daycares have dangerous lead levels", (11 February 2020), online: *Global News* <https://globalnews.ca/news/6107982/ontario-schools-daycares-lead-levels/>.

[27] Lead in Drinking Water.

[28] Health Canada & Health Canada, March 2019, Guidelines for Canadian Drinking Water Quality: Guideline Technical Document – Lead ["Guidelines for Canadian Drinking Water Quality: Guideline Technical Document – Lead"].

term requirements to replace faulty portions of drinking water distribution systems in the province, the public will continue to be exposed to lead and all its harmful health impacts.

PUBLIC POLICY BASIS FOR CLEAR, STRINGENT AND EFFECTIVE DIRECTION ON LEAD REDUCTION IN DRINKING WATER

According to the Government of Ontario, more than 80 percent of Ontarians rely on municipal drinking water systems.[29] However, the number of Ontarians who are served by LSL connections and who are at risk of negative health implications associated with consumption of lead is unknown due to the lack of statutory mechanisms in-place requiring notification, mapping, and mandatory replacement of LSL connections.[30] Although the Minister's annual report states that 99.9% of the over 519,000 drinking water systems met Ontario's drinking water standards related to lead (i.e. the more lenient 10 µg/L standard), it does not provide information on how many of these municipal drinking systems would pass the Health Canada guideline of 5 µg/L.[31]

Furthermore, only 97% of schools and childcare centres met the current lenient standard of 10 µg/L for lead in 2023.[32] According to studies between 2017 and 2019, 29% of tested facilities would fail should the standard in Ontario be lowered to match the Health Canada guideline of 5 µg/L.[33] There is no concrete progress to suggest a marked decrease in this rate of lead exposure. As children are one of the most vulnerable demographics to lead exposure and contamination, this is particularly concerning.

In the Minister of the Environment, Conservation and Parks' 2023 annual report on drinking water, there was no mention of LSL connections or any public awareness initiatives undertaken by the provincial government to limit the public's exposure to lead;[34] nor was any mention made of Health Canada's recommendation five years ago to lower the lead in drinking water standard to 5 µg/L. Ontario has never provided any justification as to why the province chose not to lower the acceptable lead standards to match the Health Canada guidelines.[35]

REQUESTED REVIEW- APPLICANTS' RECOMMENDATIONS

The Applicants submit that the *SDWA* needs to be amended to mandate interim and long-term goals to lower the public's risk of exposure to the harmful effects of lead.

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[29] Ontario Ministry of Environment, Conservation and Parks. "Minister's Annual report on drinking water (2023)", (2023), online: *ontario.ca* <https://ontario.ca/page/ministers-annual-report-drinking-water-2023>.

[30] Minister's Annual report on drinking water (2023).

[31] Minister's Annual report on drinking water (2023).

[32] Minister's Annual report on drinking water (2023).

[33] Megan Robinson, et al., "Drinking water at thousands of Ontario schools, daycares have dangerous lead levels," *Global News* (November 5, 2019) online: https://globalnews.ca/news/6107982/ontario-schools-daycares-lead-levels/

[34] Minister's Annual report on drinking water (2023).

[35] Minister's Annual report on drinking water (2023).

The following recommendations would provide necessary changes to the *SDWA* and keep Ontario in-line with Health Canada's trusted and evidence-based recommendations.

Recommendation 1- Ontario Should Reduce the Provincial Lead Standard from 10 micrograms Per Litre to 5 Micrograms Per Litre.

The Ontario government should reduce the provincial lead standard of 10 micrograms per litre (µg/L) in Schedule 2 of O. Reg 169/03 to 5 micrograms per litre (µg/L), pursuant to Health Canada's guidelines.

While lowering the lead standard is a crucial step to protecting human health, that step alone will not be enough to eliminate risks Ontarians face. Even lead exposures below 5 (µg/L) could lead to long-term detrimental health impacts for Ontario residents.

Recommendation 2- The *SDWA* should be amended to include the following -

A new regulation under the Safe Drinking Water Act, 2002, S.O, c. 32, which shall require all owners of drinking water systems to develop and implement a Lead Exposure Reduction Plan (LERP), approved by local municipal Councils, and submitted to and approved by the MECP, by December 31, 2025. The proposed requirements should produce a planned, measured, and transparent approach to the identification and elimination of all LSL's. This new regulation shall require every LERP to include the following mandatory requirements:

a) **The removal and replacement of 75% of all LSL connections in every municipal and non-municipal drinking water system shall be completed in Ontario by 2030.**
b) **The removal and replacement of 100% of all LSL connections in every municipal and non-municipal drinking water system shall be completed in Ontario by 2035.**

The Applicants submit that adding a new regulation is necessary to address the replacement of LSLs to adequately protect the present and future health of people in Ontario. Such a regulation would create a long-term plan for the province by creating achievable but mandatory goals to ensure that Ontario is taking steps to mitigate negative health implications caused by the presence of LSL connections.

The current approach to replacement of LSLs has not worked. Too many LSLs remain and there is little incentive or motivation for municipal systems to replace them. Mandatory replacement is necessary to mitigate long-term exposure to lead.

Recommendation 3- The *SDWA* should be amended to include the following -

New provisions under the Safe Drinking Water Act, 2002, S.O. 2002, c. 32 and the regulation, Drinking Water Testing Services O Reg 248/03, which require all owners of drinking water systems to develop and implement a Lead Exposure Reduction Plan (LERP), approved by local municipal Councils, and submitted and approved by the MECP, by December 31, 2025. These provisions requiring:

c) **The owner and operating authority of all municipal and non-municipal drinking water systems in Ontario shall ensure that a map of all LSL connections present in drinking water systems is completed by 2025.**
d) **The owner and operating authority of all municipal and non-municipal drinking water systems in Ontario shall update their inventories and maps of LSL connections in their drinking water systems every five years.**
e) **All inventories and maps created pursuant to this section will be posted on a publicly available website and provided to the Chief Drinking Water Inspector.**

The Applicants submit that adding these provisions is necessary to adequately protect the health of people in Ontario. Such amendments would allow the public to track LSL connections via accessible and interactive mapping systems, enabling residents to proactively reduce potential risks when known LSL connections may be impacting them. This can be done by introducing the following provisions:

The Applicant's submit that mapping of LSLs would promote public awareness and participation in understanding the risks associated with lead in drinking water systems. For reference, municipalities, such as the City of Brantford, have implemented such online services voluntarily to promote the public awareness on lead-service lines within the municipality.[36]

This recommendation emphasises the importance of public consultation and access to information. In the interim of replacing LSLs, mapping of LSL connections and informing the public about their risks is critical. Through mandating that drinking water system operators map LSL connections, provincial statistics related to those at risk for lead exposure would be further enhanced. In addition to the City of Brantford's proactive LSL mapping, since 2021 Water Compliance and Customer Service teams have integrated lead service data into their database, so when a new water account is set up, it is marked as having lead components, alerting the representative to inform the account holder about LSLs, available financial incentives for replacement, health risks of lead-contaminated water, and eligibility for the city's free water filter program.[37][38] The City of Brantford serves as a reference point for data collection and information

[36] "Address Lookup- Water Service Type- City of Brantford", (2023), online: *Address Lookup - Water Service Type - City of Brantford* <https://form.brantford.ca/Living-Here/Address-Lookup-Water-Service-Type>.

[37] https://www.brantford.ca/en/living-here/resources/Documents/Map-Lead-Pipes.pdf

[38] https://omwa.org/wp-content/uploads/2022/09/OMWA-Lead-Elimination-Strategy-Document.pdf

sharing that should be replicated throughout the province to support environmental justice initiatives related to removing exposures to lead.

Recommendation 4- The *SDWA* should mandate that the public and private portions of LSL connections should be removed at the same time. If only a partial LSL connection remains, it should be identified and removed.

The Applicants submit that the *SDWA* should mandate that both the public and private portions of any LSL be removed at the same time. Leaving private portions of LSL connections is a missed opportunity to eliminate the lead-in-drinking water in that residence, and to promote the health of current and future people of the residential unit served by the original line; in some cases, partial replacement of LSLs exacerbates the contamination risk of lead.[39]

Other urban centres have passed laws to ensure that partial LSLs do not remain. Montréal By-law 20-30 (BY-LAW CONCERNING CONNECTIONS TO THE WATERWORKS AND SEWER SYSTEMS AND STORM WATER MANAGEMENT) came into force on June 22nd, 2020 and mandates the removal of LSL connections on both municipal-owned and private-owned connections.[40] When identified, private citizens in Montréal do not have a choice as to whether replacement will occur; replacement is mandatory, and while the homeowner is liable for costs associated with the replacement, the homeowner has access to generous payment options and grant programs.[41] The Montréal by-law also requires that the City notify the owner of the private LSL that it will be replaced, that the owner must provide access to the LSL connection on the date that the work is to be scheduled (including removing any obstacles), and that the owner will eventually be charged for the cost of the replacement. This means that the homeowner will have the option of paying for the replacement costs charged in a single sum or in instalments over a course of 15 years; regardless, the homeowner is liable for costs associated with the mandatory replacement of the LSL connections. This requirement is particularly important as it relates to landlords who may not otherwise be interested in paying for replacement.

Once the homeowner receives notice of a date in which the LSL connection is to be replaced, the *SDWA* should be amended to specify that obligations to notify the tenant (should there be tenants) are strictly on the landlord.

Recommendation 5- As part of their Lead Exposure Reduction Plan each municipality shall provide under-resourced with a grant to cover the cost of LSL connections replacement. These grants shall be funded by a provincial Lead Service Line Replacement program.

> **Recommendation 5A: As part of the provincial Lead Service Line Replacement program, and an expansion of the existing Housing Enabling Water Systems Fund,**

[39] https://omwa.org/wp-content/uploads/2022/09/OMWA-Lead-Elimination-Strategy-Document.pdf

[40] By-Law Number 20-030 CONCERNING CONNECTIONS TO THE WATERWORKS AND SEWER SYSTEMS AND STORM WATER MANAGEMENT, VILLE DE MONTRÉAL BY-LAW- June 22nd, 2020, accessible at: https://montreal.ca/en/reglements-municipaux/recherche/60d7ef76fd6531968e5a5d73

[41] By-Law Number 20-030 CONCERNING CONNECTIONS TO THE WATERWORKS AND SEWER SYSTEMS AND STORM WATER MANAGEMENT, VILLE DE MONTRÉAL BY-LAW- June 22nd, 2020, accessible at: https://montreal.ca/en/reglements-municipaux/recherche/60d7ef76fd6531968e5a5d73

small municipal drinking water systems (as defined by O Reg 170/03 section 1(1)) shall be provided additional funding to meet the requirements of their Lead Service Line Replacement programs.

Any mandatory replacement requirement in Ontario should be accompanied with provincial financial assistance programs and accessible grants which are targeted at ensuring that under-resourced households are not burdened with any additional expenses that they cannot afford based on limited financial resources. Current financial assistance programs related to the removal of LSL connections vary throughout the province. The Applicants recommend that the program use the same income level used to determine eligibility for the Ontario Electricity Support Program, being dependent on two factors: 1) the number of people who live in the home, and 2) the combined household income.[42]

For those homeowners or owners of rental properties who do not qualify for the financial assistance program, generous loans and repayment options must be offered and funded by the province. There should be a clear regulatory prohibition on landlords passing along the cost of LSL connection replacement to tenants. Larger municipal water systems may fund these financial assistance programs through their rate base.

For small drinking water systems (water systems with supply less than 2.9 litres per second or serving fewer than 101 private residences), a provincial fund which extends the existing Housing Enabling Water Systems Fund should be created to ensure equity in drinking water protection throughout the province and provide needed support to municipalities in their efforts to limit lead exposure.[43] This would promote true equity in relation to the protection of Ontario's health by providing all residents the opportunity to remove LSL connections, regardless of where they live, thereby limiting instances of environmental injustice occurring through the current regime.

The LSL connection replacement process should be streamlined to prioritise replacement of LSL connections serving vulnerable populations first (such as children, pregnant women, and the elderly), while allowing for generous financial assistance programs to private homeowners eligible for LSL connection replacement projects.

Municipalities such as the City of Thunder Bay,[44] the City of Brantford,[45] and the City of Guelph[46] have systems in place to grant money to homeowners of houses with lead lines in amounts ranging from $1,000.00-$2,000.00. Other cities, such as Ottawa, provide rebates for lead service line

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[42] Ontario Energy Board. "Are you eligible for this program?", (2023), online: *Ontario Energy Board- Are You Eligible For This Program?* <https://ontarioelectricitysupport.ca/SelfAssessment>.

[43] Government of Ontario, "Housing-Enabling Water Systems Fund" , (January 29, 2024) *Ontario*, online: <https://www.ontario.ca/page/housing-enabling-water-systems-fund>.

[44] City of Thunder Bay. "City launches lead water service replacement loan program", (23 June 2020), online: *City of Thunder Bay* <https://www.thunderbay.ca/en/news/city-launches-lead-water-service-replacement-loan-program.aspx>.

[45] City of Brantford. "Lead financial incentive program", (2023), online: *City of Brantford*<https://www.brantford.ca/en/living-here/lead-pipe-replacement-grant.aspx>.

[46] City of Guelph. "Replace lead pipes and get a grant", (21 August 2020), online: *City of Guelph*<https://guelph.ca/living/environment/water/rebates/replacement-program/>.

replacement replacements.[47] These programs are welcome efforts to tackle the lead in drinking water issue but they are not statutorily mandated by any provincial legislation. Many other municipalities with issues of municipal LSL connections are not offering subsidies, rebates, or funding programs to assist impacted residents to take action to protect their health. The programs that exist are underfunded.

For under-resourced residents who may not have the resources to replace lead service line connections, government funded grants are essential to promote social equity and deter the potential health detriments families having lead service lines could have. Other organisations such as the Ontario Municipal Water Association have advocated for similar financing to promote human health and equity.[48]

Having a province-wide system with specific requirements for qualification will ensure that all people, no matter their financial background, will be able to take steps to protect their short-term and long-term health from exposure to lead in their drinking water. As it stands now, the disproportionate impact of those facing economic hardship intersecting with those requiring LSL replacement can determine whether families' health is protected against lead in drinking water as not all municipalities offer programs supporting residents in replacing harmful LSL connections.

The Applicants submit that the province of Ontario should help alleviate these inconsistencies, allowing the opportunity and access for *all* Ontarians to take steps to protect their health, regardless of economic background.

Recommendation 6 - Ontario should collaborate and engage with First Nations and on-reserve drinking water system operators and the federal government to ensure that all LSL connections are identified, mapped and replaced by 2030.

Pursuant to the *United Nations Declaration of the Rights of Indigenous Peoples Act* and the forthcoming *Act respecting water, source water, drinking water, wastewater and related infrastructure on First Nation lands*, any action taken to identify or replace LSLs, lead fixtures, and/or lead exposure on First Nations' lands must be grounded in the self-government of water systems by FirstNations.[49]

It is currently unclear whether lead in drinking water is a significant concern on First Nation reserves, and if it is, to what extent it is a concern or source of contamination. CELA recommends that Ontario collaborate and engage with the governments and communities of First Nations situated within the province, drinking water system operators on reserves, and the

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[47] City of Ottawa, "Lead Pipe Replacement Program" , (undated) online: *City of Ottawa* <https://ottawa.ca/en/living-ottawa/drinking-water-stormwater-and-wastewater/drinking-water/drinking-water-programs/lead-pipe-replacement-program#section-efb5a579-eee4-48e0-b7a2-aa4d8655ab00>.

[48] OMWA (Ontario Municipal Water Association). "Executive summary - OMWA", (2022), online: *Ontario Municipal Water Association- Executive Summary* <https://omwa.org/wp-content/uploads/2022/09/OMWA-Lead-Elimination-Strategy-Document.pdf>.

[49] SC 2021, c 14 [UNDRIPA]; Parliament of Canada, *Bill C-61: an Act respecting water, source water, drinking water, wastewater and related infrastructure on First Nation lands* (first reading: December 11, 2023) online: <https://www.parl.ca/DocumentViewer/en/44-1/bill/C-61/first-reading> at section 4(1) and section 14.

federal government to determine the extent of the problem and provide support and encouragement for all LSL connections to be identified, mapped, and replaced by 2035.

The Applicants recommend that Ontario should engage in direct collaboration with various on-reserve drinking water system operators to best understand the risks of all consumers impacted by LSL connections. Collaboration and engagement with Indigenous communities should focus on providing information related to grants, replacement programs, interim measures, and provincial strategies to promote the health of all Ontarians.

Recommendation 7- Ontario should amend section 11(1) and 19 of the *SDWA* to ensure that, once drinking water system operators are aware that households are being served water through LSL connections, municipalities are required to provide interim options to reduce the lead levels in the given households drinking water, free of charge to all households impacted by lead service lines.

The Applicants' submit that section 19 of the *SDWA* should be amended to require that municipalities, once they are aware of the presence of LSL connections, should be required to provide any impacted residential unit with water filters and replacement cartridges, free of charge.[50] As consumption of lead in drinking water is the largest risk that the public served by LSL connections face[51], the operators of the drinking water system should be required to provide interim options up to and until 6-months after the public LSL connections servicing the private property has been replaced.

Interim measures can include providing free water pitchers to residents impacted by LSL connections or providing annual bursaries to allow impacted residents to ensure they have safe drinking water.

The Applicants submit that interim statutory protections are required to secure the health of Ontarians, until the mandated, long-term removal requirements are met. Although the manner in which municipalities and drinking water system operators may provide interim measures when drinking water systems are in exceedance of provincial standards may vary, mandating the requirement for interim measures will undoubtedly protect impacted populations while also motivating operators to pursue long-term replacement to eliminate costs and resources spent on the interim fix. This will lead to more proactive measures in reducing overall lead contamination, and improve the overall health of Ontario residents.

Preliminary Considerations to Determine Whether the Public Interest Warrants a Review

According to section 67 (2) of the *Environmental Bill of Rights*, 1993, S.O. 1993, c. 28, the Minister may consider the following characteristics when determining whether the public interest warrants a review:

(a) the ministry statement of environmental values;
(b) the potential for harm to the environment if the review applied for is not undertaken;

[50] *Safe Drinking Water Act*, 2002, S.O. 2002, c. 32 at section 19.
[51] Guidelines for Canadian Drinking Water Quality: Guideline Technical Document – Lead.

(c) the fact that matters sought to be reviewed are otherwise subject to periodic review;
(d) any social, economic, scientific or other evidence that the minister considers relevant;
(e) any submission from a person who received a notice under section 66;
(f) the resources required to conduct the review; and
(g) any other matter that the minister considers relevant.

Furthermore, section 67(3) holds that the minister may also consider:

(a) the extent to which members of the public had an opportunity to participate in the development of the policy, *Act*, regulation or instrument in respect of which a review is sought; and
(b) how recently the policy, *Act*, regulation or instrument was made, passed or issued.[52]

This Application will proceed with analysing each of these considerations further.

I. Ministerial Values

The *Statement of Environmental Values*, as published by the Ministry of the Environment, Conservation and Parks includes the protection, restoration and enhancement of the natural environment by "developing policies, legislation, regulations and standards to protect the environment and human health" that promote these mandates.[53]

The presence of LSL connections directly impacts human health and is disproportionately impacting vulnerable people such as young children. The Minister, therefore, must consider the potential harm that the legislation can have, should it not be amended. This means that the Minister must review the legislation proactively, with consideration given to how pressing issues and concerns may or may not be adequately addressed in the legislation.

The resources required to conduct the review are publicly accessible, with Health Canada implementing a guideline calling for more stringent standards than those currently present in Ontario's legislation by referring to specific academic studies and reports. Should the Minister want to improve the human health in the province in the short-term and long-term future, amendments that reflect the updated knowledge gained since the current legislation was passed over 20 years ago are required.

II. Potential Harm to the Environment

[52] *Environmental Bill of Rights*, 1993, S.O. 1993, c. 28 at section 67(2).

[53] Ministry of the Environment and Climate Change. "Statement of environmental values : Ministry of the environment and climate change", (2023), online: *Environmental Registry of Ontario* <https://ero.ontario.ca/page/sevs/statement-environmental-values-ministry-environment-and-climate-change#:~:text=To%20protect%2C%20conserve%20and%20where,means%20provided%20in%20the%20Act>.

According to Health Canada, "lead compounds can be degraded or chemically transformed within air, soil and water. However, the elemental lead within these compounds cannot be broken down."[54]

More stringent standards and provincial goals to completely remove high sources of lead contamination would be required and that the Ontario provincial government has an obligation to act in a manner to preserve the health and integrity of the environment, including the people of Ontario relying on drinking water systems.

III. Periodic Review

In determining whether the public interest warrants the requested review, subsection 67(2)(c) of the *Environmental Bill of Rights* directs the Minister to consider whether "the matters sought to be reviewed are otherwise subject to periodic review".

Other than a public party utilising Part IV- (Application for Review) under the *Environmental Bill of Rights*, there is no statutory mechanism present within the *SDWA* (and its regulations) for the periodic review of the statute or the coinciding regulations associated with the *Act*.

This Application is the most effective way for the government to review and examine the *SDWA* and its regulations. As the *SDWA* was enacted over 20 years ago and Ontario has not adapted its approach following Health Canada's review of the scientific literature and ultimately recommended a reduced standard. Health Canada's recommendation to lower the Maximum Allowable Concentration of lead in drinking water was five years ago but Ontario's standard has remained at 10 µg/L.

IV. Resources Required for the Requested Review

Subsection 67(2)(f) of the *Environmental Bill of Rights* lists "resources required to conduct the review" as another factor to be considered by the Minister when determining if the public interest warrants a review.

The Applicants submit that the requested review of the *SDWA* can be carried out by relevant Ministry personnel without the allocation of any new resources or staff required.

The federal government of Canada and the provincial government of Ontario already offer scientific resources related to the LSL and the impact that lead in drinking water can have on human and environmental health. Information required for this Application is highly accessible to the Minister.

SUMMARY OF LEAD SUBMISSIONS

[54] Lead in Drinking Water.

In summary, the Applicants submit the following amendments should be added to the *SDWA* and coinciding regulations:

Recommendation 1- Ontario Should Reduce the Provincial Lead Standard from 10 micrograms Per Litre to 5 Micrograms Per Litre.

Recommendation 2- The *SDWA* should be amended to include the following -

> A new regulation under the Safe Drinking Water Act, 2002, S.O, c. 32, which shall require all owners of drinking water systems to develop and implement a Lead Exposure Reduction Plan (LERP), approved by local municipal Councils, and submitted to and approved by the MECP, by December 31, 2025. The proposed requirements should produce a planned, measured, and transparent approach to the identification and elimination of all LSL's. This new regulation shall require every LERP to include the following mandatory requirements:
>
> a) The removal and replacement of 75% of all LSL connections in every municipal and non-municipal drinking water system shall be completed in Ontario by 2030.
> b) The removal and replacement of 100% of all LSL connections in every municipal and non-municipal drinking water system shall be completed in Ontario by 2035.

Recommendation 3- The *SDWA* should be amended to include the following -

> New provisions under the Safe Drinking Water Act, 2002, S.O. 2002, c. 32 and the regulation, Drinking Water Testing Services O Reg 248/03, which require all owners of drinking water systems to develop and implement a Lead Exposure Reduction Plan (LERP), approved by local municipal Councils, and submitted and approved by the MECP, by December 31, 2025. These provisions requiring:
>
> a) The owner and operating authority of all municipal and non-municipal drinking water systems in Ontario shall ensure that a map of all LSL connections present in drinking water systems is completed by 2025.
> b) The owner and operating authority of all municipal and non-municipal drinking water systems in Ontario shall update their inventories and maps of LSL connections in their drinking water systems every five years.
> c) All inventories and maps created pursuant to this section will be posted on a publicly available website and provided to the Chief Drinking Water Inspector.

Recommendation 4- The *SDWA* should mandate that the public and private portions of LSL connections should be removed at the same time. If only a partial LSL connection remains, it should be identified and removed.

Recommendation 5- As part of their Lead Exposure Reduction Plan each municipality shall provide under-resourced with a grant to cover the cost of LSL connections replacement. These grants shall be funded by a provincial Lead Service Line Replacement program.

Recommendation 5A: As part of the provincial Lead Service Line Replacement program, and an expansion of the existing Housing Enabling Water Systems Fund, small municipal drinking water systems (as defined by O Reg 170/03 section 1(1)) shall be provided additional funding to meet the requirements of their Lead Service Line Replacement programs.

Recommendation 6 - Ontario should collaborate and engage with First Nations and on-reserve drinking water system operators and the federal government to ensure that all LSL connections are identified, mapped and replaced by 2030.

Recommendation 7- Ontario should amend section 11(1) and 19 of the *SDWA* to ensure that, once drinking water system operators are aware that households are being served water through LSL connections, municipalities are required to provide interim options to reduce the lead levels in the given households drinking water, free of charge to all households impacted by lead service lines.