

**THE CORPORATION OF THE CITY OF WINDSOR**  
**Office of the City Treasurer - Finance**



**MISSION STATEMENT:**

*"Our City is built on relationships – between citizens and their government, businesses and public institutions, city and region – all interconnected, mutually supportive, and focused on the brightest future we can create together."*

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|--|---|
| <b>LiveLink REPORT #: 18051 AFB/12131 SW2016</b>     | <b>Report Date: November 2, 2015</b>      |
| <b>Author's Name: Tony Ardovini</b>                  | <b>Date to Council: December 21, 2015</b> |
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**To: Mayor and Members of City Council**

**Subject: 2016 Sewer Surcharge Update**

**1. RECOMMENDATION: City Wide:  Ward(s):**

- I. THAT the following status quo wastewater rates, which avoid any increase in costs in 2016 for the average user using the same quantity of water, **BE APPROVED:**
  - A. Fixed Charge- To be based the metre size as detailed in Appendix B (\$15.87 for residential customers)
  - B. Water Consumption Charge- To be based on a rate per cubic metre of water (\$2.35 per m3 of water for residential users and \$0.81 per m3 for commercial customers); and
- II. THAT in order to avoid charging a surcharge on the water that is estimated to not have been returned to the sewer system, water consumption for the purpose of calculating the sewer surcharge bills for the extended summer months (May through October) continue to **BE BASED** on the lower of actual consumption or winter usage (November through April) and that WUC continue to use the appropriate billing methodology to achieve this goal; and
- III. THAT City Council **RECEIVE** the updated 2016 Sewer Surcharge Budget and 4-Year Sewer Surcharge Forecasts (2017-2020) as presented in Appendix A of the report; and
- IV. THAT the total contributions to the Equipment Replacement Reserve Funds remain at \$2,703,168, and be allocated as follows: \$891,830 to the LRWRP reserve, \$798,981 to the LRPCP reserve, and \$1,012,357 to the Pumping Stations reserve.

**EXECUTIVE SUMMARY:**

N/A

## **2. BACKGROUND:**

The sewer surcharge on the water bill has been in place since January 1, 1994. Until that date the costs were funded from the property tax levy. The intent of the surcharge is to charge a user fee on the estimated water that is discharged into the sewer system and has to be treated prior to being released back into the environment.

This report provides an update on the 2016 sewer surcharge rates and expected revenues based on meter and water consumption projections received from Windsor Utilities Commission.

## **3. DISCUSSION:**

### **General**

The Sewer Surcharge budget is updated annually and a 5 year projection, inclusive of the sewer surcharge rates, is submitted as part of the annual City budget.

Water meter and consumption projections were recently received from WUC staff. Water usage is projected to decrease in 2016 for both residential and commercial customers. This decrease is partially offset by the projected increase in meters for residential and commercial customers. Combined, the WUC water meter and consumption projections (on which the City's sewer surcharge rates are applied) reflect an overall decrease of approximately \$1.1 million in sewer surcharge revenues or 1.9%. This is consistent with the overall trend across the province as more people practice water conservation.

### **CITY OF WINDSOR'S SEWER NETWORK - OVERVIEW**

The City's sewer network consists of approximately 1,725 km of the following four types of sewers:

- 1) **Storm Sewers** carry storm water runoff only. Storm sewers eventually drain to the Detroit River, untreated. There are 781 kilometres of storm sewers within the City of Windsor
- 2) **Sanitary Sewers** are designed to convey human domestic and industrial waste to the City's wastewater treatment facilities. The City of Windsor maintains approximately 730 kilometres of sanitary sewers.
- 3) **Combined Sewers** were constructed throughout the City until the 1950s. Combined sewers carry both storm water and sanitary waste in a single pipe. Storm water and sanitary water flow together to the City's wastewater treatment plants through 214 km of combined sewers.
- 4) **Over-and-Under Sewers** consist of a dedicated sanitary sewer pipe with a larger, separate storm pipe installed directly over it. There are 19 km (included in storm and sanitary totals) of over-and-under sewers in Windsor which flow to the City's wastewater treatment plants.

Together, combined and over-and-under sewers represent approximately 13% of the entire sewer system.

The City of Windsor also has two water treatment plants, Lou Romano Water Reclamation Plant (LRWRP) and Little River Pollution Control Plant (LRPCP). The Lou Romano Water Reclamation Plant (recently expanded and upgraded at a cost of approximately \$110 million) drains approximately two-thirds of Windsor and accepts flow from Tecumseh and LaSalle. The Little River Pollution Control Plant also accepts sewage from the Town of Tecumseh.

There are three main sewers that enter into the Lou Romano Plant:

- 1) Lands north of E.C. Row and West of Pillette feed by gravity to the C.M.H. Woods (formerly Caron Avenue) Pump Station and this flow is pumped to the LRWRP through the Riverfront Interception.
- 2) The Town of LaSalle pumps sanitary sewage to the Lou Romano Plant by agreement.
- 3) The Windsor area south of E.C. Row flows by gravity to the LRWRP.

All three of the above flows enter the LRWRP at one location and are lifted into the Plant for treatment.

In addition to the two pollution control plants, the City has forty-three pumping stations (8 Sanitary, 29 Storm and 6 Combined). This is mainly due to the flat topography of Windsor. Pumping stations are a major component of the sewer network as they pump storm water and sewage to the appropriate places for discharge or treatment. All sanitary pump stations have back-up power and all storm pump stations have overflows.

The City recently constructed the Mario Sonego Retention Treatment Basin (RTB) on the riverfront. The RTB (construction cost of approximately \$67 million) is capturing, storing and treating combined sewer overflows that, before its construction, would otherwise discharge directly to the Detroit River. After a rain event, the solids retained by the RTB are conveyed by the sewer network to the LRWRP for further treatment.

As mentioned previously, there are 43 pump stations across Windsor. These pump stations are continuously monitored remotely from the LRWRP. There are a crew of 5 wastewater collection operators, licensed by the Ministry of the Environment, that ensure the pump stations are well maintained and operating efficiently. Staff monitors the systems during wet weather events to ensure there are no problems with the pump stations.

### **Capital Expenditures**

Over the last several years, the sewer surcharge has contributed \$21.6 million annually to fund sewer related projects in the capital budget (compared to approximately \$5 million a decade ago). The 2015 contingent allocation of \$2.1 million has been used to increase the 2016 funding to \$23.7 million. These expenditures fund sewer rehabilitation projects which reconstruct deteriorating sewers, the installation of new sewers, as well as the replacement of old sewers. These ongoing capital expenditures are crucial in order to reduce the risk of basement flooding and to protect the environment. Additionally, the sewer surcharge also funds approximately \$2.7 million of equipment purchases and replacements at the two water reclamation plants as well as the pumping stations. The eaves trough disconnection and backwater valve installation aimed at reducing basement flooding are some of the worthwhile projects funded from the sewer surcharge.

### **Operating Expenditures**

Although the City of Windsor makes improvements annually to the complex system of underground pipes, sewers and catch basins, given the volume of sewers to separate and/or repair it will take many years to completely accomplish. This also requires an operating budget to maintain the sewer system on an ongoing basis.

There are eighteen employees in the sewer maintenance area who perform sewer maintenance on the City's 1,725 km sewer network. The Sewer Maintenance Division has a preventative maintenance cleaning program wherein, subject to available resources, they routinely:

- Maintain sanitary sewers
- Clean storm sewers
- Clean catch basins

- Clean and grade municipal drains and roadside ditches.

This work is supported by the following equipment or crews:

- 4 flushers
- 1 rodder
- 1 set of sewer bucket machines
- 1 interceptor inspection crew
- 1 eel crew

Due to the volume and complexity (heavy sedimentation, roots, etc.), it takes more time to clean the City's 900 km of sanitary/combined sewer network (approximately 5 years for one cleaning cycle, subject to attending to complaints and based on current resource levels) than it does to clean the storm water sewers. Storm water sewers which carry clear rain water are not as complicated as sanitary sewers to clean. Therefore, it only takes 3 years to complete a cycle of cleaning the City's storm water sewer network, subject to attending to complaints and based on current resource levels.

Rodding of sewers in areas of the City known for root infiltration occurs continuously and takes approximately 2.75 years to complete one cleaning cycle.

The City has a program in place to video sewers to assess their condition. Approximately just over 20% of the city system has had video inspection. Contractors are used for this function, along with all sewer repair and installations.

Additionally, a system is in place to alert staff of upcoming forecasted rain events, which then proactively monitor the sewer system to address as many issues that arise as possible.

Other operating expenditures are incurred for various other sewer related activities, repayment of debt charges (for the Lou Romano Water Reclamation Plant upgrade and expansion) as well as administrative and support services.

#### **4. RISK ANALYSIS:**

As in prior years, there are a number of risks to be considered in conjunction with establishing the 2016 Sewer Surcharge rates some of which are summarized briefly below:

*Expenditure Risks* - The projections put forth are based on current estimates of the required expenditures relative to Pollution Control and Sewer Maintenance and Repair, etc. These estimates are expected to be reflective of final actual costs, however there is the risk given that these costs will be incurred throughout the year that some fluctuations in the expenditures as compared to budget may occur. The likelihood of this risk materializing is rated as possible; the likely impact of the consequences is rated as moderate. Therefore this should be considered a moderate risk. Mitigation for this risk comes from the Quarterly Variance monitoring and the Sewer Surcharge reserve fund.

*Water Consumption Risk* - Budget pressure on the sewer surcharge rate can result from any sewer surcharge revenue decrease related to the reduced consumption of water. Essentially, the decreased water consumption reduces the City's revenues from the sewer surcharge. At this point the water consumption is an estimate and is subject to considerable variability. This is a risk given the WUC planned increase to the water rates by 4% in 2016, and 4% in 2017. The likelihood of this risk materializing is rated as possible; the likely impact of the consequences is rated as moderate. Therefore this should be considered a moderate risk. Mitigation for this risk comes from the Quarterly Variance reports and the Sewer Surcharge reserve Fund.

*Elimination of Contingent Expenditure Risk* – In previous years \$2.1 million in contingent expenditures was included in the Sewer Surcharge Operating Fund to mitigate the risk that water usage would continue its decreasing trend. To date based on relatively stable water usage; we have been able to reallocate the \$2.1 million from 2014 and 2015 years into 2015 and 2016 capital budgets. Based on the 2016 projected decline in water usage figures provided by WUC staff, we can no longer keep this contingent line and must use it to offset the reduced revenue. Alternatively, sewer surcharge rates would need to be increased. The likelihood of lower sewer surcharge revenue as a result of lower than budgeted water usage is possible and the likely impact of the consequences rated as moderate. Therefore, the risk of removal of the contingent expenditure line is considered moderate and can be mitigated by the Quarterly Variance reports and the Sewer Surcharge Reserve Fund

*Capital Project Risks* - The capital budget items put forth reflect the best estimate of the capital costs required to complete the various projects under the capital plan. As with all budgets, these represents management's best estimates of the expected capital costs however as with all capital projects there is always the risks that costs may increase due to unforeseen issues that could not have been reasonably predicted. The likelihood of this risk materializing is rated as possible; the likely impact of the consequences is rated as moderate. Therefore this should be considered a moderate risk. Mitigation for this risk comes from the Capital Variance reports and from other sewer projects in a surplus position that can be used to fund projects in a deficit. In addition, there is Sewer Surcharge reserve fund, if necessary.

*Risks from possible Reduction in Capital Program* – Consideration may be given to the possibility of reducing the Capital Budget component of the Sewer Surcharge. Any consideration to such options should take into account the significant negative impacts on the infrastructure. There could also be a resultant impact on the ability to maintain the existing sewers, thereby reducing the pace of eliminating combined or leaky sewers. The likelihood of this risk materializing is rated as unlikely; the likely impact of the consequences is rated as high. Therefore this should be considered a moderate risk. Mitigation for this risk comes from the development of the Asset Management Plan that on an ongoing basis will assist with the prioritization of capital projects.

*Risks from Depleting the Sewer Surcharge Reserve* – Options may be considered to reduce / deplete the sewer surcharge reserve in order to reduce the sewer surcharge rates. This would leave the Corporation without an adequate dedicated reserve to fund any shortfalls. This is especially risky given the historical trend of declining revenues due to decreasing water consumption As well, this would leave the Corporation without the ability to fund the City's share of projects funded by provincial grants that are announced periodically for sewer/wastewater purposes. The likelihood of this risk materializing is rated as possible; the likely impact of the consequences is rated as moderate. Therefore this should be considered a moderate risk. Mitigation for this risk comes from the development of a five year forecast to anticipate future pressures.

*Climate Change Risks*- Increased rainfall from climate change may increase water infiltration into the sewer system. This would increase treatment costs. The likelihood of this risk materializing is rated as possible; the likely impact of the consequences is rated as moderate. Therefore this should be considered a moderate risk. Mitigation for this risk comes from the establishment of a budget that is based on historical averages and trends. In addition, there is the Sewer Surcharge reserve fund, if necessary.

## **5. FINANCIAL MATTERS:**

### **2015 Year-End Results**

While the 2015 year-end books will not be closed until the beginning of 2016, preliminary projections reported in the 3<sup>rd</sup> Quarter Variance Report indicate that Sewer Surcharge Operating Fund may end the year with a surplus of \$973,000 (or 1.6%) of the total budget. Any surplus will be transferred to the Sewer Surcharge Reserve Fund. The current balance in this reserve fund is approximately \$9.5 million and is used as both rate stabilization fund and capital expenditure fund for projects where funds are

required to match provincial funding announcements. The latter use is of particular importance as without it, we could not match provincial grants without severe spikes in the sewer surcharge rates. It is also important to note that Windsor's wastewater reserve per capita of \$52 is significantly lower than the provincial average of \$171.

### **Recommended 2016 Operating Expenditures**

The sewer surcharge funded operating costs are very challenging to reduce in the short term. Many of the processes in the pollution control plants are provincially legislated and must meet ever increasing environmental standards. The maintenance of the sewer system is also driven by required repairs, with most being reactionary in nature due to the age of the City's sewer infrastructure. Failing to provide ongoing maintenance will result in more expensive future replacement costs.

The sewer surcharge funded operating budget was reviewed in detail as part of the 2016 Operating Budget process with an effort to reduce costs wherever possible. During the 2016 operating budget, management did review a number of areas for possible operating efficiencies. Budget adjustment recommendations were made wherever possible. Some of the areas considered include the reduction in equipment, maintenance and sludge removal costs to reflect actual expenditures and other service reductions some of which were accepted and others were not. Main inflationary budget pressures included increased costs for salary/wages and benefits, utilities, and insurance.

Overall, the sewer surcharge operating budget expenditure requirements have increased by a modest \$157,317 or 0.2% as compared to 2015 (assuming status quo capital expenditures as discussed in the next section of the report). It is important to note that \$2.1 million in contingent expenditures has been removed. This line was initially set up to mitigate the risk that water usage would continue its decreasing trend. To date based on relatively stable water usage; we have been able to reallocate the \$2.1 million from 2014 and 2015 years into 2015 and 2016 capital budgets. Based on the 2016 projected \$1.1 million decline in water usage figures provided by WUC staff, we can no longer keep this contingent line and must use it to offset the reduced revenue. Alternatively, sewer surcharge rates would need to be increased.

The new Sewer Surcharge Budget and Forecast (2016-2020) is attached as Appendix A to this report.

### **Recommended 2015 Capital Expenditures**

In addition to the operating expenditures the sewer surcharge budget currently includes \$21.6 million in annual capital funding that is used to fund sewer related capital projects. Total available sewer surcharge funding in 2016 is \$21.6 million. Significant ISF funding was received in 2009/2010 to complete sewer servicing in the Employment Lands and to construct the Mario Sonogo Retention Treatment Basin (RTB) on the riverfront. Over the last decade, Council has steadily increased capital funding (from approximately \$5 million to the current \$21.6 million) to address basement flooding across the City and to chip away at the accumulated infrastructure deficit.

It is important to note that sewer maintenance and repair, drain maintenance, capital budget construction of sanitary, storm, storm relief and combined sewer replacement, and the support required for the above are all funded by sewer surcharge. Significant progress appears to have been made in the effort to reduce basement flooding.

In addition to the noted \$21.6 million funding, the proposed budget includes additional contingent expenditures of \$2.1. As noted in the risk section, the \$2.1 million was included to mitigate the risk of declining revenues given the province-wide trend and the proposed water rate increases over the next few years. This risk is especially pronounced given that the consumption portion accounts for 70% of the sewer surcharge revenues. Once the books are closed in 2016, the 2015 contingency can be redirected to

fund additional capital works in the 2016 capital budget, bringing the capital funding from the sewer surcharge to \$23.7 million for 2016.

**Recommended Status Quo Rates**

The sewer surcharge water consumption rates for 2016 are recommended to remain at \$2.35 per cubic metre of water for residential customers and \$0.81 per cubic meter for commercial customers. In addition, the fixed charge component of the surcharge is also being recommended to remain at the amounts shown in Appendix B (\$15.87 for residential consumers).

It is important to note that by leaving the 2016 sewer surcharge rates unchanged, consumers using the same quantity of water in 2016 as in 2015, will not see an increase to their sewer surcharge bills. Given the projected decrease in water consumption for 2016, some customers will actually experience a decrease in their sewer surcharge bill. The City will collect approximately \$1.1 million less in sewer surcharge revenues than in 2015. The projected sewer surcharge revenues and expenditures are detailed in Appendix A.

| <b>Typical Residential Customer</b> |  |  |
|-------------------------------------|--|--|
| <b>Sewer Rates</b>                  | <b>2015 Current Rates</b>  | <b>2016 Proposed Rates</b>   |
| Fixed Sewer Charge                  | \$15.87  | \$15.87  |
| Variable Sewer Charge               | \$2.35 per cubic metre of water used (reduced for excess summer consumption) | \$2.35 per cubic metre of water used (reduced for excess summer consumption) |

| <b>Typical Commercial Customer</b> |  |  |
|------------------------------------|--|--|
| <b>Sewer Rates</b>                 | <b>Current Commercial Rates</b>  | <b>Proposed Commercial Rates</b>   |
| Fixed Sewer Charge                 | \$80.58 for typical 1" service   | \$80.58 for typical 1" service   |
| Variable Sewer Charge              | \$0.81 per cubic metre of water used (reduced for excess summer consumption) | \$0.81 per cubic metre of water used (reduced for excess summer consumption) |

**Impact of WUC's "Winter Average Daily Usage" Calculation**

This calculation will continue to be completed for each customer with the sewer surcharge rates to be applied to the lower of actual water usage or winter average, whichever is lower, for each customer. This ensures that excess summer water usage (for watering lawns, washing cars, etc) is not used in calculating the sewer surcharge.

**Sewer Surcharge Revenue**

Below is a table that details the projected 2016 sewer surcharge revenues as compared to 2015. The allocation between residential & commercial customers has remained the same as 2015 and the allocation between fixed and variable costs remains at approximately 30/70 (fixed vs. variable) for residential customers. The percentage for fixed vs. variable has shifted slightly due to lower projected water usages and a projected increase in the number of meters.

|                       | Projected 2015 Sewer Revenues (\$) |            |            | Projected 2016 Sewer Revenues (\$) |            |            |
|-----------------------|------------------------------------|------------|------------|------------------------------------|------------|------------|
|                       | Residential                        | Commercial | Total      | Residential                        | Commercial | Total      |
| <b>Fixed</b>          |                                    | 7,785,389  | 7,785,389  |                                    | 8,002,821  | 8,002,821  |
| <b>Component</b>      | 12,189,350                         |            | 12,189,350 | 12,316,174                         |            | 12,316,174 |
|                       |                                    |            | 19,974,739 |                                    |            | 20,318,995 |
| <b>Variable</b>       |                                    | 11,079,313 | 11,079,313 |                                    | 10,667,000 | 10,667,000 |
| <b>Component</b>      | 28,504,777                         |            | 28,504,777 | 27,443,982                         |            | 27,443,982 |
|                       |                                    |            | 39,584,090 |                                    |            | 38,110,982 |
| <b>Total</b>          | 40,694,127                         | 18,864,702 | 59,558,829 | 39,760,156                         | 18,669,821 | 58,429,977 |
| <b>Residential vs</b> | 68%                                | 32%        |            | 68%                                | 32%        |            |
| <b>Commercial</b>     |                                    |            |            |                                    |            |            |
| <b>Fixed/Variable</b> | 30%                                | 41%        |            | 31%                                | 43%        |            |
| <b>Allocation</b>     | 70%                                | 59%        |            | 69%                                | 57%        |            |

**Note:** The City will be collecting the sewer surcharge revenue in the same proportion as in 2015 for commercial and residential customers. The decrease in revenues is not from a rate decrease, but results from the lower expected consumption patterns due to water conservation.

### Allocation of Costs

The residential/commercial ratio of 68%/32% was maintained at the historical ratio to avoid a shift in costs. Likewise, the fixed/variable allocation for commercial customers was maintained at approximately the historical level of 41%/59%. Similar to residential, the projected increase in meters and reduction in water usage has moved the ratio slightly to 43%/57%. Changing the fixed vs. variable split in the commercial customers to mirror the previously approved 30%/70% fixed/variable allocation for the residential customers would result in costs shifting from commercial customers with lower water usage to customers with a higher water usage. These are the reasons for maintaining the lower recommended consumption charge for the commercial customers.

### Other Factors Impacting the Sewer Surcharge Revenue

In recent years, the City experienced a trend of stable to lower water consumption similar to other municipalities in the province. The trend of lower water consumption appears to be intensifying for 2016. This trend is likely related to water conservation measures and technology as well as the slowdown in the economy. It is difficult to predict if this trend will stabilize or continue in future years.

It should be noted that the declining consumption puts upward pressure on the surcharge rate. The reason for this is that a significant portion of the costs related to wastewater are largely fixed and therefore reduced revenues from consumption cannot generally be offset by equal decreases in operating costs. Therefore, the impact of water consumption on sewer surcharge revenues remains a significant risk to the sewer surcharge model. This is evident in Appendix A, where by holding the sewer surcharge rates constant, the annual operating deficit funded by the sewer surcharge reserve increases annually.

In order to maintain the reserve at reasonable levels (approximately \$10 million which is a approximately 16% of the annual expenditures), a 2% annual rate increase is currently projected to be required starting in 2018.

## **Comparison of Charges**

Inclusive of the 2016 budget, there will have been rate increases in only two of the last eight years.

However, Based on the 2015 BMA Study, Windsor's sewer surcharge costs, at \$661 per year for the average residential consumer remain higher than the provincial average of \$471 (though Windsor's costs are below average for the heavy users in the commercial and industrial category).

This is not due to inefficiencies (see attached Appendix C - OMBI comparison chart that shows Windsor's operating costs are among the lowest in the province). Rather, the main reason for the higher cost is the amount of sewer capital projects that are funded by the sewer surcharge. Windsor's share of the sewer surcharge revenues that go to fund capital projects ranks highest in the province. In other words, as an older municipality with older infrastructure the funds are being put to good use to fund projects aimed at curbing basement flooding. Reducing the sewer surcharge rates would directly reduce the ongoing basement flooding mitigation efforts.

When comparing the combined costs of property taxes, water, and the sewer surcharge, the average Windsor property owner pays **less** in total charges than the provincial average.

## **Contributions to the Pollution Control Equipment Replacement Reserve Funds**

Annually, contributions are made from the Sewer Surcharge Operating Fund to the three Pollution Control reserves; one for the Lou Romano Water Reclamation Plant (LRWRP), one for the Little River Pollution Control Plant (LRPCP), and another for the City's Pumping Stations. These three reserves are used to fund capital expenditures related to equipment refurbishment & replacement at the above noted facilities. These reserves, and the contributions to them, have been in place for some time and are monitored and adjusted periodically as capital needs change.

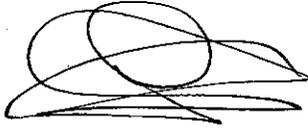
Presently, the annual contributions to the reserves total \$2,703,168, with the LRWRP reserve receiving \$1,391,830, the LRPCP reserve receiving \$573,981, and the Pumping Stations reserve receiving \$737,537. Given current contribution levels and capital spending projections, the three reserves are each projected to be in a deficit position at different times over the next 15 years. In light of these updated capital need projections, Administration is recommending that the total contributions remain unchanged for 2016, but be reallocated accordingly: \$891,830 to the LRWRP reserve (a \$500,000 reduction), \$798,981 to the LRPCP reserve (a \$225,000 increase), and \$1,012,357 to the Pumping Stations reserve (a \$275,000 increase). Although this reallocation balances the fund balances between the reserve funds, it does not improve the long term sustainability of the reserves. Based on current projections, the three reserves are projected to be in a \$9.8 million deficit position by 2030. In order to match the reserve fund balances with the projected capital expenditures going forward, the 5 Year projection for the Sewer Surcharge Operating Fund (Appendix A) includes a \$750,000 increase to the Depreciation (Transfer to Reserves for Equipment Reserves) line item starting in 2018.

## **6. CONSULTATIONS:**

Windsor Utilities Commission Staff  
Public Works Staff

**7. CONCLUSION:**

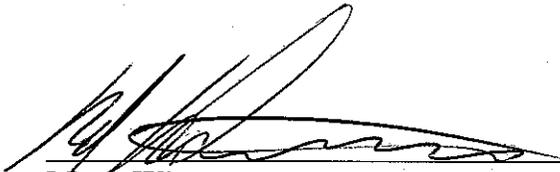
Given recent lower water consumption projections provided by WUC staff, minor increasing costs in the sewer surcharge operating fund, and the need to continue to fund much needed basement flooding mitigation projects as previously approved by Council, it is recommended that sewer surcharge rates remain unchanged for 2016.



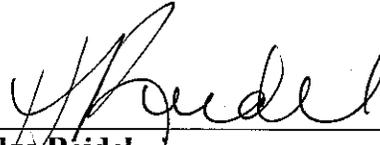
**Tony Ardovini**  
Deputy Treasurer, Financial Planning



**Onorio Colucci**  
Chief Financial Officer/City Treasurer and  
Corporate Leader Finance and Technology



**Mark Winterton**  
City Engineer and Corporate Leader  
Environmental Protection and  
Transportation



**Helga Reidel**  
Chief Administrative Officer

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**APPENDICES:**

**Appendix A – 2016 Sewer Surcharge Budget & Four Year Forecast (2017-2020)**

**Appendix B – Fixed Sewer Surcharge Rates**

**Appendix C – OMBI - What is the total cost of wastewater collection and conveyance?**

**DEPARTMENTS/OTHERS CONSULTED:**

**Name:**

**Phone #: 519            ext.**

**NOTIFICATION :**

| Name | Address | Email Address | Telephone | FAX |
|------|---------|---------------|-----------|-----|
|      |         |               |           |     |

## Sewer Surcharge - 2016 Budget and Four Year Forecast (2017-2020)

### Forecast based on No Change to Rates on January 1, 2016

|   | 2015        | 2016        | 2017          | 2018          | 2019          | 2020          |
|---|-------------|-------------|---------------|---------------|---------------|---------------|
|   | Budget (\$) | Budget (\$) | Forecast (\$) | Forecast (\$) | Forecast (\$) | Forecast (\$) |
| <b>PUBLIC WORKS EXPENDITURES</b>  |             |             |               |               |               |               |
| <b>POLLUTION CONTROL</b>  |             |             |               |               |               |               |
| Treatment Plants & Pump Stations  | 16,464,417  | 16,464,141  | 16,793,424    | 17,129,292    | 17,471,878    | 17,821,316    |
| Depreciation (Transfer To Reserves for Equipment Replacement)             | 2,703,168   | 2,703,168   | 2,703,168     | 3,453,168     | 3,453,168     | 3,453,168     |
|   | 19,167,585  | 19,167,309  | 19,496,592    | 20,582,460    | 20,925,046    | 21,274,484    |
| <b>SEWER MAINTENANCE &amp; REPAIR</b>                                     |             |             |               |               |               |               |
| PW - Operations   | 5,623,159   | 5,825,063   | 5,941,564     | 6,060,396     | 6,181,603     | 6,305,236     |
| PW - Environmental Services   | 1,050,747   | 1,191,521   | 1,215,351     | 1,239,658     | 1,264,452     | 1,289,741     |
| PW - Engineering & Corporate Projects                                     | 224,177     | 220,594     | 225,006       | 229,506       | 234,096       | 238,778       |
| PW - Administration   | 108,228     | 129,892     | 132,490       | 135,140       | 137,842       | 140,599       |
|   | 7,006,311   | 7,367,070   | 7,514,411     | 7,664,700     | 7,817,994     | 7,974,353     |
| <b>Total Public Works Operating Budget Expenditures</b>                   | 26,173,896  | 26,534,379  | 27,011,003    | 28,247,160    | 28,743,040    | 29,248,837    |
| <b>Total Public Works Capital Expenditures</b>                            | 21,600,000  | 21,600,000  | 21,600,000    | 21,600,000    | 21,600,000    | 21,600,000    |
| <b>Contingent Public Works Capital Expenditures (Note E)</b>              | 2,100,000   | -           | -             | -             | -             | -             |
| <b>TOTAL PUBLIC WORKS EXPENDITURES</b>                                    | 49,873,896  | 48,134,379  | 48,611,003    | 49,847,160    | 50,343,040    | 50,848,837    |
| <b>OTHER EXPENDITURES</b>   |             |             |               |               |               |               |
| Debt Servicing Costs - LRWRP 20 Year Debenture                            | 2,565,079   | 2,565,079   | 2,565,079     | 2,565,079     | 2,565,079     | 2,565,079     |
| ENWIN Administration Fee  | 3,524,400   | 3,443,000   | 3,511,860     | 3,582,097     | 3,653,739     | 3,726,814     |
| Overhead Allocation (Transfer to Current)                                 | 3,491,173   | 3,369,407   | 3,402,770     | 3,489,301     | 3,524,013     | 3,559,419     |
| Appeal Refunds & General Expenses   | 500,000     | 500,000     | 500,000       | 500,000       | 500,000       | 500,000       |
| <b>TOTAL OTHER EXPENDITURES</b>   | 10,080,652  | 9,877,486   | 9,979,709     | 10,136,477    | 10,242,831    | 10,351,312    |
| <b>TOTAL OF ALL EXPENDITURES</b>  | 59,954,548  | 58,011,865  | 58,590,712    | 59,983,637    | 60,585,871    | 61,200,149    |
| <b>SURCHARGE REVENUES</b>   | 59,588,829  | 58,429,977  | 58,429,977    | 59,598,577    | 60,790,548    | 62,006,359    |
| <b>NET CHANGE IN SEWER SURCHARGE OPERATING FUND #28</b>                   | (365,719)   | 418,112     | (160,735)     | (385,061)     | 204,677       | 806,210       |
| <b>PROJECTED CUMMULATIVE BALANCE OF SEWER SURCHARGE RESERVE FUND #153</b> | 10,000,000  | 10,418,112  | 10,257,377    | 9,872,316     | 10,076,994    | 10,883,204    |

**NOTES:**

A - Assumes general expenditures increase at a rate of 2% per annum (2017-2020) for inflation, except where specific projections are available and an annual sewer surcharge rate increase of 2% starting in 2018.

B - Overhead expenditure allocation based on 7% of total Public Works expenditures.

C - Revenues are based on 2016 water meter and consumption projections received from ENWIN staff discounted by 5%

D - The chart above is meant to reflect the net wastewater expenditures funded by the sewer surcharge. Therefore, expenditures and revenues in the chart exclude approximately \$2.5 million in expenses funded directly by billings to the towns of Lasalle & Tecumseh.

E - \$2.1 million of the Contingent Public Works Capital Expenditure for 2015 has been recommended as additional funding for the 2016 capital budget.

**It should be stressed that both the Windsor Utility Commission's water consumption and Public Work's expenditure figures are projections. As with all projections, they are based on a number of variables and assumptions that, if not achieved, may materially impact the results of this model. This is especially true for longer term projections such as this.**

# Fixed Sewer Surcharge Rates

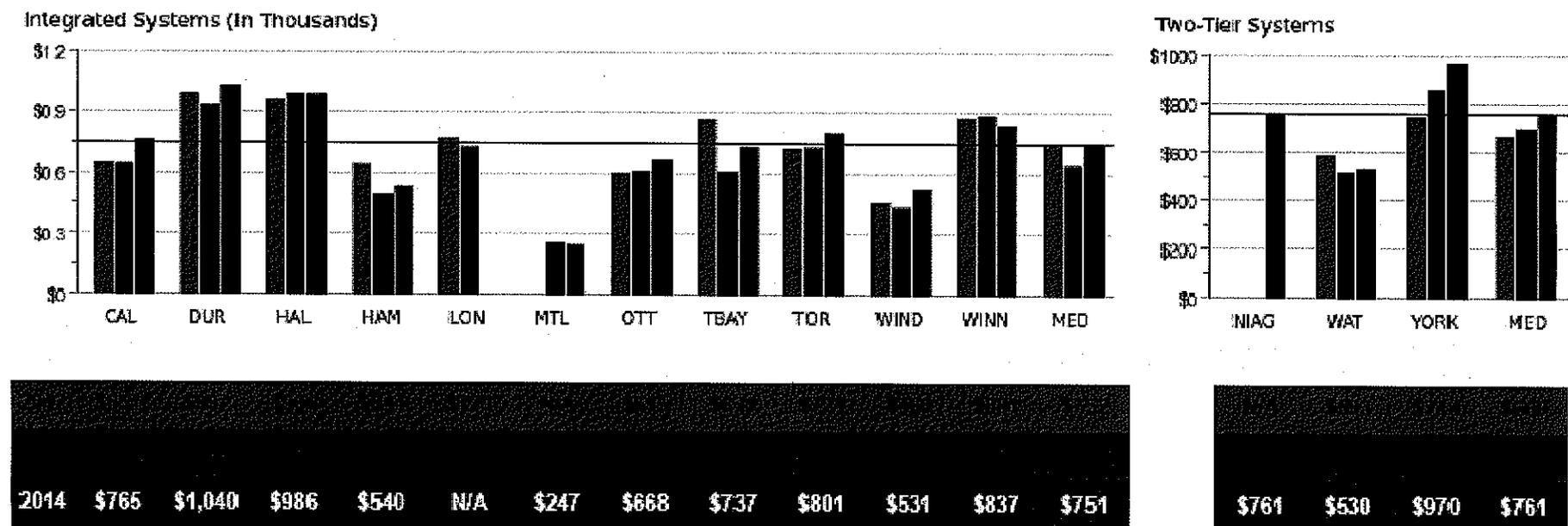
## Residential Accounts

|  |  |
|--|--|
| <b>Stand Alone Fixed Sewer Surcharge</b> |  |
| \$15.87                                  |  |

| <u>Commercial Accounts</u> |       |  | <b>Sand Alone Fixed Sewer Surcharge</b> |
|----------------------------|-------|--|---|
| <b>Meter Size</b>          |       | <b>Stand Alone Fixed Sewer Surcharge</b> |   |
| 1"                         | 25mm  | <b>\$80.58</b>                           |   |
| 1 1/2"                     | 40mm  | <b>\$188.77</b>                          |   |
| 2"                         | 51mm  | <b>\$315.11</b>                          |   |
| 3"                         | 75mm  | <b>\$566.33</b>                          |   |
| 4"                         | 100mm | <b>\$1,002.85</b>                        |   |
| 6"                         | 150mm | <b>\$1,831.13</b>                        |   |
| 8"                         | 200mm | <b>\$3,051.02</b>                        |   |
| 10"                        | 250mm | <b>\$5,026.15</b>                        |   |
| <b>Metre Size</b>          |       |  |   |
| 1"                         | 25mm  |  | <b>\$80.58</b>                          |
| 1 1/2"                     | 40mm  |  | <b>\$188.77</b>                         |
| 2"                         | 51mm  |  | <b>\$315.11</b>                         |
| 3"                         | 75mm  |  | <b>\$566.33</b>                         |
| 4"                         | 100mm |  | <b>\$1,002.85</b>                       |
| 6"                         | 150mm |  | <b>\$1,831.13</b>                       |
| 8"                         | 200mm |  | <b>\$3,051.02</b>                       |
| 10"                        | 250mm |  | <b>\$5026.15</b>                        |

### What is the total cost for the collection, conveyance, treatment and disposal of wastewater?

Fig 35.6 Total Cost of Wastewater Collection/Conveyance and Treatment/Disposal per Megalitre (includes amortization)



Source: WWTR315T (Efficiency)

Note: Refer to additional information regarding integrated vs. two-tier systems. The amortization component can vary significantly from year to year depending on the type of infrastructure, additions and disposals of capital assets, capital fund expenditures, etc.

**Integrated Systems:** The term applies to municipalities that have full responsibility for all wastewater activities including collection, conveyance, treatment and disposal.

**Two-Tier Systems:** The term applies to municipalities that have responsibility for components of wastewater activities, e.g. Niagara, Waterloo and York are responsible for all components with the exception of collection which is the responsibility of local municipalities within their boundaries.