SUBJECT: City’s New Sewer Lateral Management Program  
(PW06022a) - (City Wide)  
Public Works Committee Outstanding Business

RECOMMENDATION:

(a) That Report PW06022a be received for information;
(b) That the issue related to the “City’s New Sewer Lateral Management Program” be lifted from the Outstanding Business List of the Public Works Committee.

EXECUTIVE SUMMARY:

On January 27, 2006, Council approved a new Sewer and Drain By-law 06-026 (Report PW06022) to come into force and effect on March 1, 2006. The new By-law reflected changes to corporate structure as a result of amalgamation and consolidated a number of amendments and changes to legislation into one document. Included in the new By-law was a provision for the implementation of the new Sewer Lateral Management Program based on the Sewer Lateral Management Policy. At the time of its approval Council directed staff to report back on the program after the conclusion of one year. The information contained herein provides information about the program’s achievements and effectiveness to-date.
BACKGROUND:

By-law R79-172, as amended, being the Sewer and Drain By-law of the former Regional Municipality of Hamilton-Wentworth, regulates the use and construction of sewers and drains within the City of Hamilton (“By-law R79-172”). On March 23, 2005, Council approved the implementation of the Sewer Lateral Management Program, based on the Sewer Lateral Management Policy, including the amendment of By-law R79-172, as amended. In response to numerous delegations at the September 12, 2005 Public Works, Infrastructure, and Environment Committee (“PWIE”) by representatives of the sewer contractors industry, PWIE and Council determined that the implementation of the Sewer Lateral Management Policy and Program would be delayed to allow for further input from the contractors and to allow staff to review the delivery portion of the program. An update on that input was provided by staff at the November 21, 2005 meeting of PWIE and subsequently, at its meeting of November 23, 2005, Council approved a revised implementation date for the Sewer Lateral Management Policy and Program of March 1, 2006.

By-law R79-172, as amended, has been amended many times since its original approval in 1979. In an effort to simplify the By-law’s appearance and reflect the many changes as a result of amalgamation and the approval of the new Sewer Lateral Management Policy, staff brought forward the recommendation to approve the new consolidated Sewer and Drain By-law. The new By-law gave the necessary authorization required to implement the new Sewer Lateral Management Policy and as a result it came into force and effect March 1, 2006.

The new Sewer Lateral Management Program was implemented on March 1, 2006 and the analysis below provides details respecting the status of the program. The three most significant changes with the new program are the authority provided for City staff to maintain the public portion of sewer laterals, the provision of sewer lateral cleaning and inspection services provided to property owners by the City, and the replacement of the existing tree root cleaning program for sewers impacted by roots from City trees.

City staff now have the authority to maintain the public portion of sewer laterals that service private properties. This element of the program allows staff to proactively inspect, clean, and repair or replace the public portion of sewer laterals. By authorizing City staff to do this private property owners are relieved of the responsibility to identify, understand, and conduct repairs of their sewer laterals within the road allowance. This also allows City staff to potentially identify required repairs before a sewer back-up is experienced and thus homeowners avoid costly insurance claims. It also allows the City to address problems in a proactive manner as opposed to a reactive one.

The City now offers property owners sewer lateral cleaning and inspection services when they are experiencing a sewer back-up. Prior to the implementation of this program, property owners who called the City for guidance were directed to call a private contractor for assistance. Under the new program, property owners are allowed to use their own private contractor should they choose to do so and are still eligible for reimbursement for their costs provided their contractor meets the same standard as the City’s service.

Under the previous program there was a provision to reimburse property owners for sewer lateral cleanings of roots suspected of growing from City trees. This program had
been in place for several years and although it allowed sewer service to continue to a particular property it never provided a permanent solution to the tree root problem. Under the new program customers who are confirmed to be experiencing tree root infiltration of their laterals from a City tree are provided with one free cleaning and inspection, after which they are offered up to $1500 reimbursement towards the completion of an appropriate permanent solution to the private portion of their sewer lateral. In these cases the City completes a permanent solution to the public portion at no cost to the homeowner.

City staff do not complete any of the site work such as cleaning, inspection, and repair or replacement services. Thus, several contracts were put in place to provide these services. Currently there are four cleaning and inspection contractors under contract with the City to provide first response, cleaning, and inspection service to property owners experiencing sewer back-ups. Once a decision has been made respecting repair or replacement of the public portion of the sewer lateral the City has a separate contractor under contract to complete these works.

**ANALYSIS/RATIONALE:**

The following analysis provides information respecting the main elements of the new Sewer Lateral Management Program and the level of service we have provided in our first year. As mentioned previously the three main elements of the program consist of the ability for staff to maintain sewer laterals within the public portion, the provision of cleaning and inspection services, and the replacement of the existing tree root program.

**Maintaining Sewer Laterals**

The new By-law provides the mechanism through which the City now maintains the public portion of the sewer lateral. This translates into the ability to clean, repair or replace the lateral without any participation from the property owner. Generally the only effort required by our customers is to permit access to their home to complete a Closed Circuit Television (CCTV) inspection of the lateral.

In the first year of the new program 243 sewer laterals were repaired or replaced. Traditionally, under the old program, approximately 180 sewer laterals would be replaced annually. This represents a 35% increase, which dramatically reduces the number of customers who could potentially experience an unexpected sewer back-up. In addition to this, the fact that the new By-law gives us the authority to maintain the public portion of the sewer lateral means our customers are no longer responsible for managing the repair of the lateral on the public portion. From the property owner’s perspective this is a dramatic improvement over the old program and removes a considerable amount of anxiety from an already stressful event.

In addition to completely replacing sewer laterals, staff are exploring the opportunity to implement a comprehensive no-dig lining program of sewer laterals. Lining is an excellent alternative in many situations where existing trees or crowded underground environments make excavating prohibitive. The use of sewer laterals liners is also a very effective way to reduce infiltration through the remediation of the junction between the lateral and the mainline sewer itself. This helps to reduce flows entering the wastewater treatment plant. To-date, over 500 other sewer laterals have been inspected and can be permanently repaired in this manner and we are optimistic a program will be in place by this Fall.
Cleaning and Inspection Services
Since March 1, 2006 and the implementation of the City’s new Sewer Lateral Program, 916 customers participated in the program, 691 of which used the City’s first response service while 225 used their own contractors. The 691 customer service calls provided by City contractors represents a vast improvement in customer service as compared to the old program that would see the customer being advised to find their own contractor for service. Under the new program each one of these calls results in the City obtaining a full CCTV inspection of the sewer lateral for the purposes of determining its structural integrity and if it requires repair or replacement. Under the old program, which was reactive by nature, the City would acquire only about 180 of these types of video inspections per year and only as a result of a sewer lateral failure and back-up. This amounts to a 400% increase in the number of laterals that now receive a full CCTV inspection. This dramatically increases the opportunity to be proactive and reduce the potential for future sewer back-ups and associated property damage for our customers.

Tree Root Investigations
As of March 1, 2006 and the implementation of the new program there were approximately 2,000 customers in the tree root cleaning database. All of these customers were contacted and advised of the new program and the opportunity to have their sewer lateral cleaned and inspected for free. Approximately 680 customers took advantage of the offer to have CCTV inspections completed to determine the condition of their sewer laterals. Under the old program approximately 900 customers annually would continue to have their laterals cleaned of roots without ever knowing the condition of their lateral. Now we are able to analyze the condition of their sewer lateral and make an appropriate recommendation regarding its condition.

In cases where a repair of the public portion is required the City will schedule the appropriate repair of the lateral on the public portion and coordinate with the homeowner should they choose to take advantage of the $1,500 rebate program.

Capital Planning and Implementation
In addition to the customer service oriented portion of the program which is administrated by the Water and Wastewater Division, the Capital Planning and Implementation Division (CPI) is also a partner in the program. Through the programming of capital works annually CPI will identify laterals that require attention and fall within the limits of scheduled capital works. CPI will also lead the implementation of the sewer lateral lining program to be initiated this fall.

Customer Feedback
The Water and Wastewater Division has been conducting customer satisfaction surveys to determine the success of the program’s first year. Our survey found that 88% of customers surveyed, who participated in the first year of the new program, indicated that they were satisfied with the service they received and of these, 73% indicated they were very satisfied. Of all customers surveyed, 75% indicated they had participated in a previous sewer lateral program being either tree root reimbursement or sewer lateral investigation.

The survey attempted to determine the performance of the contracted services used in providing the “first response” cleaning and investigation services that are now offered by the City. The survey indicates that 86% of respondents answered yes when questioned
if the contractors providing the services had followed the City’s protocol when performing their duties under the contract.

On average, our survey suggests that 4.6% of our customers indicate that they were unhappy with the program or the service they received. It appears that some of this dissatisfaction is related to sewer problems that occurred on private property which the program does not cover, however, City staff continue to follow-up on this information to determine if there is an opportunity to improve program or service levels going forward.

ALTERNATIVES FOR CONSIDERATION:
N/A

FINANCIAL/STAFFING/LEGAL IMPLICATIONS:
Under the old program the City incurred annual costs of approximately $1.3 Million to respond to the incidences of sewer back-ups related to structural collapses and reimbursement for tree root cleaning. The first year of the new program required approximately $2.1 Million of funding. This increase in spending was anticipated and identified in report TOE02203(c) “City’s New Sewer Lateral Management Program” dated August 19, 2005. The additional spending ensures that significantly more laterals are repaired, replaced, and inspected on a proactive basis. In addition, the next two years will see many more laterals rehabilitated than under the old program, further reducing the risk of back-ups for our customers. It is expected that this level of spending will be required for 2007 and 2008 to catch-up on the backlog of repairs which in previous years would have gone unnoticed until a complete failure caused a back-up. It is anticipated that by 2009 the pace at which sewer lateral repairs are needed will return to approximately 150 per year and then slowly decline as the inventory of laterals is replaced over the longer term. Based on today’s dollars it is expected that the program will cost approximately $1.8 Million in 2009 and then the program costs will slowly decline.

The new program is being managed by the existing complement of staff and it is expected that no additional staff will be required to manage the new program.

POLICIES AFFECTING PROPOSAL:
N/A

RELEVANT CONSULTATION:
N/A

CITY STRATEGIC COMMITMENT:
By evaluating the “Triple Bottom Line”, (community, environment, economic implications) we can make choices that create value across all three bottom lines, moving us closer to our vision for a sustainable community, and Provincial interests.

Community Well-Being is enhanced. ☒ Yes ☐ No
The well-being of the community is dramatically enhanced as a result of property owners being able to have the City respond to their sewer back-up events in a comprehensive and proactive manner. The new program reduces the amount of stress experienced by our customers as a result of a sewer lateral failure.
Environmental Well-Being is enhanced. ☑ Yes  ☐ No  
The well-being of the environment is protected as a result of the new program in the sense that replacing old infrastructure reduces the potential for infiltration and exfiltration from the wastewater collection system itself. In addition to this, the avoidance of property damage from sewer back-ups and the resulting reconstruction efforts reduces pressure on the environment.

Economic Well-Being is enhanced. ☑ Yes  ☐ No  
Economic well-being is enhanced as a result of the avoidance of large property damage claims and the resulting costs of reconstruction.

Does the option you are recommending create value across all three bottom lines?  ☑ Yes  ☐ No  
The new Sewer Lateral Management Program does create value across all three bottom lines, in particular the community aspect. This program is much more customer-friendly than the old program.

Do the options you are recommending make Hamilton a City of choice for high performance public servants?  ☑ Yes  ☐ No  
This program is progressive and very customer-oriented and makes it an attractive program for staff to manage.