



City of Richmond

Report to Committee

To: Finance Select Committee
From: Rod Kray
 General Manager,
 Finance and Corporate Services


Date: November 3, 2004
File: 0970-01

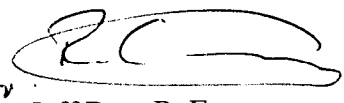
Jeff Day, P. Eng.
 General Manager,
 Engineering & Public Works

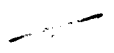
Re: **2005 Utility Budgets**

Staff Recommendation

1. That the 2005 Utility Expenditure Budgets (as presented in the staff report dated November 3, 2004 from the Managers of Water, Sewer & Environmental Programs) be approved as the basis for establishing the 2005 Utility Rates.
2. That the following bylaws, which bring into effect the 2005 Utility Rates, be introduced and given first, second and third readings:
 - (a) Waterworks and Water Rates Bylaw No. 5637, Amendment Bylaw No. 7851 (2005); and
 - (b) Sanitary Sewer System and Drainage System Bylaw No. 7551, Amendment Bylaw No. 7852 (2005); and
 - (c) The Solid Waste and Recycling Regulation Bylaw No. 6803, Amendment Bylaw No. 7853 (2005).


 Rod Kray
 General Manager, Finance & Corporate Services

for 
 Jeff Day, P. Eng.
 General Manager, Engineering & Public Works

FOR ORIGINATING DIVISION USE ONLY					
ROUTED TO:	CONCURRENCE		CONCURRENCE OF GENERAL MANAGER		
Budgets	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>			
REVIEWED BY TAG	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	REVIEWED BY CAO	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>

Staff Report

Origin

This report presents the 2005 utility budgets and rate bylaws for Water, Sewer, Drainage and Solid Waste & Recycling. The utility rates must be established by December 31, 2004 to enable billing in 2005.

Analysis

The total 2005 utility billing is detailed in the following table, which shows the total utility rates by customer class for 2005, and provides a comparison to 2004 rates.

<i>Customer Class</i>	<i>2004 Actual</i>	<i>2005 – Recommended Rates</i>	<i>\$ Difference over 2004</i>
Single-Occupant (Single-Family Dwelling)	\$641.95	\$675.92	\$33.97
Single-Family Dwelling	\$728.54	\$766.81	\$38.27
Single-Occupant Townhouse (on City garbage service)	\$602.55	\$635.84	\$33.29
Townhouse (on City garbage service)	\$628.57	\$662.34	\$33.77
Single-Occupant Townhouse (not on City garbage service)	\$503.31	\$537.61	\$34.30
Townhouse (not on City garbage service)	\$529.33	\$564.11	\$34.78
Apartment	\$385.19	\$412.46	\$27.27
Metered Water (\$/m ³)	\$0.6112	\$0.6577	\$0.0465
Metered Sewer (\$/m ³)	\$0.4999	\$0.5054	\$0.0055
Business: Garbage	\$20.08	\$23.35	\$3.27
Business: Drainage	\$22.30	\$33.45	\$11.15

The major cost drivers in 2005 are increases in regional charges for water purchases and filtration, as well as increased infrastructure replacement needs in water and dykes and drainage.

An explanation of the budget differences and significant issues within each of the utility areas follows.

Water

The 2005 Water budget has increased \$1,718,900 over 2004:

Budget Items	2004	2005	\$ Difference
Operating Expenditures	\$5,873,400	\$6,165,100	\$291,700
Rate Stabilization Contribution	\$491,000	\$900,000	\$409,000
GVRD Water Purchases	\$10,228,600	\$10,127,000	-\$101,600
Capital Program	\$3,871,400	\$4,500,000	\$628,600
Residential Water Metering Program	\$1,000,000	\$1,491,200	\$491,200
Other Fiscal	\$1,000,000	\$1,000,000	\$0
Total	\$22,464,400	\$24,183,300	\$1,718,900

These amounts reflect an overall increase of 7.7% in 2005.

Operating expenditures are increased due to inflationary increases in materials and supplies and negotiated salary increases. The rate stabilization contribution is increased in accordance with long-term infrastructure replacement projections.

The rate charged by the GVRD for water purchases increased by 12% year-over-year, however, the City's water levelling fund was applied to offset the impact of this increase, resulting in an overall reduction in the amount recovered for water purchases.

The capital program is increased to meet the rising demand for water infrastructure replacement. The objective is to build the annual infrastructure replacement to \$7 million to meet long-term projected replacement needs.

Regionally, drinking water treatment remains a significant cost driver in GVRD water rates. A new water filtration plant, scheduled for completion in 2007, is required to meet the new water quality treatment guidelines, which were introduced in 2001. This new filtration plant will address turbidity (cloudy water) issues in order to reduce the number of occurrences of discoloured water, which must have additional treatment before it is suitable for drinking by elderly and very young individuals. As construction is completed for these projects, Richmond will start paying for the additional operation and maintenance costs for these new facilities.

Water capacity also remains a key regional issue, as the GVRD continues to develop alternative sources and/or strategies to meet long-term water supply needs.

This results in the following 2005 Recommended Rates for the Water Utility. A comparison of the 2004 and 2005 water rates is also provided. The chart details the amount of the change by customer class.

<i>2004/2005 Water Rates Comparison</i>			
<i>Customer Class</i>	<i>2004 Actual Rates</i>	<i>2005 Recommended Rates</i>	<i>\$ Difference 2005/2004</i>
Single Occupant	\$253.30	\$272.55	\$19.25
Single Family Dwelling	\$304.85	\$328.02	\$23.17
Townhouse	\$256.33	\$275.81	\$19.48
Apartment	\$165.18	\$177.73	\$12.55
Metered Rate (\$/m ³)	\$0.6112	\$0.6577	\$0.0465

The amending bylaw presented with this report also reflects a proposed increase in the minimum quarterly water charge for metered properties to \$20.00 (from the current \$10.00 minimum). This increase is proposed to ensure adequate contribution to fixed costs associated with the program.

The amending bylaw further reflects changes to Schedule D to clarify charges for residential water metering and service connection charges. There is a further clarification amendment outlined in the bylaw amendments to specify the method of charging for water lost relating to leaks on private systems.

Water Metering Program

In January 2004, Council approved a voluntary water metering program. Since that time, approximately 1,500 residents installed water meters under the volunteer program. In total, there are 4,000 residences currently on water meters. Of these, 2,500 received their water meters through development or watermain replacement projects.

While it is too early to project savings for residences with water meters vs. those on the flat rate system, an assessment of the 2,500 residences with water meters revealed that 61% of them paid less than they would have for a similar period of time on the flat rate.

Overall, the City's water consumption was down in June and July by 3% and 4%, respectively, when compared with the same period in 2003. Consumption in August was 2% higher than the same period in 2003, due to severe water restrictions at that time. Water consumption rates can vary greatly from year to year depending on weather patterns, population growth, etc. It will take a period of time in evaluating water meter customers vs. flat rate customers to determine the actual differences in water consumption rates between these customer classes. One benefit of the water meter program that became evident early on was in households where residences were experiencing significant leaks. After receiving their first metered bill, these water leaks were fixed in short order. For example, one household leaked 3,000 m³ in the first quarter of the year. This compares with an average user rate of 100 m³.

Sewer

The 2005 Sewer budget is as follows:

Budget Items	2004	2005	\$ Difference
Operating Expenditures	\$3,374,400	\$3,599,200	\$224,800
GVS&DD O&M	\$8,117,100	\$8,429,000	\$311,900
GVS&DD DD Debt	\$4,200,328	\$4,179,600	-\$20,728
Rate Stabilization Contribution	\$270,000	\$1,275,500	\$1,005,500
Capital Program	\$1,115,000	\$2,006,400	\$891,400
Other Fiscal	\$1,204,100	\$652,200	-\$551,900
Sub-Total	\$18,280,928	\$20,141,900	\$1,860,972
Investment Income	(\$150,000)	(\$150,000)	\$0
Property Tax Levy for DD Debt	(\$4,200,328)	(\$4,179,600)	\$20,728
Debt Funding/Transfer from Operating	\$0	(\$345,600)	(\$345,600)
Sub Total	(\$4,350,328)	(\$4,675,200)	(\$324,872)
Net Revenue Required from Rates	\$13,930,600	\$15,466,700	\$1,536,100

The operating expenditure increases relate to plant growth, inflationary costs for materials and city equipment rate increases, as well as staff salary increases.

GVRD operating charges have increased principally due to future upgrades and expansion of the Lulu Island Sewage Treatment Plant. GVS&DD debt is reduced to correspond directly with estimates provided by the GVRD. The rate stabilization is increased to allow for future anticipated regional costs. The Capital Program is increased in order to carry out approved capital construction projects. Fiscal expenditures are reduced as a result of debt retirement.

This results in a net impact to the utility rates of 1.1% in 2005. A comparison of the 2004 and 2005 sewer rates is provided below.

<i>2004/2005 Sewer Rates Comparison</i>			
<i>Customer Class</i>	<i>2004 Actual Rates</i>	<i>2005 Recommended Rates</i>	<i>\$ Difference 2005/2004</i>
Single Occupant	\$162.65	\$164.44	\$1.79
Single Family Dwelling	\$197.69	\$199.86	\$2.17
Townhouse	\$185.64	\$187.68	\$2.04
Apartment	\$154.61	\$156.31	\$1.70
Metered Rate (\$/m ³)	\$0.4999	\$0.5054	\$0.0055

The charges for sewer correspond directly to water consumption for metered customers. The sewer rate is charged based on a percentage of water used, as per the water meter readings. This approach is based on the methodology that the amount of water discharged is approximately 80% of the amount of water consumed.

The amending bylaws presented with this report include a proposed clarification to Schedule B of the bylaw to clearly identify that the installation of an inspection chamber is included in the fees charged for drainage service installation. This proposed change has no impact on the fees charged to applicants.

Single-Occupant Rate

The implementation of water meters results in the ability to charge customers for water and sewer based on consumption. As more customers move onto metered water, there is less need and justification for maintaining the single-rate for water and sewer. As a result, staff propose that the single rate be eliminated in 2006. This proposal will be brought forward in conjunction with the water/sewer rates in 2006.

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 expenditure of \$4.85 million, subject to ongoing review of the drainage infrastructure replacement requirements. To achieve this, an amount of \$90.00 - \$100.00 per property is required.

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 \$4.85 million annual reserve requirement is reached -- expected to take approximately 8 years. The rate in 2004 was \$22.30. In keeping with the increases previously identified, the rate in 2005 is proposed at \$33.45.

Drainage operating and maintenance costs will remain on the tax requisition in 2005. It was determined impractical to shift these costs to a utility due to the difficulty in establishing a fair indicator for measuring the amount of drainage from properties, and the significant impact this transition would have had on many land owners. Staff will continue to evaluate these issues and concerns, with the objective of transferring this cost to the utility in the future.

Solid Waste & Recycling

The 2005 Solid Waste & Recycling budget has increased \$169,400 over 2004:

Budget Items	2004	2005	\$ Difference
Operating Expenditures	\$428,600	\$427,600	(\$1,000)
Rate Stabilization	\$742,400	\$742,400	\$0
Collection Contracts	\$2,947,400	\$2,922,100	(\$25,300)
Disposal Costs	\$2,001,000	\$2,006,300	\$5,300
Program Costs	\$998,400	\$1,020,700	\$22,300
Environmental Programs	\$405,200	\$573,300	\$168,100
Total	\$7,523,000	\$7,692,400	\$169,400

These amounts reflect an overall increase of 2.3% in 2005.

Budget Variance Explanation

Collection contracts have decreased due to the removal of expenses associated with the Goods and Services tax. Program costs are increased to reflect increased service demand in litter collection/operations. The remaining increases are minor and relate to operating and/or salary adjustments.

The 2005 Sanitation and Recycling budget reflects no change in the regional disposal rate for 2005, as an increase is not anticipated.

West Nile Virus Treatment Programs

A significant factor is an increase in costs relative to treatment programs for West Nile Virus. Previously, the Environmental Programs budget included \$100,000 in funding for monitoring and treating mosquito larvae in ditches throughout Richmond. A study of catch basins, inspection chambers and manholes was undertaken in 2004 to determine if these structures pose a potential threat for harbouring West Nile Virus vector mosquitoes. The study concluded that catch basins and inspection chambers do indeed pose a threat. This is a significant finding, as there are approximately 34,287 catch basins and inspection chambers in Richmond.

Richmond Health Services has proposed a treatment method based on using 'briquets' as a control agent. These 'briquets' would only need to be applied once at the beginning of mosquito breeding season as they offer a 150-day residual. The cost of this method of treatment is expensive due to the cost of the briquets coupled with the labour involved in applying the briquets individually in each catch basin and inspection chamber. Costs are estimated at \$165,000. This amount has been included in the budget and rates reflected in this report. Council could opt to remove this amount from the budget should Council not wish to proceed with the treatment of catch basins in 2005. This would reduce the rates shown below by approximately \$3.00 per household.

2005 Proposed Rates

This results in the following rates for 2005. A summary of the rates by customer class is presented in the following table. The 2004 rates are also provided for comparison purposes.

<i>2005/2004 Solid Waste & Recycling Rates Comparison</i>			
<i>Customer Class</i>	<i>2004 Actual Rates</i>	<i>2005 Recommended Rates</i>	<i>\$ Difference 2005/2004</i>
Single Occupant	\$203.70	\$205.48	\$1.78
Single Family Dwelling	\$203.70	\$205.48	\$1.78
Townhouse	\$164.30	\$165.40	\$1.10
Apartment	\$43.10	\$44.97	\$1.87
Business Rate	\$20.08	\$23.35	\$3.27

Potential Future Cost Increases

The main costs which are expected to impact the Solid Waste and Recycling budget in future years are the annual rate of inflation, due to this being the identified cost escalation factor in our solid waste and recycling contracts. Costs could also increase in the event additional materials are received for disposal, i.e. garbage/yard waste volumes, etc. In the event the GVRD disposal rate is increased in future years, there would be a direct corresponding impact on our budgets and rates.

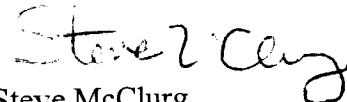
Financial Impact


The 2005 utility budgets and the rates outlined in this report, represent full cost recovery for each respective area. These rates maintain the existing practices of reserve funding and rate stabilization. The utility rate bylaws reflect the rates as outlined in this report.

Conclusion

The 2005 utility rates and associated bylaws are presented with this report. The strategy in developing these rates represents a sound approach to addressing significant pending increases in regional charges for water purchases, water filtration and sewer treatment in future years. In addition, they reflect a move toward gradually increasing the amounts that will be required to maintain an ageing City infrastructure. This corresponds with the direction to develop a comprehensive plan for infrastructure replacement over the longer term.


Suzanne Bycraft
Manager, Environmental Programs


Steve McClurg
Manager, Water Services


Doug Anderson
Manager, Sewerage & Drainage



Sanitary Sewer System and Drainage System Bylaw No. 7551, Amendment Bylaw No. 7852

The Council of the City of Richmond enacts as follows:

- 1. Bylaw No. 7551 is amended by deleting the figure \$22.30 in clause (b) of subsection 2.1.1 and substituting \$33.45.
2. Schedule B of Bylaw No. 7551 is amended by deleting clause (d) and replacing it with the following:
(d) Installation of 150, 200 or 250 mm diameter connection to a maximum of 5 metres in length (includes 350-600 mm diameter inspection chamber if required):
(i) from main or manhole \$2200
(ii) from box culvert or concrete u-shape \$3000
(iii) more than 3 metres deep by estimate
3. Bylaw No. 7551 is amended by deleting Schedule C and substituting the attached Schedule C.
4. This Bylaw comes into force and effect on January 1, 2005.
5. This Bylaw is cited as "Sanitary Sewer System And Drainage System Bylaw No. 7551, Amendment Bylaw No. 7852".

FIRST READING

SECOND READING

THIRD READING

ADOPTED

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CITY OF RICHMOND APPROVED for content by originating dept. APPROVED for legality by Solicitor [Signature]

MAYOR

CITY CLERK

SCHEDULE C
SANITARY SEWER USER FEES

1. **FLAT RATES FOR NON-METERED PROPERTIES**
- | | Annual Fee
Per Unit |
|---|--------------------------------|
| (a) Residential Dwellings | |
| (i) Single owner-occupier dwelling unit with $\frac{3}{4}$ inch, or 1-inch or greater, water service | \$164.44 |
| (ii) One-Family Dwelling or Two-Family Dwelling with $\frac{3}{4}$ -inch water service | \$199.86 |
| (iii) Multiple-Family Dwellings of less than 4 storeys in height | \$187.68 |
| (iv) Multiple-Family Dwellings 4 or more storeys in height | \$156.31 |
| (b) Public School (per classroom) | \$199.86 |
| (c) Shops and Offices | \$164.44 |
2. **RATES FOR METERED PROPERTIES**
- | | |
|--|----------|
| Rate per cubic metre of water delivered to the property: | \$0.5054 |
| Minimum charge in any quarter of a year: | \$41.32 |
3. **CONSTRUCTION PERIOD SANITARY SEWER USER FEES – PER DWELLING UNIT**

Month (2005)	One-Family or Two-Family Dwelling (rate per unit)	Year Regular Billing Starts	Multiple- Family Dwelling (less than 4 storeys in height) Rate per unit	Year Regular Billing Starts	Multiple- Family Dwelling (4 or more storeys in height) Rate per unit	Year Regular Billing Starts
January	\$ 180	2006	\$ 169	2006	\$ 295	2007
February	\$ 165	2006	\$ 312	2007	\$ 283	2007
March	\$ 150	2006	\$ 298	2007	\$ 272	2007
April	\$ 135	2006	\$ 284	2007	\$ 260	2007
May	\$ 120	2006	\$ 270	2007	\$ 248	2007
June	\$ 105	2006	\$ 256	2007	\$ 236	2007
July	\$ 90	2006	\$ 242	2007	\$ 225	2007
August	\$ 260	2007	\$ 228	2007	\$ 213	2008
September	\$ 245	2007	\$ 214	2007	\$ 201	2008
October	\$ 229	2007	\$ 199	2007	\$ 190	2008
November	\$ 214	2007	\$ 185	2007	\$ 178	2008
December	\$ 198	2007	\$ 171	2007	\$ 166	2008



**Solid Waste & Recycling Regulation Bylaw No. 6803, Amendment
Bylaw No. 7853**

The Council of the City of Richmond enacts as follows:

1. Bylaw No. 6803 is amended by deleting Schedules A through D and substituting the attached Schedules A through D.
2. This Bylaw comes into force and effect on January 1, 2005.
3. This Bylaw is cited as **“Solid Waste & Recycling Regulation Bylaw No. 6803, Amendment Bylaw No. 7853”**.

FIRST READING

SECOND READING

THIRD READING

ADOPTED

CITY OF RICHMOND
APPROVED for content by originating dept.
APPROVED for legality by Solicitor <i>[Signature]</i>

MAYOR

CITY CLERK

SCHEDULE A to BYLAW NO. 7853

FEES FOR CITY GARBAGE COLLECTION SERVICE		
Annual City garbage collection service fee for each single-family dwelling, each unit in a duplex dwelling, and each unit in a townhouse development	\$	98.23
Fee for each excess garbage container tag	\$	2.00

SCHEDULE B to BYLAW NO. 7853

FEES FOR CITY RECYCLING SERVICE		
Annual City recycling service fee:		
(a) for residential properties, which receive blue box service (per unit)	\$	45.70
(b) for multi-family dwellings or townhouse developments which receive centralized collection service (per unit)	\$	23.50
Annual recycling service fee for yard and garden trimmings from single-family dwellings and from each unit in a duplex dwelling	\$	40.08
City recycling service fee for the Recycling Depot:		
(a) (i) for yard and garden trimmings from residential properties		\$15.00 per cubic yard for the second and each subsequent cubic yard
(ii) for recyclable material from residential properties		\$0
(b) for yard and garden trimmings from non-residential properties		\$15.00 per cubic yard
(c) for recycling materials from non-residential properties		\$0
Annual City recycling service fee for non-residential properties	\$	1.88

SCHEDULE C to BYLAW 7853

FEES FOR CITY LITTER COLLECTION SERVICE		
Annual City litter collection service fee for both residential properties and non-residential properties	\$	21.47

NEW RESIDENTIAL PROPERTY PAYMENT FEE SCHEDULE											
GARBAGE, RECYCLING & LITTER COLLECTON FEE						RECYCLING & LITTER COLLECTION FEE PER STRATA LOT					
Single-Family Dwellings & Each Unit in a Duplex Dwelling			Townhouse Development			Townhouse Development			Multi-Family Development		
Year in which Annual Fee Commences	Prorated Fee Per Unit	Year in which Annual Fee Commences	Prorated Fee Per Unit	Year in which Annual Fee Commences	Prorated Fee Per Unit	Year in which Annual Fee Commences	Prorated Fee Per Unit	Year in which Annual Fee Commences	Prorated Fee Per Unit	Year in which Annual Fee Commences	Prorated Fee Per Unit
2005	\$ 92	2006	\$ -	2006	\$ -	2006	\$ -	2006	\$ -	2007	\$ 19
2005	\$ 77	2006	\$ 134	2007	\$ 53	2007	\$ 53	2007	\$ 16	2007	\$ 16
2005	\$ 62	2006	\$ 121	2007	\$ 48	2007	\$ 48	2007	\$ 13	2007	\$ 13
2005	\$ 46	2006	\$ 109	2007	\$ 43	2007	\$ 43	2007	\$ 10	2007	\$ 10
2005	\$ 31	2006	\$ 97	2007	\$ 39	2007	\$ 39	2007	\$ 6	2007	\$ 6
2005	\$ 15	2006	\$ 85	2007	\$ 34	2007	\$ 34	2007	\$ 3	2007	\$ 3
2005	\$ -	2006	\$ 73	2007	\$ 29	2007	\$ 29	2007	\$ -	2007	\$ -
2005	\$ 166	2007	\$ 61	2007	\$ 24	2007	\$ 24	2007	\$ 36	2008	\$ 36
2005	\$ 151	2007	\$ 49	2007	\$ 19	2007	\$ 19	2007	\$ 33	2008	\$ 33
2005	\$ 136	2007	\$ 36	2007	\$ 14	2007	\$ 14	2007	\$ 29	2008	\$ 29
2005	\$ 121	2007	\$ 24	2007	\$ 10	2007	\$ 10	2007	\$ 26	2008	\$ 26
2005	\$ 106	2007	\$ 12	2007	\$ 5	2007	\$ 5	2007	\$ 23	2008	\$ 23