



His Worship Mayor Ted Salci
and Members of the Municipal Council
City of Niagara Falls, Ontario

Members:

**Re: CPS-2009-03
Water and Sewer Rate Structure**

RECOMMENDATION:

That the proposed Schedule of Fees and Charges for Water and Sewer, based on the new rates structure, and this report be circulated to the Stakeholders and General Public, and

That the Committee directs Staff to hold a Public Information Session to explain the new rates structure and to gather Public responses.

BACKGROUND:

As staff appreciates, the report below is extensive, detailed and technical. We do not expect Council or the public to have digested the report by Monday, April 27th.

Staff wanted to get the report out so that it will provide a starting point for discussion. As indicated, staff is recommending the report be circulated and is NOT expecting Council to make a decision or debate the merits of the report at this time. Public Information sessions will follow.

The public process for reviewing the water and sewer rate structure is now in its third year. What began as a complaint from a concerned City resident, has evolved into a complex evaluation of water and sewer rates. Practically all sectors of the public have participated in the public process by attending public information sessions and providing comments on changing the rates structure. Their comments have ranged from formal presentations to candid remarks. Regardless of the form, it is their response that has highlighted the problems with the existing Water and Sewer Rate Structure.

Throughout the public process, various ideas have been considered for changing the rate structure. However, it would appear that even a minor change to the rate calculations would increase the costs for some ratepayers and others would pay less. Suffice it to say, no matter how you slice it or dice it, all of the ratepayers will see themselves as either winners (paying less) or losers (paying more).

Any change to distributing the water and sewer costs is just as unpalatable as increasing the rates. Economic pressures have changed drastically since March 2007, when the process began. Public tension has increased over the past two years from increased water billings and from proposing change to the rate structure. There is never a good time to change the rules, but inevitable change must be based on sound principles.

Corporate Services Department
Finance

On February 9, 2009, the Corporate Services Committee received Report CPS-2009-01 which responded to the Committee's direction -

"to prepare recommendations for a water and sewer rate structure that fulfills the eight principles, considers the Region's review of water and sewer charges, and responds to the concerns raised via the Public Consultation."

The report provided the following recommendations:

1. a business plan that allocates revenues to be derived from a two-part rate structure,
2. a two-part rate structure, i.e., a fixed component and a volumetric component,
3. a classification of water and sewer ratepayers,
4. a hump-back design for the water volumetric component, and
5. a single rate design for the sewer volumetric component with a maximum annual charge for the residential and condo-unit class.

The Committee deferred the report and directed Staff to circulate it to the various stakeholders. Three written responses are attached. The responses indicated cautious support for the new rate structure but also requested more information. The three Stakeholders needed the data to analyze the impact on their water and sewer costs.

One concern focused on whether the "Council's acceptable level of risk" would permit yearly arbitrary decisions for the fixed rate component. This could lead to unpredictable rate setting and create difficulties for multi-year planning. Another concern focused on whether the hump-back volumetric rate would be uniform for all ratepayer classes, and whether the meter size would continue to determine the monthly fixed charge.

Review of the Water and Sewer Rate Structure Recommendations

Each of the five recommendations is discussed to illustrate how they satisfy the eight principles and the concerns raised via the Public Consultation.

1) A business plan that allocates revenues to be derived from a two-part rate structure

- Council approved changes for the new Environmental Services that addressed the new legislative requirements and the reorganization of the City forces,
- Continuation of the change by focusing on a business plan that allocates revenues to be derived from a two-part rate structure,
- A business plan would not differentiate between City and Regional costs, or between fixed and variable costs, for determining the two part rate structure,
- The new plan would allocate revenue generation based on the Council's acceptable level of risk, satisfying the principles of user pay, affordability, conservation, and water use efficiency.

2) A two-part rate structure, i.e., a fixed component and a volumetric component

- The two part rate structure is simple in design and familiar to ratepayers,
- The structure is used by other utilities,
- It satisfies the principles of practicality and simplicity,
- The City will not incur major reprogramming of the billing software,
- The fixed component generates the minimum amount of revenue that the Council needs to satisfy the level of risk for revenue adequacy and security,
- The volumetric component generates the balance of revenues required and puts the ratepayer in control of this portion of the total billing.

3) A classification of water and sewer ratepayers

- Classification would help address the unique circumstances of ratepayers,
- It would help maintain community values and be sensitive to ratepayers,
- It promotes fairness and user pay between various kinds of ratepayers,
- Three classes of ratepayers:
- A residential and condo-unit class includes homeowners who have individual water metered services.
- A multi-residential and condo-complex includes buildings which have individual water metered services for a number of dwelling units, and,
- A class for Institutional, Commercial, and Industrial water metered services.

4) A hump-back design for the water volumetric component

- The hump-back design is only for the water volumetric rate,
- The design creates a peak charge that encourages conservation for lower consumption ratepayers,
- It offers large consumption ratepayers a reduced rate to reflect the economy of scale in the provision of water services, and,
- It promotes conservation and economic development by stepping the rates in a fashion that meets the purpose for the use of water services.

5) A single rate design for the sewer volumetric component, with a maximum annual charge for the residential and condo-unit class

- The single rate design would continue for the sewer volumetric rate
- The maximum charge addresses the principle of fairness, and the concern about paying for a service that is not used, and,
- Only applies to the residential and Condo-unit class.
- The City would continue the sewer rebate program for ICI ratepayers who can demonstrate that their water use did not result in a discharge to the sewer system
- This program satisfies the principle of economic development.

Allocating Revenues to Fixed and Volumetric Components

The first recommendation for a new rate structure is that a business plan be developed that allocates revenues to be derived from a two-part rate structure. The allocation would be based on the Council's acceptable level of risk, satisfying the principles of user pay, affordability, conservation, and water use efficiency. A quick reference to the 2009 water and sewer costs will help demonstrate the impact of allocating revenues.

Report CPS-2009-02 outlined the 2009 Municipal Utility Budget. The report explained the annual expenditures and revenues which are summarized in the following chart.

2009 Municipal Utility Budget Summary

2009 Expenditures	Fixed Costs	%	Variable Costs	%	Total
City Costs	\$17,689,842		0		\$17,689,842
Region Costs	\$14,538,297		\$7,450,497		\$21,988,794
Total Costs	\$32,228,139	81	\$7,450,497	19	\$39,678,636
2009 Revenues	Fixed Charges		Volumetric Charges		Total
City Billings	\$16,811,431	42	\$22,867,205	58	\$39,678,636

The chart shows the 2009 expenditures which are 81% fixed costs and 19% variable costs. The chart also shows the 2009 Revenues which are 42% fixed charges and 58% volumetric charges. There is an obvious difference between the fixed/volumetric percentage allocations of the expenditures compared to revenues.

Prior to 2008, there was no difference in the percentage allocations. Why the change ? The costs for water purchases and sewer treatment used to be billed from the Region on a volumetric rate. The costs were variable, so the City used a volumetric rate. But now the Regional billing is mostly a fixed cost, and the City is still using volumetric charges.

The City could adjust the rate calculation so that all of the fixed costs are collected from the fixed revenues. The fixed revenue component is collected by using a service charge or a flat rate that is billed on a regular frequency such as monthly. Generally there is minimal risk of revenue shortfalls with this revenue component.

Before the City simply changes the rate calculation, the Committee needs to understand the dynamic of the change. The following chart shows the dynamic of allocating the revenues between the fixed component and the volumetric component. Using the 2009 revenues, water volumes, and number of accounts, the example shows how the respective fixed and volumetric rates change as the revenue allocation changes.

Percent Allocation Between Fixed and Volumetric Revenue

Percent Allocation	Fixed Revenue *	Monthly Charge **	Percent Allocation	Volumetric Revenue *	Volumetric Rate ***
0%	\$0	\$0	100%	\$39,679	\$2.9442
10%	\$3,968	\$10.33	90%	\$35,711	\$2.6498
20%	\$7,936	\$20.66	80%	\$31,743	\$2.3554
25%	\$9,920	\$25.83	75%	\$29,759	\$2.2082
50%	\$19,839	\$51.65	50%	\$19,839	\$1.4721
75%	\$29,759	\$77.48	25%	\$9,920	\$0.7361
80%	\$31,743	\$82.64	20%	\$7,936	\$0.5888
90%	\$35,711	\$92.97	10%	\$3,968	\$0.2944
100%	\$39,679	\$103.30	0%	\$0	\$0

* Total revenues of \$39,678,636 multiplied by the percent allocation, (000's)

** Monthly Residential charge includes both water and sewer rates

*** Volumetric rate includes both water and sewer rates

The revenue allocation between the fixed and volumetric components does impact the water and sewer billings to ratepayers. The impact depends largely on the quantity of water that the ratepayer uses. Generally, a high volumetric allocation benefits a low volume user, and a high fixed allocation benefits a high volume user. To illustrate the relative impact on a residential and a commercial ratepayer, the following chart shows how quickly their annual costs change as the revenue allocation changes between the fixed and volumetric components.

Allocation Impact on Residential and Commercial Users

Fixed Revenue Component	Volumetric Rev Component	Residential Annual Billing *	Commercial Annual Billing **
0%	100%	\$707	\$353,307
25%	75%	\$840	\$277,996
50%	50%	\$973	\$202,686
75%	25%	\$1,106	\$127,376
100%	0%	\$1,240	\$52,065

* Based on a 15 mm meter and using 240 m3 per year

** Based on a 150 mm meter and using 120,000 m3 per year

The risk of a revenue shortfall does increase with a higher allocation to the volumetric component. The risk increases as the volume of water billed fluctuates. Weather plays an important factor on the use of water. A rainy summer will result in less water used and billed to ratepayers. And since the costs are mostly fixed, the City could incur a revenue shortfall.

The Council's acceptable level of risk depends directly on the City's appetite on gambling for an excess or a loss. Not unlike many of its business oriented ratepayers, the Committee should consider taking a business plan approach. Forecasting revenues and costs over several years can help smooth any unplanned financial fluctuations, and provide relative consistency in setting water and sewer rates.

The first decision then is choosing an allocation of revenues to be derived from a two-part rate structure: fixed and volumetric. And the choice should be made for the long term.

Classification of Water and Sewer Ratepayers

The Public Consultation was very informative on the unique circumstances for various ratepayers. Homeowners who enjoy gardening felt unfairly charged for sewer consumption costs since the water used for gardens did not enter the sanitary sewer system. Condominium-unit owners also felt unfairly charged. Their individual water and sewer billings are based on separate services, but similar owners pay less due to the shared billing of a single service.

Business owners are concerned about the cost of the City's infrastructure expenditures and how the funds are collected from ratepayers. The expenditures are annual contributions toward capital projects for maintaining the City's water and sewer systems. The funding is collected from ratepayers through the fixed charges in the water and sewer billings. For 2009, the total annual contribution is \$9,145,000 which accounts for nearly 71% of the total revenues collected from monthly fixed charges. Business owners who use large meters pay monthly charges that are many times the residential rate.

Three classifications are suggested to address the unique circumstances.

- Residential and condo-unit class includes homeowners who have individual water metered services. This classification would be restricted to 15mm and 16mm water services for only residential uses.
- Multi-residential and condo-complex includes buildings which have individual water metered services for a number of dwelling units for only residential use.

- An ICI classification which includes Institutional, Commercial, and Industrial water metered services. This classification includes all sizes of water services that are for non-residential use.

Assuming that the Committee has completed the first decision, Classification provides a basis to allocate the fixed revenue component. Each classification is assigned a share of the total fixed revenue required, then each water service is assigned a share of fixed revenue within their respective classification.

The Committee may want to consider various options on allocating the fixed revenue component to the three classes of ratepayers. Consideration on how each option satisfies the eight principles would influence the allocation. The options could include using the property assessment of major property classes, the property zoning of the water service area, or simply allocating equal portions of the fixed revenue component to each of the three classes.

For example, using the fixed revenues from the 2009 Municipal Utility Budget, the following three charts illustrate the allocation of the fixed revenues among the three classifications, and the impact on the monthly fixed charge by meter size.

Using Property Assessment to Allocate Fixed Revenues

Meter Size	Meter Factor *	Residential and Condominium-Unit	Multi-residential and Condo-complex	Institutional, Commercial and Industrial
		\$11,631,301	\$511,192	\$4,668,645
15mm	1	\$35		\$70
16mm	1	\$35		\$70
25mm	1			\$70
37mm	3		\$151	\$210
50mm	6		\$302	\$420
75mm	12			\$840
100mm	22			\$1,540
150mm	42			\$2,940
200mm	75			\$5,250
250mm	105			\$7,350

* meter factors are a multiple of the 15 mm rate

Using Property Zoning to Allocate Fixed Revenues

Meter Size	Meter Factor	Residential and Condominium-Unit	Multi-residential and Condo-complex	Institutional, Commercial and Industrial
		\$13,448,910	\$1,176,780	\$2,185,448
15mm	1	\$40		\$33
16mm	1	\$40		\$33
25mm	1			\$33
37mm	3		\$348	\$99
50mm	6		\$696	\$198
75mm	12			\$396
100mm	22			\$726
150mm	42			\$1,386
200mm	75			\$2,475
250mm	105			\$3,465

Using Equal Portions to Allocate Fixed Revenues

Meter Size	Meter Factor	Residential and Condominium-Unit	Multi-residential and Condo-complex	Institutional, Commercial and Industrial
		\$5,603,152	\$5,603,152	\$5,603,152
15mm	1	\$17		\$84
16mm	1	\$17		\$84
25mm	1			\$84
37mm	3		\$1,656	\$252
50mm	6		\$3,312	\$504
75mm	12			\$1,008
100mm	22			\$1,848
150mm	42			\$3,528
200mm	75			\$6,300
250mm	105			\$8,820

Each chart shows the dynamic influence of the allocation method. Other important variables, which have been kept constant for these illustrations, are the number of water meters and the meter factors.

The second decision then is choosing an allocation basis to collect the fixed revenues from the three classifications of ratepayers. The Public Consultation has shown that any choice should be implemented for the long term, and that the Committee avoid changing the allocation basis from year to year. Consistency in the use of an allocation method helps ratepayers to forecast their water and sewer costs for the long term.

Hump-Back Rate Design for Water Usage

The fluctuation of water volumes is a key factor in the calculation of a volumetric component. The existing rate calculation currently uses a rolling average of the past three years' of actual water flows to estimate future usage. Over the past five years, the City has experienced a steady decrease in the annual amount water flows.

The volume of water purchased from the Region is more than the volume billed to the Ratepayers. The difference is usually called unbilled water flows or unaccounted for water flows. These water flows are the result of unmetered uses, such as Fire usage, system flushing and leakage. The City has worked diligently to maintain the water pipe system. However, the unbilled water flow continues to average at 15% of regional purchases.

The fluctuation of water volumes and the unbilled water flows must be factored into the calculation of a volumetric component since the component uses volume to charge the Ratepayer.

In comparison to a single volumetric rate for water usage, the hump-back design provides three volumetric rates or stepped billing. The rates are applied as the increasing volume of water is billed. The first step is intended to bill for economic residential water use. The design next creates a peak rate that encourages conservation by charging more for water usage. The final step charges a marginal value rate to large water users.

The calculation of a volumetric rate depends on the fluctuation of water flows and the amount of unbilled water flows. The calculation of the hump-back design also considers the increasing volumes of water use by a ratepayer. For example, residential water use can range from ten to forty cubic meters per month, whereas commercial water use can range from several hundred to thousands of cubic meters.

The hump-back rate design provides an economic rate for low volume users. The economic rate is targeted at residential use to provide a basic amount of potable water at an affordable price. The average residential use in Niagara Falls is approximately 231 per year or just under 20 m³ per month. The economic rate could be used to bill the first 20 m³ of water use in the month of billing.

The hump-back rate design provides a peak rate to promote conservation and water use efficiency. By utilizing a peak rate for water use greater than 20 m³ per month, this higher volumetric rate could be used to bill water use that ranges from 21 to 63 m³ per month. Due to the higher rate, many users will effectively reduce their usage to reduce their costs. However, the higher rate may be seen as an unfair rate, especially by users who regularly choose to use more water. There are about 500 water accounts that average more than 231 and less than 1000 m³ per year.

The hump-back rate design encourages economic development by providing a marginal value rate to reflect the economy of scale in the use of water. The marginal value rate is calculated to be nearly equal to the City's marginal cost of purchasing water from the

Region. This rate essentially passes on the Regional charge per cubic meter to the high volume user, without any additional City costs. The high volume user could be charged the marginal value rate for unlimited usage greater than 63 m³/month.

The following rate schedule shows an illustration of the hump-back rate design.

Hump back Rate Steps	Range	Volumetric Revenue	Rate per cubic meter
Economic rate	0 - 240 m ³	\$5,683,389	\$0.8373
Peak Rate	241 - 1000 m ³	\$1,232,423	\$1.2657
Marginal Value Rate	1000+ m ³	\$4,446,909	\$0.7198
Single Rate			\$0.8152
Regional Rate			\$0.6363

This next chart shows the impact on the water volumetric billing for various meter sizes.

Meter Size	Average Annual Volume of water billed	Hump Back Rate Annual Billing	Single Rate Annual Billing
15mm	231	\$193	\$188
16mm	537	\$576	\$437
25mm	1,253	\$1,345	\$1,021
37mm	2,338	\$2,126	\$1,906
50mm	4,427	\$3,630	\$3,609
75mm	11,504	\$8,724	\$9,378
100mm	27,370	\$20,146	\$22,312
150mm	128,441	\$92,901	\$104,702
200mm	159,890	\$115,539	\$130,339
250mm	190,100	\$137,286	\$154,965

Large volume users benefit greatly from having a reduced rate for their usage. However, the trade-off is charging the peak rate to those users who regularly use less than 1,000 m³ per year. Some of these users may aggressively pursue conservation measures to reduce the amount of water billed at the peak rate.

The third decision is to choose whether the hump back or the single rate design should be used to calculate the water volumetric charge.

Single Rate Design with Annual Maximum Charge for Sewer

For some users, the existing sewer rates are unfair. Many homeowners use water for gardening and lawn watering. These uses incur sewer charges even though the water used does not discharge into the sanitary sewer system. One suggestion from the Public Consultation requested a maximum charge for residential sewer discharge.

A maximum charge transfers the collection of revenues to other sewer billings. Although the transfer appears to penalize non-residential ratepayers, the transfer only affects those services that are of the same size meter as Residential. There are approximately 500 non-residential water services that have a 15 or 16 mm meter size. These services would not be eligible for the maximum sewer charge. However, the rates are constructed to provide a marginal value rate for the MRC and ICI classes.

Here is a sample rate schedule:

Single Rate Design with Maximum Residential Charge for Sewer

	Volumetric Revenue	Rate per cubic meter
Residential and Condominium-unit (RC)	\$6,315,941	\$1.0007
Maximum RC Charge (240cm)	\$88,142	\$240.17
MRC and ICI	\$5,732,466	\$0.7715
Single Rate		\$0.8788
Regional Rate		\$0.6892

The following chart shows how a maximum residential charge would impact sewer volumetric billings using the 2009 Sewer Volumetric Revenues, and includes a comparison to the average billing using a single volumetric sewer rate.

Billing Comparison of Single Rate with Maximum RC Charge

Meter Size	Average Annual Volume of water billed	Residential and Condominium-Unit Annual Billing	MRC and ICI Annual Billing	Single Rate Annual Billing
15 mm	231	\$231	\$178	\$203
16 mm	537	\$240	\$414	\$472
25 mm	1,253		\$966	\$1,101
37 mm	2,338		\$1,803	\$2,055
50 mm	4,427		\$3,415	\$3,890
75 mm	11,504		\$8,875	\$10,110
100 mm	27,370		\$21,115	\$24,053
150 mm	128,441		\$99,092	\$112,874
200 mm	159,890		\$123,355	\$140,511
250 mm	190,100		\$146,662	\$167,060

Large volume users again benefit greatly from having a reduced rate for sewer. And residential users will enjoy a maximum charge. However, the trade-off is charging a higher rate to some users rather than a single rate for all users.

The fourth decision is to choose whether the maximum residential charge could be used or just keep a the single rate for the sewer volumetric charge.

Schedule of New Water and Sewer Rates

Two schedules are attached to this report that show the new water and sewer rates. Using all of the suggested factors in this report, the schedules show the fixed and volumetric rates for water and sewer services. The factors used in the calculation include:

- a business plan that allocates revenues to be derived from a two-part rate structure,
- a two-part rate structure, i.e., a fixed component and a volumetric component,
- a classification of water and sewer ratepayers,
- a hump-back design for the water volumetric component, and
- a single rate design for the sewer volumetric component with a maximum annual charge for the residential and condo-unit class

The Stakeholders and the General Public may want to compare their existing water and sewer costs. So, the new rate schedules show what the 2008 rates would have been using the new rate structure. When the 2009 Municipal Utility Budget is approved with its rates, then the comparison can be continued.

For future planning purposes, the new rate schedules also show what the 2010 to 2012 rates would be assuming that Regional and City costs continue to increase.

Regional billing will continue to change from volumetric to fixed, and the Regional costs for water purchases and sewer treatment will also escalate. City costs will continue to increase at the rate of inflation, however, some costs such as debt servicing may decrease. The future rates are intended to provide an estimate for ratepayers who desire this information for longer term planning of their water and sewer costs.

To take a peak at how the new rate structure compares to the proposed 2009 water and sewer charges using the existing rate structure.

Class	Meter Size	Average Volume by Month/Year	Existing 2009 Total Charge	New 2009 Total Charge	Difference
RC	15 mm	20/240 m3	\$950	\$877	\$73
	16 mm	25/300 m3	\$1,054	\$953	\$101
MRC	37 mm	200/2,400	\$5,743	\$10,016	(\$4,273)
	50 mm	360/4,320	\$10,660	\$18,874	(\$8,214)
ICI	15 mm	20/240 m3	\$950	\$765	\$185
	16 mm	25/300 m3	\$1,054	\$887	\$167
	25 mm	100/1,200	\$2,603	\$2,612	(\$9)
	37 mm	200/2,400	\$5,743	\$5,159	\$584
	50 mm	360/4,320	\$10,660	\$9,160	\$1,500
	75 mm	1,000/12,000	\$27,104	\$22,888	\$4,216
	100 mm	2,200/26,400	\$57,265	\$48,154	\$9,111
	150 mm	10,000/120,000	\$229,131	\$195,323	\$33,808
	200 mm	13,000/156,000	\$308,832	\$261,520	\$47,312
	250 mm	15,000/180,000	\$366,264	\$308,684	\$57,580

The chart shows the winners (paying less) and losers (paying more). What really stands out is the large increase in the Multi-residential and condominium-complex class. Their billings almost double. Why? Because this class is now responsible for a larger share of the fixed revenue component. Notice though the reductions in the other classes.

Caution !! This comparison is only a sample, based on average uses for each class of ratepayer and meter size. With four decision points to work through and each decision affecting every ratepayer, the resulting impact cannot be simply illustrated in a chart. You would need to examine hundreds of charts to show the number of possible variations from the quartet of decisions.

SUMMARY

Now in its third year, the Public Process for reviewing the water and sewer rate structure may be concluding. The participants have expressed their concerns and the Committee has graciously extended the open consultation. Many ideas have been distilled into five recommendations based on the eight principles. The recommendations are now quantified into a rate structure, and appended to this report is a set of new water and sewer rates.

To implement the new rate structure, the Committee would make four decisions for the long term. But before the Committee can consider implementation, the public process must have regard for the participants. That is why this report recommends:

That the proposed Schedule of Fees and Charges for Water and Sewer, based on the new rates structure, and this report be circulated to the Stakeholders and General Public, and

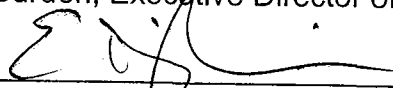
That the Committee directs Staff to hold a Public Information Session to explain the new rates structure and to gather Public responses.

Recommended by:



Ken Burden, Executive Director of Corporate Services

Recommended by:



Ed Dujlovic, Executive Director of Community Services

City of Niagara Falls
 Water Volumetric and Fixed Rates
 2008 to 2012 Budget

Volumetric Rates Per Cubic Meter		2008	2009	2010	2011	2012
Range of Annual Volume Billed	Range of Monthly Volume Billed					
<u>Hump-Back Rate Steps:</u>						
1 Economic Rate	0 - 240	\$0.7506	\$0.8373	\$0.9008	\$0.9784	\$1.0146
2 Peak Rate	241-1000	\$1.2161	\$1.2657	\$1.3617	\$1.4790	\$1.5337
3 Marginal Value Rate	1001+	\$0.6229	\$0.7198	\$0.7744	\$0.8411	\$0.8722
Fixed Monthly Charges						
		Meter Size				
Residential and Condo-unit (RC)	15mm	\$16.11	\$17.57	\$18.89	\$20.50	\$21.26
	16mm	\$16.11	\$17.57	\$18.89	\$20.50	\$21.26
Multi-residential and Condo-complex (MRC)	37mm	\$221.70	\$241.86	\$260.01	\$282.18	\$292.54
	50mm	\$443.40	\$483.73	\$520.02	\$564.35	\$585.09
Institutional, Commercial and Industrial (ICI)	15mm	\$14.02	\$15.30	\$16.44	\$17.85	\$18.50
	16mm	\$14.02	\$15.30	\$16.44	\$17.85	\$18.50
	25mm	\$14.02	\$15.30	\$16.44	\$17.85	\$18.50
	37mm	\$42.06	\$45.89	\$49.33	\$53.54	\$55.51
	50mm	\$84.13	\$91.78	\$98.66	\$107.08	\$111.01
	75mm	\$168.26	\$183.56	\$197.33	\$214.15	\$222.02
	100mm	\$308.47	\$336.53	\$361.77	\$392.62	\$407.04
	150mm	\$588.90	\$642.46	\$690.65	\$749.54	\$777.08
200mm	\$1,051.60	\$1,147.25	\$1,233.31	\$1,338.46	\$1,387.64	
250mm	\$1,472.24	\$1,606.14	\$1,726.63	\$1,873.85	\$1,942.69	

City of Niagara Falls
 Sewer Volumetric and Fixed Rates
 2008 to 2012 Budget

Volumetric Rates Per Cubic Meter	2008	2009	2010	2011	2012	
<u>MRC and ICI Rate per cubic meter</u>	\$0.7156	\$0.7715	\$0.7929	\$0.8148	\$0.8366	
<u>Residential rate per cubic meter</u>	\$0.9610	\$1.0007	\$1.0286	\$1.0570	\$1.0852	
<u>Maximum Charges @ 240 cubic meters</u>	\$230.63	\$240.17	\$246.85	\$253.67	\$260.45	
Fixed Monthly Charges						
	Meter Size					
Residential and Condo-unit (RC)	15mm	\$17.85	\$18.72	\$19.24	\$19.77	\$20.30
	16mm	\$17.85	\$18.72	\$19.24	\$19.77	\$20.30
Multi-residential and Condo-complex (MRC)	37mm	\$245.60	\$257.64	\$264.80	\$272.11	\$279.38
	50mm	\$491.21	\$515.27	\$529.60	\$544.21	\$558.76
Institutional, Commercial and Industrial (ICI)	15mm	\$15.53	\$16.29	\$16.75	\$17.21	\$17.67
	16mm	\$15.53	\$16.29	\$16.75	\$17.21	\$17.67
	25mm	\$15.53	\$16.29	\$16.75	\$17.21	\$17.67
	37mm	\$46.60	\$48.88	\$50.24	\$51.63	\$53.01
	50mm	\$93.20	\$97.76	\$100.48	\$103.26	\$106.02
	75mm	\$186.40	\$195.53	\$200.97	\$206.51	\$212.03
	100mm	\$341.73	\$358.47	\$368.44	\$378.60	\$388.72
150mm	\$652.39	\$684.35	\$703.39	\$722.79	\$742.11	
200mm	\$1,164.98	\$1,222.05	\$1,256.05	\$1,290.69	\$1,325.19	
250mm	\$1,630.98	\$1,710.88	\$1,758.47	\$1,806.97	\$1,855.27	