

SPECIAL COUNCIL APRIL 30, 2013

**2013 PROPOSED WATER AND WASTEWATER/STORM OPERATING BUDGETS
AND SERVICE FEES**

Recommendation

The Acting City Manager, the Commissioner of Engineering and Public Works, and the Director of Public Works and the Director of Financial Services recommend:

- 1) That the presentation "2013 Proposed Water and Wastewater/Storm Operating Budgets" be received;
- 2) That subject to input from the public the 2013 Proposed Water Budget totaling \$49.8M be approved and the 2013 Proposed Wastewater Budget/Storm Budget totaling \$55.2M be approved;
- 3) That the following consumption rates and service fees for Water and Wastewater/Storm be approved and that Schedule "A" of By-Laws 167-73 and 12-74 be amended to reflect the 2013 Proposed Water and Wastewater/Storm budgets, as follows:
 - (a) The City's water rate be increased from \$1.244 to \$1.3298 per cubic meter effective in May 2013 the day after the Water By-law is adopted; and
 - (b) The City's wastewater/storm rate be increased from \$1.3804 to \$1.5049 per cubic meter effective in May 2013 the day after the Wastewater By-law is adopted; and
 - (c) The service fees for Water and Wastewater/Storm, shown in attachment #3 to this report, be adopted and included in schedule "A" of the Water and Wastewater bylaws 167-73 and 12-74.

Contribution to Sustainability

The 2013 proposed consumption rates will continue to provide sufficient funds to maintain the City's water and wastewater system in the future in accordance with the Safe Drinking Water Act.

Economic Impact

For 2013 the City's share of the proposed water/wastewater rate increase is 1.77% and the Region of York's share for purchased services is 6.25% resulting in a combined rate increase of 8.02%. The annual residential impact on an average household consumption of 300 cubic meters of water per year is an additional \$63.22 or \$5.27 per month.

The sales of water will generate a net contribution of \$5.2 million to the water reserve and wastewater services will generate \$5.9 million to the wastewater reserve thereby providing the necessary funds to maintain financially sustainable water and wastewater systems for the future as required by the Safe Drinking Water Act (SDWA). The proposed consumption rates for water and wastewater are supported by the rate study conducted by Watson and Associates in 2009.

Following is a summary of the combined water and wastewater increase by major components:

INCREASE SUMMARY BY PERCENT & CENTS			
Region of York Cost of Water & Wastewater	6.25%	16.39	¢
City of Vaughan Operating Costs	0.66%	1.73	¢
City of Vaughan Infrastructure Contribution to Reserves	1.11%	2.91	¢
TOTAL 2013 INCREASE	8.02%	21.03	¢

Communications Plan

The approved Water and Wastewater rates have been advertised per City policy in the local newspapers and the City's web site. Staff is also developing a list of questions and answers to respond to the public and media with the Corporate Communications department. The City of Vaughan 2013 Water/Wastewater/Storm Budget and proposed 2013 rates were prepared in alignment with mandated provincial legislation for a financial plan for water systems, and guidelines for financially sustainable drinking water and wastewater systems as well as to ensure the highest quality of water in the City of Vaughan.

Purpose

To present consumption rates and corresponding service fees to Special Council on April 30, 2013 for consideration as directed by Council.

The 2013 proposed water rate increase is 6.90% and wastewater rate increase is 9.05%. Both rates incorporate the Region of York increases and the City's operating, maintenance and infrastructure reserve increases. The combined rate increase is 8.02% of which 6.25% (78%) is attributable to the Region of York.

The proposed consumption rates are based on the 2009 rate study report that supports the move towards full cost recovery as required by the Safe Drinking Water Act.

The City's consumption rates are still very competitive as demonstrated on Attachment No. 2.

Background Analysis and Options

SUMMARY - 2013 WATER AND WASTEWATER PROPOSED CONSUMPTION RATES

The major source of revenue for water and wastewater operations is consumption rates, totalling \$103.2 million for 2013 of which \$75.6 million is paid to the Region of York. The consumption rate revenues net of operating costs and Region of York purchases are transferred to the City's respective water and wastewater reserves. The net earnings provide for the future renewal and replacement of the City's underground and aboveground infrastructure which currently has a depreciated value of \$1.2 billion.

The proposed 2013 water and wastewater/storm budgets are attached including the proposed 2012 actuals. The 2012 water and wastewater operating and capital financial results form part of the City's consolidated Financial Statements.

The following attachments are included: 2013 Proposed Water and Wastewater/Storm Budgets including the proposed 2012 Actuals Attachment No. 1, the Municipal Rate Comparison Attachment No. 2, Service Fees Attachment No. 3 and Water, Wastewater & Drainage 2013 Business Plan Attachment No. 4.

Annual Residential Impact

The average residential customer with a consumption of 300 cubic meters of water per annum will see a combined increase of \$63.22 (\$49.17 is the Region of York portion) or 8.02%. The increase in the water and wastewater rates on a monthly basis is \$5.27.

The 2013 budgets include an annual rate increase of 6.9% for water and a 9.05% increase for wastewater for a combined increase of 8.02%.

The rate increase impact is the result of:

- The Regional increase of 7.7% for the cost of potable water and an increase of 12% for wastewater services. This increase is based on Regional water and wastewater reserve Fadequacy study.
- The impact of inflationary pressures.
- The net increases in maintenance, administration, additional staffing resources and other expenditures.
- The required increase in the contribution to the water and wastewater reserves.

Following is a detailed breakdown of the combined water and wastewater increase and the Region of York and City of Vaughan's relative share of that increase:

INCREASE SUMMARY BY PERCENT & CENTS			
Region of York Cost of Water & Wastewater	6.25%	16.39	¢
City of Vaughan Operating Costs:			
Unmetered Water	0.32%	0.84	¢
Maintenance	-0.59%	-1.55	¢
Administration, financing and Overheads	0.90%	2.37	¢
Joint Services	0.03%	0.07	¢
Total City of Vaughan Operating Costs Increase	0.66%	1.73	¢
City of Vaughan Infrastructure Contribution to Reserves	1.11%	2.91	¢
TOTAL 2013 INCREASE	8.02%	21.03	¢

Rate Components

The largest cost component of the consumption rate is the purchase of potable water and wastewater services from the Region as shown below. Water purchases and wastewater purchased services in particular have gone up over the past number of years by approximately 10% annually. Both increases are primarily due to the need to build reserves for future Regional infrastructure requirements.

The City, like the Region, needs to ensure that sufficient reserves will be available for future infrastructure replacement. A significant component of the proposed consumption rates is "Contribution to Reserves". These are the funds that are transferred to the reserves each year for the future water & wastewater infrastructure replacement. The City consumption rates are moving in the direction of full cost recovery and are supported by the 2009 Rate Study.

The 2013 water and wastewater rate components are as follows:

	Water	Wastewater	Combined
Regional Purchased Services	\$0.8087	\$0.9910	\$1.7997
Unmetered Water	0.1188	0.00	0.1188
Maintenance	0.1283	0.1319	0.2602
Other	0.1257	0.0704	0.1961
Lifecycle Contribution - Reserve	0.1483	0.3116	0.4599
Total	\$1.3298	\$1.5049	\$2.8347

Service Fees

Attachment 3 includes existing fees that are being transferred to the water and wastewater fee schedule By-law from the City's general fee By-law. In addition, there are some new fees that need to be implemented in order to ensure that sufficient funds can be recovered for work relating to the approval of watermain extensions and alterations related to new development.

The Safe Drinking Water Act (SDWA) – Licencing Requirements

The Safe Drinking Water Act (SDWA) is comprehensive in its legislative requirements and was enacted to place all legislation and regulations relating to the treatment and distribution of drinking water into one Act. The SDWA expands on existing policy and practices and introduces new regulations to protect drinking water. It includes certification of drinking water system operators and analysts and puts in place certain financial reporting requirements and the need for municipalities to develop financially sustainable water treatment and distribution systems.

Drinking Water Quality Management Standard (DWQMS)

Fourteen of the recommendations Mr. Justice Dennis O'Connor made, in the final report of the Walkerton Commission of Inquiry, relate to the development of the new approvals framework for municipal residential drinking water systems. The new program, the Municipal Drinking Water License Program, is based on Recommendation No. 71 of the Walkerton Commission of Inquiry Part Two Report: As part of obtaining a Drinking Water Licence for the system(s), there is a requirement to have a Financial Plan in place. The Sustainable Water and Sewage Systems Act

(SWSSA) requires that the approved financial plan must apply for a period of at least six years, and include details of the drinking water system's proposed or projected:

- Financial Position
- Financial Operations
- Gross Cash Receipts & Gross Cash Payments

The City's financial plan was approved by Council on June 11, 2010, submitted to the Ministry of the Environment on June 18, 2010, and submitted to the Ministry of Municipal Affairs and Housing on June 25, 2010.

Storm Water Infrastructure Priority Projects

A well-maintained storm drainage system is integral to:

- Minimizing the risk of flooding on city streets and private properties;
- Enhancing water quality treatment initiatives;
- Supporting monitoring and maintenance practices;
- Meeting current and future regulatory requirements; and,
- Adapting to the demands of climate change.

Work completed to date on the City-Wide Drainage & Stormwater Management Study and Stormwater/Drainage Master Plan has led staff to identify several upcoming priority maintenance and capital projects within the City's stormwater management program. These projects range in size and scale from service level enhancements in the Thornhill area to storm pond cleaning across the City. Similarly, high intensity storm events of recent years in the Concord and Thornhill areas have shown a need for changes in how the storm water system is managed.

In keeping with the City's commitment to sound asset management principles, a new study will be initiated to evaluate and update maintenance and replacement cost projections for the City's existing and future stormwater infrastructure. Although there was some research conducted on this issue as part of the 2009 Water and Wastewater Rate Study, this earlier work needs to be updated to better quantify the potential future costs of proactive stormwater management.

Water Conservation

Water conservation is an important issue for the future growth and development of York Region. As part of the Ministry of the Environment's approval to York Region for the twinning of the South-East Collector Trunk Sewer, and the inter-basin water transfer, the Region, and all of its area municipalities, must implement a water conservation program, along with a sewage inflow/infiltration program. Combined, these two strategies must show a 10% reduction in peak flows to the treatment facility.

Recent work undertaken by York Region and the local municipalities has shown that the average household's consumption of water has been steadily decreasing over the past few years. This is no doubt in part due to more public awareness about water conservation, as well as changes in plumbing fixtures and home appliances. Low flush toilets, low flow shower heads, and high efficiency washing machines are just a few examples of where changes in design have allowed for significantly less water to be used per household.

Public Works has undertaken a number of initiatives to reduce unmetered water use. Although flushing of watermain is required to ensure water quality is maintained in areas with low consumption, the water sampling protocol in place allows for better identification of when this needs to occur.

The banding of hydrants in new development areas has reduced unauthorized water taking, and encourages water haulers to source water from one of the City's four water filling stations.

The anode protection program for iron watermain, initiated in 2005 and still underway today, continues to perform very well, yielding a 50% decrease in the number of water main breaks in the water distribution system.

In the fall of 2010, Public Works initiated an industrial/commercial/institutional (ICI) water meter calibration program. The goals of this project were to:

- ensure that the large ICI water meters are registering within the AWWA approved limits;
- ensure that the large ICI water meters are not being by-passed;
- determine the amount of water that has not been captured for billing purposes, as a result of large ICI water meters that may not be registering within the AWWA limits.

There are a total of 2,951 ICI water meters. At the end of 2011, a total of 1,358 water meters had been inspected, and at the end of 2012 the remainder of the meters had been inspected.

The large water meters that could be re-calibrated to meet AWWA limits were done so at the time of the inspection. There are 524 water meters that cannot be re-calibrated and have been identified for replacement. Funds are included in the 2013 Water Operating Budget to start replacing these meters.

Based on results from the water meters that have been tested, staff indicate this initiative is expected to reduce the amount of non-revenue water by approximately 3 percent.

Measures are also in place to capture water consumption data from developers who are required to implement a flushing program. Flushing programs ensure that water quality is maintained until sufficient users are in place to ensure a regular changeover of water takes place in watermain. This data is used to charge back the developers for the water they use in this process.

York Region's "Water For Tomorrow" Program

The "Water for Tomorrow" program continues to provide programs and initiatives to reduce the consumption and loss of drinking water, initiatives undertaken to date include:

- rebates for purchasing and installing a water efficient toilet;
- rebates for purchasing and installing a water efficient furnace humidifier;
- rebates for purchasing water efficient clothes washers;
- water efficient landscape visits and industrial/commercial water audits to encourage water consumers to conserve water use and assists in reducing energy consumption and their carbon footprint; and,
- rebates and incentives for commercial operations aimed at commercial kitchens, laundromats, and large volume industrial users.

The Region of York has released its long term water strategy that outlines the 40 year strategy that will put in place sustainable measures to ensure water conservation is implemented across the Region. The City has recently committed to the strategy, and in the near future, additional programs will be put forward by staff for consideration as part of the budget process. The Region's water conservations strategy can be seen on the Region's web site at: www.york.ca

2013 Water Budget / Actual - Revenue & Expenditure Highlights

2013 Water Budget Factors

The consumption volume is conservatively estimated and is developed based on current consumption patterns, annual growth estimates noted below and does not reflect any weather predictions. The budgeted 2013 water billing revenue includes a 2.0% (2.0% 2012) growth factor for residential, 1.00% (1.00% 2012) commercial growth factor and a 6.90% water rate increase.

Expenditures generally reflect cost of living increases and inflationary pressures.

Water Rate Forecast

Over the next three years it is expected that the City's water rate will increase in the range of approximately 7% to 9% annually. This level of rate increase is necessary to provide for the wholesale cost of water, the on-going maintenance of the underground infrastructure and to provide funds for the future renewal of the water distribution system. The Region of York forecasted increases in the wholesale cost of water for 2014 and 2015 are 7.5% and 7.4% respectively. The water consumption rate will continue to be developed in conjunction with the 2009 consumption rate study.

Starting in 2014 the proposed water and wastewater budgets will be presented with a three year operating statement forecast including consumption rates. This multi-year format is dependent on the availability of the Region's wholesale projections.

2013 Proposed Water Budget Highlights

Revenues:

The proposed water rate of \$1.3298 per cubic meter is based on the proposed operating and capital budgets and represents the next step in achieving full cost recovery as supported by the rate study.

The budgeted residential and commercial water billings in 2013 include a 6.90% rate increase combined with new account activity. Billed revenues are expected to be \$48.7 million with water purchases from the Region at \$34.3 million, including unmetered water, resulting in a gross margin of \$14.4 million.

Other revenue for bulk water sales is budgeted at \$300K up slightly from previous years as 2012 sales experienced a slight increase over budget. Installation activity is expected to be lower than last year's budget at \$726K compared to \$976K in 2012. Interest revenue is expected to exceed 2012 due to a higher reserve balance.

Unmetered (Non-Revenue) Water Consumption

The 2013 budget for unmetered water is at the same level as in the past few years, 13.0%. The actual for 2012 is slightly less than budget at 12.3%.

The City undertook a Water Audit that was completed in 2011 by Fabian Papa & Partners Inc. in accordance with the International Water Association (IWA) and American Water Works Association (AWWA) methodology. For the City's billing year 2010, the audit identified the City's non-revenue water (NRW) consumption to be 13.7% of the total bulk volume supplied to the City.

NRW usage takes place through: fire suppression and fire training, irrigating sports fields, main flushing and maintenance, street sweeping, water main breaks and service leaks, testing and flushing water mains in new developments due to Provincial water regulations.

The NRW can be broken down as:

- Apparent Losses – Customer meter degradation
- Real Losses – Leakage on mains, service connections
- Unbilled Consumption – Fire suppression, irrigation of sports fields

Water/wastewater services are recovered internally for City purposes; such as recreation's swimming pools, City buildings and facilities.

A number of initiatives are currently underway by staff to maintain and reduce (where possible) the overall yearly non-revenue consumption. The highest potential for improvement lies within the apparent and real loss components. As noted earlier, the large Industrial/Commercial / Institutional

(ICI), meter calibration program has taken place, and funds have been allocated to replace those meters that could not be calibrated.

To further minimize NRW, the City, in partnership with York Region, will be undertaking a leak detection program. This program will help to further identify potential sources of water loss in the underground infrastructure.

Staff are also working with York Region and other local area municipalities to further identify and minimize sources of NRW through more detailed analysis of bulk metering and overall analysis of the system as a whole.

Expenditures:

2013 budgeted expenditures total \$10.2 million covering maintenance, administration, financing, overhead and other costs which are up \$0.4 million from last year's budget. Increases are primarily due to cost of living increases.

2012 Actual Water Highlights

Actual 2012 total water billings of \$45.2 million came in slightly over budget. Residential billings at \$27.7 million were up slightly by 2.2% and Commercial at \$17.2 million down by 2.8% compared to budget. Bulk sales were favourable by \$58K.

It should be noted that the average household water consumption has declined from 2007 - 2011 where annual consumption per household has decreased from 338m³ to 287m³. In 2012 household average annual consumption increased slightly to 294m³.

Installation service fees came in under budget by \$268K due to activity. Actual maintenance expenditures came in at \$4.4 million, under budget by \$1.1 million. Maintenance is primarily under budget as a result of fewer customer service requests and emergency contracted activity than anticipated. Administration came in at \$1.3 million and is under budget primarily due to engineering staff vacancies. The remaining expenditures came in on budget.

Water Lifecycle Contribution - Reserve

The 2013 budgeted transfer from water operations to the water reserve is \$5.3 million. These funds will provide for the future requirements of the water infrastructure.

In 2012 through water operations, the net of all revenues and costs resulted in \$6.6 million (\$6.1M 2011) being transferred to the water reserve fund for future capital works. To put the amount of this transfer in perspective the accumulated amortization for water assets totals \$72 million in 2012 compared to the water reserve fund projected balance of \$31 million in 2013. It should be noted that the accumulated amortization is historical dollars and therefore does not represent the future replacement cost.

The forecasted Capital drawdown on the reserve in 2013 for water related infrastructure needs is expected to be \$0.9 million. Committed capital costs represent approved capital projects not yet begun or completed and total \$6.5 million.

The budgeted reserve balance at the end of 2013 is projected to be \$31.4 million (2012 actual \$27.1m) after committed capital projects. These funds will provide for the future requirements of the water infrastructure to ensure the City's drinking water systems are financially sustainable as required under the new Municipal Drinking Water Licence Program.

2013 Wastewater Budget / Actual - Revenue & Expenditure Highlights

2013 Wastewater Budget Factors

The budgeted 2013 wastewater billing revenue includes a 2.0% (2.0% 2012) residential, 1.0% (1.0% 2012) commercial growth factor and a 9.05% wastewater rate increase. The volume of wastewater is not metered. The wastewater consumption volume is based on water sold to the consumer.

Expenditures generally reflect cost of living increases and inflationary pressures.

Wastewater Rate Forecast

Over the next three years it is expected that the City's wastewater rate will increase in the range of approximately 9% to 11% annually. This level of rate increase is necessary to provide for the wholesale cost of wastewater, on-going maintenance of the underground infrastructure and to provide funds for the future renewal of the wastewater/storm infrastructure system. The Region of York forecast increase in the wholesale cost of wastewater for 2014 and 2015 is 12.0% for each year. The wastewater rate will be developed in conjunction with the 2009 consumption rate study.

Starting in 2014 the proposed water and wastewater budgets will be presented with a three year operating statement forecast including consumption rates. This multi-year format is dependent on the availability of the Region's wholesale projections.

2013 Proposed Wastewater Budget Highlights

Revenues:

The proposed wastewater rate of \$1.5049 per cubic meter is based on the proposed operating and capital budgets and represents the next step in achieving full cost recovery as supported by the rate study.

The budgeted residential and commercial wastewater billings in 2013 include a 9.05% rate increase combined with new account activity. Billed revenues are expected to reach \$54.5 million with the expected wastewater services from the Region at \$41.3 million leaving a gross margin of \$13.1 million. The cost of wastewater disposal service from the Region includes a 12.0% increase. The Region's treatment cost for wastewater is based on potable water purchased by the City.

Installation and service fees are expected to be higher at 180K up from \$100K, these are driven by demand. The 2013 local improvement revenue is budgeted at \$213,200 and is offset by the cost of debentures of \$213,200. Interest revenue is expected to exceed 2012 due to a higher reserve balance.

Expenditures:

2013 budgeted expenditures total \$7.9 million covering maintenance, administration, storm sewer, financing, joint services, overhead and other costs and are in line compared to last year's budget at \$8.0 million.

2012 Actual Wastewater Highlights

Actual 2012 total wastewater billings of \$49.2 million are slightly over budget by \$0.3 million. Wastewater revenue is billed based on water consumption. There are no meters since they are impractical in this application. Residential actual billings totalled \$29.7 million, over budget by \$0.5 million budget and Commercial and Industrial actual billings totalled \$19.5 million, down slightly by \$0.2 million compared to budget. Installation revenue came in above budget by \$103K. Installation revenues are impacted by demand.

2012 Actual expenditures total \$7.4 million covering maintenance, administration, storm sewer, financing, overhead and other costs, down by 7.0% when compared to budget. Actual maintenance expenditures came in at \$3.4 million, slightly under budget by \$0.1 million as a result of less than anticipated activity. Storm sewer maintenance came in at \$1.6 million under budget by \$0.5 million as a result of less than expected activity. The balance of expenditures came in on budget.

Back-water Valve Installation Subsidy Program Update

On May 5, 2009, Council approved the Back-water Valve Installation Subsidy program. The necessary by-law has been enacted, and the program has been advertised to the public. The subsidy allows for a maximum subsidy of \$750 per property. Initially, sufficient funding was budgeted to provide 150 approvals at the maximum subsidy. There were three applications approved in 2010, five in 2011, and there was one application approved in 2012. Based on the historical take-up of this program, the budget allocation has been reduced to provide for a total of ten subsidies at the maximum amount of \$750.

Wastewater/Storm Lifecycle Contribution - Reserve

The 2013 budgeted transfer of \$6.0 million from wastewater/storm operations to the reserve is higher at \$0.8 million over last year's budget.

In 2012 through wastewater/storm operations, the net of all revenues and costs resulted in \$6.6 million (\$4.8M 2011) being transferred to the wastewater/storm reserve fund for future capital works. To put the amount of this transfer in perspective the accumulated amortization for wastewater/storm assets totals \$194 million in 2012 compared to the wastewater/storm reserve fund projected balance of \$35 million in 2013. It should be noted that the accumulated amortization is historical dollars and therefore does not represent the future replacement cost.

The capital drawdown on the reserve in 2013 is expected to be at \$2.1M. Committed capital costs represent projects not yet begun or completed and totals \$0.7 million.

The budgeted reserve balance at the end of 2013 is projected to be \$35.4 million (2012 actual \$31.6m) after committed capital projects. These funds will provide for the future requirements of

the wastewater/storm infrastructure to ensure the City's wastewater/storm system are financially sustainable as required by the SDWA.

Relationship to Vaughan Vision 2020

Establishes the budget and resources required to maintain service levels and undertake Council priorities in this area. Promote community safety, health and wellness, managing corporate assets and ensure financial sustainability.

Regional Implications

No Implications

Conclusion

Based on the rate study review the City's water, wastewater rates are continuing to move towards full cost recovery. The 2013 proposed water/wastewater/storm budgets will generate sufficient funds to maintain a financially sustainable reserve for the future thereby meeting the SDWA requirements.

Based on the proposed rate increase for water and a rate increase for wastewater the impact to the ratepayer that consumes 300 cubic meters per year will be approximately \$63.22 or \$5.27 per month.

It is therefore recommended that the City's water rate be increased to \$1.3298 per cubic meter and that the wastewater rate be increased to \$1.5049 per cubic meter both effective May 2013.

Attachments

Attachment No. 1:	The 2013 Proposed Water and Wastewater/Storm Budgets including 2012 Proposed Water and Wastewater/Storm Actual Operating Results
Attachment No. 2:	2013 Water and Wastewater Municipal Rate Comparison
Attachment No. 3:	Service Fees
Attachment No. 4:	Water, Wastewater & Drainage 2013 Business Plan

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Respectfully submitted,

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The Corporation of the City of Vaughan
2013 Proposed Operating Budget and
2012 Statement of Operations - December 31, 2012
Water Reserve Fund

Description	2013 Proposed Budget	% of Sales	2012 Annual Budget	% of Sales	2012 Annual Actual	% of Sales
Water Revenues						
Residential Billings	29,658,660		27,057,540		27,654,972	
Commercial Billings	18,753,720		17,679,720		17,199,806	
Other	293,430		250,000		307,660	
	\$48,705,810		\$44,987,260		\$45,162,438	
Water Purchases						
Metered Water Purchases	29,871,880		27,497,440		27,339,415	
Non-Revenue Water	4,450,000	13.0%	4,100,470	13.0%	3,823,355	12.3%
	\$34,321,880		\$31,597,910		\$31,162,770	
GROSS MARGIN	\$14,383,930	29.5%	\$13,389,350	29.8%	\$13,999,668	31.0%
Other Revenues						
Installation and Service Fees	726,000		976,000		694,488	
Interest	380,000		345,000		373,481	
	\$1,106,000	2.3%	\$1,321,000	2.9%	\$1,067,969	2.4%
Expenses						
Maintenance and Installation Cost	5,530,365		5,503,020		4,376,381	
General Administration	1,745,155		1,615,015		1,300,807	
Joint Service Costs	776,490		753,880		753,878	
Debenture Payments	202,790		202,790		204,350	
Administration Overhead	1,756,860		1,608,925		1,608,925	
Insurance Allocation	227,410		199,270		199,270	
	\$10,239,070	21.0%	\$9,882,900	22.0%	\$8,443,611	18.7%
LIFECYCLE CONTRIBUTION - RESERVE	\$5,250,860	10.8%	\$4,827,450	10.7%	\$6,624,026	14.7%

Statement of Continuity - Water Reserve

Description	2013 Annual Budget	2012 Annual Budget	2012 Year End Actual
Reserve Balance - Beginning - Actual	\$27,066,334	\$23,674,884	\$30,596,504
Reserve contribution from Water Operations	5,250,860	4,827,450	6,624,026
Capital Fund Transfer - Year End Actual			(3,694,719)
- Yearly Budget	(877,816)	(3,846,000)	
- Committed			(6,459,477)
Revenue Fund Transfer - Yearly Budget			
Reserve Balance - Ending - Committed / Actual	\$31,439,378	\$24,656,334	\$27,066,334



The Corporation of the City of Vaughan
2013 Proposed Operating Budget and
2012 Statement of Operations - December 31, 2012
Wastewater Reserve Fund

Description	2013 Proposed Budget	% of Sales	2012 Annual Budget	% of Sales	2012 Annual Actual	% of Sales
Wastewater Revenues						
Residential Billings	32,743,180		29,179,250		29,650,203	
Commercial Billings	21,746,480		19,694,070		19,548,220	
	\$54,489,660		\$48,873,320		\$49,198,423	
Wastewater Expenses						
Regional Treatment Charges	\$41,344,290		\$36,437,860		\$35,860,077	
GROSS MARGIN	\$13,145,370	24.1%	\$12,435,460	25.4%	\$13,338,346	27.1%
Other Revenues						
Local Improvements	213,200		213,200		213,852	
Installation and Service Fees	180,000		100,000		203,419	
Interest	345,000		340,000		331,998	
	\$738,200	1.4%	\$653,200	1.3%	\$749,269	1.5%
Expenses						
Maintenance and Installation Cost	3,611,240		3,491,115		3,419,748	
General Administration	473,120		415,120		460,996	
Storm Sewer Maintenance	1,697,825		2,059,505		1,563,626	
Joint Service Costs	517,665		502,580		502,585	
Debenture Payments	213,200		213,200		213,852	
Administration Overhead	1,171,240		1,071,285		1,071,285	
Insurance Allocation	246,365		210,060		210,060	
	\$7,930,655	14.6%	\$7,962,865	16.3%	\$7,442,152	15.1%
LIFECYCLE CONTRIBUTION - RESERVE	\$5,952,915	10.9%	\$5,125,795	10.5%	\$6,645,463	13.5%

Statement of Continuity - Wastewater Reserve

Description	2013 Annual Budget	2012 Annual Budget	2012 Year End Actual
Reserve Balance - Beginning - Actual	\$31,552,860	\$24,568,122	\$25,775,679
Reserve contribution from Wastewater Operations	5,952,915	5,125,795	6,645,463
Capital Fund Transfer - Year End Actual			(186,085)
- Yearly Budget	(2,090,900)	(22,000)	
- Committed			(682,197)
Revenue Fund Transfer - Yearly Budget			
Reserve Balance - Ending - Committed / Actual	\$35,414,875	\$29,671,917	\$31,552,860



**CITY OF VAUGHAN
2013 PROPOSED OPERATING BUDGET**

**WATER AND WASTEWATER RATE COMPARISON
BASED ON AVERAGE CONSUMPTION - 300 CUBIC METRES**

	<u>2013 ⁽¹⁾</u>	<u>2012</u>	<u>Year over Year Change</u>	
			<u>\$</u>	<u>%</u>
REGION OF PEEL	\$492	\$462	\$30	6.49%
TORONTO	\$814	\$747	\$67	9.00%
VAUGHAN	\$850	\$787	\$63	8.02%
MARKHAM	\$851	\$788	\$63	7.99%
RICHMOND HILL	\$872	\$808	\$64	7.97%
WHITCHURCH - STOUFFVILLE	N/A	\$823	---	---
DURHAM REGION	\$923	\$850	\$73	8.60%
AURORA	\$944	\$862	\$82	9.49%
GEORGINA	N/A	\$905	---	---
KING	\$987	\$932	\$56	5.99%
BARRIE	\$1,082	\$1,000	\$82	8.21%
NEWMARKET	\$1,115	\$1,027	\$87	8.50%
EAST GWILLIMBURY	\$1,399	\$1,314	\$85	6.47%

(1) 2013 vs. 2012 cost increases for an average consumption 300 m³ are based on Municipal and Regional Council approved rate increases.

N/A - rates not available

(All calculated amounts have been rounded to the nearest dollar).



CITY OF VAUGHAN
2013 PROPOSED OPERATING BUDGET
WATER AND WASTEWATER SERVICE FEES

<u>ITEM</u>	<u>SERVICE FEE</u>																
Water and Wastewater																	
Water Rates	Refer to City's Water Rate By-Law																
Wastewater Rates	Refer to City's Wastewater Rate By-Law																
Water Turn-off/Turn-on Service Call Charges	Refer to City's Water Rate By-Law Refer to City's Wastewater Rate By-Law																
Water Meters (application for meters and temporary water fees)	\$ at cost (varies with number of meters to be installed, size of meters, administration costs and contract installation costs) <table> <tr> <td>Full 3/4"</td><td>\$ 321.00</td></tr> <tr> <td>1"</td><td>\$ 394.00</td></tr> <tr> <td>1.5" Omni</td><td>\$1,938.00</td></tr> <tr> <td>2" Omni</td><td>\$2,055.00</td></tr> <tr> <td>3" Omni</td><td>\$2,750.00</td></tr> <tr> <td>4" Omni</td><td>\$4,260.00</td></tr> <tr> <td>6" Omni</td><td>\$7,150.00</td></tr> <tr> <td>6" Compound</td><td>\$9,205.00</td></tr> </table> AMR Flexnet remote read adaptor - at current cost 15% restocking fee on water meter returns 2" and larger	Full 3/4"	\$ 321.00	1"	\$ 394.00	1.5" Omni	\$1,938.00	2" Omni	\$2,055.00	3" Omni	\$2,750.00	4" Omni	\$4,260.00	6" Omni	\$7,150.00	6" Compound	\$9,205.00
Full 3/4"	\$ 321.00																
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4" Omni	\$4,260.00																
6" Omni	\$7,150.00																
6" Compound	\$9,205.00																
Hydrant Meter Rentals (includes application, administration fee, demonstration to user, water consumption, plus any repairs)	deposit of \$2,500 for each water meter administration fee of 15% of the deposit plus water consumption charged at the current approved rates for water and wastewater per m³																
NOTE: Rentals are site specific by approval only																	
Sewer Camera Service (identify blockages in sanitary/storm lateral lines on private property)	\$ 78.00 per hour (minimum 3 hours)																



CITY OF VAUGHAN
2013 PROPOSED OPERATING BUDGET
WATER AND WASTEWATER SERVICE FEES

<u>ITEM</u>	<u>SERVICE FEE</u>
Sewer Back-up Investigation Service for response to emergency request from private owner related to back-up - if blockage on city property - if blockage on private property, flat rate fee per hour	\$ no charge \$ 78.00 per hour (minimum 3 hours)
Drinking Water Permit Fee	\$1,200 per application
Sprinkler Connection	Site specific as quoted
Water Connection	Site specific as quoted
Water Disconnection	Site specific as quoted
Sanitary Sewer Connection	Site specific as quoted
Sanitary Sewer Disconnection	Site specific as quoted
Storm Sewer Connection	Site specific as quoted
Storm Sewer Disconnection	Site specific as quoted
Temporary Building Water	Residential (per dwelling): \$ 20.00 per unit Commercial / Industrial / High Density Residential: (Total Gross Floor Area) \$ 2.00 per 1,000 sq. ft. / \$ 2.15 per 100 m ² (minimum \$20.00)
Dewatering Study Areas	\$ 100.00 within 0.5 kms. \$250.00 within 1.0 kms. (clerical activity to determine servicing for city water at properties within a prescribed area).



**CITY OF VAUGHAN
2013 PROPOSED OPERATING BUDGET
WATER AND WASTEWATER SERVICE FEES**

<u>ITEM</u>	<u>SERVICE FEE</u>
Hydrant Flow Testing	\$ 104.00 per test (minimum two hours) \$ 52.00 for each additional hour
Plumbing Not Ready	\$ 30.00 for each missed/cancelled meter installation appointment
Bacteria Testing - New Mains	\$ 85.00 each test point (applied after 2 tests - one or both unsuccessful at same location).
Additional CCTV Reports	\$ 75.00 for each additional copy
Additional CCTV Disk	\$ 15.00 for each additional copy
Replacement of Lost Water Card	\$ 25.00 each



Water, Wastewater & Drainage

2013-14 Business Plan

BUSINESS OVERVIEW

Service Statement:

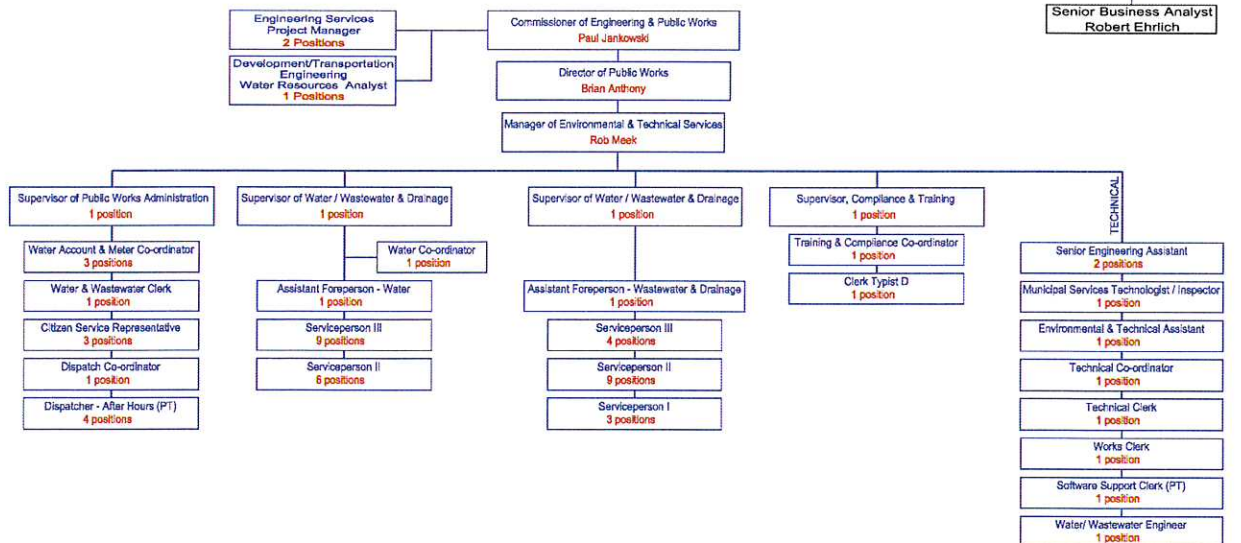
The Water Division is committed to the distribution of safe, potable drinking water to all City of Vaughan residents through compliance with Provincial legislation and regulations as well as the continuous improvement of effective and efficient service in response to growth.

The Waste Water and Drainage Division is responsible for the maintenance of waste water and drainage collection infrastructure and the control of environmental hazards through compliance with Provincial legislation and regulations as well as the continuous improvement of effective and efficient services in response to growth.

The Finance Department coordinates with Public Works in providing revenue and cost projections for water and wastewater activities, user rates and financial reporting. As well, the Finance department coordinates with Power Stream regarding billing and collection of water and wastewater accounts.

Service Profile:

Administration & Technical Divisions Water / Wastewater & Drainage Division Public Works Department April 3, 2013



Full Time, Part Time and Overtime – Budgeted Amounts

	2010	2011	2012	2013	Additional Resource Requests	
					2013	2014
Full Time	47.5	47.5	51.12	49.5	0	0
Part Time	0.93	0.93	1.59	2.62	0	0
Overtime	\$ 171,955.00	\$192,838.00	\$214,985.00	\$217,280.00	0	0

Key Stakeholders:

- Citizens and Businesses of Vaughan
- York Region
- Conservation Authority

- Mayor and Council
- Ministry of the Environment
- Power stream

* Includes 3.0 Engineering Positions

** One-time seasonal staff



Water, Wastewater & Drainage

2013-14 Business Plan

Work Plan:

Link to Vaughan Vision 2020:

Pursue Excellence in Service Delivery
Enhance and Ensure Community Safety, Health & Wellness
Lead and Promote Environmental Sustainability
Support the Professional Development of Staff
Maintain Assets & Infrastructure
Ensure Financial Sustainability

Future Pressures and Opportunities:

Pressures:

- Introduction of a backflow protection program in water
- Reduce the quantity of unaccounted water loss
- Provide training opportunities for staff to maintain operating licenses

Opportunities:

- Reduce water loss through the calibration of Industrial/commercial water meters
- Reduce inflow & infiltration into sanitary sewers through repairs to the system

Business Plan Objectives

<u>Prior Year Business Plan Objectives / Accomplishments:</u>	Year	Status	Outcome/Results
1. Continual improvement of the Drinking Water Quality Management System	Q4'12	Annual audits have identified improvement opportunities	Recommendations implemented
2. Continue the lead testing program in Water	Q4'12	Ongoing	No adverse lead results
3. Continue to implement the six year financial forecast-licensing-SWDA	Q4'12	Forecast completed	Plan implemented
4. Continue to develop a rehabilitation plan to reduce inflow & infiltration (I & I) in sanitary sewers	Q4'12	Program in development	Reduce I&I in sanitary sewers

2013-14 Business Plan

2012-13 Business Plan Objectives: (Note the anticipated Timeline, Outcome and Resources (Additional Resource Request) for each objective)

Business Plan Objectives:	Timeline	Outcome	Resources
2012 (Top 3 Objectives)			
1. Continual improvement of the Drinking Water Quality Management System and Operational Plan	Audit Q3/12 Continuous improvement is ongoing	Opportunities for Improvement implemented and accreditation maintained.	In-house staff and consultant and external MOE accredited auditor
2. Complete Phase 1 (meter calibration) of the ICI water meter program and commence Phase 2 (meter replacement) to reduce unmetered water	Q4'12	All meters inspected and meter replacement commenced. Potential 3% reduction in unmetered water	Contracted services and in-house staff
3. Continue with the development of a rehabilitation plan to reduce inflow & infiltration (I & I) in sanitary sewers	Q4'12	Program being developed	In-house staff and contracted services
2013 (Top 3 Objectives)			
1. Implement a City wide leak detection program	Receive commitment from YR Q2/13 Tender and award Q4/13	This is a multi-year initiative to employ leak detection techniques to locate leaks in the City's water distribution system	Contracted services and in-house staff
2. Area metering study	Q4'13	This is an initiative to install temporary meters on the water system to measure consumptions	Contracted services and in-house staff
3. Initiate Phase 2 of the water meter calibration program with the replacement of under registering water meters	Q4'13	ICI meter replacement commenced. Potential 3% reduction in unmetered water	Contracted services and in-house staff
4. Continue with the rehabilitation sanitary sewer infrastructure to reduce inflow & infiltration (I & I) in sanitary sewers	Q4'13	Program developed and improvements implemented	Contracted services and in-house staff

Key Performance Indicators:

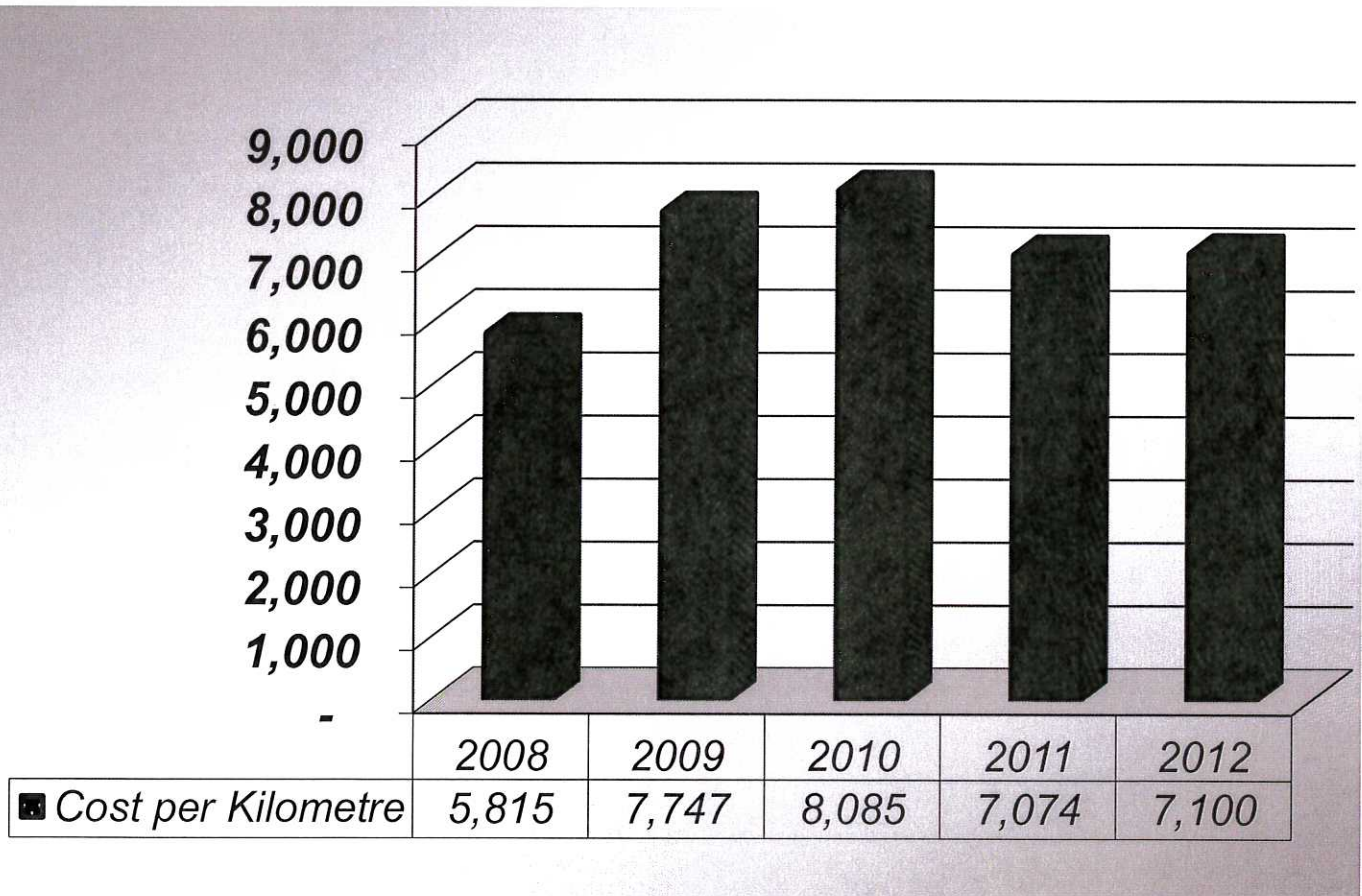
1. Operating cost per kilometre of water distribution system
2. Operating cost per kilometre of wastewater collection system
3. Operating cost per kilometre of storm collection system
4. Number of watermain breaks per 100 kilometres of distribution pipe
5. Number of adverse samples vs. total number of samples
6. Number of kilometres of sewermain flushed per year

BUSINESS OVERVIEW:

2013-14 Business Plan

Measure: Operating Cost per Kilometre of Water Distribution System

Definition:



Key Conclusion:

The cost per kilometer of the water distribution system in 2012 is on par with 2011 costs. This is attributed to the ongoing corrosion protection program, pro-active maintenance, milder winter conditions and a decrease in the number of water main breaks.

It is anticipated that the 2013 costs will be in line with 2012 expenditures.

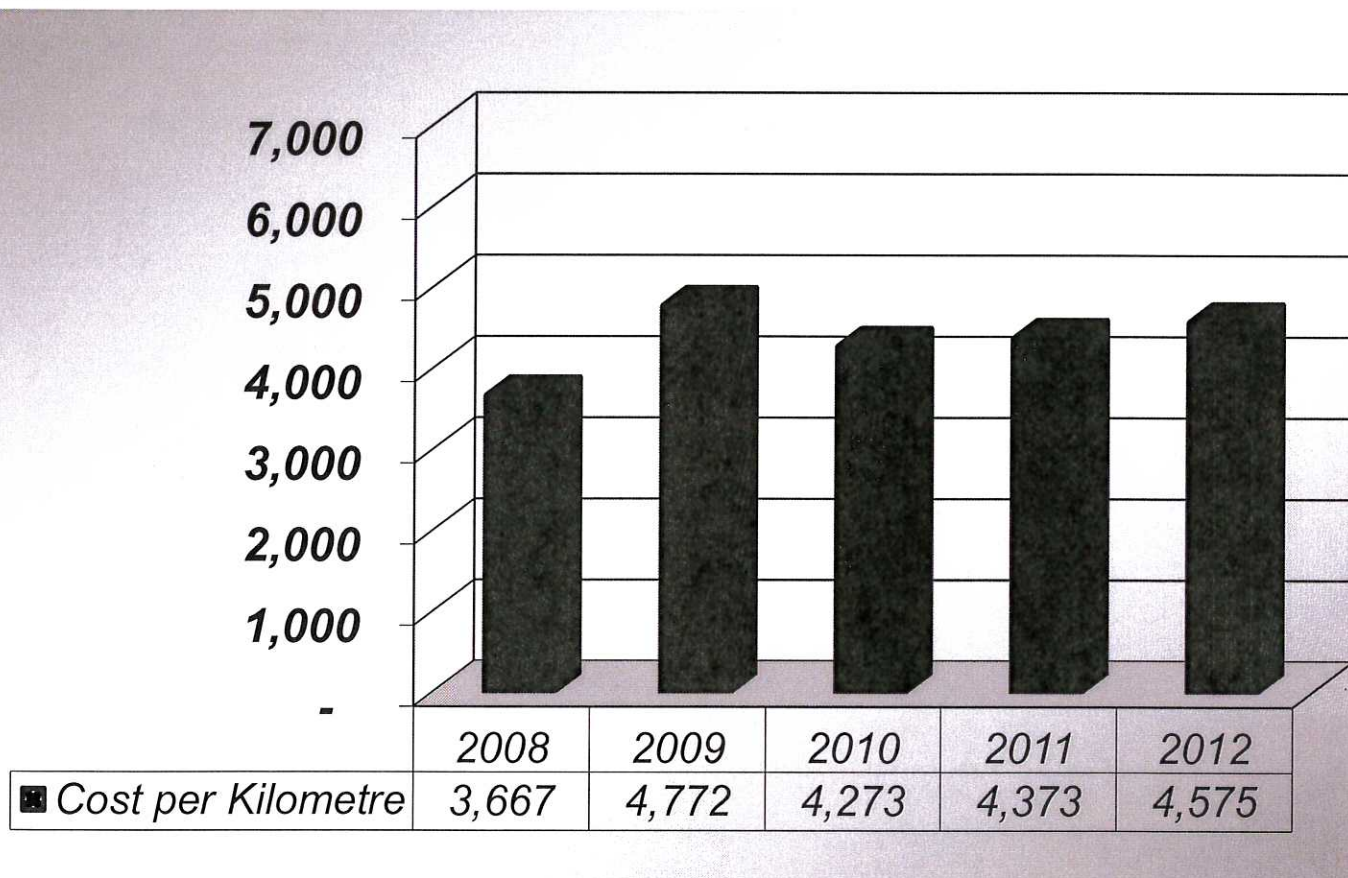
Notes about the Measure:

The 2008 to 2009 increase is primarily due to operating fund transfer representing \$1,088 per km. Since then, the numbers have been relatively stable.

Measure: Operating Cost per Kilometre of Wastewater Collection System

2013-14 Business Plan

Definition:



Key Conclusion:

The 2012 cost per kilometer for maintenance of the wastewater collection system has increased slightly, due to an increase in inflow/infiltration activities, and the resulting manhole repairs and elimination of cross connections.

2013 costs are expected to be in line with those of 2012.

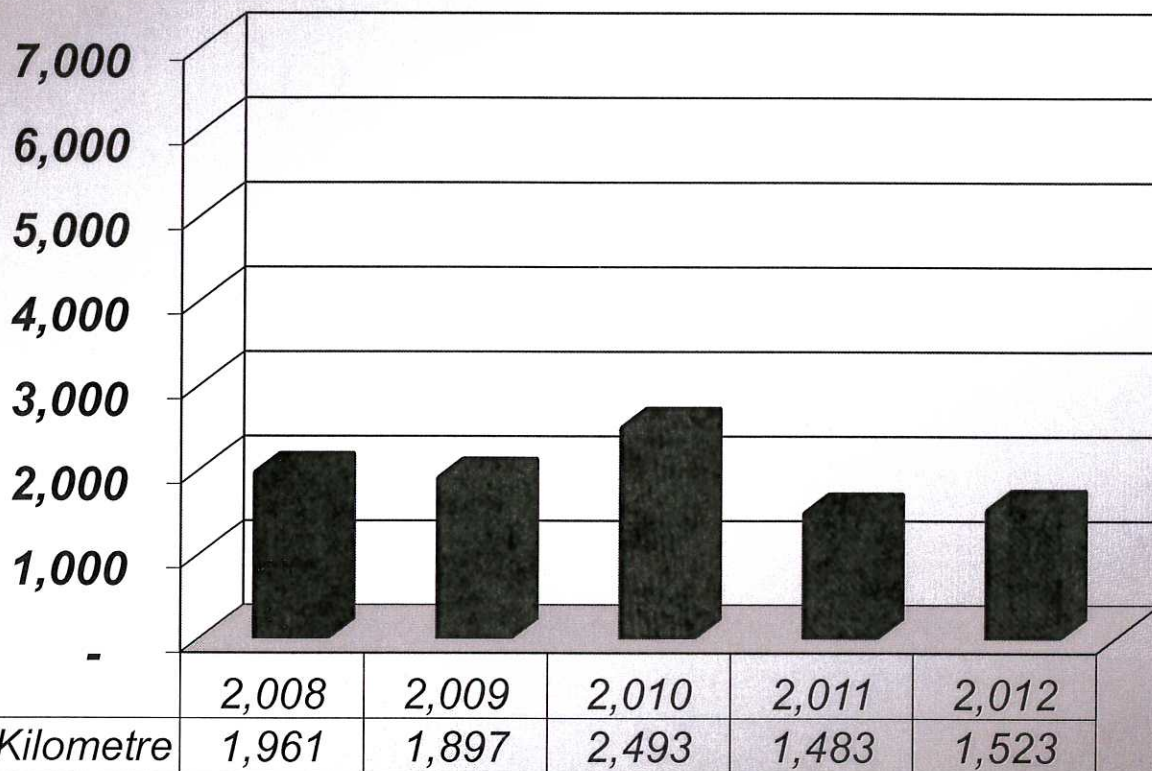
Notes about the Measure:

The 2009 increase is primarily due to operating fund transfer representing \$600 per km. Since that time, costs have been relatively stable.

2013-14 Business Plan

Measure: Operating Cost per Kilometre of Storm Collection System

Definition:



Key Conclusion:

Pro-active maintenance activities have helped to keep emergency repair costs down, and, some works previously done through the operating budget are now being done through Engineering Service's Capital Projects.

Although 2013 expenditures will likely remain under \$2,000 per km, future expenditures will most likely increase as a more pro-active management approach is taken to storm water.

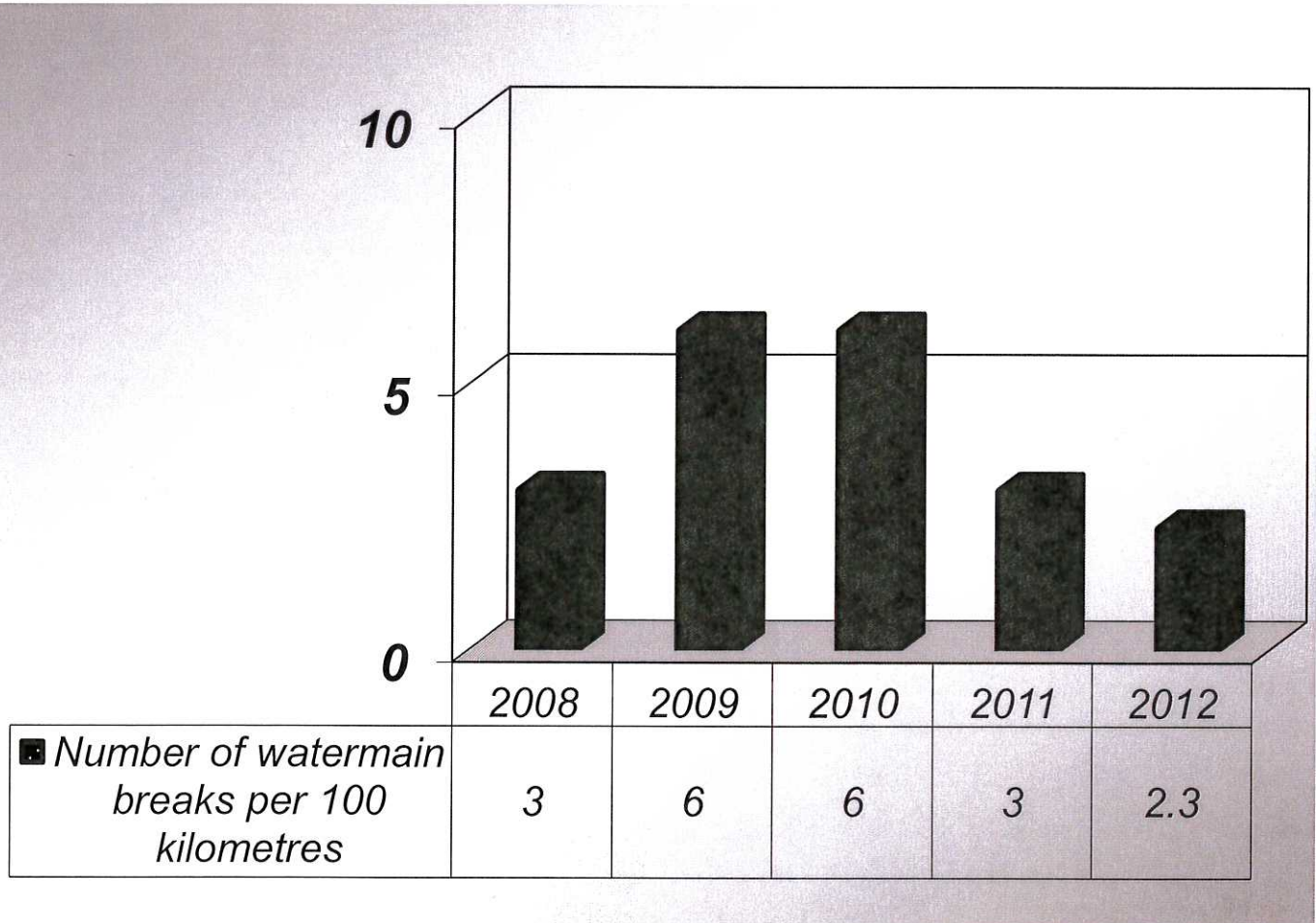
Notes about the Measure:

The amount of activity is dependent on a number of factors including responses to spills, weather conditions and planned maintenance.

2013-14 Business Plan

Measure: Number of Watermain Breaks per 100 Kilometres of Distribution Pipe

Definition:



Key Conclusion:

The number of watermain breaks have been reduced through the ongoing anode corrosion protection program, proactive water main replacement by Engineering services, and milder winter conditions. Unless significant changes occur that would delay the watermain replacement program, or, winter temperatures are much lower than normal, it is expected that the number of watermain breaks in the next few years will remain at 3-4 per 100 km of pipe.

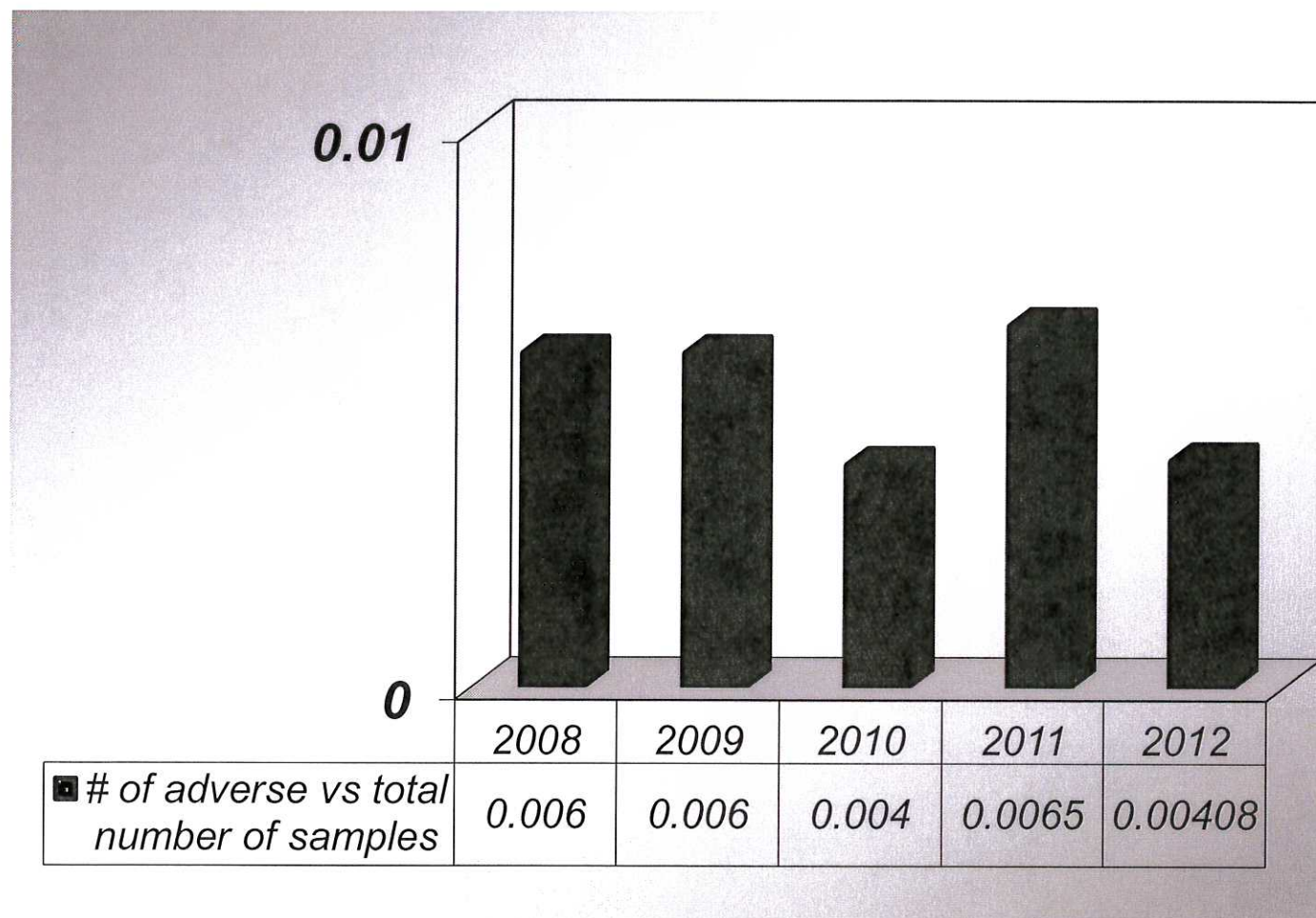
Notes about the Measure:

There has been no increase of break activity in areas where the anode protection program has been implemented.

2013-14 Business Plan

Measure: Number of Adverse Water Samples vs. Total Number of Water Samples Taken

Definition:



Key Conclusion:

The number of adverse vs. total water samples in 2012 is similar to that experienced in previous years. These occurrences are less than the Provincial average for municipalities of equivalent size. For 2013, it is expected that the measure will remain around the 0.004 mark.

Adverse samples are most often the result of contamination due to the method of sampling. The standard response to an adverse water quality sample is to flush the watermain and resample to confirm that the water quality meets the regulatory requirements. The samples that were deemed to be adverse were not indicative of the City's water supply, and the general public was not at risk at any time.

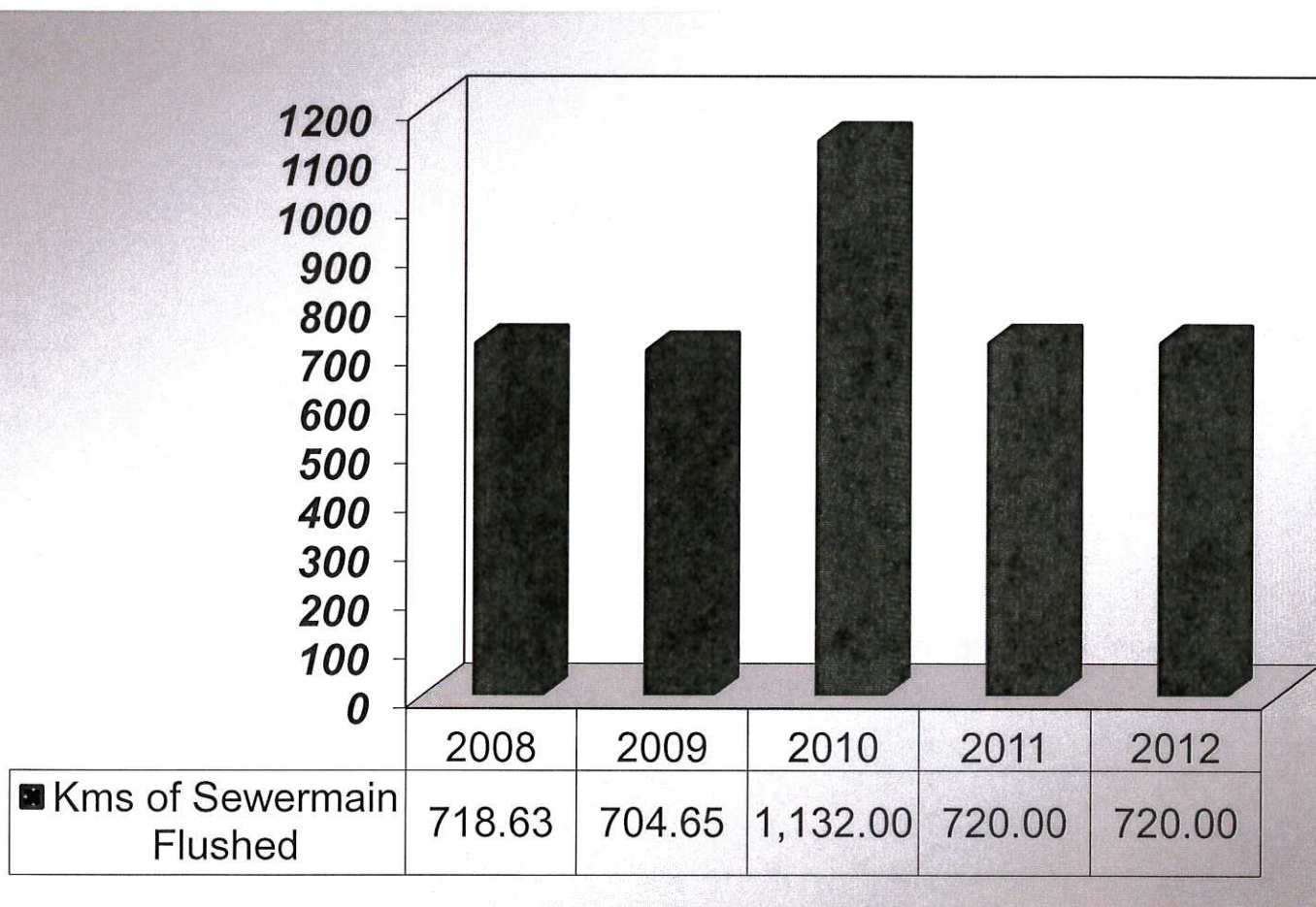
Notes about the Measure

The number of sampling points increases each year in relation to the City's population. The number of samples taken by the City is mandated under the Safe Drinking Water Act. Each year, the City exceeds the minimum number of samples required as part of its commitment to deliver safe drinking water.

2013-14 Business Plan

Measure: Number of Kilometres of Sewer Main Flushed per Year

Definition:



Key Conclusion:

The number of kilometers of sewers flushed in 2012 is consistent with previous years with exception of 2010. Flushing in 2010 was greater than average as a number of storm sewer mains were flushed. Sanitary sewers are flushed annually while storm sewers are flushed on an "as needed" and less frequent basis. It is expected that the amount of local sanitary sewer kms that are flushed in 2013 will increase slightly as the system increases in size.

Notes about the Measure:

This activity will continue to grow due to continuing development activity.



Water, Wastewater & Drainage

2013-14 Business Plan

Overall Conclusion:

The growth of the water distribution and wastewater collection systems will continue as future development occurs. This growth, combined with additional regulatory requirements, adds additional complexity and workload on the existing complement in the two Commissions. In order to maintain the Water and Wastewater systems, the necessary funding and staff resources are required to meet these demands.

The City's Financial Plan, as approved by Council is designed to ensure the Water and Wastewater systems are fully sustainable. The rates set out in the 2013 Water / Wastewater Budget reflect the operational and regulatory needs to maintain the Water and Wastewater systems, and, ensure that funds will be available for the future replacement of this infrastructure.

The City continues to meet its regulatory requirements and its water distribution systems remain fully accredited.

B. Miller
by _____

Commissioner Sign-off

04/26/13

Date (mm/dd/yy)