CITY OF HAMILTON

CORPORATE SERVICES DEPARTMENT
Financial Planning and Policy Division

TO: Mayor and Members General Issues Committee	**WARD(S) AFFECTED:** CITY WIDE
COMMITTEE DATE: June 19, 2013	
SUBJECT/REPORT NO: Water, Wastewater and Stormwater Rate Structure Review (FCS11025(e)) (Outstanding Business List Item) (City Wide)	
SUBMITTED BY: Mike Zegarac Acting General Manager Finance and Corporate Services **SIGNATURE:**	**PREPARED BY:** John Savoia (905) 546-2424 , ext. 7298

RECOMMENDATION

(a) That the Water, Wastewater and Stormwater Rate Structure changes as outlined in Appendix "B" to Report FCS11025(e) be approved effective January 1, 2014;

(b) That staff develop the 2014-2023 Rate Supported Budget incorporating the revised Rate Structure;

(c) That staff in conjunction with Horizon Utilities Corporation develop and implement a communication strategy to advise customers of the revised Rate Structure and changed billing presentation;

(d) That the Waterworks By-law R84-026, be amended to include the City's requirements to determine appropriate meter sizing;

(e) That the City Solicitor be authorized and directed to prepare all necessary by-laws, for Council approval, in order to implement recommendations (a) through (d) of Report FCS11025(e);

(f) That the subject matter be identified as completed and removed from the General Issues Committee Outstanding Business List.

EXECUTIVE SUMMARY

At its meeting of December 5, 2012, the General Issues Committee (GIC) approved direction to staff to undertake detailed analysis as per a specified "Rate Structure Review Recommended Scope of Work" (refer to Appendix "A" to Report FCS11025(e)) and report back to GIC with a recommended rate structure by June 2013.

The purpose of this report is to provide the findings of the aforementioned analysis and to present a recommended rate structure to be implemented as of January 1, 2014.

Guiding principles approved by GIC in April 2011 have formed the foundation of the rate structure review. Table 1 of Report FCS11025(e) found in the Historical Background section of this report provides a brief description of what the principles are intended to achieve. Some of these principles are not entirely compatible. For example, it is a challenge to develop a rate structure that promotes conservation while also supporting economic development. A successful rate structure will result when an appropriate balance is achieved between the various principles being considered.

The intent of the Review is to ensure current legislation is being adhered to and an appropriate balance of principles is achieved.

The following chart provides the timeline for the Review that, based on staff recommendations, would culminate with the implementation of a revised rate structure in 2014:

Step	Timeline	Process Step
1	Sept - Oct 2012	Council Education Sessions – to provide information related to how the City's rate budget and rate structure compares with other municipalities and best practices/guidelines - COMPLETED
2	Sept – Nov 2012	Incorporate feedback from Council sessions to evaluate which alternatives will be included in the detailed impact analysis - COMPLETED
3	December 5, 2012	Report to GIC seeking confirmation of a limited number of rate structure alternatives to be evaluated in the detailed analysis – COMPLETED
4	Dec '12 – May '13	Conduct impact analysis of approved scope of work & develop a recommended structure - COMPLETED
5	June 19, 2013	Report to GIC with recommended rate structure for Council's consideration

6	July – Dec 2013	Assuming an approved revised rate structure, coordinate with Horizon Utilities required billing system programming changes and related customer communications plan
7	December 2013	2014 Rate Budget incorporating revised rate structure
8	January 2014	Revised Rate Structure implemented with 2014 rates and billings issued with new layout

Information related to how the City's rate budget and rate structure compares with other municipalities and best practices/guidelines was provided to GIC in December 2012 (refer to Report FCS11025(c)). An evaluation of the City's current rate structure relative to the Review's Guiding Principles identifying the relative strengths and weaknesses of the existing rate structure was also provided at that time.

As per Step 5 in the timeline chart above, the purpose of this report is to seek approval from Council of a recommended rate structure as outlined in the table below:

Review Component	**Recommended Structure**
Rate Budget Methodology	• Budget both the expenses and revenues for wastewater and storm separate from water revenues. Result would be a separate Water service budget and a combined Wastewater/Stormwater budget treated as one service.
Water Pricing	
- **Fixed Charges**	• Elimination of minimum consumption allowance for all customers. Impact to single residential customers would be mitigated through the introduction of a Lifeline Rate set at @ 50% of the standard volumetric rate applicable to the first $10m^3$ of consumption each month. • Adopt meter equivalency (ME) ratios as set out by AWWA/CWWA to update fixed charge allocations in a more fair and equitable manner.
- **Variable Charges (Volumetric Rate)**	• The introduction of a Lifeline rate would create an inclining block structure for single residential customers. • Uniform rate structure continues for multi-residential and ICI.
Wastewater & Stormwater Pricing	• Wastewater and stormwater to be budgeted as one service with one rate fee funding both. • The rate will be expressed as $\$/m^3$ of metered water consumed. • Continue industry standard to base charge on 100% of water consumption. • Continue to maintain funding sources of both rates and property taxes with existing approximate funding share ratios.
Bill Layout	• New detailed bill layout to provide a customer friendly bill.

It is estimated that the recommended rate structure changes, assuming unchanged consumption levels from that experienced in 2012, would be expected to yield approximately $4.1 million of incremental revenue.

The increased revenues would result from the net impact of the structure changes that impact non-single residential account holders with nearly all single residential customers not expected to be financially impacted. Some of the affected account holders would be expected to see their total rate billing decrease while others will see increases as a result of the varying impacts of the elimination of the minimum consumption allowance and more so, from the changed fixed charges varying by meter size resulting from the application of AWWA/CWWA meter equivalency guidelines.

The intent of the Review has been to identify and evaluate alternative rate structures to recover costs reflected in the current year rate supported budget (i.e., revenue neutral). The Review has not been conducted to evaluate alternative rate structures with an objective of increasing total rate revenues but has used as a framework the Council approved Guiding Principles. Alternative rate structures such as the recommended revised structure will impact various customer sectors differently with the associated impacts identified further below.

As the Review was intended to be revenue neutral, the previously noted $4.1 million of incremental revenue is recommended to be factored into the 2014 Rate Budget development so as to mitigate the projected 4.25% overall rate increase for 2014 that was approved in principle during the most recent rate budget cycle in December 2012.

The 2013 approved Rate supported budget included nearly $172 million in overall revenues with 2014 forecast revenue of $179.7 million representing incremental revenue requirements of approximately $7.7 million. Discussions between Financial Planning and Hamilton Water staff have confirmed the need to generate the aforementioned revenue target for 2014. The 4.25% rate increase was expected to generate $7.5 million of the $7.7 increased revenue requirement.

As a result of the previously noted incremental revenue resulting from the recommended structure changes, the projected 2014 overall rate increase of 4.25% most likely will be mitigated to some extent subject to confirmation of the estimated financial impacts in 2014 of the following items described in detail in the Analysis/Rationale for Recommendation section of this report:

- Forecast 2014 Water Consumption
- Proposed Revised Master/Satellite Metering Policy
- Results of current Water/Wastewater Service User Fee Review
- Newly Adopted Rate Fee Revenues (private fire line & construction water fees)
- New Water Supply Agreement with Haldimand County

As previously noted, the recommended revised rate structure will impact various customers differently. The associated impacts are summarized in the following table for a number of customer profiles which reflect varying consumption patterns:

Typical Customer	Meter Size	# of Accounts *	Profiled Financial Impact
Single Residential	15-20 mm	131,506	No financial impact
Small Commercial	15-20 mm	5,065	Not profiled due to consumption range
Multi-Res & Sm Comm	25 mm	1,702	Decrease by approximately 5.6%
Multi-Res & Sm Comm	38 mm	931	Increase by approximately 4.9%
Multi-Res & Sm Comm	50 mm	2,263	Increase by approximately 2.1%
Multi-Res & ICI	100 mm	368	Increase from 0.8% - 3.9%
Multi-Res & ICI	150 mm	111	Increase from 0.6% - 5.6%
Multi-Res & ICI	200 mm	41	Increase from 0.5% - 5.6%
Multi-Res & ICI	250 mm	17	Increase from 0.3% - 4.4%

* As of April 1, 2013

The evaluation of individual customer financial impacts has been based on 2013 approved water/wastewater fees with detailed impact analysis provided in Appendix "D" to Report FCS11025(e).

A re-evaluation of the recommended rate structure relative to the Review's Guiding Principles (for details refer to Appendix "E" to Report FCS11025(e)) demonstrates that the recommended rate structure changes are expected to result in a revised structure that would more closely align to the Review's Guiding Principles.

Alternatives for Consideration – See Page 26

FINANCIAL / STAFFING / LEGAL IMPLICATIONS (for Recommendation(s) only)

Financial: The recommended rate structure and other studied alternative structures were compared and evaluated using the 2013 Rate Supported Budget as a base. The total rate supported budget for the water, wastewater and stormwater systems for 2013 is approximately $172 million.

The recommended rate structure based on actual consumption experienced in 2012 would be expected to yield approximately $4.1 million of incremental revenue. As the Review was intended to be revenue neutral, the increased revenue will be factored into the 2014 Rate Budget development to potentially mitigate in part the projected 4.25% overall rate increase for 2014 that was approved in principle during the most recent rate budget cycle in December 2012.

Staffing: No impact to current staffing levels.

Legal: The water, wastewater and stormwater rate structure changes proposed in this report are consistent with, and permitted under, the provisions of the Municipal Act, 2001. Recommendation (e) to this report authorizes all necessary by-laws to be prepared for Council approval respecting the implementation of recommendations (a) through (d) to this report.

As this report deals with the approval now of a policy framework for imposing a new water, wastewater and stormwater rate structure, which will result in revised fees and charges for the 2014 – 2023 rate supported budget, public notice has been given under the City's Public Notice Policy By-law 07-351.

HISTORICAL BACKGROUND (Chronology of events)

Consideration of a new funding model for Water, Wastewater and Stormwater has been the subject of several reports over the last two years. The Council direction to undertake a rate structure review recognizes that many Ontario municipalities have chosen to review their existing rate structures in order to develop water and wastewater rate structure strategies which would meet full cost recovery required under provincial legislation and the financial plan requirements under the *Safe Water Drinking Act, 2002*. Other factors driving the rate structure reviews include the adoption of universal metering, declining consumption and increasing costs which are all applicable to Hamilton's situation.

Council provided staff direction to move forward with a water and wastewater rate structure review ("Review") by approving guiding principles (refer to Table 1 of Report FCS11025(e) below) that were instrumental in determining options for Council's consideration with respect to alternative rate structures.

TABLE 1

Principle	Description of Intent
fairness and equity	Ensure that consumers are contributing equitably in proportion to the cost of the systems with user fees to be non-discriminating between customers and user sectors.
promote conservation	Water conservation may result in deferred infrastructure investments, thereby postponing capital expenditures for all customers. With less water used, there are the environmental benefits of reduced electricity and treatment chemical usage.

affordability and financial sustainability	Sustainability can be achieved through full cost pricing and a user pay approach. This objective will consider the impact on various consumer sectors to ensure that affordability is monitored.
stabilize revenue	The rate structure should minimize dramatic rate increases or decreases over time with the goal to maintain/improve revenue stability while providing a steady and predictable stream of revenues.
be justifiable	The rate structure should be consistent with the rate setting methodologies such as those provided by CWWA and applicable laws, in order to ensure that rates are transparent and justifiable if challenged in court.
be simple to understand and update	The rate structure should be easy for City customers to understand, utilizing a moderate level of educational tools. In addition, the rate structure should be able to be effectively maintained by City staff in future years.
support economic development;	The rate structure can support economic development and business retention in the City.

In December 2012, the General Issues Committee (GIC) received report FCS11025(c) that provided information related to how the City's rate budget and rate structure compares with other municipalities and best practices/guidelines. An evaluation of the City's current rate structure relative to the Review's Guiding Principles identifying the relative strengths and weaknesses of the existing rate structure was also provided.

At this meeting of December 5, 2012, GIC approved the following direction:

> *"That the "Rate Structure Review Recommended Scope of Work" as outlined in Appendix "B" to Report FCS11025(c) be approved with staff to report back to Committee with a recommended rate structure by June 2013";*

POLICY IMPLICATIONS/LEGISLATED REQUIREMENTS

Several regulatory and non-regulatory matters have influenced the design of the recommended rate structure.

Recent regulations required all municipalities in Ontario responsible for water operations to submit a "Financial Plan" in support of a sustainable system by July 2010 (Ontario Regulation 453/07). While the regulations were directed at water systems, the City follows a similar process with its financial plans for its wastewater and stormwater systems. The *Water Opportunities Act, 2010* passed by the Province includes regulation-making authority for the Minister of the Environment to require prescribed information on or with municipal water bills to promote transparency. The proposed new detailed bill layout most likely will assist Hamilton to comply with the legislation.

RELEVANT CONSULTATION

Public Works – Hamilton Water Division has been consulted and supports the objectives and recommendations of this report.

City Manager's Office – Legal Services Division has been consulted for this report.

Horizon Utilities Corporation – As the City's water/wastewater billing agent, they have been engaged regarding the required billing program\bill layout changes that would be required to accommodate the recommended revised rate structure.

ANALYSIS / RATIONALE FOR RECOMMENDATION

(include Performance Measurement/Benchmarking Data, if applicable)

Staff have undertaken detailed analysis in accordance with the Council approved "Rate Structure Review Recommended Scope of Work" (refer to Appendix "A" to Report FCS11025(e)) and have developed a recommended rate structure to be implemented as of January 1, 2014.

All of the recommendations have been considered in the context of the guiding principles and this analysis can be found in Appendix "E" to FCS11025(e).

Rate Budget Methodology

Current Practice

Hamilton's rate budget methodology is relatively unique with three very distinct service programs - Water, Wastewater and Stormwater – having been budgeted under the rate-supported revenues as if they are one service. This budget practice is uncommon as most communities (whether or not stormwater is funded by Rates) typically budget each service as separate distinct utilities as reflected by different rates and adopt related unique increases for each service program. By treating the three services as one, the increasing cost pressures of one component (for example, stormwater) may result in other

components' (water and wastewater) services and projects being deferred. In essence, there is no dedicated funding by service program.

Analysis

Continue to discretely identify the expenses for all three rate supported services except going forward to budget both the expenses and revenues for wastewater and storm separate from water. The Water service would be separate from the Wastewater and Stormwater programs treated as one service.

Staff have reviewed best practices among public water, wastewater and storm utilities across North America, particularly within Ontario. Closer review was undertaken of London's and Ottawa's rate budgets as stormwater is entirely funded by Rates similar to Hamilton's stormwater system which is largely Rate supported. Both London and Ottawa budget their water program separate from their wastewater and stormwater programs.

Distinct budgeting between the water and wastewater/stormwater programs more closely aligns with User Fee principles that support the application of user fees versus taxes as a means to finance expenditures:

- User fees are typically utilized to finance City services that provide a direct benefit to specific users with user fees set to recover the full or partial cost of these services. User fees are based on the "benefit principle" that holds that consumers should pay or contribute for a service in accordance with the benefit that they receive.

- Must be a reasonable connection between the "quantum" of a fee charged and the cost of providing the service - the user fee charge for a service should correlate to the cost of providing the service for which the fee is charged as user fees should not be used to raise general revenues lest they be deemed a tax.

Recommendation

The recommendation is to continue to identify the expenses for all three rate-supported services separately and begin to budget the revenues for wastewater/storm separate from water. The intention would be to have the Water service separately budgeted and for Wastewater and Stormwater to be treated as one service. Having a clear delineation of revenues and expenses between Water program and the Wastewater/Stormwater service programs would allow for more transparency to support the principles of user pay and full cost pricing.

Discussions between Finance and Hamilton Water staff have been initiated in order to have the 2014 Rate Budget prepared to reflect separate budgets for the Water and Wastewater/Stormwater programs. There will be a transition period in order to have two

fully funded rate-supported programs with further details to be developed and presented during the 2014 Rate Budget cycle.

Water, Wastewater & Stormwater Pricing – Fixed Charge Component

Current Practice

Hamilton is unique in that its fixed charge provides for a minimum water allowance so that most residential customers receive the first $5m^3$ of consumption per month (first $15m^3$ per month for accounts with meters > 20mm in size) – so that effectively this minimum water allowance is not charged at the volumetric rate. This is inconsistent with the practice across Ontario as Hamilton has been the only municipality that provides an allotment of water consumption with its fixed charge. This unique feature has complicated past efforts to provide detailed billings to customers that would be easy to understand.

Hamilton currently utilizes a two-part water and wastewater rate structure recovering a portion of the service costs from a fixed basic charge and a volumetric charge. This type of structure conforms to guidelines published by the CWWA and is used by the majority of municipalities in Ontario. Currently fixed charges are progressive based on meter size in lieu of inlet service line pipe size. The difference in charges between meter sizes known as the meter equivalency (ME) ratio has not been reviewed for years and Hamilton's current fixed charge ratios do not strictly follow industry standards.

An analysis of the 2012 Rate Supported Budget was conducted which indicated that approximately 89% of the rate supported costs are fixed in nature however, the revenues generated from the fixed charge component are only approximately 22% of total rate revenues with the balance derived from variable volumetric charges.

Analysis

1. Analyze the elimination of minimum consumption allowance for all customers and develop options to minimize the impact to residential customers through the introduction of a Lifeline Rate applicable to residential customers

A literature review of minimum consumption allowances indicates that it is not an industry norm and those that do have this allowance typically set it at a very low level of consumption. However, Hamilton's minimum consumption allowance has been provided to all users beyond single residential customers and as previously noted, at $15m^3$ per month for accounts with meters > 20mm in size. Since this practice is not supported by industry norms, staff recommend that the current minimum consumption allowance be removed.

However, in order to neutralize the cost impacts to single residential customers, staff recommend that a reduced rate be introduced in an inclining block structure to the first block of consumption. The first block of consumption offered at a reduced rate is generally regarded as a sufficient amount to meet essential water requirements for average residential circumstances. Anything above the first block would be charged at the full rate, which is based on the regular cost of service provision.

Staff have developed a financial model to evaluate the elimination of the minimum consumption allowance for all users and the introduction of a Lifeline Rate that would be applicable for single residential customers with the following features:

- Lifeline Block – comprised of the first $10m^3$ of consumption per month

- Lifeline Rate – the reduced rate has been set at 50% of the standard volumetric rate for example, in 2013 the water volumetric rate is $\$1.223/m^3$ so the Lifeline Rate were it in existence this year would be set at $\$0.6115/m^3$

Effectively, single residential customers will be charged 50% of the full rate for the first $10m^3$ of water consumed, whereas they currently receive the first $5m^3$ of water at no charge.

Financial modelling of the Lifeline Rate with the aforementioned features, demonstrates that for nearly all single residential customers the introduction of the Lifeline Rate will fully mitigate the financial impact of eliminating the minimum consumption allowance (refer to specific customer class impacts found in Appendix D of Report FCS11025(e)).

While the Lifeline Rate would be unique in Ontario, the aforementioned literature review conducted by staff did identify a number of water, wastewater, electric and telecommunication utilities mostly in the United States that utilize lifeline rate pricing.

Recommendation

The elimination of the minimum consumption allowance for all customers is recommended with the introduction of a Lifeline Rate that would be applicable to eligible residential customers as described below in order to largely mitigate the financial impact to single residential customers.

Essentially, a two tier inclining block structure would be created for most residential customers. The first tier pricing applicable to the first $10m^3$ of water consumed per month is intended to cover basic essential water requirements with the Lifeline Rate set at 50% of the standard volumetric rate. This approach neutralizes the cost impact of the proposed rate restructuring for most residential customers; rather than receiving the first $5m^3$ at no charge, they will receive the first $10m^3$ at 50% of the standard volumetric rate.

This substantially reduced rate is a distinguishing feature as often the standard cost of water is the rate that would be applied in a uniform rate structure or as the first block rate in a traditional inclining block structure.

Lifeline Rate Eligibility

As previously noted, the introduction of the Lifeline Rate is intended to provide affordable access to basic water/wastewater services to single residential customers.

Single Residential Properties

- single residential customers with meters up to 20mm in size are eligible for the Lifeline Rate

Multi-Residential Properties

- where a residential unit within a multi-residential property is individually metered or is serviced with a City installed sub-meter, the residential account is eligible for the Lifeline Rate

- where a multi-residential property is serviced with a single water meter so that the property is bulk-metered, the account is ineligible for the Lifeline Rate

Mixed-Use Properties

- where a residential unit within a mixed use property is individually metered or is serviced with a City installed sub-meter, the residential account is eligible for the Lifeline Rate

- where a mixed-use property is serviced with a single water meter so that the property is bulk-metered, the account is ineligible for the Lifeline Rate. Typically the water usage for mixed-use property is more attributable to the non-residential components of the property where water/wastewater utility costs are often charged against income

Industrial, Commercial and Institutional Properties

- non-residential customers are ineligible for the Lifeline Rate

Analysis

2. *Consider amending base of fixed charges from meter size to inlet pipe size*

Hamilton's current method of determining the fixed charge is to base it on the size of the water meter which is a common practice among water utilities across North America. The prevalence of basing fixed charges on meter size is due in part to incomplete service line data that utilities archive unlike meter size information which utilities assemble as it issues meters over time.

There becomes a direct correlation between the size of the water meter and the amount of the fixed charge. This correlation has led to some property owners seeking to reduce their water bills by requesting that the City "downsize" their water meter. In some cases this would dramatically reduce the fixed charges and consequently lower their total bill.

Currently when the City receives these requests the Water Meter Operations will review the current water usage patterns to determine whether or not a smaller meter would effectively handle the amount of water that they are consuming without adversely affecting the performance of the water meter. If the customer's usage indicates that a smaller meter would be acceptable, Hamilton Water will upon the written request from the property owner, arrange to have a new smaller meter installed at the property owner's expense. However, the current practice does not take into consideration the fact that the original water service size has not changed and therefore, the City's responsibility of maintaining the public portion of the service line remains unchanged. The property owner continues to benefit from having access to a larger diameter service without paying a corresponding fee. As such, staff have undertaken a review of options to deal with the unintended result of having fixed charges based on meter size whereby requests are made to down-size meters strictly with a desire to secure lower fixed charges.

An alternative considered is to change the basis for the fixed charges to be based on the inlet service line size instead of the meter size. This would ensure that the cost for maintaining larger service lines continues to be recovered and by basing charges on inlet service line size, it would eliminate the possibility of a property owner seeking to reduce their fixed charges by reducing the meter size. However, it should be noted that in Hamilton there are number of old manufacturing properties that were originally serviced with large water service lines that once the properties have been repurposed no longer require large amounts of water and in some cases, would have very minimal water usage. In this circumstance, these properties would be required to pay higher fixed charges for additional service that are no longer required due to the change in circumstances.

Staff reviewed waterworks bylaw provisions in other jurisdictions and noted that a number of utilities ensure its operations bylaws clearly outline the process for water meter sizing requests (either downsizing or upsizing). Typical bylaw requirements for requests from

property owners to downsize or upsize existing water meter include demonstrating that there are significantly changed water demands from the original water servicing requirements for the property through an engineer prepared water use audit. Additional requirements would include that the requested change in meter size be based on AWWA water servicing and metering guidelines.

Recommendation

For billing purposes, the fixed charge would still be reflected as a set fee per meter size however, customer communications would be enhanced to better inform customers that fixed charges reflect their property's potential utilization of the City system as represented by the property's meter which is typically sized in relation to the size of the property's inlet service line.

Recommendation (d) of Report FCS11025(e) requests approval to amend the City's Waterworks Bylaw R84-026 to address future meter sizing review requests Hamilton Water receives from property owners from time to time.

Analysis

3. *Analyze modification of meter equivalency (ME) ratios relative to AWWA/CWWA guidelines*

A key consideration in reviewing the fixed charge particularly as it relates to fairness and equity principles is to ensure that the differentials by meter size used to recover fixed costs are appropriate. Similar to the majority of municipalities surveyed and, in conjunction with AWWA/CWWA practices, the City currently charges customers different rates based on the size of the service which is referred to a meter equivalency factor. Equivalent meter ratios for the meters and services are based on representative metering costs. The costs for installing, maintaining and replacing customer meters and services increase with the size of the service and the corresponding equivalent meter ratio increases for this reason. The principle of using the service size as the basis for different fixed charges assumes the larger the service size the greater the demand that is placed on the City's systems from both an infrastructure and service perspective.

Equivalent meter ratios for the meters and services are based on representative metering costs using a 15-20mm meter as a base. While the City is using weighting factors to define the monthly service charges by service size, this has not been updated in a number of years. Many municipalities rely on industry standard meter equivalent ratios set out by AWWA/CWWA to establish the appropriate meter service cost differentials. These are applied to the costs that are recovered from the fixed monthly charge.

The allocation of costs among customer types is done through the application of the equivalent meter concept. The equivalent meter concept relates the flow for those meters larger than 20mm to that of the volume of flow for a meter up to 20mm which is the size most frequently used by the residential customer. A factor is then computed to relate the meters greater than 20mm to the residential base meter.

The following table provides the current meter equivalency factors being employed by the City, the current number of meters by size and the AWWA/CWWA guideline standards:

Typical Customer	Meter/Service Connection Size	# Meters In Service	Current Implied Water ME Ratios	AWWA/CWWA ME Ratios	Recommended ME Ratios
Residential & Small Commercial	15 mm	8,121	1.0	1.0	1.0
	16 mm	125,317	1.0	1.0	1.0
	20 mm	3,133	1.0	1.5	1.0
Small Commercial & Multi-Residential	25 mm	1,702	5.3	2.5	2.5
	38 mm	931	5.9	5.0	5.0
	50 mm	2,263	7.0	8.0	8.0
	75 mm	0	12.1	15.0	15.0
Large Commercial, Institutional & Industrial	100 mm	368	15.5	25.0	25.0
	150 mm	111	27.4	50.0	50.0
	200 mm	41	47.4	80.0	80.0
	250 mm	17	72.9	115.0	115.0
Total as of April 1, 2013:		142,004	ME = meter equivalency		

As the previous table demonstrates the current meter equivalency ratios used by Hamilton for water and wastewater differ than those recommended by AWWA/CWWA. This results in higher fixed costs to the 25-38 mm meters which are typically serving smaller multi-residential and commercial customers.

Applying the AWWA/CWWA meter equivalency ratios will see significant lower fixed charges for 25mm meter holders, small decreases for the 38mm and increased fixed charges for 50mm and greater. Most of the larger meters are in the 25-50mm size range with far fewer account holders with the largest size meters (100mm – 250mm).

Recommendation

The recommendation is for Hamilton to use AWWA/CWWA standards for meter equivalences to calculate the fixed charges for both water and wastewater.

The following table provides a comparison of revised fixed charges for Hamilton based on the AWWA/CWWA meter equivalences guidelines and how the charges would compare with a number of Ontario municipalities:

Meter Size (mm)	Active Meters as of April 1, 2013	Hamilton		Fixed Water Charges Comparisons					
		Current Fixed Charges	Revised Fixed Charges	Halton Region	Barrie	London	Durham Region	Sudbury	Windsor
15	8,121	$8.78	$8.78	$11.12	$12.02	$13.65	$13.83	$15.71	$24.42
16	125,317	$8.78	$8.78	$11.12	$12.02	$13.65	$13.83	$15.71	$24.42
20	3,133	$8.78	$8.78	$11.12	$30.04	$19.72	$13.83	$16.71	$29.65
25	1,702	$46.43	$21.95	$32.84	$60.09	$38.70	$28.11	$41.59	$43.56
38	931	$51.58	$43.90	$54.04	$96.14	$69.08	$59.83	$56.08	$102.04
50	2,263	$61.35	$70.24	$118.15	$210.31	$105.53	$129.19	$112.98	$170.33
75	0	$106.28	$131.70	$210.47	$360.54	$220.94	$227.11	$224.70	$306.12
100	368	$136.13	$219.50	$359.98	$751.12	$372.81	$451.60	$338.11	$542.08
150	111	$240.88	$439.00	$914.56	$961.43	$858.79	$839.31	$563.69	$989.80
200	41	$415.93	$702.40	$1,469.37	$1,382.06	$1,466.25	$1,430.85	$906.57	$1,649.20
250	17	$640.32	$1,009.70	$1,835.97	$1,382.06	$1,830.83	$2,328.38	$1,554.76	$2,716.84
Total	**142,004**								

As above demonstrates, Hamilton's fixed water charges based on the recommended basis of the AWWA/CWWA guidelines would continue to be very competitive when compared to similar municipalities. Additionally, it should be noted that as shown during the annual rate budget cycle, Hamilton has among the lowest variable (volumetric) water and wastewater rates in Ontario including lower volumetric water/wastewater rates relative to the comparator municipalities in the preceding table.

As previously noted many Ontario municipalities have chosen to review their existing rate structures and a staff literature review of completed rate structure reviews clearly indicates a trend towards basing fixed charges on the recognized AWWA/CWWA guidelines.

Analysis

4. *Identify impact of recommended fixed charge changes on fixed charge revenue target of 25 -30% of total rate revenues*

Hamilton currently utilizes a two-part water and wastewater rate structure recovering a portion of the service costs from a fixed basic charge (based on the size of water meter) and a volumetric charge. This type of structure conforms with guidelines published by the CWWA and is used by the majority of municipalities in Ontario – according to a study conducted in 2009 on behalf of the City of Cambridge, over 70% of the Ontario municipalities surveyed (80+ Ontario municipalities) have a two part rate structure.

The two-part rate structure recognizes the fact that there are fixed costs and variable costs. A fixed cost is defined as any cost that the City will incur regardless of the amount of actual water consumed by the water system and sewage/stormwater treated by the

wastewater system. Fixed charges recover the cost of services that must be provided regardless of usage, such as Meter Reading, Billing and Customer Service, as well as fixed costs at the Water and Wastewater Treatment Plants.

All variable costs relate directly to the amount or volume of water and wastewater provided and treated respectively in both systems. It is important that an appropriate amount of fixed costs are covered by fixed revenues with the remainder of fixed costs and variable costs to be covered by variable revenues.

The issue is water and wastewater operations are very capital intensive and as such, much of the expenditures are fixed; they do not vary as volumes increase or decrease. An analysis of the Hamilton 2012 Rate Supported Budget was conducted which indicated that *approximately 89% of the rate supported costs are fixed.* Recent studies in other municipalities confirm the high fixed cost nature of water/wastewater utilities (Fixed Cost %: Sarnia 2009 study: 88%; Peel Region 2009 study: 85%; Cambridge 2010 study: 93%).

As illustrated in the survey and as stated by CWWA, there is no single industry standard, as consideration should be given to all of a municipality's overall goals and objectives. For example, municipalities where conservation is a high priority tend to have a lower allocation of costs to fixed; but this comes at a potential increased risk to revenue stability. Municipalities that allocate a large percentage of costs to be recovered from the fixed portion of the bill increase revenue stability; however, this increases the costs to low volume residential customers, which compromises affordability and reduces the incentive to conserve. Ultimately, the approach is to establish the right balance, in consideration of a number of factors. Recouping all possible fixed costs from a fixed charge has to be limited to ensure users can still adopt water efficiency and reduce their rate billings.

The following table summarizes the recovery of costs from fixed charges by customer sector per the 2013 approved rate supported budget and after incorporating the aforementioned recommendations:

Fixed Charge Recovery Ratios			
	Single Residential	Multi-Residential & ICI	Total Budget
2013 Approved Budget	36%	12%	23%
Recommended Structure	36%	13%	23%

As above demonstrates, the cost recovery from fixed costs will remain relatively unchanged with a slight increase in recovery for the multi-residential and ICI customer sectors.

Recommendation

Staff are not recommending any adjustment to the fixed rates to increase the fixed charge recovery ratio. The recommended rate structure essentially maintains the fixed cost recovery ratios currently being realized in alignment with practices employed in other Ontario municipalities. The 2012 Municipal Study conducted by BMA Management Consulting provides a comparison of residential water/wastewater fixed charges based on a survey of 84 municipalities. The Survey median average for residential fixed charge recovery is 35% supporting the position that Hamilton's fixed charge recovery ratio is appropriately balanced to recover a portion of fixed costs while ensuring users can still adopt water efficiency and reduce their rate billings.

Wastewater & Stormwater Pricing

Wastewater Current Practice

Hamilton's current wastewater charge mirrors the two-part structure used for water pricing with billings comprised of a volumetric rate and a fixed charge. Customers are billed for wastewater based on a percentage of their water bill. The volumetric charge has been commonly referred to as the "Sewer Surcharge" with the current rate being 100% of the water charge and has been held at that rate for many years. Most Ontario municipalities employ a separate wastewater rate expressed as $\$/m^3$ of water consumed.

As mentioned, the more common wastewater billing practice is to assess a rate expressed as $\$/m^3$ based on 100% of water consumption. Reflecting the rate as a unique volumetric charge separates the wastewater service from the water service and is more transparent in reflecting the cost of the service. Basing billed consumption on 100% of water used does cause some dispute from those consumers with increased seasonal water use arguing that not all of their water consumption is discharged into the sanitary system. Despite this criticism, there has been a growing trend to base wastewater charges on 100% water consumption due to a number of reasons:

- Declining water consumption trend has been observed in Hamilton, across Ontario and Canada with the decline reflected in non-essential water usage (lawn watering, car washing, etc) so that in effect the vast majority of consumers do not have much seasonal usage
- Most sanitary utilities determine their wastewater rates by basing it on their total wastewater costs, so any method of discounting summer wastewater charges would require an overall rate increase to balance the loss of revenue so in effect the majority of users would simply subsidize the minority of customers who still have significant seasonal water usage

- Having a 100% metered water volume-based wastewater charge can magnify conservation promotion, simply because customers will realize that they will save on both water and wastewater bills if they use less

Stormwater Current Practice

Hamilton's stormwater program is currently funded mostly through water and wastewater rates (sewer surcharge) and to a lesser extent by property taxes with development charges contributing to stormwater infrastructure related to new development (no development charge funding for ongoing operations and maintenance). Prior to 2004, the stormwater program was funded primarily by property taxes on an area rated basis – stormwater operational costs related to catch basins/culverts/outfalls were not area rated.

Relative to other Ontario municipalities, Hamilton has a rather unique stormwater funding structure that currently utilizes a combination of water/sewer utility fees and property taxes as funding sources. The majority of Ontario municipalities continue to rely on property taxes to fund their stormwater programs, however, a few municipalities have shifted from property tax funding to a dedicated stormwater rate structure.

Hamilton's 2013 total stormwater program has an approved budget of $20.7 million that is funded as follows: $17.6 million or 85% from the Rate supported budget and $3.1million or 15% from property taxes.

Analysis

Study a modified "City of Ottawa" model whereby Hamilton will budget wastewater and stormwater as one service with one rate funding both services expressing this rate as $/m^3 of metered water while maintaining funding sources of both rates and taxes with existing approximate funding share ratios.

Ottawa is the only municipality in Ontario identified that fund their entire stormwater program via their rate supported budget. Similar to Hamilton, Ottawa's practice involves a volumetric calculation where water users are charged based on the cubic metres of water consumed with a surcharge rate (2012 approved rate of 117%) that is applied to the water charges to fund wastewater and stormwater services. However, unlike Hamilton, in recent years Ottawa has increased their sewer surcharge rate to meet commitments for implementing stormwater projects.

Ottawa, like most other cities in Ontario, has seen water use, and subsequently water and sewer revenues decline over the past decade at a time when the need to support maintenance of an aging infrastructure is increasing and regulatory standards are

requiring more stringent quality controls. To minimize the need to continue to raise the water rate to off-set declining water use, the City recently performed a rate structure review of their water, sanitary and stormwater rate structure to evaluate their short and long term options. As part of that review, the recommendation was made to remove all stormwater costs from the rate supported budget and to recover all stormwater costs on a city-wide basis via property taxes. In 2010, staff were given direction to further examine the options for the recovery of stormwater costs and to date, have not yet reported back to Ottawa Council on this matter.

Recommendation

The recommended change in Rate budget methodology previously described will allow Hamilton to budget its water program separate from its wastewater and stormwater programs. Hamilton's combined wastewater/stormwater charge will continue to be based on 100% of water consumed with this rate expressed as a $\$/m^3$ rather than the current surcharge percentage.

The unique shared funding of Hamilton's stormwater program will continue with operational costs related to catch basins/culverts/outfalls/storm ponds to remain funded through general property taxes and the remainder of the program to be funded through the wastewater/stormwater fee based on potable water consumption.

With the exception of the budget methodology aspect, the funding for rate supported stormwater cost recovery based on the customer's potable water consumption remains unchanged. However, basing stormwater charges on potable water consumption does not fully align to the Review's Guiding Principles suggesting further review of this aspect would be required in the future for staff to provide alternatives subject to direction being provided from Council.

Billing Layout

Analysis

Examine a changed detailed bill layout to develop a customer friendly water bill

The provision of a minimum consumption allowance with the fixed charge has created complexity to an otherwise easy to understand uniform rate structure. During the 2010 Rate budget deliberations, staff were asked to review the current layout of the water/wastewater billing invoice that the City's water/wastewater billing agent, Horizon Utilities, issues to customers. Specifically, it was requested that the water billing line items be expanded to show the fixed and variable charge components that comprise the total water/wastewater charges.

In response to the aforementioned staff direction, an Information Update to Council was provided in August 2010. It noted that the bill layout was changed in January 2002 to provide a breakdown of the fixed and variable consumption charges; however, the bill layout was reverted back to its bundled line items after only eight months. The reason for the reversal was a significant increase in customer calls to Horizon Utilities as many customers found the detailed billings confusing because the fixed charge included the minimum consumption allowance.

The recommended elimination of the minimum consumption allowance provides the opportunity to develop a detailed billing layout that will be customer friendly and greatly enhance the customers' understanding of their rate charges.

Recommendation

Staff have reviewed a number of bill layouts employed by various utilities across North America to identify a recommended new detailed bill layout that will allow customers to easily understand their charges for water, wastewater and storm services. Horizon Utilities has actively supported staff in developing a new bill layout that provides a detailed breakdown of the fixed and variable charges. The new layout will also clearly label the fees as water, wastewater & stormwater so that customers will be aware of what services the fees are paying for. Horizon has developed a beta test environment to trial a new billing layout with current versus recommended new bill layout examples provided in Appendix "C" to Report FCS11025(e).

The fixed charge components for both water and wastewater/stormwater fees will be expressed as a daily fixed charge versus the current practice of showing the charge as a monthly charge in order for the billing to be easier to understand. Most residential customers are on a bi-monthly cycle with non-residential customers on a monthly billing cycle. Oftentimes the number of billing days differs from bill to bill hence, restating the fixed charges to a daily rate will enhance customer understanding of their billings.

The current practice of a surcharge percentage for wastewater rates is not common as most Ontario municipalities employ a separate wastewater rate expressed as $/m3 of water consumed. As such the current "Sewer Surcharge" will be restated as a "Wastewater/Stormwater" charge expressed as $/m3 of water consumed.

For both water and wastewater/stormwater variable consumption charges, the new bill layout will provide eligible single residential customers a breakdown between the customers Lifeline consumption charges and their Non-Lifeline consumption charges.

Financial Impacts of Recommended Rate Structure

Staff developed a new rate revenue budget model to evaluate the financial impact of the recommended rate structure using the actual consumption experienced in 2012 as a base assumption.

Total Rate Supported Budget Impact

The approved total rate supported budget for the water, wastewater and stormwater systems for 2013 is approximately $172 million with budget rate revenues of $160.3 million exclusive of Haldimand/Halton related revenues. It is estimated that the recommended rate structure changes assuming unchanged consumption levels from that experienced in 2012, would be expected to yield approximately $4.1 million of incremental revenue.

The increased revenues would result from the net impact of the structure changes that impact non-single residential account holders with nearly all single residential customers not expected to be financially impacted. Some of the affected account holders would be expected to see their total rate billing decrease while others will see increases as a result of the varying impacts of the elimination of the minimum consumption allowance and more so, from the changed fixed charges varying by meter size resulting from the application of AWWA/CWWA meter equivalency guidelines.

Revenue Neutrality Review Objective

From the onset of the current Review, the intent of the Review has been to identify and evaluate alternative rate structures to recover costs reflected in the current year rate supported budget (i.e., revenue neutral). The Review has not been conducted to evaluate alternative rate structures with an objective of increasing total rate revenues but has used as a framework the Council approved Guiding Principles. Alternative rate structures will impact various customer sectors differently with the associated impacts identified further below.

Staff conducted a literature review of rate structure reviews conducted by several utilities across North America to gain an understanding of how to identify the financial impacts of alternative rate structures. An observation is that quite often approved rate structure changes are effective at the beginning of a fiscal year so that expected financial impacts may be incorporated into the utility's regular budget cycle.

As the Review was intended to be revenue neutral, the previously noted $4.1 million of incremental revenue is recommended to be factored into the 2014 Rate Budget development so as to mitigate the projected 4.25% overall rate increase for 2014 that was approved in principle during the most recent rate budget cycle in December 2012.

The 2013 approved Rate supported budget included nearly $172 million in overall revenues with 2014 forecast revenue of $179.7 million representing incremental revenue requirements of approximately $7.7 million. Discussions between Financial Planning and Hamilton Water staff have confirmed the need to generate the previously identified revenue target for 2014. The 4.25% rate increase was expected to generate $7.5 million of the $7.7 million increased required revenue.

As a result of the previously noted incremental revenue resulting from the recommended structure changes, the projected 2014 overall rate increase of 4.25% most likely will be mitigated subject to confirmation of the estimated financial impacts in 2014 of the following items:

- Forecast 2014 Water Consumption – As the variable rate revenue is solely dependent upon water consumption and that the variable component represents over three quarters of total rate revenues it is necessary to ensure that estimated 2014 consumption is consistent with assumptions used for the 2013-2022 Rate budget approved in December 2012 and upon reviewing 2013 actual consumption trends.

- Potential Revised Master/Satellite Metering Policy – Hamilton Water is evaluating potentially revising the master/satellite metering policy that would be effective as of January 2014. The Policy changes may have a net negative impact with respect to the fixed charges applied to satellite meters.

- Water/Wastewater Service User Fee Review – In February 2013, Council approved a Water/Wastewater User Service Fee and Charges Policy (refer to FCS11025(d) for details). This Policy has formed the framework for a comprehensive review of Hamilton Water's service user fees with the results of this review to be incorporated as part of the 2014 Rate Supported Budget process. A primary intent of the Policy is for the service user fees to directly fund the full cost of the related service and therefore, reduce pressure on general water and wastewater/stormwater rates.

- Newly Adopted Rate Related Fees – 2013 represents the initial full year of two new fees have been approved by Council and the revenue targets for these fees will be evaluated as part of the 2014 Rate Budget development. The new fees have been implemented in order to address fairness and equity issues of specific situations as described below:

    - **Private Fire Line Fees** - effective July 1, 2012 relate to permanent unmetered services dedicated to the supply of water for private fire protection systems.

    - **Construction Water Fees** - effective January 1, 2013 related to unmetered City provided water used during new construction recognizing that unmetered water

is used for construction purposes for some length of time until a water meter is installed and further supported user fee principles

- Water Supply Agreement with Haldimand County – the current 20 year water supply agreement between Hamilton and Haldimand expires in 2014 and as a result, staff of both municipalities has been engaged in discussions to develop a renewed supply agreement. With 2012 actual water revenues of approximately $2.4 million, Haldimand has represented the second largest individual customer over the last number of years and as such, the terms of the new agreement may impact overall rate revenues beginning with 2014.

Under the current rate budget methodology, the annual rate increase has been expressed as one percentage increase with the 100% sewer surcharge thereafter applied. With the recommended budget methodology of separate budgets for the water program and one budget for the wastewater/stormwater programs, there will be separate rate increases for each budget. This budget methodology is industry standard and beginning with the 2014 budget, there will separate rates and rate increases for the two aforementioned budgets resulting in a blended overall rate increase figure.

As noted most Ontario municipalities provide the various rate component increases to develop a blended rate increase with the following Region of Halton 2013 rate increase presentation provided as an example of this:

Region of Halton Blended Rate Example
Impact of the Proposed 2013 Rate Supported Budget
On a Typical Household (274m3/Year)

	2012 Budget	2013 Budget	Change $	Change %
Water	$ 364	$ 382	18	4.9%
Wastewater	414	433	19	4.6%
	$ 778	**$ 815**	**37**	**4.8%**

Individual Customer Impact

In order to understand the impact of the recommended structure, a number of customer profiles were created so that Council has an understanding of the shifts that may result by changing the rate structure. The customer profiles include the following:

Single Residential

Two different customer profiles reflecting 1) the low volume residential customer whose consumption of 180m^3 annually is typically observed in a new town home residence and 2) the average residential customer consumption of 220m^3 annually.

Multi-Residential & Small Commercial

Three different customer profiles reflecting customers with meter sizes of 25mm, 38mm and 50mm with annual typical average consumption for such meter sizes.

Industrial/Commercial/Institutional (ICI

Eight different customer profiles for customers with meter sizes ranging from 100mm to 250mm reflecting a range of low to large volume annual consumption.

The evaluation of individual customer financial impacts has been evaluated based on 2013 approved water/wastewater fees with details provided in Appendix "D" to Report FCS11025(e).

The following table summarizes the financial impact of the rate structure recommendations on the various customer profiles previously outlined:

Profiled Customer Type	Meter Size	# of Accounts *	Profiled Financial Impact
Single Residential	15-20 mm	131,506	No financial impact
Small Commercial	15-20 mm	5,065	Not profiled due to consumption range
Multi-Res & Sm Comm	25 mm	1,702	Decrease by approximately 5.6%
Multi-Res & Sm Comm	38 mm	931	Increase by approximately 4.9%
Multi-Res & Sm Comm	50 mm	2,263	Increase by approximately 2.1%
Multi-Res & ICI	100 mm	368	Increase from 0.8% - 3.9%
Multi-Res & ICI	150 mm	111	Increase from 0.6% - 5.6%
Multi-Res & ICI	200 mm	41	Increase from 0.5% - 5.6%
Multi-Res & ICI	250 mm	17	Increase from 0.3% - 4.4%

* As of April 1, 2013

ALTERNATIVES FOR CONSIDERATION

(include Financial, Staffing, Legal and Policy Implications and pros and cons for each alternative)

A rate structure alternative identified for consideration is one where the minimum consumption allowance for all customers is eliminated together with the introduction of a reduced rate that would be applicable to eligible residential customers without the modification of meter equivalency (ME) ratios relative to AWWA/CWWA guidelines.

The evaluation of individual customer financial impacts under the alternative structure described above based on 2013 approved water/wastewater fees has been completed with details provided in Appendix "D" to Report FCS11025(e). The following table summarizes the financial impact of the identified rate structure alternative:

Profiled Customer Type	Meter Size	# of Accounts *	Profiled Financial Impact
Single Residential	15-20 mm	131,506	No financial impact
Small Commercial	15-20 mm	5,065	Not profiled due to consumption range
Multi-Res & Sm Comm	25 mm	1,702	Increase by approximately 16.7%
Multi-Res & Sm Comm	38 mm	931	Increase by approximately 8.5%
Multi-Res & Sm Comm	50 mm	2,263	Increase by approximately 1.5%
Multi-Res & ICI	100 mm	368	Increase from 0.2% - 0.7%
Multi-Res & ICI	150 mm	111	Increase from 0.05% - 0.5%
Multi-Res & ICI	200 mm	41	Increase from 0.03% - 0.3%
Multi-Res & ICI	250 mm	17	Increase from 0.01% - 0.2%

* As of April 1, 2013

By solely eliminating the minimum consumption and not affecting fixed charges by revising the meter equivalency factors, the accounts with the largest meter sizes would experience very little increase in costs. However, the 25mm and 35mm accounts given the relatively lower annual water consumption would experience fairly high increased costs with no mitigation through lower fixed charges as would occur should the meter equivalency factors be revised to AWWA/CWWA standards.

Not only would there be a significant negative impact to only two customer sub-groups (25mm and 35mm metered accounts) the alternative structure would not address fairness and equity issues that can be addressed by adopting the AWWA/CWWA meter equivalency standards. As such, the alternative structure is not recommended.

ALIGNMENT TO THE 2012 – 2015 STRATEGIC PLAN:

Strategic Priority #2
Valued & Sustainable Services

WE deliver high quality services that meet citizen needs and expectations, in a cost effective and responsible manner.

Strategic Objective
2.1 Implement processes to improve services, leverage technology and validate cost effectiveness and efficiencies across the Corporation.
2.2 Improve the City's approach to engaging and informing citizens and stakeholders.
2.3 Enhance customer service satisfaction.

Strategic Priority #3
Leadership & Governance
WE work together to ensure we are a government that is respectful towards each other and that the community has confidence and trust in.
3.4 Enhance opportunities for administrative and operational efficiencies.

APPENDICES / SCHEDULES

Appendix “A” to Report FCS11025(e) - Council Approved Rate Structure Review Scope

Appendix “B” to Report FCS11025(e) - Recommended Rate Structure Changes

Appendix “C” to Report FCS11025(e) – Billing Layout Changes

Appendix “D” to Report FCS11025(e) – Structure Change Impact on Ratepayers

Appendix “E” to Report FCS11025(e) – Assessment of Recommended Rate Structure with Guiding Principles

City of Hamilton Rate Structure Review Council Approved Scope of Work (December 2012)

	Review Component	Status Quo (Current Practice)	Recommended Analysis
1	**Rate Budget Methodology**	• Budget expenses for the three Rate budget services (Water, Wastewater and Stormwater) separately with the revenue funding for these services not budgeted separately. • Industry practice is to budget each service as separate discrete programs each with separate expenses and their own unique rates often with differing rate increases.	• Continue to discretely identify the expenses for all three rate supported services except going forward to budget both the expenses and revenues for wastewater and storm separate from water revenues - Water service separate with Wastewater and Stormwater treated as one service
2	**Water Pricing**		
(a)	- **Fixed Charges**	• Hamilton is the only municipality in Ontario that includes the first 5m^3 of consumption each month (>20mm meters first 15m^3) within its fixed charge • This unique inclusion has complicated efforts to provide detailed billings to customers that would be easy to understand • Currently fixed charges are progressive based on meter size. The difference in charges between meter sizes known as the meter equivalency (ME) ratio has not been reviewed for years and does not follow industry standards • Review of 2012 rate budget indicates over 85% of costs are fixed in nature • Fixed charge revenues contributed 22% of total 2012 Rate budget revenues with remainder from volumetric charges	• Analyze the elimination of minimum consumption allowance and develop options to minimize the impact to residential customers through the introduction of a Lifeline Rate applicable to residential customers • Given above examine a changed detailed bill layout to develop a customer friendly water bill • Consider amending base of fixed charges from meter size to inlet pipe size and analyze modification of ME ratios with likely not full adoption of CWWA ratios • Identify impact of above to achieve recommended fixed charge revenue target of 25 - 30% of total rate revenues
(b)	- **Variable Charges (Volumetric Rate)**	• Similar to most other Ontario municipalities, Hamilton currently utilizes a Uniform rate water pricing structure whereby the cost per unit (m^3) remains the same regardless of volume consumed. • The uniform rate is applied to all customer classes in Hamilton.	• The introduction of a Lifeline rate would create essentially an inclining block structure for residential customers • Recommend no further analysis for ICI variable water pricing by continuing uniform rate structure for this sector

	Review Component	Status Quo (Current Practice)	Recommended Analysis
3	**Wastewater & Stormwater Pricing**	• Mirrors two-part structure of water with Fixed charge and a volumetric rate • Billing based on a % of water bill in lieu of common practice to express rate as $\$/m^3$ of metered water (current rate of 100% unchanged for many years). • Follow common industry practice to base charge on 100% of water consumption • Unique stormwater funding sources of both rates and taxes (approximately 85%:15% funding share ratio)	• Study a modified "City of Ottawa" model whereby wastewater and stormwater are budgeted as one service with one surcharge rate funding both services expressing rate as $\$/m^3$ of metered water • Continue industry standard to base charge on 100% of water consumption • Continue to maintain funding sources of both rates and taxes with existing approximate funding share ratios

Rate Structure Recommended Changes Commencing January 1, 2014

	Review Component	Current Practice	Recommended Structure
1	**Rate Budget Methodology**	• Budget expenses for the three Rate budget services (Water, Wastewater and Stormwater) separately with the revenue funding for these services not budgeted separately. • Industry practice is to budget each service as separate discrete programs each with separate expenses and their own unique rates often with differing rate increases.	• Budget both the expenses and revenues for wastewater and storm separate from water revenues resulting in Water service separate with Wastewater and Stormwater treated as one service
2	**Water Pricing**		
(a)	- **Fixed Charges**	• Hamilton remains the only municipality in Ontario that includes the first $5m^3$ of consumption each month (>20mm meters first $15m^3$) within its fixed charge • This unique inclusion has complicated efforts to provide detailed billings to customers that would be easy to understand • Currently fixed charges are progressive based on meter size. The difference in charges between meter sizes known as the meter equivalency (ME) ratio has not been reviewed for years and does not follow industry standards • Review of 2012 rate budget indicates over 85% of costs are fixed in nature • Fixed charge revenues contributed 22% of total 2012 Rate budget revenues with remainder from volumetric charges	• Elimination of minimum consumption allowance for all customers with impact to single residential customers mitigated through the introduction of a Lifeline Rate set at @ 50% of standard volumetric rate applicable to the first $10m^3$ of consumption each month • New detailed bill layout to provide a customer friendly bill • Adopt meter equivalency (ME) ratios as set out by AWWA/CWWA to update fixed charge allocations in a more fair and equitable manner
(b)	- **Variable Charges (Volumetric Rate)**	• Similar to most other Ontario municipalities, Hamilton currently utilizes a Uniform rate water pricing structure whereby the cost per unit (m^3) remains the same regardless of volume consumed. • The uniform rate is applied to all customer classes in Hamilton.	• The introduction of a Lifeline Rate would create an inclining block structure for most single residential customers • Uniform rate structure continues for all other customer classes

	Review Component	Status Quo (Current Practice)	Recommended Structure
3	**Wastewater & Stormwater Pricing**	• Mirrors two-part structure of water with fixed charge and a volumetric rate • Billing based on a % of water bill in lieu of common practice to express rate as $\$/m^3$ of metered water (current rate of 100% unchanged for many years). • Follow common industry practice to base charge on 100% of water consumption • Unique stormwater funding sources of both rates and taxes (approximately 85%:15% funding share ratio)	• Wastewater and stormwater to be budgeted as one service with one rate funding both • The rate will be expressed as $\$/m^3$ of metered water consumed • Continue industry standard to base charge on 100% of water consumption • Continue to maintain funding sources of both rates and taxes with existing approximate funding share ratios

CURRENT BILL LAYOUT

Horizon Utilities Corporation
PO Box 2249 STN LCD 1, Hamilton, ON L8N 3E4
www.horizonutilities.com

Questions? See reverse for contact information.

Your Bill

Billing Period For Jan 08, 2013 To Mar 07, 2013

Your Electricity Charges

Electricity		
Off Peak Usage	495.21kWh @ 0.0630000	$31.20
Mid Peak Usage	128.12kWh @ 0.0990000	$12.68
On Peak Usage	180.29kWh @ 0.1180000	$21.27
Provided by Horizon Utilities Corporation as Standard Supply Service		
Delivery		$52.00
Regulatory Charges		$5.56
Debt Retirement Charge		$5.41
Total Electricity Charges		*$128.12*
H.S.T. #866549090		*$16.66*
*Ontario Clean Energy Benefit - 10%**		*$14.48CR*
Sub Total		*$130.30*

Billing Period For Jan 05, 2013 To Mar 06, 2013

Your Water/Sewer Charges

Water Usage Charges	$40.80
Sewer Usage Charges	$40.80
Total Water And Sewer Charges	*$81.60*
Prior Balance	*$0.00*
Total Amount You Owe	*$211.90*

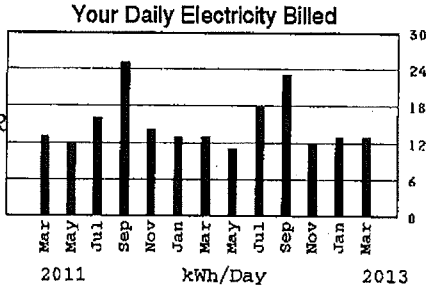
WILL BE WITHDRAWN ON OR AFTER Apr 15, 2013
If funds are not available on your withdrawal date, your Financial Institution will attempt to make the withdrawal up to 5 times prior to returning the item.

[redacted]
Account Number: [redacted]
Service Address:
[redacted]
HAMILTON ON

Date Your Bill Was Prepared:
Mar 21,2013

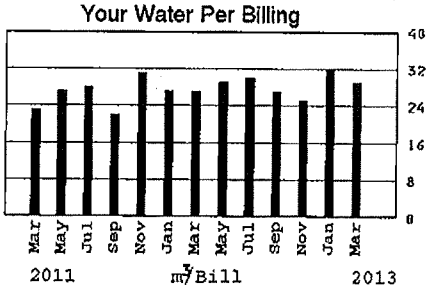
Thank You For Your Payment:
$226.96

Your Daily Electricity Billed



Historical Usage	This Year	Last Year
Electric-kWh/day	13.31	13.04
Water-m^3/day	0.48	0.47

Your Water Per Billing



Horizon Utilities has new rates effective January 1, 2013 as approved by the Ontario Energy Board.
Visit our website at horizonutilities.com to view our new rate schedule and discover the new tools we have to help you manage your account and electricity costs.

horizonutilities.com
Did you know that our website is a valuable source of customer tools? You can access your account, view your household's usage, sign-up for paperless billing and more.

Next Scheduled Reading Date is tentatively set for May 03, 2013

Please see reverse side for further information.
Amount owing after the due date is subject to interest @ 19.56% per year.
The debt retirement charge pays down the debt of the former Ontario Hydro.

Conservation Tip
Join Peaksaver PLUS and get a FREE touch-screen programmable thermostat and In-Home-Energy Display - a value of over $400! Call 1-855-390-7476

Your Usage For This Period

Rate Class: Residential

	Meter Number	Meter Type	Reading Is An	Number Of Days	Reading At Start Of Period	Reading At End Of Period	Multiplier	Measured Usage	Adjustment Factor	Adjusted Usage
Electric	405818	R2S	Actual	58	22405.05	23177.24	1.0	772.19	1.0407	803.62
Water	142946265	0015	Actual	60	5387	5416	1.0	29.00		

2014 REVISED BILL LAYOUT

Horizon Utilities Corporation
PO Box 2249 STN LCD 1, Hamilton, ON L8N 3E4
www.horizonutilities.com
Questions? See reverse for contact information.

Your Bill

Billing Period For Jan 08, 2013 To Mar 07, 2013

Account Number: [redacted]

Service Address:
[redacted]
HAMILTON ON

Date Your Bill Was Prepared:
Mar 15,2013

Thank You For Your Payment:
$226.96

Your Electricity Charges

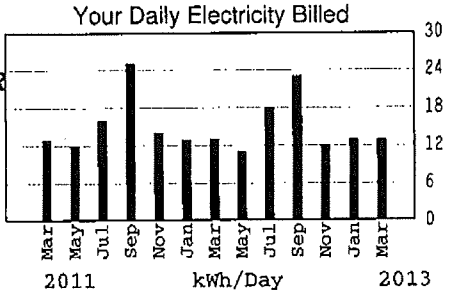
Electricity		
Off Peak Usage	495.21kWh @ 0.0630000	$31.20
Mid Peak Usage	128.12kWh @ 0.0990000	$12.68
On Peak Usage	180.29kWh @ 0.1180000	$21.27
Provided by Horizon Utilities Corporation as Standard Supply Service		
Delivery		$52.00
Regulatory Charges		$5.56
Debt Retirement Charge		$5.41
Total Electricity Charges		*$128.12*
H.S.T. #866549090		*$16.66*
*Ontario Clean Energy Benefit - 10%**		*$14.48CR*
Sub Total		*$130.30*

Your Water & Wastewater/Storm Charges For Jan 05, 2013 To Mar 06, 2013

Water Fixed Charge	60 days @ 0.2926670	$17.56
Water Consumption Lifeline	20.00 m3 @ 0.6115000	$12.23
Water Consumption NonLifeline	9.00 m3 @ 1.2230000	$11.01
Wastewater/Storm Fixed Charge	60 days @ 0.2926670	$17.56
Wastewtr/Storm Chg Lifeline	20.00 m3 @ 0.6115000	$12.23
Wastewtr/Storm Chg NonLifeline	9.00 m3 @ 1.2230000	$11.01
Total Water & Wastewater/Storm Charges		*$81.60*
Prior Balance		*$0.00*
Total Amount You Owe		*$211.90*

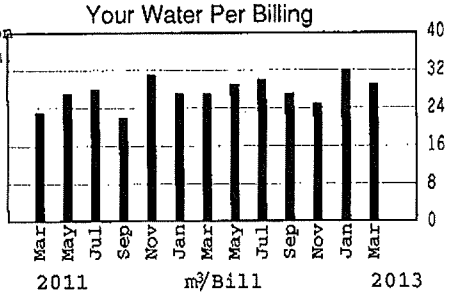
WILL BE WITHDRAWN ON OR AFTER Apr 22, 2013
If funds are not available on your withdrawal date, your Financial Institution will attempt to make the withdrawal up to 5 times prior to returning the item.

Your Daily Electricity Billed



Historical Usage	This Year	Last Year
Electric-kWh/day	13.31	13.33
Water-m^3/day	0.48	0.40

Your Water Per Billing



*Ontario Clean Energy Benefit takes 10% off the cost of up to 3000 kWh/month of electricy use. Some exceptions apply, please see Ontario.ca/OCEB or 1-888-668-4636. To learn more about how Ontario is building a strong, clean electricity system, visit Ontario.ca/energyplan

horizonutilities.com
Did you know that our website is a valuable source of customer tools? You can access your account, view your household's usage, sign-up for paperless billing and more.

Conservation Tip
FRIDGE & FREEZER PICKUP
Have your old fridge or freezer removed for free and save up to $125 on your electricity costs.
Call 1-877-797-9473

Next Scheduled Reading Date is tentatively set for Apr 26, 2013

Please see reverse side for further information.
Amount owing after the due date is subject to interest @ 19.56% per year.
The debt retirement charge pays down the debt of the former Ontario Hydro.

Your Usage For This Period

Rate Class: Residential

	Meter Number	Meter Type	Reading Is An	Number Of Days	Reading At Start Of Period	Reading At End Of Period	Multiplier	Measured Usage	Adjustment Factor	Adjusted Usage
Electric	405818	R2S	Actual	58	22405.05	23177.24	1.0	772.19	1.0407	803.62
Water	142946265	0015	Actual	60	5387	5416	1.0	29.00		

Recommended Structure Change Impact on Ratepayers

The recommended structure changes include elimination of the minimum consumption allowance, adoption of Lifeline Rate for most residential customers and the adoption of meter equivalency factors based on AWWA/CAAW guidelines.

In order to understand the impact of the recommended structure, a number of customer profiles were created so that Council has an understanding of the shifts that may result by changing the rate structure. The customer profiles include the following:

Single Residential

Two different customer profiles reflecting 1) the low volume residential customer whose consumption of 180m^3 annually is typically observed in a new town home residence and 2) the average residential customer consumption of 220m^3 annually

Multi-Residential & Small Commercial

Three different customer profiles reflecting customers with meter sizes of 25mm, 38mm and 50mm with annual typical average consumption for such meter sizes

Industrial/Commercial/Institutional (ICI

Eight different customer profiles for customers with meter sizes ranging from 100mm to 250mm reflecting a range of low to large volume annual consumption

The evaluation of individual customer financial impacts has been based on 2013 approved water/wastewater fees. The following tables summarize the financial impacts of the rate structure recommendations on the various customer profiles previously outlined (note that the number of accounts are as of April 1, 2013).

15 – 50 mm Meter Holder Customer Profiles

Typical Customer	**Residential**		**Multi-Residential and Small Commercial**		
# of Water Accounts	**122,906**		**1,702**	**931**	**2,263**
# of Wastewater Accounts	**120,496**		**1,620**	**900**	**2,215**
Meter Size (mm)	**15-20**	**15-20**	**25**	**38**	**50**
Annual Consumption (m^3)	**180**	**220**	**800**	**1,800**	**12,000**
Current Structure					
Fixed Charges	$ 105	$ 105	$ 557	$ 619	$ 736
Volumetric Charges	$ 147	$ 196	$ 759	$ 1,983	$ 14,466
Total Water Charges	$ 252	$ 301	$ 1,316	$ 2,602	$ 15,203
Total Sewer Charges	$ 252	$ 301	$ 1,316	$ 2,602	$ 15,203
Total Charges (2013 Rates)	**$ 504**	**$ 602**	**$ 2,632**	**$ 5,203**	**$ 30,405**
Recommended Structure					
Fixed Charges	$ 105	$ 105	$ 263	$ 527	$ 843
Volumetric Charges	$ 147	$ 196	$ 979	$ 2,203	$ 14,687
Total Water Charges	$ 252	$ 301	$ 1,243	$ 2,730	$ 15,530
Total Sewer Charges	$ 252	$ 301	$ 1,243	$ 2,730	$ 15,530
Total Charges (2013 Rates)	**$ 504**	**$ 602**	**$ 2,485**	**$ 5,460**	**$ 31,059**
% Change	**0.00%**	**0.00%**	**-5.58%**	**4.93%**	**2.15%**

100 – 150 mm Meter Holder Customer Profiles

Typical Customer	Multi-Residential, Industrial, Commercial & Institutional			
# of Water Accounts	**368**		**111**	
# of Wastewater Accounts	**356**		**108**	
Meter Size (mm)	**100**	**100**	**150**	**150**
Consumption Range	**Low Usage**	**High Usage**	**Low Usage**	**High Usage**
Annual Consumption (m^3)	**24,000**	**120,000**	**36,000**	**360,000**
Current Structure				
Fixed Charges	$ 1,634	$ 1,634	$ 2,891	$ 2,891
Volumetric Charges	$ 29,153	$ 146,647	$ 43,840	$ 440,382
Total Water Charges	$ 30,787	$ 148,281	$ 46,730	$ 443,272
Total Sewer Charges	$ 30,787	$ 148,281	$ 46,730	$ 443,272
Total Charges (2013 Rates)	**$ 61,573**	**$ 296,561**	**$ 93,461**	**$ 886,545**
Recommended Structure with 2013 Approved Rates				
Fixed Charges	$ 2,634	$ 2,634	$ 5,268	$ 5,268
Volumetric Charges	$ 29,373	$ 146,867	$ 44,060	$ 440,602
Total Water Charges	$ 32,007	$ 149,501	$ 49,328	$ 445,870
Total Sewer Charges	$ 32,007	$ 149,501	$ 49,328	$ 445,870
Total Charges (2013 Rates)	**$ 64,015**	**$ 299,003**	**$ 98,656**	**$ 891,740**
% Change	**3.97%**	**0.82%**	**5.56%**	**0.59%**

200 – 250 mm Meter Holder Customer Profiles

Typical Customer	Multi-Residential, Industrial, Commercial & Institutional			
# of Water Accounts	**41**		**17**	
# of Wastewater Accounts	**39**		**16**	
Meter Size (mm)	**200**	**200**	**250**	**250**
Consumption Range	**Low Usage**	**High Usage**	**Low Usage**	**High Usage**
Annual Consumption (m^3)	**50,000**	**600,000**	**80,000**	**1,200,000**
Current Structure				
Fixed Charges	$ 4,991	$ 4,991	$ 7,684	$ 7,684
Volumetric Charges	$ 60,974	$ 734,117	$ 97,691	$ 1,468,454
Total Water Charges	$ 65,966	$ 739,108	$ 105,375	$ 1,476,138
Total Sewer Charges	$ 65,966	$ 739,108	$ 105,375	$ 1,476,138
Total Charges (2013 Rates)	**$ 131,931**	**$ 1,478,216**	**$ 210,750**	**$ 2,952,275**
Recommended Structure with 2013 Approved Rates				
Fixed Charges	$ 8,429	$ 8,429	$ 12,116	$ 12,116
Volumetric Charges	$ 61,195	$ 734,337	$ 97,912	$ 1,468,674
Total Water Charges	$ 69,624	$ 742,766	$ 110,028	$ 1,480,790
Total Sewer Charges	$ 69,624	$ 742,766	$ 110,028	$ 1,480,790
Total Charges (2013 Rates)	**$ 139,247**	**$ 1,485,532**	**$ 220,056**	**$ 2,961,581**
% Change	**5.55%**	**0.49%**	**4.42%**	**0.32%**

Alternative Rate Structure Change Impact on Ratepayers

The alternative structure changes include elimination of the minimum consumption allowance, adoption of Lifeline rate for most residential customers and the adoption of meter equivalency factors based on AWWA/CAAW guidelines.

In order to have an understanding of the shifts that may result by adopting the alternative rate structure, the same customer profiles previously identified for the recommended structure have been used to evaluate the alternative rate structure.

The following evaluation of individual customer financial impacts has been based on 2013 approved water/wastewater fees. The following tables summarize the financial impacts of the alternative rate structure recommendations on the various customer profiles previously outlined (note that the number of accounts are as of April 1, 2013).

15 – 50 mm Meter Holder Customer Profiles

Typical Customer	**Residential**		**Multi-Residential and Small Commercial**		
# of Water Accounts	**122,906**		**1,702**	**931**	**2,263**
# of Wastewater Accounts	**120,496**		**1,620**	**900**	**2,215**
Meter Size (mm)	**15-20**	**15-20**	**25**	**38**	**50**
Annual Consumption (m^3)	**180**	**220**	**800**	**1,800**	**12,000**
Current Structure					
Fixed Charges	$ 105	$ 105	$ 557	$ 619	$ 736
Volumetric Charges	$ 147	$ 196	$ 759	$ 1,983	$ 14,466
Total Water Charges	$ 252	$ 301	$ 1,316	$ 2,602	$ 15,203
Total Sewer Charges	$ 252	$ 301	$ 1,316	$ 2,602	$ 15,203
Total Charges (2013 Rates)	**$ 504**	**$ 602**	**$ 2,632**	**$ 5,203**	**$ 30,405**
Alternative Structure					
Fixed Charges	$ 105	$ 105	$ 557	$ 619	$ 736
Volumetric Charges	$ 147	$ 196	$ 979	$ 2,203	$ 14,687
Total Water Charges	$ 252	$ 301	$ 1,536	$ 2,822	$ 15,423
Total Sewer Charges	$ 252	$ 301	$ 1,536	$ 2,822	$ 15,423
Total Charges (2013 Rates)	**$ 504**	**$ 602**	**$ 3,073**	**$ 5,644**	**$ 30,846**
% Change	**0.00%**	**0.00%**	**16.74%**	**8.47%**	**1.45%**

100 – 150 mm Meter Holder Customer Profiles

Typical Customer	Multi-Residential, Industrial, Commercial & Institutional			
# of Water Accounts	**368**		**111**	
# of Wastewater Accounts	**356**		**108**	
Meter Size (mm)	**100**	**100**	**150**	**150**
Consumption Range	**Low Usage**	**High Usage**	**Low Usage**	**High Usage**
Annual Consumption (m^3)	**24,000**	**120,000**	**36,000**	**360,000**
Current Structure				
Fixed Charges	$ 1,634	$ 1,634	$ 2,891	$ 2,891
Volumetric Charges	$ 29,153	$ 146,647	$ 43,840	$ 440,382
Total Water Charges	$ 30,787	$ 148,281	$ 46,730	$ 443,272
Total Sewer Charges	$ 30,787	$ 148,281	$ 46,730	$ 443,272
Total Charges (2013 Rates)	**$ 61,573**	**$ 296,561**	**$ 93,461**	**$ 886,545**
Alternative Structure				
Fixed Charges	$ 1,634	$ 1,634	$ 2,891	$ 2,891
Volumetric Charges	$ 29,373	$ 146,867	$ 44,060	$ 440,602
Total Water Charges	$ 31,007	$ 148,501	$ 46,951	$ 443,493
Total Sewer Charges	$ 31,007	$ 148,501	$ 46,951	$ 443,493
Total Charges (2013 Rates)	**$ 62,014**	**$ 297,002**	**$ 93,902**	**$ 886,986**
% Change	**0.72%**	**0.15%**	**0.47%**	**0.05%**

200 – 250 mm Meter Holder Customer Profiles

Typical Customer	Multi-Residential, Industrial, Commercial & Institutional			
# of Water Accounts	**41**		**17**	
# of Wastewater Accounts	**39**		**16**	
Meter Size (mm)	**200**	**200**	**250**	**250**
Consumption Range	**Low Usage**	**High Usage**	**Low Usage**	**High Usage**
Annual Consumption (m^3)	**50,000**	**600,000**	**80,000**	**1,200,000**
Current Structure				
Fixed Charges	$ 4,991	$ 4,991	$ 7,684	$ 7,684
Volumetric Charges	$ 60,974	$ 734,117	$ 97,691	$ 1,468,454
Total Water Charges	$ 65,966	$ 739,108	$ 105,375	$ 1,476,138
Total Sewer Charges	$ 65,966	$ 739,108	$ 105,375	$ 1,476,138
Total Charges (2013 Rates)	**$ 131,931**	**$ 1,478,216**	**$ 210,750**	**$ 2,952,275**
Alternative Structure				
Fixed Charges	$ 4,991	$ 4,991	$ 7,684	$ 7,684
Volumetric Charges	$ 61,195	$ 734,337	$ 97,912	$ 1,468,674
Total Water Charges	$ 66,186	$ 739,328	$ 105,595	$ 1,476,358
Total Sewer Charges	$ 66,186	$ 739,328	$ 105,595	$ 1,476,358
Total Charges (2013 Rates)	**$ 132,372**	**$ 1,478,656**	**$ 211,191**	**$ 2,952,716**
% Change	**0.33%**	**0.03%**	**0.21%**	**0.01%**

Assessment of Recommended Rate Structure with Guiding Principles

The following table summarizes the assessment of the current and recommended rate structure on how it aligns to the guiding principles that have guided the structure review.

Guiding Principle	Current Assessment	Revised Assessment	Recommended Changes & Observations
Fairness and Equity	Fair - Requires Improvement	Good	The fixed monthly charges to be based on AWWA/CWWA meter equivalency ratios improve the fairness of apportioning fixed costs among different users. Stormwater funding continues to be based on water consumption as a means of allocation.
Promote Conservation	Very Good	Excellent	Elimination of minimum consumption allowance promotes conservation goals by charging for all consumption. City continues to offer a number of outreach programs to support conservation and efficient use of water.
Affordability	Excellent	Excellent	With no financial impacts for the average residential customer; will continue the lower than average residential costs relative to other Ontario municipalities. Water/sewer costs as % of income stands at 0.7% per 2012 municipal study.
Financial Sustainability and Stabilize Revenue	Fair - Requires Improvement	Good	Small increase in fixed charge revenues for larger meters will slightly offset the impact of declining consumption trends. Stormwater funding costs may exceed revenue bases for the program.
Be Justifiable	Fair - Requires Improvement	Very Good	The fixed monthly charges to be based on AWWA/CWWA meter equivalency ratios is a more defendable approach to recovering fixed costs. Changed budget methodology will phase out cross subsidization from water program to wastewater/stormwater programs reinforcing user fee principles. Stormwater funding continues to be based on water consumption as a means of allocation. However, emerging conditions may warrant adjustment to ensure the financial sustainability of the program.

Guiding Principle	Current Assessment	Revised Assessment	Recommended Changes & Observations
Simple to Understand & Update	Fair - Requires Improvement	Very Good	With the elimination of the minimum consumption charge within the monthly fixed charge provides the opportunity for substantial change to bill layout that will enhance customer's ability to understand their billings.
Support Economic Development	Good	Good	The elimination of the minimum consumption allowance and adopting the AWWA/CWWA meter equivalency ratios is not expected to significantly change costs. Non-residential water/sewer costs will continue in the mid-range for Ontario municipalities.