



Annual Report - Lead in Drinking Water Mitigation Strategy

Date: May 30, 2018
To: Public Works and Infrastructure Committee
From: Acting General Manager, Toronto Water
Wards: All

SUMMARY

This report provides an annual update on the City's Lead in Drinking Water Mitigation Strategy.

RECOMMENDATIONS

The Acting General Manager, Toronto Water recommends that:

1. Public Works and Infrastructure Committee receive this report for information.

FINANCIAL IMPACT

There is no financial impact from the receipt of this report.

The Interim Deputy City Manager & the Interim Chief Financial Officer have reviewed this report and agrees with the financial impact information.

DECISION HISTORY

Annual Report-Lead in Drinking Water Mitigation Strategy

At its meeting on September 19, 2017, Public Works and Infrastructure Committee received for information item PW23.5, titled "Lead in Drinking Water Mitigation Strategy-Annual Report". The report and attachment can be viewed at:

<https://www.toronto.ca/legdocs/mmis/2017/pw/bgrd/backgroundfile-106572.pdf>

<http://www.toronto.ca/legdocs/mmis/2016/pw/bgrd/backgroundfile-93973.pdf>

<http://www.toronto.ca/legdocs/mmis/2015/pw/bgrd/backgroundfile-83235.pdf>

COMMENTS

In 2011, Toronto City Council approved the Lead in Drinking Water Mitigation Strategy a comprehensive strategy comprised of corrosion control, lead service replacement, a faucet filter program and public education to reduce lead in drinking water. This staff report provides an update on the Strategy.

Corrosion Control Plan

Corrosion control was mandated and is regulated by the Ministry of the Environment and Climate Change (MOECC). It involved the addition of phosphate to create a barrier between the pipes and the drinking water, and is the most cost-effective strategy available to water utilities to address lead concerns in drinking water. Endorsed as a lead reduction measure by authorities such as Health Canada and the United States Environmental Protection Agency, corrosion control was implemented in December 2014 in Toronto at all four water treatment plants by adding phosphate to the drinking water.

Regulated Testing

During the implementation of corrosion control, the MOECC provided relief from the regulated residential and non-residential lead sampling program. In March 2017, the MOECC Drinking Water License was amended to include the completion of corrosion control implementation and reinstate the regulated lead sampling program. The amended License requires the annual collection of 10 distribution samples and 55 tap water samples from homes and businesses with known or suspected lead services. The new public reporting period is on an annual basis starting March 31, 2018:

<https://www.toronto.ca/services-payments/water-environment/tap-water-in-toronto/lead-drinking-water/ontario-regulated-lead-testing-program/>

The 2017 regulated tap water test results show lower lead levels compared with the previous year. Of the 55 homes and businesses tested, one sample (2 per cent) exceeded 10 parts per billion (ppb) and none of the samples in the water distribution system exceeded 10 ppb. This contrasts with 2008 when 100 homes and businesses were tested and 52 percent of the samples exceeded 10 ppb.

In Ontario, a drinking water system is in compliance with the lead regulations when no more than 10 percent of the samples exceed the limit of 10 ppb.

Non-Regulated Testing Program

Non-regulated drinking water testing for lead is provided at no cost to property owners. Toronto Water (TW) continues to send out information packages to all residents whose test indicates any level of lead in an effort to encourage residents to take action when measured lead levels are above the laboratory method detection limit.

Lower lead results have been observed in the non-regulated water samples since the implementation of corrosion control.

Lead Service Replacement

Lead water service pipes are replaced as part of the following two programs:

1. **Planned Capital Water Service Replacement:** This program schedules the replacement of substandard water services in coordination with programmed capital works and infrastructure renewal program such as watermain replacement, watermain structural lining, road reconstruction and sewer replacement;

2. **Unplanned Water Service Replacement:**

(i) **Priority Lead and Water Service Replacement Program** in coordination with the replacement of the City's lead pipes when homeowners replace the lead pipes on their private property; and

(ii) **Emergency Water Service Replacement** when the replacement of City-owned water service pipe when a pipe that supplies water to a home is broken or has low flow which is under 7 litres per minute.

Toronto Public Health (TPH) advises that due to adverse health impacts it is desirable to remove as much lead from the water infrastructure as possible and that both the public and private sides of the property line should be replaced at the same time wherever possible. Toronto has approximately 437,000 residential water service connections. In 2007, approximately 65,000 City-owned services were estimated to be lead. At the end of 2017, there were approximately 30,169 public lead services remaining. Table 1 below indicates Lead Service Replacement activities.

Table 1: Lead Service Replacements

Program Name	Activities	Budget Target*	2018 (YTD)	2017	2016	2015
Planned (Capital Project) Water Service Replacement	Watermain replacement; structural relining; road reconstruction	3,000	No water cards received to date.	526	740	1604
Unplanned Water Service Replacement	Priority Lead Program	1,500	251	629	1,021	1,079
	Emergency Replacement	500	110	229	355	599
Total		5,000	320	1,384	2,116	3,282

*Service cards are received in batches. The numbers reflect service cards incorporated to date.

*Financial budget targets are set for planning purposes - there is no cap on replacements.

Faucet Filter Program

Toronto Water provides free NSF-053 certified faucet filter for lead removal in the following instances to qualified homeowners: To all homes immediately following the

replacement of the City-owned section of the lead pipe that supplies water to the home; when water meter staff have to cut into a lead water service on private property to install a new automated water meter; beginning February 1, 2015, a faucet filter is mailed out to residents once their application to the Priority Lead Water Service Replacement Program is accepted into the program; or, an annual \$100 rebate for the purchase of an NSF-053 certified faucet-mounted filter is available to low income residents.

Public Education and Communication

Since 2007, TW and TPH have worked jointly in the preparation and dissemination of public education material on lead in drinking water to residents through a wide range of communications resources and methods including: media releases, utility bills, City of Toronto newsletters, health fact sheets with construction notices, applications for Priority Lead Program to coordinate full replacement of lead services, information in free lead testing kits, posting non-regulated lead test sample results from 2011 to present on the City's Open Data website, posting regulated lead test sample data on the City's public website, social media, letters to residents with lead test results, direct mail (200,000 cards) to older homes where lead pipes are suspected, public education when the H2O Water Trailers are at events, and information included in the faucet filter distribution package.

On request staff will organize public meetings in areas with a significant number of homes that may have lead service. At these meetings, City staff from Engineering and Construction Services (ECS), TW and TPH present information and answer questions about capital works projects in the area, lead and drinking water and the City's programs and services to reduce lead exposure, including the implementation of corrosion control and distribution of faucet filter kits. Free lead testing kits are distributed to residents at these events. No meeting requests were received in 2017, or to date in 2018.

In 2016, TPH staff in collaboration with TW staff began distributing free filters to participants in the Canada Prenatal Nutrition Program (CPNP). CPNP participants are referred to this program by TPH staff, family physicians and/or partner agencies because of their vulnerability status. Vulnerability is defined as low-socio-economic status and pregnancy. In 2017, TW received two inquiries from residents participating in the CPNP program. Neither was found to have a lead service so no filter was distributed. In 2018, no inquiries have been received as of April 30th.

"Toronto Renovates" Funds used for Replacement of Residential Private-Side Lead Water Services

In a report received for information at the June 20th 2016 meeting of Public Works and Infrastructure Committee, the Director, Affordable Housing Office advised that the Affordable Housing Office would continue to consider residential private-side lead water pipe replacement as part of the Toronto Renovates home repair program, on a case by case basis and subject to the terms and conditions of the program.

Since 2012, "Toronto Renovates" has received 2 applications for lead water pipe replacements with 1 approved for funding and 1 in process.

The decision of the Committee can be viewed at:

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2016.PW14.12>

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SIGNATURE

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