



**STAFF REPORT
ACTION REQUIRED**

Lead Water Service Replacement during the Water Meter Replacement Program

Date:	November 12, 2013
To:	City Council
From:	General Manager, Toronto Water
Wards:	All
Reference Number:	P:\2013\Cluster B\TW\cc13023

SUMMARY

This report responds to a request from the Public Works and Infrastructure Committee for a report directly to City Council through the budget process on several specific items relating to lead water service replacements that are completed in conjunction with the water meter replacement program.

RECOMMENDATIONS

The General Manager, Toronto Water recommends that:

1. City Council receive this report for information.

Financial Impact

There are no financial implications arising from the recommendation of this report. This report provides a summary of the potential expenditures and lost revenues associated with amending the Water Meter Replacement Program for properties with lead water service.

If City Council directs that the fee to turn-off and turn-on the water to a private property be waived in cases where it is required for the purpose of replacing a water service in advance of the water meter installation, the estimated loss in revenue would be \$442,260 based on the assumption that 1.5% of the remaining 189,000 installations at January 1, 2014 will also require a water service replacement. Any loss in revenue would require an offsetting reduction in the 2014 Recommended Operating Budget for Toronto Water to maintain Toronto Water's capital contribution at the level recommended for 2014.

If City Council requests Toronto Water to provide, free of charge, NSF-053 water filters to households replacing the private portion of lead water service when the replacement is required to install a Water Meter, the estimated cost for the remaining accounts would be approximately \$253,750 based on the assumption that 25% of the remaining 7,000 flat rate accounts as at January 1, 2014 would be eligible. Any increase in capital costs would require an amendment to the 2014 Capital Budget and 2015-2023 Capital Plan for Toronto Water, and the 2014 Water and Wastewater Rates and Service Fees Report.

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

DECISION HISTORY

At its meeting on October 21, 2013, during consideration of report PW26.3 entitled "Update on the Water Meter Program", the Public Works and Infrastructure Committee:

- A. Recommended to City Council for consideration on November 13, 2013, that:
1. City Council request the General Manager, Toronto Water, to report through the 2014 budget process on the feasibility and cost of amending the Water Service Replacement Program to include the replacement of the public section of a lead water service as a Priority Replacement in conjunction with the Water Meter Program, so that the public and private sections are replaced at the same time when the private section replacement is required for the installation of a new water meter.
 2. City Council request the General Manager, Toronto Water to consider re-allocating the projected surplus funds budgeted for the Water Meter Program to the Priority Replacements Program to increase the number of lead service replacements to meet the demand.
 3. City Council request the General Manager, Toronto Water, to provide advice notices on at least an annual basis reminding customers of their responsibility to maintain plumbing connections satisfactorily to enable new metering devices to be installed from time to time.
 4. City Council direct that the fee to shut off and restore water service to a private dwelling be waived in cases where shut-off is required for the purpose of installing a new service connection as a result of replacing the City water meter.
- B. Referred the following motion by Councillor Davis to the General Manager, Toronto Water, for a report directly to City Council on November 13, 2013, if possible:
"City Council request Toronto Public Health and Toronto Water to ensure that the NSF – 053 free water filters are being provided to households replacing the private portion of lead water service when the replacement is required to install a Water Meter."

A copy of the Public Works and Infrastructure Committee decision related to this request is available at:

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2013.PW26.3>

ISSUE BACKGROUND

The City of Toronto is currently implementing a mandatory water meter program that will replace or install new automated meters in every home and business in the city to provide an equitable system for all Toronto Water customers. The City will provide meters to those who were previously on a flat rate system and replace old existing meters with more efficient and up-to-date technology. The program is being rolled out on a ward-by-ward basis over a six-year period, beginning in 2010 and ending in 2015.

Water meters are typically installed within buildings and are connected to the private portion of the water service. The water service is the pipe delivering water to individual buildings and may be made of lead depending on when it was installed. The water service is divided into two portions: the section of the pipe running from the watermain to the property line is owned and maintained by the City; and the section of the pipe running from the property line into the house is the responsibility of the homeowner. When replacing a lead water service, it is best to replace both portions of the pipe in order to reduce lead in the drinking water.

In 2011, Toronto City Council approved the Lead in Drinking Water Mitigation Strategy to help reduce lead in drinking water. The strategy is comprised of the following components:

- (i) Corrosion Control. The corrosion control plan is required under MOE regulations and when implemented will reduce the acidity of drinking water with the addition of phosphoric acid. Its reaction with lead will allow for the formation of an insoluble coating on the internal surfaces of the distribution system and household plumbing. By changing the water at the treatment plants, the City will be able to mitigate corrosion and therefore lower the lead concentration at the tap. The City is on schedule to implement the corrosion control plan in 2013-2014.
- (ii) Planned Water Service Replacement. The City-owned portion of lead pipes that supply water to residential homes are replaced in coordination with other planned construction projects.
- (iii) Priority Lead Water Service Replacement. A program for residents who want to replace the entire lead pipe that supplies water to their home. When the property owner replaces the privately-owned section of the lead pipe at the same time or before the City-owned portion, the City commits to replacing the City-owned pipes.
- (iv) Emergency Water Service Replacement. Emergency replacement takes place when a pipe that supplies water to a home is broken or has low flow.
- (v) Faucet Filter Program. The faucet filter program has two parts:
 - Part 1. A one-time free NSF-053 certified faucet filter for lead removal, to all homes immediately following the replacement of the City-owned section of the lead pipe that supplies water to the home; and

- Part 2. The Faucet Filter Rebate Program also offers an annual \$100 rebate for the purchase of a NSF-053 certified faucet-mounted filter to applicants who meet the eligibility requirements.

During the installation of the new water meters, in some situations, the existing water service material is lead or corroded galvanized iron that is not adequate to enable the new meters to be installed. In these situations, customers are requested to replace their private portion of the water service and apply to the City's Priority Lead Water Service Replacement Program for replacement of the City-owned portion. The City will replace its portion in up to 12 weeks, weather permitting and based on available funding which will then allow the new water meter installation to proceed.

At its meeting on October 21, 2013, during consideration of report PW26.3 entitled "Update on the Water Meter Program", the Public Works and Infrastructure Committee requested the General Manager of Toronto Water to report to City Council on several specific items relating to lead water service replacements that are completed in conjunction with the water meter replacement program.

This report was prepared in consultation with the Medical Officer of Health and the Deputy City Manager and Chief Financial Officer.

COMMENTS

This report addresses a number of specific items relating to lead water service replacements that are completed in conjunction with the water meter replacement program.

1. Priority Lead Water Service Replacement in conjunction with the Water Meter Program

The scope of work under the water meter program involves the installation of new automated meters for approximately 474,000 water accounts. At the start of the project, there were approximately 68,000 flat rate accounts, and 406,000 accounts with existing meters that required replacement. The first new water meter installations occurred in April 2010. As of August 31, 2013, 250,800 new water meters have been installed representing 53% of the total 474,000 water accounts. There are 223,200 water meters remaining to be installed and the project is expected to be substantially complete by the end of 2015, ahead of the original schedule.

Water meters are typically installed within buildings and are connected to the private portion of the water service. In order for a new water meter to be installed, the existing water service must be in good condition. If the existing water service material is lead or corroded galvanized iron the water meter installation cannot proceed. In these situations, customers are requested to replace their private portion of the water service and apply to the City's Priority Lead Water Service Replacement Program for replacement of the City owned portion. Property owners can choose to replace the private portion of their water

service through their own contractor or enter into a signed agreement with the City's contractor to replace both portions at the same time. This allows the customer to choose the method that is most effective and convenient for them. When replacing a lead water service, it is best to replace both portions of the pipe in order to reduce lead in the drinking water.

Since 2011, staff administering the City's Priority Lead Water Service Replacement and Water Meter Programs has coordinated their efforts. In cases where the property owner elects to use the City's Priority Lead Water Service Replacement Program contractor, staff will notify the Water Meter Program of the scheduled water service replacement work. As the replacement work will be performed by the City's contractor within a 12 week period, no prioritization is required. Water Meter Program staff monitor the listing of work orders from the Priority Lead Water Service Replacement Program and know not to take enforcement action under the water meter program until the water service is replaced. Following the water service replacement work, the homeowner is then required to setup an appointment for the installation of the water meter.

Under the Occupational Health and Safety Act the “constructor” has overall authority for health and safety matters on a construction project. When a third party is contracted by the City to undertake a project on its behalf, the third party becomes the constructor. However, if more than one third party is contracted by the City to undertake work at the same location at the same time, the City becomes the constructor. Therefore, in the case of the two contractors hired by the City to perform the Priority Lead Water Service Replacement Program and the Water Meter Program at the same location, it is important that the work be performed at different times so that the City does not become the constructor.

Where the property owner uses their own contractor to perform the replacement of the private portion of the water service, it would be extremely complicated for the City to coordinate the work of the property owner's contractor with the City's contractor to have both sections of the lead service line completed at the same time. It would be very difficult to schedule City contracted work crews at various locations and on times and dates that are convenient for individual homeowners. The City's contractor has a limited number of crews available to complete service replacement and the work must be coordinated in advance to ensure proper utility locates are obtained. In addition, there would be a conflict with "constructor status" between the two contractors under the Occupational Health and Safety Act as they would be working in the same excavation.

Once a property owner has completed an upgrade to the private portion of the water service, they can contact the Water Meter Program immediately following to have the new meter installed. Since the water meter is not directly connected to the city's portion of the water service, there is no impact to the replacement of the City portion of the water service. However it may take up to 12 weeks for the City's Priority Lead Water Service Replacement Program contractor to replace the City's portion of the water service.

Given that there is already a coordinated effort between staff of the Priority Lead Water Service Replacement and Water Meter Programs, there is no need to amend the Water

Service Replacement program to include the replacement of the public section of a lead water service as a Priority Replacement in conjunction with the Water Meter Program.

2. Re-allocating funds to increase Priority Lead Water Service Replacements Program

In 2011, the Priority Lead Water Service Replacement Program was launched. Under the program, property owners may have the City-owned portion of their lead water service replaced by meeting the requirements of the program and submitting an application with the supporting documentation to Toronto Water. To be considered under the program, applicants must include among other items either: (i) An invoice from a contractor indicating that the private side of the water service has been replaced, including date and cost of work (i.e. already replaced); or (ii) a signed agreement with the City-hired contractor indicating that the private side of the lead water service will be replaced at the same time as the City-owned portion. Water service replacements under this program are capped at 1,500 replacements per year.

Since the program was launched, applications to the program have not yet reached the cap of 1,500 replacements per year therefore at this time there is no need to reallocate additional funds to increase the cap to more than 1,500 per year.

3. Communication with Customers on the Plumbing Requirements for Water Meter Replacement

In the majority of cases the water meter replacement is free of charge to customers. However, in some situations the existing water service material is lead or corroded galvanized piping that is not adequate to enable meters to be installed. In these situations customers are requested to replace their water service. Most customers recognize the need for the upgrades and are able to do so. In some cases, customers have difficulty with the cost of the upgrades, which causes delay in the meter installation.

Toronto Water will review the water meter replacement project information material on its website, brochures and letters to ensure that the requirement for customers to have adequate plumbing to enable the water meters to be installed is better communicated.

4. Fees for Water Service Replacements in conjunction with the Water Meter Program

In the majority of cases water can be turned off to allow for the water meter replacement by using a shut-off valve located near the water meter. However, in some cases where the water service must be replaced in advance of the water meter, the water must be turned off by Toronto Water staff using the curb-stop valve typically located at the property line. There is a \$78 fee for each water turn-off or turn-on in order for the City to recover its cost to provide this service.

When the property owner elects to use the City's Priority Lead Water Service Replacement Program contractor, both the City's portion and the private portion of the

water service are replaced at the same time. In this case the City's contractor would need to arrange to turn-off and turn-on the water anyway and the property owner is not charged a fee for this service.

When the property owner elects to use their own contractor, only the private portion of the water service is replaced. In this case the property owner's contractor would arrange to turn-off and turn-on the water and is charged a fee for this service. If the water service is replaced under the Priority Lead Water Service Replacement Program, the City's portion of the water service would be replaced up to 12 weeks later and arrangements for turn-off and turn-on would be made separately.

Based on a review of accounts where the water meters have already been replaced, it is estimated that approximately 1.5% of the accounts required the water service to be replaced before a water meter could be installed. By January 1, 2014, the total number of accounts that require a new water meter will be 189,000. If it is assumed that 1.5% of the remaining 189,000 accounts also require a water service replacement, the estimated number of remaining water service replacements under the program would be 2,835.

If City Council directs that the fee to turn-off and turn-on the water to a private property be waived in cases where it is required for the purpose of replacing a water service in advance of the water meter installation, the estimated loss in revenue would be \$442,260 (i.e. $189,000 \times 0.015 \times \78×2).

5. Provision of Water Filters to customers replacing the lead water service in conjunction with the Water Meter Program

As part of the City's Faucet Filter Program, a one-time free NSF-053 certified faucet filter for lead removal is supplied to all homes immediately following the replacement of the City-owned section of the lead pipe that supplies water to the home. The cost to supply a faucet filter to a home is approximately \$145.

When the property owner elects to use the City's Priority Lead Water Service Replacement Program they will have the City-owned portion of their lead water service replaced and will receive a one-time free NSF-053 certified faucet filter for lead removal.

However, in some cases, property owners may only partially replace the private portion of the lead service in order to facilitate the water meter installation. If this is the case, property owners would not qualify for the Priority Lead Water Service Replacement Program and would not receive a free NSF-053 certified faucet filter.

If City Council directs that all property owners that require the installation of a new meter and have a lead water service receive a free NSF-053 certified faucet filter, then Toronto Water can coordinate the distribution of faucet filters with the City's contractor when a new water meter is installed.

Providing this additional service is estimated to cost \$253,750 based on approximately 7,000 flat-rate accounts that still require a new water meter to be installed. If it is

assumed that the majority of the remaining lead water services are contained within the 7,000 remaining flat rate accounts and that 25% of those accounts have lead services, the additional cost to ensure that a free NSF-053 certified faucet filter is calculated as $7,000 \times 0.25 \times \$145 = \$253,750$.

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