

# **City of Richmond**

## **Report to Committee**

Date: November 24, 2008

File:

To General Purposes - Dec 2,2008

03-0970-01/2008-Vol 01

To:

General Purposes Committee

From:

Andrew Nazareth

General Manager, Business & Financial

Services

Robert Gonzalez, P. Eng., General Manager,

Engineering & Public Works

Re:

2009 Utility Budgets and Rates

#### Staff Recommendation

- 1. That the 2009 Utility Expenditure Budgets, as recommended under Option 3 for each utility in the staff report dated November 24, 2008 from the General Managers of Business & Financial Services and Engineering & Public Works, be approved as the basis for establishing the 2009 Utility Rates; and
- 2. That staff be directed to report directly to Council with the necessary amendment bylaws to bring into effect the proposed Sewer Connection Charges, amendments to the Drainage, Dyke and Sanitary Sewer System Bylaw, Waterworks and Water Rates Bylaw, Solid Waste and Recycling Regulation Bylaw, and the 2009 Utility Rates option, as outlined in this staff report.

Andrew Nazareth

General Manager, Business &

Financial Services

(4365)

Robert Gonzalez, P. Eng. General Manager, Engineering & Public Works (4150)

### Staff Report

## Origin

This report presents the recommended 2009 Utility Budgets and recommended rates for Water, Sewer, Drainage and Solid Waste & Recycling. The utility rates must be established by December 31, 2008 to enable billing in 2009.

### **Analysis**

Key factors contributing to the utility budget increases in 2009 include:

- GVWD (Greater Vancouver Water District) regional water rates have increased 16% or \$2.45 million in 2009.
- GVS&DD (Greater Vancouver Sewerage and Drainage District) regional sewer rates have increased 18%, or approximately \$2.0 million.
- In total, regional rate increases represent over 67% of the total increase.
- Increased contributions to capital infrastructure replacement programs in water, sewer and drainage, in accordance with approved replacement plans, represent approximately 20% of the proposed increases.

In addition, long-term infrastructure planning to replace ageing/deteriorating municipal infrastructure will continue to impact budget and rate increases until such time as we are able to sustain the necessary level of funding required to replace infrastructure in the future. These increases will, however, impact the rates to a lesser extent than regional costs outside of the City's control. Council has adopted a staged program to increase water, sewer and drainage reserves to support infrastructure replacement. The 2009 budget figures presented represent options for these infrastructure replacement increases.

Recognizing these competing challenges, staff have presented various budget and rate options for 2009, including discretionary and non-discretionary increases. The various options are presented for each of the utility areas in the following charts:

- Water
- Sewer
- Drainage & Dyking
- Sanitation & Recycling.

## **Water Section Chart**

	2009 N	ater Budget - Optio		
an a day a calangan a	ALL BUILDINGS	Option I	Option 2	Option 3.
Key Budget Areas	2008 Base Level	Non-Discretionary	Non-Discretionary	Non-Discretionary
	Budget	inereases :	Plus Partial Reserve	Plus Full Reserve
			Increase	. Increase
Operating Expenditures	\$6,499,900			
Program Costs		. \$60,900	\$60,900	\$60,900
Salary Increases		\$300,500	\$300,500	\$300,500
Other Expenditures		\$77,600	\$77,600	\$77,600
D . C. 121 . C . C	<b>#</b> 0	\$0	\$0	\$0
Rate Stabilization Contribution	\$0	. 04,	.00	1
GVRD Water Purchases	\$15,241,000	\$2,453,000	\$2,453,000	\$2,453,000
Capital Infrastructure Replacement Program	\$6,050,000	\$0	\$250,000	\$500,000
Firm Price/Receivable	\$2,202,000	\$0	\$0	, \$0
Residential Water Metering Program/Appropriated Surplus	\$2,000,000	\$0	\$0	\$0
Overhead Allocation	\$965,600	(\$100,700)	(\$100,700)	(\$100,700)
Contribution to Other Reserves	\$1,000,000	\$0	\$0	\$0
Total 2008 Base Level Budget	\$33,958,500			
Total Incremental Increase		\$2,791,300	\$3,041,300	\$3,291,300
Revenues:		· · · · · · · · · · · · · · · · · · ·		
Apply Rate Stabilization Fund	(\$750,000)	\$0	\$0	\$0
Investment Income	(\$650,000)	. \$0	\$0	\$0
Firm Price/Receivable Income	(\$2,202,000)	\$0	\$0	\$0
Operating Provision	(\$200,000)	\$200,000	\$200,000	\$200,000
Meter Income	(\$844,300)	(\$30,700)	(\$30,700)	(\$30,700)
Miscellaneous Revenue	,	(\$19,000)	(\$19,000)	(\$19,000)
Net Budget	\$29,312,200			
Net Difference over 2008 Base Level Budget		\$2,941,600	\$3,191,600	\$3,441,600

Increases in utility operating expenditures are due to non-discretionary salary increases stipulated in collective agreement union contracts. Program costs relate to public works safety response and demand service calls. Other expenditures include material, supply and fuel costs beyond the City's control. The increases in regional charges for water purchases represent the most significant impact under all options at \$2.45 million or 16% above 2008 costs. The implementation of water conservation strategies (metering program, rain barrels, public education programs, etc.) has resulted in a reduction in overall water consumption. This has reduced the amount of water purchased from Metro Vancouver which in turn reduces overall costs.

In keeping with long-term infrastructure replacement plans, options are presented for partial (Option 2) and total (Option 3) recommended increases to capital infrastructure replacement. Based on current assessments, long-term infrastructure replacement demands will require that the annual reserve contribution be increased to \$7.6 million. The recommended Option 3 will increase the annual reserve contribution to \$6.5 million.

In all of the options outlined above, the increase in regional water purchase costs is offset by a \$750,000 contribution from the water rate stabilization fund. Unlike other cities, this fund was established a number of years ago to help build a provision account to offset the significant spikes in regional water purchase costs. These increases were anticipated due to infrastructure upgrades associated with water treatment and filtration requirements. Council, at their discretion, could draw up to an additional \$650,000 from the rate stabilization fund (for a total of \$1.4 million) to further offset regional water purchase increases. This would reduce the water rates under all of the options shown below by approximately \$10 for single-family, \$8.50 for a townhouse and \$5.50 for an apartment.

#### Regional Issues

The Regional District increases are for the drinking water treatment program. Continued increases over the next five years are anticipated due to the debt service and operating costs associated with the Seymour-Capilano filtration plant. The filtration plant will come on line at the end of the first quarter of 2009 but will only process water from the Seymour Dam. There are further potential impacts regarding the tunnelling portion of the Seymour-Capilano filtration project. In addition, there is upward pressure on regional water rates due to the decline in predicted water consumption and possible future increases in borrowing costs based on market indicators for long-term interest rates.

#### **Impact on Water Rates**

The impact of these various budget options on the water rates by customer class is as follows.

participates and other states	2009	Vater Rates Options		
2009 Rate Options which Include Increase Identified Below in Italics				
Customer Class	2008 Rates	2009 Option 1 Rate	2009 Option 2 Rate	2009 Option 3 Rate
Single Family Dwelling	\$451.52	\$493.78 <i>\$42.26</i>	\$497.71 <i>\$46.19</i>	\$501.64 <i>\$50.12</i>
Townhouse	\$369.62	\$404.22 \$34.60	\$407.43 \$37.81	\$410.65 <i>\$41.03</i>
Apartment	\$238.18	\$260.47 <i>\$22.29</i>	\$262.55 <i>\$24.37</i>	\$264.62 <i>\$26.44</i>
Metered Rate (\$/m³)	\$0.7975	\$0.8721 <i>\$0.0746</i>	\$0.8791 <i>\$0.0816</i>	\$0.8860 <i>\$0.0885</i>

As in prior years, the metered water rates have been calculated to provide incentive to encourage flat rate customers to transition to water meters. While the flat rate is used as a comparator for evaluating budget and rate impacts, it should be noted that homeowners can manage their costs through implementation of a water meter (installed at no charge) and reduced water consumption strategies.

#### Advantages/Disadvantages of Various Options

#### Option 1

- Represents the required amount necessary to recover cost increases with the same level of contribution from the rate stabilization fund as the prior year.
- No increase in the contribution to the capital infrastructure replacement program.

#### Option 2

• This option allows for a partial increase in the contribution to the capital infrastructure replacement program while maintaining the same level of rate stabilization contribution.

#### Option 3

- Includes the total planned increase to the capital infrastructure replacement program.
- Includes the same level of contribution from the rate stabilization fund as the prior year.
- Recommended option because it corresponds with long term infrastructure replacement plans.

### Water Amending Bylaws

Richmond's volunteer water metering program has been a very successful water conservation strategy. It allows residents wanting more control over their water usage and costs to have a water meter installed. There are, however, limitations for residents in two-family dwellings if both owners/occupants are not in agreement with installing a water meter. Further, the installation of a meter at the property line does not allow individual water use to be measured separately for each dwelling. It is a costly undertaking for residents to undertake the required plumbing work to provide a separate connection for metering purposes. To promote metering in these situations, it is proposed to include language in the amending bylaws to provide financial assistance to residents of two-family dwellings, where the City will reimburse property owners up to \$3,000 to support the necessary plumbing alterations to allow for individual metering. This amendment will be included in the water rate amending bylaws for Council's consideration.

## **Sewer Section Chart**

	2009 Sen	er Budget - Option	Budget - Opnons		
		Option 1	Option 2	Option 3	
Key Budget Areas	2008 Base Level	Non-Discretionary	Non-Discretionary	Non-Discretionary	
	Budget	Increases	Plus Partial Reserve	Plus Full Reserve	
			Increase	Increase	
Operating Expenditures	\$3,942,500		<u> </u>		
Power Cost		\$11,900	\$11,900	\$11,900	
Program Costs		\$60,900	\$60,900	\$60,900	
Other Expenditures		\$149,800	\$149,800	\$149,800	
GVSⅅ O&M	\$10,786,600	\$2,024,400	\$2,024,400	\$2,024,400	
GVSⅅ DD Debt	\$3,953,300	(\$575,900)	(\$575,900)	(\$575,900)	
GVSⅅ Sewer DCC's	\$4,000,000	\$0	\$0	\$0	
GVSⅅ BOD/TSS Charges	690,000	\$22,900	\$22,900	\$22,900	
GVSⅅ Trunk Main Cleaning	\$500,000	\$0	\$0	\$0	
Rate Stabilization Contribution	\$430,300				
	\$430,300	\$0	\$0	\$0	
Capital Infrastructure Replacement Program	\$3,506,400	\$0	\$250,000	\$500,000	
Firm Price/Receivable	\$1,080,000	\$0	\$0	\$0	
Overhead Allocation	\$571,100	(\$72,300)	(\$72,300)	(\$72,300)	
Operating Debt	\$147,800	\$0	\$0	\$0	
Total 2008 Base Level Budget	\$29,608,000			· · · · · · · · · · · · · · · · · · ·	
Total Incremental Increase		\$1,621,700	\$1,871,700	\$2,121,700	
Revenues:			5-: -55	+-,,	
Debt Funding	(\$32,600)	\$0	\$0	\$0	
Investment Income	(\$150,000)	\$0	\$0	\$0	
Firm Price/Receivable Income	(\$1,080,000)	\$0	\$0	\$0	
Property Tax Levy for DD Debt	(\$3,953,300)	\$575,900	\$575,900	\$575,900	
GVSⅅ Sewer DCC Levy to Developers	(\$4,000,000)	\$0	\$0	\$0	
Direct Levy for BOD/TSS	(\$690,000)	(\$22,900)	(\$22,900)	(\$22,900)	
Transfer from Rate Stabilization	(\$700,000)	\$200,000	\$200,000	\$200,000	
Net Budget	19,002,100				
Net Difference Over 2008 Base Level Budget		\$2,374,700	\$2,624,700	\$2,874,700	

Increases in utility operating expenditures are due to program cost increases related to public works safety response and demand service calls. Other expenditures include power, material, supply and fuel costs which have escalated and are beyond the City's control. As with water, regional increases for sewer charges represent the most significant increase in costs (18%) for 2009. This is due in part to 2009 increases (7.9%) combined with 2008 cost increases (10.1%) over and above what Metro Vancouver had previously provided to the City.

Option 1 reflects no increase to the sewer infrastructure capital program, whereas Options 2 and 3 reflect marginal (\$250,000) and full (\$500,000) increases. Based on current assessments, long-term

infrastructure replacement demands will require that the annual sewer reserve contribution be increased to \$6.3 million. The recommended increase raises the annual reserve contribution to \$4 million.

#### Regional Issues

The main budget drivers impacting Metro Vancouver costs include labour cost increases, additional fuel and energy costs and replacement of aging infrastructure. Additional cost increases associated with the draft Liquid Waste Management Plan are estimated to be 8% per year through 2020 for regional costs – if the draft Liquid Waste Management Plan is adopted early in the New Year.

#### **Impact on Sewer Rates**

The impact of these various budget options on the sewer rates by customer class is provided in the table which follows.

	2009	Sewer Rates Options		(4) 建 <b>0</b> P/2014 (4) (4)
2009 Rate Options which Include Increase Identified Below in Italics				
Customer Class	2008 Rates	2009 Option 1 Rate	2009 Option 2 Rate	2009 Option 3 Rate
Single Family Dwelling	\$272.84	\$301.35 \$28.51	\$304.87 \$32.03	\$308.39 \$35.55
Townhouse	\$249.64	\$275.73 \$26.09	\$278.95 \$29.31	\$282.17 <i>\$32.53</i>
Apartment	\$207.91	\$229.64 <i>\$21.73</i>	\$232.32 <i>\$24.41</i>	\$235.00 \$27.00
Metered Rate (\$/m³)	\$0.6188	\$0.6835 <i>\$0.0647</i>	\$0.6914 <i>\$0.0726</i>	\$0.6994 <i>\$0.0806</i>

#### Advantages/Disadvantages of Various Options

#### Option 1

- Represents the minimal increase necessary to sustain operations and results in the least impact to property owners.
- Does not meet City's long-term infrastructure plan to increase the capital program for replacement of ageing infrastructure. Capital replacement remains fixed at \$3.5 million for 2009. The objective is to build the annual infrastructure replacement for sewer to \$6.3 million.

## Option 2

- Higher impact on the budget and rates charged to property owners.
- Provides for a partial increase in the capital infrastructure program, from \$3.5 to \$3.75 million. This
  option partially meets the City's objective for increasing the degree of replacement of aging sewer
  infrastructure.

#### Option 3

- Highest impact on the budget and rates charged to owners.
- Recommended option because it meets all objectives as noted in Option 2, and fully conforms with the planned, phased increases in the long-term replacement program objective for ageing infrastructure, increasing the capital program from \$3.5 to \$4.0 million.

## **Sewer Amending Bylaws**

Sewer and drainage connection charges assessed for private property developments under Schedules A and B of Bylaw 7551 are significantly below City costs for providing this service. This has resulted in an under-recovery of costs, amounting to approximately \$165,000 annually, which must be subsidized by all ratepayers. This reduces the funding available for maintenance activities, negatively impacting service levels. Staff are proposing that the rates be adjusted to account for cost recovery.

The connection charge adjustments outlined above will be presented for Council's consideration with the sewer rate amending bylaws.

## **Drainage and Dyking Section Chart**

	2009 Drain	age and Dyking Opt	ions	
	a de la composição de la La composição de la compo		ate Options which In e Identified Below in	
Utility Area	2008 Rates	-2009 Option 1 Rate	2009 Option 2 Ratel	2009 Option 3 Rate
Drainage	\$66.90	\$78.05	\$78.05	\$78.05
Dyking	\$11.11	\$11.11	\$11.11	\$11.11
Total Drainage & Dyking	\$78.01	\$89.16	\$89.16	\$89.16
Increase Over 2008		\$11.15	\$11.15	\$11.15

<sup>&</sup>lt;sup>1</sup>There is no variation in the rates proposed for Drainage and Dyking. The options are presented for consistency with presentation of the other utility areas.

## Background

Drainage - In 2003, a drainage utility was created to begin developing a reserve fund for drainage infrastructure replacement costs. The objective is to build the fund to an anticipated annual contribution of approximately \$12 million, subject to ongoing review of the drainage infrastructure replacement requirements.

As adopted by Council in 2003, the rate started at \$11.15 and is increased an additional \$11.15 each year until such time as the \$12 million annual reserve requirement is reached -- expected to take approximately 12 more years. The rate in 2008 was \$66.90. The options presented above represent the full increase of \$11.15 as per prior Council approvals. The recommended increase will result in \$4.2 million in annual reserve contributions for drainage.

Dyking – An annual budget amount of \$600,000 was established in 2006 to undertake structural upgrades at key locations along the dyke, which equated to an \$11.11 charge. Continued annual funding is required to facilitate continued studies and upgrades as identified through further seismic assessments of the dykes. No increase in the \$11.11 rate is proposed for 2009. This will result in revenues of approximately \$600,000 in 2009, based on total estimated properties.

## Solid Waste & Recycling Section Chart

	2009 Solid Waste	& Recycling Budge	t - Options	
	44020034450	Option 1	Option 2	Option 3
a Key Budget Areas	2008 Base Level Budget	Non-Discretionary Increases	Non-Discretionary Increases	Non-Discretionary Increases
Operating Expenditures	\$583,100	CONTROL CONTRO		PRELITE EMBUREMENTE
Wage Increase		\$33,500	\$33,500	\$33,50
Equipment/Fuel Increase		\$7,400	\$7,400	\$7,40
Operating Cost Increase	-	\$2,000	\$2,000	\$2,000
Collection Contracts	\$3,009,400	\$104,200	\$104,200	\$104,200
Contracts - Security	\$10,000	\$0	\$0	\$(
Disposal Costs	\$2,219,300	\$102,500	\$102,500	\$102,500
Program Costs	\$1,233,800			
Equipment/Fuel Increase		\$5,900	\$5,900	\$5,90
Wage Increase		\$15,600	\$15,600	\$15,60
Operating Increases		\$41,100	\$41,100	\$41,10
Program Costs		\$60,900	\$60,900	\$60,90
and the second second		1	The second second	
Environmental Programs	\$700,200	(\$600)	(\$600)	(\$600
Rate Stabilization	\$696,100	(\$45,100)	(\$45,100)	(\$45,100
Total	\$8,451,900			
Net Difference Over 2008 Base Level Budget		\$327,400	\$327,400	\$327,400

The cost increases noted for Collection Contracts and Program Costs are reflective of contractual increases for the City's various tendered services. The increase in disposal costs is comprised of 2008 regional increases in the disposal fee per tonne (from \$65 to \$68 per tonne) as well as increased volumes of recycling materials (i.e. yard waste). Other variations reflect negotiated salary increases and other operating increases such as fuel, etc.

There is no variance between the options presented as all represent non-discretionary cost increases. They are shown in this manner for consistency with the presentation of the other utility areas.

## **Impact on Rates**

The impact of the budget options to ratepayers is provided in the table which follows.

	2009 Solid Wasi	e & Recycling Rates	<b>Options</b>	
			ate Options which Ir Litentified Below in	
Customer Class	2008 Rajes	2009 Option I Rate	2009 Option 2 Rate	2009 Option 3 Rate
Single Family Dwelling	\$212.50	\$220.10 <i>\$7.60</i>	\$220.10 <i>\$7.60</i>	7
Townhouse _	\$170.96	\$177.15 <i>\$6.19</i>	\$177.15 <i>\$6.19</i>	,
Apartment	\$48.17	\$49.64 <i>\$1.47</i>	\$49.64 . \$1.47	\$49.64
Business Metered Rate (\$/m³)	\$25.13	\$25.97 \$0.84	\$25.97 \$0.84	\$25.97

#### Regional Issues

In 2008, Metro Vancouver introduced new disposal bans on wastes to promote recycling of these materials (blue box recyclables, yard trimmings, stewardship items, etc.). It is recommended that when the rate amendment bylaws are presented to Council, they incorporate amendments to include these banned items as garbage the City will not collect. This will ensure the City's Solid Waste and Recycling Regulation Bylaw 6803 is consistent with regional objectives to promote waste diversion.

Work on a new Solid Waste Management Plan for the region has been underway for some time with Metro Vancouver staff and officials. The draft plan is based on three key goals:

- 1. Minimize Waste Generation
- 2. Maximize Reuse, Recycling and Material/Energy Recovery
- 3. Extract Maximum Benefit from Disposed Waste Stream

City staff have been involved in discussions relating to the first two goals. Goal 3 centers around how to manage/dispose of waste which is not recycled (landfill/waste-to-energy) and has been the subject of discussions with the province and Metro Vancouver staff with limited municipal involvement.

Goals 1 and 2 center around a 70% reduction target and include a plethora of initiatives which will undoubtedly have significant and substantial financial impact to municipalities. These will include the costs for regional initiatives (most likely reflected in the regional tipping fee) as well as those actions which municipalities would be required to undertake to support the new plan. A considerable increase in staffing and other resources to deliver and administer these initiatives will also be required. In addition to significant concerns around potential costs and methods for service delivery, other issues include:

- Process a formal planning process was not undertaken as was done with the previous Solid Waste Management Plan.
- Veto -- loss of municipal veto authority to disapprove of Metro Vancouver licensing of waste management facilities.
- Jurisdiction the new plan points toward municipalities assuming responsibility for industrial, commercial and institutional waste management. This represents a considerable shift from current practise.
- Capacity there are concerns about the current and long-term capacity of local recycling markets to accept and process the expanded range of materials identified in the draft plan. Capacity of the market for demolition land-clearing waste has also been raised in regional discussions.

Discussions on the draft plan continue, with the objective of reporting to the regional Waste Management Committee in the New Year.

## **Total 2009 Utility Rate Options**

The total 2009 utility billing, including the four major utility areas, is detailed in the following table. The total utility rate options by customer class for 2009 are shown. A comparison to 2008 rates is also provided. The increases over 2008 rates for each option are shown in bracketed italics beneath the rate amount.

200	9 Total Annu	al Utility Rate 0 2009	Options Rate Options which	Include : :	
	Increase Identified Below in Italics				
	<b>建设有效的</b>	Total Option 1 Rate	Total Option 2 Rate	Total Option 3 Rate	
Customer Class with 1887 in	112008 Rates	-au l Non-	Non-Discretionary	Non-Discretionary	
		Discretionary	Increases Plus	Plus Reserve	
		Increases	Partial Reserve	Increase Per Long Term Plan	
Single-Family Dwelling	\$1,014.87	\$1,104.39	\$1,111.84	\$1,119.29	
	13,52	\$89.52	\$96.97	\$104.42	
Townhouse	\$868.23	\$946.26	\$952.69	\$959.13	
(on City garbage service)	]	. \$78.03	\$84.46	\$90.90	
Townhouse	\$766.43	\$839.83	\$846.26	\$852.70	
(not on City garbage service)		\$73.40	\$79.83	\$86.27	
Apartment	\$572.27	\$628.91	\$633.67	\$638.42	
• • • • • • • • • • • • • • • • • • •		\$56.64	\$61.40	\$66.15	
Metered Water (\$/m <sup>3</sup> )	\$0.7975	\$0.8721	\$0.8791	\$0.8860	
		\$0.0746	\$0.0816	\$0.0885	
Metered Sewer (\$/m³)	\$0.6188	\$0.6835	\$0.6914	\$0.6994	
``````````````````````````````````````		\$0.0647	\$0.0726	\$0.0806	
Business: Garbage	\$25.13	\$25.97	\$25.97	\$25.97	
	<u> </u>	\$0.84	\$0.84	\$0.84	
Business: Drainage & Dyking	\$78.01	\$89.16	\$89.16	\$89.16	
		\$11.15	\$11.15	\$11.15	

The Option 3 rate is recommended to ensure best management practices concerning infrastructure maintenance are maintained and to ensure that infrastructure failure is mitigated to the greatest extent possible until utility reserves reach sustainable levels.

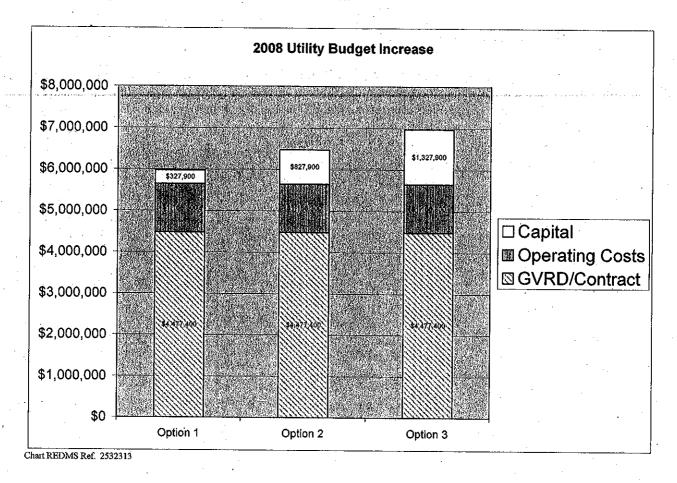
## **Financial Impact**

The budgetary and rate impacts associated with each option are outlined in detail in this report. In all options, the budgets and rates represent full cost recovery for each respective area.

## Conclusion

The utility rate strategy represents a comprehensive approach to addressing current increases in regional charges for water purchases, water filtration and sewer treatment, while at the same time maintaining municipal infrastructure. Regional increases continue to represent a significant portion of these increases in utility rates. This trend will continue for the foreseeable future as the challenges associated with addressing growth and new demands for water treatment are managed.

The following graph demonstrates the key factors driving costs increases for each option in the areas of regional charges, capital infrastructure replacement programs and City costs.



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(3338)

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