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**TO:** GENERAL COMMITTEE

**SUBJECT:** FEASIBILITY OF POLICY CHANGE RELATED TO SEWER CONNECTION OWNERSHIP

**WARD:** ALL

**PREPARED BY AND KEY CONTACT:** A. FOSTER, A.Sc.T, CRS, ACTING MANAGER OF ROADS, STORMWATER AND RAIL OPERATIONS EXT. 4831

**SUBMITTED BY:** C. MORTON, C.E.T., PMP, ACTING DIRECTOR OF ROADS, PARKS AND FLEET  
R. SUTTON, P.Eng, DIRECTOR OF ENGINEERING

**GENERAL MANAGER APPROVAL:** D. FRIARY, ACTING GENERAL MANAGER OF INFRASTRUCTURE AND GROWTH MANAGEMENT

**CHIEF ADMINISTRATIVE OFFICER APPROVAL:** M. PROWSE, CHIEF ADMINISTRATIVE OFFICER

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#### **RECOMMENDED MOTION**

1. That Staff Report RPF009-18 concerning the investigation of the feasibility of a change to Council Policy 72-P-303 and 94-G-339 be received for information purposes.

#### **PURPOSE & BACKGROUND**

2. On May 21, 2018, City Council adopted motion 18-G-103 regarding **INVESTIGATION OF THE FEASIBILITY OF A CHANGE TO COUNCIL POLICY 72-P-303 AND 94-G-339** as follows:

"That staff in the Roads, Parks and Fleet and Engineering Departments investigate the feasibility of changing Council Policies 72-P-303 and 94-G-339 that require a property owner to pay for the replacement cost of failed sewer connections between a building structure and the sewer main and report back to General Committee after consultation with the Legal Services Department regarding possible alternatives as well as any potential exposures including costs to the Corporation."

3. The City of Barrie has two primary Council Policies outlining the responsibility of private sanitary sewer connections.

City Council Policy 72-G-303 **RESPONSIBILITY OF SEWER CONNECTIONS:**

"The sewer connection shall be defined as the pipe or conduit connecting any building or private property to a sewer main which is part of the municipal system, and as the connection is for the sole use of the occupants of that building or private property, all maintenance, clearing, or repairs of that connection shall be the responsibility of the property owners. The clearing of blocked mains shall be the responsibility of the City of Barrie."

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And, City Council Policy 94-G-339 **BITUMINOUS FIBRE PIPE:**

"Where a sewer connection has been made using bituminous fiber pipe (no-corrode) and is in a state of failure as determined by the Roads, Parks and Fleet Department, the City will refund the property owner the full amount of the deposit and will waive any additional costs for replacement of the sewer connection from the sewer main to the property line, and the property owner will be responsible for the cost of replacement from the property line to the building. This policy shall apply to sewer connection replacements carried out by City of Barrie forces."

4. Sanitary sewer connections carry waste water from private industrial, commercial, institutional and residential properties. The sanitary sewer connection is connected to the City's sanitary sewer where all sanitary waste water is conveyed to the Wastewater Treatment Facility (WwTF) for treatment. The City has no control of what enters residential sewer connections and relies on voluntary compliance to the Sewer Use By-law 2012-172. Depositing unauthorized substances into the sewer connection can degrade the sewer connection, causing it to structurally fail or become blocked. Because each sewer connection is for the sole use of an individual property owner, and provides no collective benefit to other individual properties, the entire sewer connection is deemed to be private infrastructure.
5. Bituminous fibre pipe was used rather extensively after World War 2 due to a shortage of raw materials typically used to construct sanitary sewer connection pipe. Bituminous fibre pipe is essentially tightly wound paper impregnated with bitumen. With the advent of conventional dishwashers and washing machines, the super-heated water softens the bitumen which results in the pipe developing internal blisters, losing its structural integrity, becoming oval-shaped and eventually collapsing. Bituminous fibre pipe was used for approximately 25 years in Barrie beginning in the late 1940's before it was removed from standards as an acceptable pipe material. The product was used extensively in 1950's, 1960's and early 1970's throughout the City of Barrie and all over North America. Most municipalities have either a replacement program or a program to assist residents with bituminous fibre sewer connections. The product was failing prior to its maximum potential life expectancy of 50 years, and therefore the City enacted a policy (94-G-339) that sewer connections constructed of bituminous fibre pipe would be replaced at the City's cost between property line and the sewer main. It is estimated that there are 1780 bituminous fibre sewer connections that exist in the City of Barrie.
6. The purpose of this Staff Report is to provide information regarding the City's current practices surrounding the ownership and maintenance sanitary sewer connections and outline the impacts should a change to our current policies occur as per motion 18-G-103. This Staff Report will also suggest additional opportunities to assist residents with the maintenance and repairs of their sanitary sewer connection.

## **ANALYSIS**

### **Current Inventory and Policy:**

7. The City currently operates 452km of gravity sanitary sewers with an estimated replacement cost of \$426,850,000 (2016) with an annual operating budget of \$1,385,000. This does not include treatment.
8. There are 43,607 sewer connections currently billed in the City of Barrie. Assuming an average length of 20m from the building to the sewer main, the total length of the sewer connections would be approximately 872km of pipe with an approximate replacement cost of \$823,480,000 (2016).

9. Assuming an average length of 10m between the property line and sewer main (as per ownership of some of the other comparators, Appendix A), the estimated length of sewer connections within City-owned land is approximately 436km with a replacement value of \$411,740,000 (2016).
10. The replacement value of sewer connections was calculated using the per kilometre replacement cost (2016) of the gravity sanitary sewer main inventory. Differences in pipe size, materials, and construction requirements for sewer connections may result in a cost that is slightly lower than estimated.
11. The City of Barrie currently does not assume responsibility for sanitary sewer connections as per Council Policy 72-G-303 - Responsibility of Sewer Connections. Property owners are responsible for the repair, maintenance and replacement of their sanitary sewer connections. This includes the entire length of the pipe from the building to where it connects to the sewer main, usually under the street. Repairs can be costly ranging from \$10,000 to \$15,000 on average, but can exceed \$20,000 in some cases. This repair cost is inclusive of final restoration for the area on City property and is reflective of the City's cost to make repairs. Private property restorations vary significantly depending on landscaping, portions of sewer under driveways, interlocking stone, stamped concrete, porches or steps, or the layout of the connection itself. Removing and replacing these types of installations is very costly. The City would need to determine who is responsible for replacing landscaping if the City were to accept ownership of sanitary sewer connections passing through private property.
12. The preferred method of repairing sewer connections is insitu lining, which typically comes at a much lesser cost of about \$7,000 from the sewer main to the property line (including the cost of a cleanout installation). Extending the liner to the building brings the total lining cost to \$10,500. This is an ad hoc contract price; a contract for multiple linings in a localized area may come at a lower unit cost. Sewer connections are usually not a candidate for lining due to an advanced state of disrepair when identified upon failure.
13. Currently, the City of Barrie does not have a sewer connection inspection program. Should the City assume responsibility for sewer connections, a strong inspection program would be recommended, in order to identify candidate sewer connections before they enter an advanced state of disrepair so they can be lined. Inspection costs are outlined further below.
14. There are an estimated 1780 bituminous fibre pipe sewer connections in the City of Barrie (Appendix B), mostly centralized in the older east end (south of Steel Street, north of Blake Street, between St. Vincent Street and Johnson Street). There are other larger pockets in Letitia Heights east of Anne Street North and in the Grove Street East/Davidson Street areas. The estimation was made by identifying the areas that were constructed during the time bituminous fibre pipe was used and cross referencing with areas where it has been confirmed during past repairs. Bituminous fibre pipe sewer connections are replaced ad hoc as they fail by City staff and contractors and as per Council Policy 94-G-339 – Bituminous Fibre Pipe, replacement between the sewer main and the property line is at no cost to the homeowner. Homeowners are responsible for the portion between the property line and building.

**Current Process and Potential Impact of Policy Change:**

15. Over the past several years, City staff have replaced 5 to 8 bituminous fibre pipe sewer connections annually but that number is steadily increasing. City staff have already replaced 9 bituminous fibre pipe sewer connections so far in 2018. Most bituminous fibre pipe sewer connections have already exceeded their normal maximum potential design life of 50 years. The City does not have a dedicated bituminous fibre pipe replacement program.

16. Bituminous fibre pipe connections are not the only material that fails and requires replacement. Given the current City policy that property owners are responsible for the lateral from building to main, the City does not have complete data about the number of laterals that fail each year. It is possible to estimate this data based on Right of Way Activity Permits and Building Permits that were obtained to repair or replace sewer connections where the work was completed on City property and private property respectively. This information is summarized below. The total estimated cost of the portion of these repairs that would be on City property is calculated based on the City's average 10m sewer connection replacement cost of \$12,500.

Sewer Repair Right of Way Activity Permits (work on City property)			Sewer Repair Building Permits (work on private property)		
Year	Number of Repairs	Projected Cost	Number of Permits	Projected Cost	Total Projected Cost
2017	21	\$262,500.00	26	\$325,000	\$587,500
2018*	16	\$200,000.00	No data		

\* As of June 15, 2018

17. It is difficult to determine how many sewer connections would require replacement if the City were to obtain ownership. Anecdotally, there are a number of residents that maintain their sewer connection on a regular basis in order to avoid a service disruption as they have a known defect in their sewer connection and wish to avoid or delay the cost of replacement. In 2017, the Roads Operations Branch received 136 calls for sewage backing up into basements. Upon investigation by staff, 132 of the calls were due to issues within the sewer connection itself, at which time the property owner was advised to call a plumber for service. The City also receives calls directly from plumbers for assistance with sewer backups. There are many property owners that call a plumber prior to calling the City where the plumber resolves the issue. The City is not party to these instances, therefore staff is unable to estimate actual calls for sewer connection service in Barrie. As a comparison, the City of Guelph reports that they responded to 208 sewer connection blockages in the period of January 2, 2018 to May 31, 2018. This equates to 2 sewer connection clearing service calls per working day.
18. The Roads, Stormwater and Rail Operations Branch anticipates an initial influx of an additional 20-30 sewer connection repairs annually to the repair figures in the table above as a potential result of a policy and ownership change. As a result of inspections, the City would also be required to repair sewer connections proactively should defects be discovered.

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19. The City does not currently have an inspection program for sewer connections, therefore reliable condition data does not exist. The City does however regularly inspect sewer mains, and in cases where inspection data is not available, age and material are used as proxies to estimate condition. It would be reasonable to assume that the condition profile for the sewer connections would resemble that of the sewer network. In conjunction with the data below, it is necessary to understand that as sanitary sewer mains are replaced through City reconstruction projects, most sewer connections are replaced from the sewer main to the property line at no cost to the property owner. In these instances however, the sewer connection portion between the property line and the building is not replaced. Therefore, a newer sewer main that has been replaced or renewed, as the result of a capital project, could have a current condition rating of good or very good but the portion of the sewer connections on private property that are connected to the new main may have a lesser condition rating because they were not replaced at the time of the sanitary sewer main. Alternatively, during other projects such as water main replacements, sewer connections are assessed on a case by case basis and may or may not be replaced between the sewer main and the property line. Should the City consider a policy and ownership change for the laterals from the sewer main to the building, additional capital funding would be required to replace the remaining portion of the connection from the property line to the building. A base estimate is included in the financial section.
20. Below is the sanitary sewer condition data for local sanitary sewer mains in the City of Barrie. We can estimate that the sanitary sewer connections in the City will be no better than the following condition summary:
- 0.5% - very poor condition (approx. 1.8 km) – correlates to 218 sewer connections
  - 4.2% - poor condition (approx. 16.9 km) – correlates to 1832 sewer connections
  - 5.1% - fair condition (approx. 20.8 km) – correlates to 2224 sewer connections
  - 16.7% - good condition (approx. 68.2 km) – correlates to 7282 sewer connections
  - 73.5% - very good condition (approx. 299.7 km) – correlates to 32,051 sewer connections
21. If the City were to fund the replacement of sewer connections on an as and when required basis, replacements would need to be completed by City staff and City approved contractors with set items and prices to control costs. An additional 6 new staff would be required, including field construction staff, inspection/maintenance staff and supervisory staff. Additional funds for asphalt, road base, curb and sidewalk would be required to restore the affected repair areas. It is estimated that \$1,180,000 in annual operating costs would be required to fund these additional activities. The funds would come from the wastewater rate operating budget. The new staff members would also require equipment and vehicles. An additional \$300,000 capital funds would be required to equip the new staff.

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**Additional Considerations:**

22. The City of Barrie has a system wide Environmental Compliance Approval (ECA) issued by the Ministry of Environment and Climate Change (MOECC). The sewer connections would need to be added to the linear sewer assets in the ECA. The City is required to maintain records of its existing infrastructure. It is estimated that as many as 7,000 sewer connection records do not exist, so the City would need to conduct a data collection exercise to update its sanitary sewer infrastructure inventory. Additionally, the ECA requires the City to annually inspect its sanitary sewers. The City currently inspects 10% of its gravity sanitary sewers. The City should extend the inspection program to the sewer connection inventory. Sewer connections can be inspected through a cleanout located inside the building by making an appointment with the resident, or inspected using a side launch sewer connection camera from inside the sewer main. The current contract price for one sewer connection inspection is \$250. In order to inspect the very poor and poor condition sewer connections (approximately 2000), an additional \$500,000 would be required to add to the inspection program based on this contract price. It would be recommended to prioritize and phase this inspection program with a gradual increase over several years. Efficiencies could be gained by combining the inspection program with data collection for missing service records.
23. The City has a regulated duty under the Ontario Underground Infrastructure Notification System Act, 2012 to locate its infrastructure when any type of excavation works are to be undertaken by private contractors or City staff. The Water Operations Branch of the Environmental Services Department currently locates all City owned infrastructure. As sewer connections are privately owned, they are not located. If the City were to locate sewer connections, an appointment would need to be made at each building affected to complete a locate of the sewer connections from inside the building. It is not advisable to use the record drawings as they are not reliable or in some cases do not exist. If the locate is not accurate and an excavator incidentally damages the sewer connection, the City would be liable for all associated damages and the subsequent repair. The Water Operations Branch estimates that the sewer connection locates would increase typical locate times from 30 minutes to 2 hours. Additional infrastructure locating staff would be required, along with vehicles and equipment.
24. A Change in the policy and ownership related to sewer connections would require the City to make changes to its Engineering Standards. New standards would need to be developed for tracer wire so that sewer laterals installed in the future would be able to be located from the surface rather than from within buildings. Additionally, a new standard for either outside the building cleanouts or property line cleanouts would need to be developed for all new builds and reconstructions.
25. It would be advisable to have a capital retrofit program to install cleanouts at existing buildings or property line, depending areas of responsibility in a new policy. Cleanouts installed at the time of new construction do not come with significant cost, but installing cleanouts on existing sewer connections vary from \$1,500 to \$2,000 each. Approximately \$75,000,000 would be required to install cleanouts on all existing sewer connections. To reduce this cost, the new staff could install cleanouts when not occupied with the completion of sewer connection repairs. Additionally, all sewer connection replacements or insitu linings would include the installation of a cleanout. Outside cleanouts provide the following efficiencies:
  - Act as a demarcation point to define areas of responsibility (i.e. between municipal and private)
  - Allow unimpeded 24 hour access to the sewer connection for locating, inspecting and clearing blockages as there is no need to enter a building to access the sewer connection
  - Significantly decrease the time required to complete locates
  - They are used for insitu lining



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26. Recognizing the significant cost of retrofit cleanout installations, a program would need to be developed to prioritize installation. An example is included in the financial section of this report to reflect a 10 year phased program. In the absence of cleanouts, the City will inherit some liability if a sewer connection was damaged as the result of the City being unable to complete a locate of a sewer connection as a result of inability to gain access to a house to locate the sewer connection or as a result of missing or inaccurate record drawings. In the absence of cleanouts, additional overtime will be required for staff to access homes after hours to complete locates, inspect or clear blockages when the resident is home. It is difficult to quantify the efficiencies of cleanouts at this time, however the operational change may require additional staff to be placed an afternoon shift to complete this work until such time that an adequate number of cleanouts are installed.
  27. Local Authority Services (LAS), an affiliate of the Association of Municipalities of Ontario (AMO) has partnered with Service Lines Warranty of Canada (SWLC) to promote a warranty program for privately owned water and sewer connections to municipalities in Ontario. A number of municipalities have entered into the program, including the Cities of Hamilton and Windsor. A full list of Ontario municipalities partnered with SWLC is included as Appendix C. If a municipality partners with SWLC, residents are able to opt into a warranty program for repair or replacement of their sewer connection should it fail. Property owners who have purchased the warranty and experience an issue with their sewer connection contact SWLC who will dispatch a local plumbing contractor to contact the property owner within 1 hour. If the sewer connection requires replacement or repair, it is replaced at either no cost or up to the cost of the benefit amount, depending on the coverage. Repairs are often completed within 24 hours. Monthly fees for residents who purchase the warranty are typically included on the water/sewer bill and vary depending on coverage, but are typically in the range of \$6 to \$9 per month. The warranty program is available for water service connections also.
  28. Facilitating a warranty program for interested property owners could provide financial protection to property owners, at lower cost to the municipality, than the City assuming responsibility for the sewer connections. Alternatively, the City could elect to enrol all property owners into the program and pay the associated fee on the property owner's behalf, which would be recovered through the user rate. This option could be investigated, and the costs compared to that of assuming responsibility for the sewer connections. There are other companies that provide this service and it is typically awarded through a Request for Proposal (RFP).
  29. Most sewer connections function using gravity to convey sewage from the building to the sewer main. However there are an unknown number of pressurized private force main sewer connections in the City of Barrie. Staff would need to conduct more research as to the ownership of these services. Typically, force main type systems are the responsibility of staff in the Environmental Services Department, Wastewater Operations Branch (WwOB), who operate the Waste Water Treatment Facility (WwTF). Should the City assume responsibility for sewer connections, a decision about how to approach pressurized sewer connections and the pumps that are required to operate them, would be required, including impact on WwOB staff resourcing and processes. Typically pressurized pipes would be more expensive to install and maintain.

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## **ENVIRONMENTAL MATTERS**

30. The following environmental matters have been considered in the development of the recommendation:
- a) Assuming ownership of sewer connections will require an update to the City's system wide Environmental Compliance Approval (ECA) issued by the Ministry of Environment and Climate Change (MOECC). This will over double our current linear asset inventory and all requirements of the ECA will apply to sewer connections.

## **ALTERNATIVES**

31. The following alternatives are available for consideration by General Committee:

- |                       |   |
|-----------------------|---|
| <b>Alternative #1</b> | <p>General Committee could maintain the existing policy for sewer connections as per Council Policies 72-P-303 and 94-G-339. This alternative is available for consideration.</p> <p>This would assist with controlling costs at current levels with additional costs for replacement of bituminous fibre service connections that will continue to fail at an increased rate due to age.</p>   |
| <b>Alternative #2</b> | <p>General Committee could change Council Policy 72-P-303 to make the City responsible for the replacement or repair of sewer connections from property line to sewer main. Council Policy 94-G-339 would become obsolete.</p> <p>This alternative is available for considerations. This alternative would result in a significant increase to the City's capital and operating budgets.</p>  |
| <b>Alternative #3</b> | <p>General Committee could ask staff to investigate warranty programs that are available to assist property owners with covering the cost of service connections replacements and report back to Council.</p> <p>This alternative is available for consideration. A warranty program could potentially reduce the cost of replacement for the homeowner and the City. Additional research is required to assess the feasibility of this option.</p> |



## **FINANCIAL**

32. If the City were to accept responsibility for sewer connections from the building to the sewer main, a high level summary of costs are below:

<b>Additional Annual Operating Increases Funded Through Wastewater Rate</b>	<b>2019</b>	<b>Future Impact</b>
<ul style="list-style-type: none"> <li>6 Full Time Equivalents – Salaries, Benefits and Training for Supervisory staff, Construction Staff, Inspection/Maintenance Staff - \$580,090</li> <li>Materials to replace 50-60 sewer connections and restore affected City and private property - \$358,000</li> <li>Ad hoc insitu liners - \$130,000</li> <li>Insurance Settlements - \$50,000</li> <li>Total does not include \$70,000 currently budgeted for bituminous fibre pipe replacements</li> </ul>	\$1,180,000	Perpetual with incremental annual increase
Staff to perform locates (3 Full Time Equivalents)	\$270,000	Perpetual with incremental annual increase
Sewer connection inspection Program	\$500,000	Perpetual with incremental annual increase
Sewer connection lining program	\$250,000	Perpetual with incremental annual increase
<b>Total</b>	<b>\$2,200,000</b>	

<b>Additional Capital Programs</b>	<b>2019</b>	<b>Future Impact</b>
Retrofit Cleanout Installation Program	\$7,500,000	10 year program, \$7.5 million per year (\$1750/installation X 4300/year)
Vehicles and equipment associated with sewer connection repair/maintenance crew and locating staff	\$500,000	Single purchase with as-required replacements
Capital sewer connection replacements on private property during reconstruction projects	\$800,000	Perpetual program dependent on need, restoration costs on private property will vary considerably (100 services/year at \$8,000 each).
<b>Total</b>	<b>\$8,800,000</b>	

33. In order for the City to fund this program, it would require wastewater rates to increase by an average of 13.7% in each of the next three years as follows:

Year	Rate Increase %	Rate Increase \$'s
2019	18.3%	\$85.60
2020	10.3%	\$56.99
2021	9.6%	\$58.54

Even with these projected increases, the wastewater Capital reserve would have a forecasted ending balance of approximately \$1.7M by 2021, which is not sufficient to fund existing capital needs.

34. The City would be exposed to liability for any sewer backups that result in damage to the homeowner's property, whenever such backup stems from the location for which the City assumed responsibility under the new policy. The City's potential exposure for each incident would be \$100,000 since that is the amount of the City's insurance deductible. Please note that this sum is in addition to costs that the City would incur to repairing the lateral that caused the damage.

**LINKAGE TO 2014-2018 STRATEGIC PLAN**

35. The recommendation(s) included in this Staff Report are not specifically related to the goals identified in the 2014-2018 Strategic Plan.

**APPENDIX "A"**

**SANITARY SEWER CONNECTION RESPONSIBILITIES WITHIN SIMILAR SIZED MUNICIPALITIES**

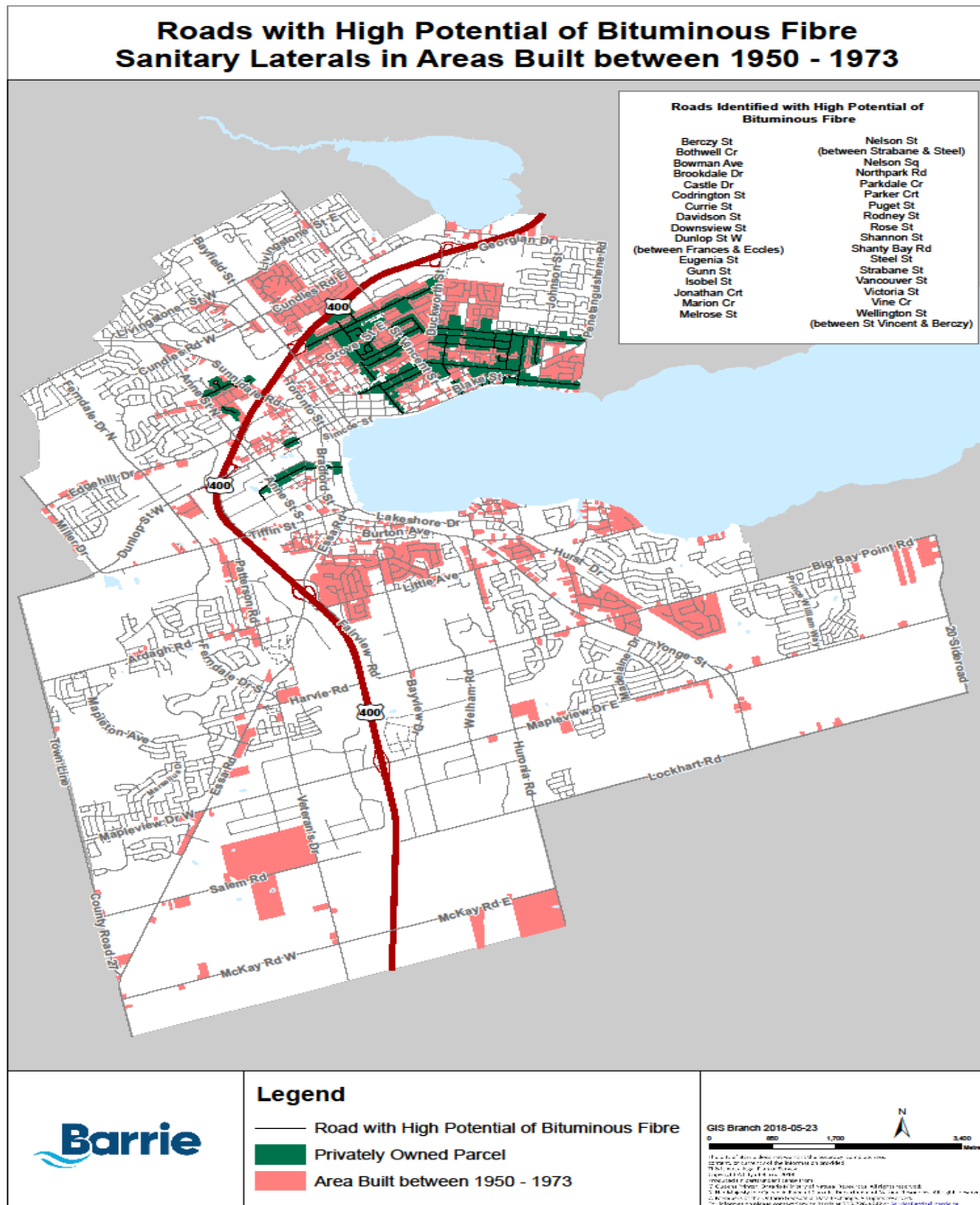
<b>MUNICIPALITY</b>	<b>HOMEOWNER RESPONSIBLE TO</b>	<b>ASSISTANCE PROGRAM DETAILS</b>
HAMILTON	MAIN	The City of Hamilton offers Service Line Warranties of Canada Sewer and Water Line Warranty program as the third party sewer connection warranty service to assist homeowners with unexpected repairs. There are three separate packages ranging from \$5.00 to \$6.50/month that cover different sewer connection issues and have separate repair incident coverage. If the blockage is caused by the City's infrastructure (i.e. tree roots) then homeowner is eligible for up to \$1500 grant for necessary repairs.
LONDON	MAIN	The City of London offers a 50% subsidy on the total cost for sanitary sewer connection repairs and a 20-year warranty for repairs or replacement on the City property with a condition that the repairs or replacement on City property must be completed by the City. The homeowner has the option of paying for City-side repairs over an extended period (up to ten years) through taxes. The City will also send staff out to assist to determine where blockage is.
WINDSOR	MAIN	The City of Windsor offers Service Line Warranties of Canada Sewer and Water Line Warranty program as the third party sanitary sewer connection warranty service to assist homeowners with unexpected repairs.
CHATHAM-KENT	MAIN	The City of Chatham-Kent covers costs for sanitary sewer connection repairs at case-by-case basis. Special considerations are given to homeowners with reoccurring issues with sanitary sewer connections.
WATERLOO	MAIN	The City of Waterloo offers the first sanitary sewer connection inspection for free to determine cause and the location of blockage. Homeowner is responsible for sewer connection blockages. If the sanitary sewer connection is made of bituminous fiber pipe (i.e. black pipe), the City will be responsible for the repair and replacement of the sewer connection.

MUNICIPALITY	HOMEOWNER RESPONSIBLE TO	ASSISTANCE PROGRAM DETAILS
BRANTFORD	PROPERTY	The City of Brantford offers services to clear sewer blockages 24 hours a day, 7 days a week. The City charges a competitive rate at a flat fee of \$400 per service call during normal hours and \$1,080 per service call during after hours, weekends and holidays for clearing stoppages. This fee is inclusive of labour and CCTV video charges. A CCTV video for the entire sewer connection will be taken at each service call to assess the structural conditions of the pipe and undertake necessary repairs to prevent future blockages. Effective January 1st 2014, property owners at Brantford are responsible for sewer connection up to property line.
KINGSTON	PROPERTY	There is no assistance program at the City of Kingston. Homeowners are responsible for all the maintenance/repairs up to the property line.
GUELPH	PROPERTY	The City of Guelph offers assistance program with flushing sewer connection if the blockage is in the City property.
CAMBRIDGE	PROPERTY	The City of Cambridge provides a list of pipe lining contractors to homeowners that offer repairs at a discount price.
HALTON REGION	PROPERTY	Halton Region offers a 50% subsidy for sanitary sewer connection repairs up to a maximum of \$2000. The City also offers a sewer connection (pipe) lining and repair subsidy which will also assists with before and after CCTV video.
AURORA	PROPERTY	The Town of Aurora provides a list of CCTV contractors to homeowners. The contractors will then invoice the appropriate party (homeowner or city) depending on the block location and the cause of it.
NEWMARKET	PROPERTY	The Town of Newmarket provides a list of pre-qualified contractors to homeowners for sewer connection repairs. Homeowners are responsible for repairs unless the blockage is proven to be caused within the Town property. Reimbursement will be issued after evidence is reviewed by the Town.

MUNICIPALITY	HOMEOWNER RESPONSIBLE TO	ASSISTANCE PROGRAM DETAILS
RICHMOND HILL	PROPERTY	Homeowners at the Town of Richmond Hill are responsible for the cost of the first service call from the Town. Homeowners also have an option to call a list of pre-qualified contractors to determine the cause of the blockage at the homeowners' cost. Homeowners have an option to apply for reimbursement for the repair. The reimbursement will be accessed based on the blockage location and the cause.
PETERBOROUGH	PROPERTY	The City of Peterborough offers first attempt to clear/flush sewer connection at no cost. The City will start to charge homeowners from the 2 <sup>nd</sup> service call.
ST CATHARINES	PROPERTY	The City of St. Catharines charges homeowners at a case-to-case basis based on the nature of the blockage, the location, and the equipment used.
SAULT STE MARIE	PROPERTY	The City of Sault Ste. Marie charges a flat fee of \$148+HST during regular hours and \$296+HST for outside hours for clearing blockages. There is no other assistance programs.
KAWARTHA LAKES	PROPERTY	There is no assistance program at the City of Kawartha Lakes. Homeowners are responsible for all the maintenance/repairs up to the property line.
KITCHENER	PROPERTY	The City of Kitchener offers first attempt to clear/flush sewer connection at no cost. Homeowners are responsible for all the maintenance/repairs up to the property line if open-cut construction is required.
DURHAM REGION	PROPERTY	The Durham Region offers free 24-hour cleaning service for sanitary sewer connections from house to main for single family, semi-detached, street townhouses and link houses with separate direct connections to sanitary sewer.

**APPENDIX "B"**

**AREAS WITH SUSPECTED BITUMINOUS FIBRE PIPE SEWER CONNECTIONS**





**APPENDIX "C"**

**ONTARIO MUNICIPALITIES PARTNERED WITH SERVICE LINES WARRANTY OF CANADA**

<b>Partners (31)</b>	<b>Households in Municipality</b>	<b>Close Date</b>
Regional Municipality of Peel-ON	413,304	10/5/2016
City of Hamilton-ON	203,806	7/21/2014
County of Brant-ON	13,847	5/27/2016
Town of Tecumseh-ON	8,912	10/19/2016
Town of Saugeen Shores-ON	7,525	7/22/2015
Town of Niagara-on-the-Lake-ON	7,374	10/1/2015
Town of South Bruce Peninsula-ON	7,164	11/10/2015
Township of St. Clair-ON	6,297	6/27/2016
Municipality of Meaford-ON	5,605	9/1/2015
Municipality of Grey Highlands-ON	5,451	5/1/2015
Township of Georgian Bluffs -ON	5,033	9/26/2016
Town of Fort Frances-ON	3,816	3/31/2017
Town of Arnprior-ON	3,727	1/6/2017
Township of Edwardsburgh/Cardinal -ON	3,064	7/14/2016
Town of Parry Sound-ON	3,026	1/5/2017
Township of Southgate-ON	3,025	8/1/2016
Municipality of Bayham-ON	2,623	3/24/2015
Town of Hearst-ON	2,528	12/9/2015
Municipality of Callander-ON	1,730	10/19/2015
Municipality of Wawa-ON	1,681	3/30/2015
Town of Atikokan-ON	1,585	4/13/2015
Municipality of Temagami-ON	1,442	1/3/2016
Township of Manitouwadge-ON	1,239	11/23/2016
Town of Mattawa-ON	1,078	4/6/2016
Township of Assiginack-ON	846	3/26/2015
Township of Billings-ON	701	2/14/2017
Township of Hornepayne -ON	568	7/4/2016
Town of Gore Bay-ON	439	4/21/2016
Township of McGarry-ON	437	3/26/2015
Municipality of Killarney-ON	400	7/21/2016
Township of Dubreuilville-ON	369	6/1/2015
Town of Gananoque-ON	2,527	9/28/2017
City of Elliot Lake-ON	6,352	9/22/2017
Town of Malahide-ON	3,113	10/20/2017
Town of Hanover-ON	3,409	11/7/2017



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Township of Ramara-ON	8,416	11/17/2017
City of Windsor-ON	98,687	est. 6/30/2018
City of Kenora-ON	7,498	5/20/2018
Town of Bancroft-ON	2,039	6/9/2018
<b>Council Approved/Pending</b>		
City of Ottawa-ON	377,000	
<b>Total Households</b>	<b>1,227,683</b>	