



REPORT FOR ACTION

Options Analysis for the Replacement of Residential Private side Lead Water Service Pipes

Date: June 22, 2020

To: Infrastructure and Environment Committee

From: Chief Financial Officer and Treasurer

Wards: All

SUMMARY

This report is in response to a direction from the Infrastructure and Environment Committee on December 5, 2019, to report back on an analysis of options the City could employ to assist residents looking to replace private side lead water service pipes.

The options identified for analysis included consideration of assistance via the Toronto Renovates program, grants and loans. A companion request for information centered on the potential cost of adding the pipe replacement cost to a homeowner borne line of credit with a financial institution is also considered in this report.

The City has previously studied lead pipe replacement initiatives on several occasions in the past and had prepared implementation steps for a lead pipe replacement loan program in 2015. At that time, for various policy and program issues, City Council did not adopt such a program.

Toronto Water continues to address the issue of lead in drinking water via such programs as:

- Priority Lead Water Service Replacement Program which consists of the coordination of the replacement of the City's lead pipes when homeowners replace the lead service pipes on their private property.
- Planned Capital Water Service Replacement which consists of the scheduled replacement of substandard water services in coordination with programmed capital works and infrastructure renewal programs such as watermain replacement, watermain structural lining, road reconstruction and sewer reconstruction. These replacements are coordinated with other City Divisions to minimize disruption to local communities and for cost efficiencies.
- Emergency Water Service Replacement which consists of the replacement of a City-owned water service pipe when a pipe that supplies water to a home is broken, has a leak or has low flow.

RECOMMENDATIONS

The Chief Financial Officer and Treasurer recommends that:

1. The Infrastructure and Environment Committee receive this report for information.

FINANCIAL IMPACT

There are no financial implications arising from this report.

DECISION HISTORY

Public Works and Infrastructure Committee had in the past considered the feasibility of a loan program for the replacement of private-side lead water service connections in 2007 and 2010. In both instances, a loan program was not established at that time for various practical, administrative and policy reasons.

The related 2007 and 2009 staff reports can be viewed at:

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2007.PW11.5>

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2010.PW30.1>

At its meeting of August 25, 2014, City Council adopted item PW33.16 Feasibility of Introducing a Residential Private-Side Lead Water Service Connection Replacement Funding Program, and directed the General Manager of Toronto Water and the Deputy City Manager & Chief Financial Officer to develop a self-funded loan program for property owners wishing to replace lead water service connections situated on their properties, and to report back by the second quarter of 2015 on the details of such program. This Council direction can be viewed at:

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2014.PW33.16>

At its meeting of September 22, 2015, City Council amended item PW7.20 Loan Program for Replacement of Residential Private-Side Lead Water Service Pipes, and directed the General Manager of Toronto Water to consider accelerating the annual number of priority lead water service replacements, improve outreach on the priority lead replacement program and faucet filter rebate program, requested the Toronto Office of Partnerships to approach financial institutions to consider easily accessible loans for lead water pipe replacements, and requested the Affordable Housing Office to report back on the feasibility of using Toronto Renovates funds to assist homeowners in replacing lead water pipes. This Council direction can be viewed at:

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2015.PW7.20>

At its meeting of June 20, 2016, Public Works and Infrastructure Committee received the report PW14.12 Feasibility of Using Toronto Renovates Funds to Replace Private-Side Lead Water Service Pipes. This Committee report can be viewed at:

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

At its meeting of December 5, 2019, Infrastructure and Environment Committee received the report IE10.8 Ensuring the Quality of Toronto's Drinking Water – Update and further directed the Chief Financial Officer and Treasurer to report back on ways the City can assist residents looking to replace private side lead water service pipes. That report can be viewed at:

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2019.IE10.8>

ISSUE BACKGROUND

Due to concerns about the health impacts of lead in drinking water caused by the corrosion of water pipes, and in support of the City's goal of ensuring the quality of Toronto's drinking water, in December 2019 the Infrastructure and Environment Committee directed staff to report back on an analysis of ways the City can assist residents looking to replace their private side water service pipes.

In response to this direction, staff researched past actions and considerations of various programs and initiatives as well as programs employed in other municipalities.

It is estimated that as of the end of 2019, 24,525 remaining residential properties in Toronto have public-side lead water service pipes. This number has already been significantly reduced over the past number of years since the City's 2011 adoption of the Lead in Drinking Water Mitigation Strategy, a comprehensive strategy which includes corrosion control, City public-side lead service replacement, a faucet filter program and public education geared toward reducing exposure to lead in drinking water.

Toronto Water produces a comprehensive update on these initiatives as part of an annual report – the most recent being the 2018 Annual Report – Lead in Drinking Water Mitigation Strategy from June 2019. This report can be viewed at:

<https://www.toronto.ca/wp-content/uploads/2019/06/96ce-TW-Annual-Lead-Mitigation-Report-2018-Final-a.pdf>

COMMENTS

Infrastructure and Environment Committee requested an analysis from the Chief Financial Officer on ways the City could employ in assisting homeowners in replacing private side lead water service pipes.

Typically private side lead service line replacements in Toronto cost in the range of \$2000 - \$3000 with outliers on both lower and higher values, largely dependent on the length of the connection to the house and difficulty of accessing the line underground.

The following section provides commentary and analysis on the requested methods.

1. assistance through the Home Renovate Program;
2. grants;
3. loans or working with financial institutions;
4. assessment of the monthly amount a homeowner would pay if they applied the cost of changing their lead pipes by adding the costs to their mortgage, applying current rates of a 5 year/25 year mortgage

Assistance via the Toronto Renovates Homeowners Program

The Toronto Renovates Homeowners Program offers federal/provincial funding for lower-income seniors and persons with disabilities who own a home in the City of Toronto and wish to make health or safety repairs or accessibility modifications to their homes.

A recommendation of City Council from its consideration of a loan program in 2015 was to direct the Director of the Affordable Housing Office (AHO), currently the Housing Secretariat, to report back on in 2016 on the feasibility of Toronto Renovates funds to be used for private lead water pipes as an essential repair to bring a home up to acceptable standards such as heating, plumbing, fire safety, electrical and accessibility modification.

In its report to Public Works and Infrastructure Committee in June 2016, the Affordable Housing Office noted that it will 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.

This would be subject to an individual homeowner's eligibility for Toronto Renovates and the specific repairs/modifications submitted for funding approval, recognising that the scope of repair and modification work is determined at the homeowner's discretion.

AHO generally reported that although pipe replacements are eligible, a significant amount of the grant/loan recipients use the funds for health and safety repairs of an immediate nature such as the replacement of a broken furnace or repair to a leaking roof rather than lead water pipe replacement.

Since 2012, Toronto Renovates has approved almost 1,400 homeowners' applications and only one approval involved lead water pipe replacement.

Toronto Renovates Homeowners Program is currently under review and as such has temporarily suspended acceptance of assessment requests.

Grants

City grants and subsidies are direct monetary contributions made by the City to persons or groups for a specific public purpose with no requirement for repayment. As such, grant programs require a funding source and there are no direct financial recovery of funds.

Grants to homeowners for repairs or modifications to their homes that serve a public interest or objective can serve as an incentive for having the work completed.

In the case of replacing lead service water lines, grants could assist homeowners in defraying some of the costs associated with contractor work such as the underground replacement of lead water service pipe with copper piping.

An example of such a program exists within the City of Brantford. Brantford had initiated the lead replacement grant program back in 2008 as a method of promoting the conversion of private side lead pipes in addition to its municipal efforts to replace public side lead connections.

At that time, the program was in response to lead water sample testing results that exceeded provincial limits. Furthermore, Brantford's options for reducing lead in water were and are limited by not being able to employ corrosion control to the water supply due to local watershed factors.

Another contributing factor to the applicability of Brantford's grant program was its relatively strong knowledge and estimates for the number of properties with lead connections that could potentially be eligible for a grant program at around 4000.

Brantford's grant amount is limited to \$1000 per property which would not fund a typical replacement project in full, but rather subsidize some of the total cost for a homeowner.

Brantford also established the program with a finite funding source of around \$200,000 per year with grant acceptances on a first come – first serve basis on an application process with eligibility criteria. At this funding level approximately 200 conversions could be achieved per year.

In practice, Brantford has consistently issued on average 60 to 90 grants for conversions per year, and since 2008 has issued over 900 grants with a total value of \$0.9 million.

In 2018 Brantford added a complementary loan program for lead pipe replacement and has issued 25 loans with total outlay of \$60,000 since 2018.

The City of Hamilton has also considered offering a grant program in addition to its existing loan program. During its consideration of a grant program in 2019, Hamilton staff provided the following analysis to support its recommendation not to offer a grant program in addition to its loan program which has been in effect since 2008:

The offering of grants for specific works, such as lead water service line replacement have often resulted in the average cost for such work to rise to the maximum amount available via the grant with no net benefit to the homeowner, produces a net negative effect on the outlay of grant amounts from a municipality;

Further, an injection of funds and requests for such work may create supply and demand cost pressures due to a limited contractor base. Brantford had cited the lack of contractors as a constraining factor in the total number of lead service pipes that could be replaced in any given year.

Furthermore, in Hamilton it was noted that there was no identifiable funding source and in the longer term carrying such a program could potentially be unsustainable.

In the Toronto context, there are potentially over 20,000 remaining homes with private side lead water service pipes. Due to this size and scale, even with modest grant amounts per home, could result in large unrecoverable costs to the City in totality.

Loans

City loans are direct monetary contributions made by the City to persons or groups for a specific public purpose with a requirement for repayment often with interest. City loan programs require a funding source although financial recovery of funds occurs through periodic repayments from the loan recipient.

Loans to homeowners for repairs or modifications to their homes that serve a public interest or objective can serve as an incentive for having the work completed.

In the case of replacing lead service water lines, loans could assist homeowners in the upfront funding of the costs associated with contractor work such as the underground replacement of lead water service pipe with copper piping with repayment, inclusive of interest, over a given period of time.

In 2015, at the request of Public Works and Infrastructure Committee, staff had presented a loan program for Council consideration but for various reasons it was not adopted City Council at that time.

The proposed loan program would have been based on an application process where qualified homeowners could receive approval, enter into an agreement with the City, have the work completed, submit an invoice, then receive funds up to a maximum of \$2500 from the City, which would constitute a loan to be repaid over a 5 year period, with interest, with such amounts added to the homeowners tax bill and collected via installments together with regular property tax payments via the City's pre-authorized tax billing program.

The City, at the time, had preliminary estimates of around 500 loans per year with a potential funding impact of \$1.25 million per year, subject to availability at any given time as determined by Council.

Funds for the loan program would have been drawn from the City's working capital reserve and loaned to approve applicants upon completion of their pipe replacement. Repayment of funds would have occurred over a 5-year term, with interest calculated in an amount to recover the City's costs (interest earnings foregone on invested funds), being redirected to working capital.

At the time, assessment of loan default risk was conducted and determined to be minimal based on the low order of magnitude of loan amounts and the repayment being combined with property tax payments to the City on a pre-authorized payment plan. It was also noted at that time, that precedent existed for the collection of loan payments via the property tax billing system as is the case for the City's Home Energy Loan Program (HELP).

Ultimately, for various reasons, City Council did not adopt the loan program back in 2015 as designed, but rather directed staff to report back on other such methods that could be explored to promote the replacement of private side lead pipes.

The City of Hamilton has been operating a similar form of lead water service pipe replacement loan program since 2007.

Since that time Hamilton has issued over 2,200 individual lead pipe replacement interest bearing loans with total loaned amounts of approximately \$4.5 million to date. Hamilton had previously allowed individual loans up to a maximum of \$2000 and later \$2500 with either a 5 year or 10 year repayment term at the option of the homeowner.

As some of the initial loans have now been fully repaid and others being repaid, the current amount outstanding stood at approximately \$2.1 million.

Hamilton has very recently adopted amendments to its program to also offer loans with zero interest payable for persons qualifying under certain income thresholds consistent with other Hamilton low income assistance programs, and extending loans availability to residential rental properties.

Private Homeowner Initiated Loans with Financial Institutions

Staff were also directed to provide an analysis of the costs private homeowners might pay if they applied the cost of changing their lead pipes by adding the costs to their mortgage applying current rates of a 5 year / 25 year mortgage.

Unless the costs of replacing lead water pipes, estimated on average at a cost of \$3,000, were added to a new or refinanced mortgage, in most cases existing home mortgages are non-revolving loans that do not allow additional amounts to be added to the principal balance. However banks and lending institutions do offer lines of credit to account holders either secured against the title of a property or not.

Secured loans or lines of credit are offered at typically prime lending rate plus a range of basis points, but require legal and title registration fees that could add up to \$1,000. Unsecured loans or lines of credit are not registered on title so legal fees don't apply, but carry higher risks for banks and lending institutions and as such carry higher interest rates on repayment.

To put this in perspective, the cost of borrowing on a \$3000 expenditure on a personal line of credit could be expressed as follows:

Illustrative Repayment Amounts for
Amortizing \$3,000 Charge on a line of Credit
Possible Monthly payments over a 5 year term (60 payments)

Type Interest rate	Unsecured 7.95%	Secured 3.45%
Principal	\$50	\$50
Interest *	\$10	\$ 4
Total	\$60	\$54

- Note interest on lines of credit are charged on remaining balances with interest on a daily basis and vary over time as principal balance declines. Average interest is depicted here for illustrative, comparison purposes only.
- Rates indicative of scan of major bank current rates (May 2020).

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SIGNATURE

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