



CITY OF HAMILTON
CORPORATE SERVICES DEPARTMENT
Financial Planning, Administration and Policy Division

TO:	Chair and Members Audit, Finance and Administration Committee
COMMITTEE DATE:	April 18, 2019
SUBJECT/REPORT NO:	Lead Water Service Replacement Loan Program Amendments (FCS19025) (City Wide) (Outstanding Business List Item)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	John Savoia (905) 546-2424 Ext. 7298
SUBMITTED BY:	Cindy Mercanti Director, Customer Service and POA Acting Director, Financial Planning and Policy Corporate Services Department
SIGNATURE:	

RECOMMENDATION(S)

- (a) That the General Manager of Corporate Services be authorized to amend the Lead Water Service Replacement Loan Program (LWSRLP) so that effective May 1, 2019, loan amounts provided under the LWSRLP will be added to the property owner's Alectra Utilities water account to be repaid on a monthly basis over a period of up to 10 years;
- (b) That staff be authorized to offer property owners with a current outstanding loan the option to have the remaining balance transferred to their Alectra water account to be repaid monthly on the same terms when the loan was originally approved;
- (c) That the City Solicitor be authorized to make necessary changes to documents related to the LWSRLP to implement recommendations (a) and (b) of Report FCS19025;
- (d) That Hamilton Water staff report back to the Public Works Committee by Q3 2019 on the feasibility of replacing all known public lead water service lines;

OUR Vision: To be the best place to raise a child and age successfully.

OUR Mission: To provide high quality cost conscious public services that contribute to a healthy, safe and prosperous community, in a sustainable manner.

OUR Culture: Collective Ownership, Steadfast Integrity, Courageous Change, Sensational Service, Engaged Empowered Employees.

- (e) That the Mayor, on behalf of City Council, submit a request to the Minister of Government and Consumer Services, seeking that legislative and regulatory enactments be made as part of implementation of the *Home Inspection Act, 2017*, to prescribe the requirement of testing water services to identify the presence of lead water service lines;
- (f) That the subject matter respecting “the feasibility of a grant program for residents for any lead pipe watermain replacement” be identified as complete and removed from the Audit, Finance and Administration Committee Outstanding Business List.

EXECUTIVE SUMMARY

The Drinking Water Systems Regulation (O.Reg.170/03), 2007, administered by the Ministry of the Environment, Conservation and Parks (MECP), requires all municipalities in Ontario to test for lead in their distribution system as well as the lead levels out of customers’ faucets. Lead can be released when drinking water comes in contact with lead pipes, lead-based plumbing fixtures and lead solder. The objective of the City’s Lead Reduction Program is to improve the quality of water by reducing the lead concentration at the tap to below the allowable limit of 10 µg/L ((micrograms per litre, equal to parts per billion or ppb), as defined in the Ontario Drinking Water Quality Standards (ODWQS).

The City’s Lead Water Service Replacement Loan Program (LWSRLP) was approved by Council in October 2008 as an ongoing program following its inception as a pilot program in October 2007 (refer to Report FCS07087(a) / PW07121(a)). The purpose of the LWSRLP is to provide homeowners with the continued opportunity to access funding, through an interest-bearing loan from the City, to assist homeowners to reduce their potential risk of exposure to lead in tap water that could be coming from their private lead water service line. City staff has been working toward a goal of replacing the City’s service stub (located on City property) in conjunction with the property owner replacing the service extension (located on private property), subject to the availability of funds.

The LWSRLP enables eligible residential property owners that meet the program requirements to borrow from the City up to a maximum of \$2,500, to assist in repaying the cost of private lead water service replacements. The annual payments that become due are added to the homeowner’s tax roll and are to be repaid to the City over a period of up to 10 years. The interest charged on an annual basis is based on the City’s ten-year cost to borrow and the rate is maintained for the entire period of the loan. The interest rate has been reviewed annually and reset, as required, at the start of each calendar year based on the City’s ten-year cost to borrow.

Transferring the loan to the tax roll enables homeowners who want to replace their lead water service line with an option to repay the cost over a number of years. As part of the loan agreement, the property owner consents to the City collecting the loan payments through the property tax bill for administrative ease. Despite such collection, the loan does not have the same priority lien status as property taxes. Risk has been somewhat mitigated by the relatively small amount of the loans (maximum of \$2,500), the payment of funds by the City only occurs once the pipe replacement work has been completed and the requirement that the borrowers meet eligibility criteria, which includes that the property owners be current on all property taxes.

Currently, there are an estimated 20,000 homes with private lead water pipes in Hamilton down from estimates provided in 2007 ranging from 25,000 to 30,000 homes. Financial assistance programs offered by municipalities seek to provide an incentive for property owners to replace private (from the property line into the home) water service lines constructed of lead, a common material which was in use up to the mid 1950's. As of December 31, 2018, over 2,000 loans have been issued since the pilot LWSRLP began in October 2007 representing a total outlay of approximately \$3,150,843 with a current outstanding loan balance of approximately \$ 1,911,690.

The City had relied on lead service line replacement as its main option to reduce the amount of lead in tap water as required by the *Safe Drinking Water Act*. Based on the current private lead service replacement rate by residents, it may take decades to remove all the lead water lines in Hamilton.

Lead service line replacement alone will not protect residents from lead exposure from lead-based fixtures and lead solder. Based on a comprehensive review of the occurrence of lead measured at the tap, the number of lead services remaining in the system, the cost associated with Lead Service Line replacement and the experience of other municipalities with similar water quality conditions, a phosphate-based treatment approach was recommended as the Corrosion Control Program (CCP) for the City of Hamilton.

Corrosion control with a phosphate-based inhibitor offers a solution to protect Hamilton Water customers from all contact sources of lead (pipes, fixtures and solder) in drinking water. A protective barrier is created inside the pipes that reduce the release of metals, such as lead and copper from household plumbing. This is important for those who cannot afford to replace the private portion of their lead service line and those with newer homes that do not have lead supply pipes but have lead-brass fixtures and lead solder in their internal plumbing. The construction cost to implement the CCP at the Woodward Water Treatment Plant was approximately \$5 M and the annual operating cost is over \$300 K commencing in November 2018.

Despite the implementation of the CCP, the City continues to work with homeowners to replace lead water service lines with the LWSRLP and the Capital infrastructure replacement work. In September 2018, staff was directed to report back on the feasibility of a grant program for residents to replace lead water service lines. In order to assess the feasibility and / or need for a grant program, staff reviewed a number of Ontario municipalities who have considered or adopted financial assistance programs for homeowners to replace lead water service lines.

Adding a grant component to the existing LWSRLP is not recommended for a number of reasons (refer to the Analysis and Rationale for Recommendation Section for a fuller elaboration of below):

- Increases in public financial assistance 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 with no net benefit to homeowner, negating increased incentive to replace private lead water service line;
- The proposed grant program lacks an identifiable funding source and, if adopted even at a modest grant amount, would be financially unsustainable. The LWSRLP was created as an interest-bearing loan program that over time would become essentially self-financing, i.e. loan repayments + loan interest = loan pay-outs within a given period;
- Relative to other identified municipal programs, Hamilton's LWSRLP has proven to be very effective in providing financial assistance to enable the replacement of 2,000 private lead water lines since 2007, which otherwise may have previously not been replaced due to the costs being perceived as prohibitive. Over 20% of all lead service line replacements have occurred with the support of the LWSRLP; and
- It is unclear that there is a contractor base in Hamilton to support a sharp increase in lead service line replacements as currently a small number of contractors complete this work. Brantford has cited a lack of contractors in restraining the number of services that can be replaced in a given year.

The LWSRLP remains an effective financial assistance program with continued strong uptake, however, staff has reviewed the Program to further enhance it. There has been some demonstrated interest on the part of loan recipients for greater flexibility with the repayment terms offered by the LWSRLP. Under the existing Program, the loan recipient's tax roll account will be invoiced on the owner's June Property Tax Instalment for the annual lead loan payment that becomes due (10% Principal + One year's Interest). The current annual repayment lacks flexibility and is largely a manual process administered primarily by the City's Taxation division.

Staff has had discussions with the City of Brantford that has, within the past year, launched a lead service line replacement loan program whereby the principal loan amount and interest are applied to the property owner's water and wastewater account. Under Brantford's plan, the loan with interest is repaid by property owners with their bi-monthly water bill and the owner has the option of choosing a five or ten-year loan amortization period.

Report FCS19025 seeks approval to amend the LWSRLP so that effective May 1, 2019, loan amounts provided under the LWSRLP will be added to the property owner's Alectra Utilities (Alectra) water account to be repaid on a monthly basis over a period of up to 10 years. Monthly repayments should improve the ability of customers to develop and manage personal budgets through smaller, more affordable repayment amounts. A further benefit will be that more frequent payments on the interest-bearing loan will result in lower total interest being paid over the term of the loan. For a maximum loan repaid monthly versus annual payments, the cumulative interest savings would amount to approximately \$150. The revised LWSRLP will offer the property owner the option of choosing an amortization period of up to 10 years.

As interest savings would be available with monthly loan repayments, as well as, reduce the related administrative burden on City staff, recommendation (d) of Report FCS19025 seeks direction to staff to offer property owners with a current outstanding loan the option to have the remaining balance transferred to their Alectra water account to be repaid monthly on the same terms when the loan was originally approved.

Alternatives for Consideration – Not Applicable

FINANCIAL – STAFFING – LEGAL IMPLICATIONS

Financial: The loans under the LWSRLP are funded from the Waterworks reserve with the net outstanding Program balance reflected in a long-term receivable balance sheet account. With the loans being interest-bearing, the opportunity costs related to investment returns of water reserve funds is essentially offset. The goal of the LWSRLP is to provide financial assistance to property owners, through an interest-bearing loan, repayable to the City over a period of up to 10 years. The interest rate charged is based on the City's 10-year cost to borrow plus 0.25% for loan administration. The rate is reviewed annually and reset each January with the rate held constant for the term of each loan. The Program has generally reached the point that it is essentially self-financing, i.e. loan repayments + loan interest = loan pay-outs within the year.

However, should the demand increase significantly under the LWSRLP in any given year, there may be years where the net balance increases to the aforementioned receivable account. For example, in 2018 total repayments amounted to \$307 K with new loans payable of \$490 K resulting in the receivable increasing by \$182 K at year-end.

Staffing: The existing workload associated with the LWSRLP loan collection will be shifted from Corporate Services Finance and Administration staff to Alectra at no additional expense to the City. With increased loan activity, City staff has been stretched to support the LWSRLP and with the recommended shift of the collection aspect to Alectra, City staff will be able to manage the loan application intakes and loan disbursements more efficiently.

Legal: As part of the loan program, the property owner agrees to have the loan amount, including interest, added to the property owner's Alectra water account for repayment to the City with monthly payments for a term of up to 120 months.

HISTORICAL BACKGROUND

Based on best available information, it is estimated that the City of Hamilton has approximately 20,000 households with potential lead exposure associated with water services. While staff cannot identify the distribution of this figure by geographic boundary, it can be assumed that homes built prior to the mid-1950's may be impacted by some level of risk, assuming the service lines and plumbing have not been replaced to date.

The City's Lead Water Service Replacement Loan Program (LWSRLP) was approved by Council in October 2007 (refer to Report FCS07087(a) / PW07121(a)). The purpose of the LWSRLP is to provide homeowners with the continued opportunity to access funding, through an interest-bearing loan from the City, for the purpose of assisting homeowners to reduce their risk of exposure to lead in tap water that could be coming from their private lead water service line. City staff have been working towards a goal to replace the City's service stub (located on City property) in conjunction with the property owner replacing the service extension (located on private property), subject to the availability of funds.

Since the inception of the LWSRLP in the fall of 2007 to December 31, 2018, 2,000 loans have been issued with a total loan value of approximately \$3.15 M.

The LWSRLP enables eligible residential property owners that meet the program requirements to borrow a loan amount to assist in repaying the cost of private lead water service line replacements. The annual loan amount that becomes due added to the homeowner's tax roll and is required to be repaid to the City over a period of up to 10 years. Currently, each household is eligible for a maximum loan of \$2,500. The interest charged on an annual basis is based on the City's ten-year cost to borrow and the rate is maintained for the entire period of the loan. The interest rate has been reviewed annually and reset, as required, at the start of each calendar year based on the City's ten-year cost to borrow.

Transferring the loan to the tax roll enables homeowners who want to replace their private portion lead water service with an option to repay the cost over a number of years. As part of the loan agreement, the property owner consents to the City collecting the loan payments through the property tax bill for administrative ease. Despite such collection, the loan does not have the same priority lien status as property taxes.

Risk has been somewhat mitigated by the relatively small amount of the loans (maximum of \$2,500), the payment of funds by the City only after the lead pipe has been replaced and the requirement that borrowers meet the eligibility criteria, which includes that the property owners be current on all property taxes.

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

None identified.

RELEVANT CONSULTATION

City Manager's Office – Legal Services Division has been consulted in the preparation of Report FCS19025.

Corporate Services – Hamilton Water Finance and Administration Section has provided input into Report FCS19025.

Public Works – Hamilton Water Division has been consulted and supports the recommendations in Report FCS19025.

Alectra Utilities has been consulted and advised of implementation requirements that arise from the adoption of recommendations of Report FCS19025 and have indicated they can support the City with these initiatives.

ANALYSIS AND RATIONALE FOR RECOMMENDATION(S)

In September 2018, staff was directed to report back on a feasibility of a grant program for residents to replace private lead water service lines. To assess the feasibility and / or need for a grant program, staff reviewed several Ontario municipalities who have considered or adopted financial assistance programs for homeowners to replace lead water service lines.

City of London

In early 2007, London was identified as having high lead concentration samples in testing conducted by the Ministry of Environment, Conservation and Parks (MECP). It was believed that water chemistry of London's water supply may have caused corrosion in lead pipes resulting in elevated lead readings. In August 2007, London launched its Lead Service Extension Replacement Program providing interest-bearing loans to homeowners to replace private lead service lines over a 10-year period with property tax payments.

In 2016, London reported having reduced the number of private lead water lines to approximately 4,350 from an estimate of 9,000 in 2006. However, the loan program has had very limited uptake with a total of 70 loans issued from 2007 to 2018 suggesting affordability may not have been an issue. Noteworthy is that London's loan program does not include a maximum loan amount. Staff concluded that by not providing a maximum loan

amount, that contractors would be more inclined to offer better pricing knowing that other contractors would not be targeting a maximum loan amount.

In addition, to lead service replacements, London's Corrosion Control Plan further seeks to reduce the amount of lead released into the water supply by adjusting the pH of London's drinking water.

City of Brantford

In 2008, Brantford launched a grant program offering \$1 K to homeowners to replace private lead water services lines. At that time, Brantford estimated there were approximately 3,200 private lead lines. Between 2008 and 2016, 687 grants were approved, however, falling below the annual average of 200 lead line replacements the City targeted to achieve. The grant program's limited impact on reducing lead service lines was a result of property owners citing the high replacement cost inclusive of restoration costs relative to the available \$1 K financial assistance and a lack of contractor availability to complete line replacement work which in turn may have applied upward pressure on pricing.

In lieu of adopting a corrosion control program consisting of a chemical inhibitor to prevent the leaching of lead, Brantford has chosen to enhance its lead service replacement program by providing additional public financial assistance for homeowners to replace private lead services. As of July 2018, Brantford has added an interest-bearing loan program offering up to \$3 K to replace private lead water service lines that would be combined with the existing grant of \$1 K. At that time, the average cost for a private lead service replacement was estimated to be \$1.8 K. In 2018, 79 grants / loans were approved but only 59 lead service line replacements were completed due to a lack of contractor resources. Brantford staff has advised that the average financial assistance provided has increased to approximately \$3.6 K from since the loan component was added. This observed correlation of cost aligning to the amount of public financial assistance suggests that the additional assistance being offered may result in no net benefit to homeowners negating the intended increased incentive to replace private lead water service lines.

City of Toronto

In 2005, Toronto launched a five-year, \$250 M lead public service replacement program with homeowners responsible to replace the private portion at their own cost. By 2010, it became apparent, that fewer than 50% of homeowners were changing the private portion of the line when the City replaced the public portion. Recognizing that replacing the private lead lines would take several decades to accomplish, Toronto implemented a corrosion control program in December 2014, adding phosphate to the water at its four treatment plants. In 2015, it was estimated that approximately 34,000 residential properties in Toronto have private-side lead water service pipes. In November 2015, an interest-bearing loan program that would have provided up to \$2.5 K over five years to be repaid on property taxes was not approved by Council. Toronto's targeted testing of tap water lead in 2017 indicated

significantly lower lead levels, a result of its Corrosion Control Plan implemented from 2009 to 2017.

Hamilton Lead Replacement Program

Adding a grant component to the existing LWSRLP is not recommended for several reasons:

- Increases in public financial assistance for specific works such as lead water replacement, have resulted in the average cost for such work to rise to the maximum amount available with no net benefit to homeowner negating increased incentive to replace private lead water service line. In 2018, 98% of LWSRLP loans provided reflect a total invoice cost for residents of \$2,500 equivalent to the maximum loan amount provided. When the maximum loan amount was increased from \$2,000 three years ago, there was an almost immediate cost increase for the line replacement work.
- The proposed grant program lacks an identifiable funding source and if adopted even at a modest grant amount, would be financially unsustainable. The LWSRLP was created as an interest-bearing loan program that over time would become essentially self-financing, i.e. loan repayments + loan interest = loan pay-outs within a given period;
- Relative to other identified municipal programs, Hamilton's LWSRLP has proven to be very effective in providing financial assistance to enable the replacement of 2,000 private lead water lines since 2007, which otherwise may have previously not been replaced due to the costs being perceived as prohibitive. Over 20% of all lead service line replacements have occurred with the support of the LWSRLP; and
- It is unclear that there is a contractor base in Hamilton to support a sharp increase in lead service line replacements as currently a small number of contractors complete this work. Brantford has cited a lack of contractors in restraining the number of services that can be replaced in a given year.

Additionally, over the past decade, Hamilton has experienced a robust level of redevelopment of older homes that would result in sub-standard services (including lead water service lines) being abandoned with new services being required for rebuilt structures. A review of service disconnection activity (often associated with demolitions) in 2018 reflected a total of 100 service disconnections with approximately 50% of the total requiring the water line to be abandoned / replaced. The water line abandonments were associated with much older homes that likely had lead service lines.

Beyond direct financial incentives, there are other measures for the City to help encourage private lead water line replacements. Oftentimes, property owners / occupants of homes are unaware of the existence of a lead water service line to the property. Hamilton Water (HW) is reviewing opportunities to enhance its Water Service Validation process whereby when a HW staff or contractor resource is attending a homeowner's basement for water

meter work or inspections, the property's water service can be inspected to validate the presence of a lead service line. This presents an outreach opportunity to communicate with the property owner about the presence of the lead water service line, potential health impacts and mitigating measures including line replacement with information regarding the LWSRLP. There may be additional inspection opportunities such as when installations of back water valves occur.

Another avenue by which the presence of private lead water service may become known is through home inspections that typically occur during real estate transactions. However, home inspections being historically unregulated may not necessarily test the water service pipe to determine if it is lead. Ontario is moving towards regulating home inspections with the passage of the *Home Inspection Act, 2017* that has not yet been proclaimed in force. The Ministry of Government and Consumer Services is developing the associated Regulations. Recommendation (e) to Report FCS19025 seeks Council's support for the City to formally submit to the Minister of Government and Consumer Services supporting testing to identify lead water service lines be included in the Regulations being developed for the implementation of the *Home Inspection Act, 2017*.

Hamilton has maintained a long-standing commitment to replace public lead services where the property owner has replaced the private lead service line. To shorten or eliminate the partial replacement timeframe, some water utilities identify a roster of contractors for residents to utilize for private lead service line replacements who in turn, as a roster contractor may proceed to replace the public portion of the line (assuming it is lead) at the same time. HW is going to review this concept for possible adoption in Hamilton.

A proactive approach that has been adopted or even mandated in many US jurisdictions to accelerate private lead water service line replacements is for the utility to systematically replace all known public lead service lines within a target time frame (for example 10 years) and in turn, advise adjacent property owners where their lines are lead and assist those homeowners to replace their side of the lead service line at the same time the City's side is being replaced. Beyond financial assistance programs, the assistance provided may include tendered pricing from the City contractor replacing the public service lines to replace private service lines and project management by the City to replace the public and private portions of the lead service line. The City's average cost to replace the public portion of a lead service line at approximately \$5 K is double the cost for the average private lead water service line. Recommendation (d) to Report FCS19025 seeks to have Hamilton Water staff report back to the Public Works Committee by Q3 2019 on the feasibility of replacing all known public lead water service.

The LWSRLP remains an effective financial assistance program with continued strong uptake, however, staff has reviewed the Program to further enhance it. There has been some demonstrated interest on the part of loan recipients for greater flexibility with the repayment terms offered by the LWSRLP. Under the existing Program, a loan recipient's tax roll account will be invoiced on the owner's June Property Tax Instalment for the outstanding lead loan repayments (10% Principal + One year's Interest). The current annual

repayment lacks flexibility and is largely a manual process administered primarily by the City's Taxation division.

Staff has had discussions with the City of Brantford that has, within the past year, launched a lead service line replacement loan program whereby the principal loan amount and interest are applied to the property owner's water and wastewater account. Under Brantford's plan, the loan with interest is repaid by property owners with their bi-monthly water bill and the owner has the option of choosing a five or ten-year loan amortization period.

Report FCS19025 seeks approval to amend the LWSRLP so that effective May 1, 2019, loan amounts provided under the LWSRLP will be added to the property owner's Alectra water account to be repaid on a monthly basis over a period of up to 10 years. Monthly repayments should improve the ability of customers to develop and manage budgets through smaller, more affordable repayment amounts. More frequent payments on the interest-bearing loan will result in lower total interest being paid over the term of the loan. For a maximum loan repaid monthly versus annual payments, the cumulative interest savings will amount to approximately \$150. The revised LWSRLP will offer the property owner the option of choosing a loan amortization period of up to 10 years.

Utilizing the water bill for loan repayments by Hamilton residents has successfully occurred in the past during the Universal Metering Program whereby approximately 35,000 residences were required to have a water meter installed between 2002-2004. Property owners were given the option to repay the related meter installation fee over five years on their bi-monthly water bills then issued by Hamilton Hydro.

With the current LWSRLP, once a loan is issued, the administration of collecting the loan repayments lies with Taxation and Hamilton Water's Finance and Administration Section. These administrative efforts would shift to Alectra under the recommended revised LWSRLP. The loans would be administered in a like manner as a water arrears deferred payment arrangement. As such, there would no additional costs charged to the City from Alectra to administer the collection of future loans.

ALTERNATIVES FOR CONSIDERATION

N/A

ALIGNMENT TO THE 2016 – 2025 STRATEGIC PLAN

Healthy and Safe Communities

Hamilton is a safe and supportive City where people are active, healthy, and have a high quality of life.

Clean and Green

Hamilton is environmentally sustainable with a healthy balance of natural and urban spaces.

APPENDICES AND SCHEDULES ATTACHED

N/A

JS/dt