



CITY OF VANCOUVER

A23

ADMINISTRATIVE REPORT

Date: November 28, 2006
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Meeting Date: December 12, 2006

TO: Vancouver City Council

FROM: General Manager of Engineering Services

SUBJECT: Annual Review of Sewer Rates for 2007 under the Sewer and Watercourse By-law

RECOMMENDATION

- A. *THAT Council approve the 2007 sanitary sewer user rates as detailed in this report, with metered rate increased by 6.4%, annual flat fees for single dwelling units increased by \$9 (from \$162 to \$171), and other sanitary sewer user rates as set out in Appendix A (Schedule A).*
- B. *THAT the 2007 public sewer connection fees be increased by 10% as set out in Appendix A (Schedule A).*
- C. *THAT 2007 Biochemical Oxygen Demand/Total Suspended Solids / Flow (BOD/TSS/Flow) rates payable by waste discharge permit users ("permitted industrial users") be set as per Appendix A (Schedule B).*
- D. *THAT the Director of Legal Services be instructed to bring forward for enactment amendments to the Sewer and Watercourse By-law, substantially as set out in Appendix A, to give effect to the recommendations A, B and C of this Report.*

GENERAL MANAGER'S COMMENTS

The General Manager of Engineering Services RECOMMENDS approval of A through D.

COUNCIL POLICY

Sanitary sewer user fees, Sewer BOD/TSS/Flow rates for Permitted Industries and public sewer connection fees are reviewed annually by Council to establish the following year's rates.

Council policy is that fees for services are to be set at cost recovery level or at market level in circumstances where City Services compete with the private sector.

PURPOSE

The purpose of this report is to recommend revised sanitary sewer user fees, Sewer BOD/TSS/Flow rates and public sewer connection fees for 2007.

BACKGROUND

The sewer system of the City of Vancouver operates as a Utility. The sewer system has two main components: the sanitary system collects wastewater from homes and business, while the storm system handles surface run off from properties and streets in the City. The system delivers sanitary wastewater to the treatment facilities operated by the Greater Vancouver Sewerage and Drainage District (GVS&DD).

The Utility recovers the costs of sewer system services, including regional treatment costs, through two vehicles. Costs of the sanitary sewer system are recovered through Sewer user fees using water consumption as the proxy for sewer discharge. Currently, 48.2% of sewer system costs are recovered on this basis, either in the form of flat fees (residential properties) or metered fees (properties with water meters). The remainder of the system costs, comprising infrastructure costs of sanitary sewer system and the entire storm sewer component are more closely related to lot size and system maintenance rather than consumption. This portion of the system costs, which is about 51.8%, is recovered through a transfer of funds from the City General Revenues Fund to the Sewer Utility.

DISCUSSION

1. 2006 Sewer Utility Status

The sewer budget is dominated by GVS&DD levy and debt charges (related to City Capital works) which account for 90% of total expenditures. The remainder of the expenditure budget is comprised of administrative operation and maintenance of the City's sewer system.

Table 1 summarizes the 2006 Sewer Operating Budget and the projected year-end results.

Table 1
2006 Budget and Projected Year End Results

	2006 Budget	2006 Year-end Projection	Over (Under)
<u>Expenditures</u>			
GVS&DD Levy	\$36,903,500	\$36,903,800	\$300
City Debt Charges	24,297,900	24,297,900	0
Operating and Maintenance	6,387,400	6,204,300	(183,100)
Total Expenditures	\$67,588,800	\$67,406,000	(\$182,800)
<u>Revenues</u>			
BOD/TSS/Flow Direct Charges	\$1,170,000	\$1,274,000	\$104,000
<u>Balance funded by:</u>			
Property Tax Supported	34,307,800	34,256,400	(51,400)
Sewer User Fees (net)	32,058,400	31,201,900	(856,500)
	\$67,536,200	\$66,732,300	(\$803,900)
Transfer from/(to) the Sewer Stabilization Reserve	52,600	673,700	621,100
Total Revenues	\$67,588,800	\$67,406,000	(\$182,800)
 <u>Sewer User Fee Details:</u>			
<i>Flat Rate Revenues</i>	\$13,600,300	\$13,585,600	(\$14,700)
<i>Metered Rate Revenues</i>	18,877,700	18,035,900	(841,800)
Total Sewer Revenues	\$32,478,000	\$31,621,500	(\$856,500)
<u>Less:</u>			
<i>Sewer Billing/Administration Costs</i>	419,600	419,600	0
Sewer User Fees (net)	\$32,058,400	\$31,201,900	(\$856,500)

On the expenditure side, staff expect an under-expenditure of \$182,800 (0.2% of the total sewer costs) mainly a result of better system performance than anticipated when the budget was prepared. The surplus will be distributed to the tax supported accounts (51.8% or \$94,700) and the Sewer Utility accounts (48.2% or \$88,100) respectively at year-end.

On the revenue side, however, it is anticipated revenues will be under budget by approximately \$856,500 or 2.6% of total sewer revenues. This is primarily attributed to lower metered revenues due to lower than expected water usage. It is expected that approximately \$673,700 will need to be transferred from the Sewer Stabilization Reserve at year-end to balance the 2006 Sewer Utility budget. This is \$621,100 more than the originally budgeted transfer amount of \$52,600.

2. 2007 Sewer Budget and Rates

Table 2 summarizes the anticipated operating budget for the Sewer Utility for 2007 compared to 2006 budget.

Table 2
2007 Sewer Budget

	2006 Budget	2007 Proposed Budget	Inc (Dec)	%
(A) Expenditures				
GVS&DD Levy	\$36,903,500	\$39,053,800	\$2,150,300	5.8%
City Debt Charges	24,297,900	24,826,300	528,400	2.2%
Operating and Maintenance	6,387,400	6,311,600	(75,800)	-1.2%
Total Expenditures	\$67,588,800	\$70,191,700	\$2,602,900	3.9%
(B) Revenues				
BOD/TSS/Flow Direct Charges	\$1,170,000	\$1,274,000	\$104,000	8.9%
Balance funded by:				
Property Tax Supported	34,307,800	35,699,400	1,392,000	4.1%
Sewer User Fees (net)	32,058,400	33,273,000	1,214,600	3.8%
	67,536,200	70,246,400	2,710,200	4.0%
Transfer from/(to) the Sewer Stabilization Reserve	52,600	(54,700)	(107,300)	Note 1
Total Revenues	\$67,588,800	\$70,191,700	\$2,602,900	3.9%
 <i>Sewer User Fee Details:</i>				
<i>Flat Rate Revenues</i>	<i>\$13,600,300</i>	<i>\$14,283,000</i>	<i>\$682,700</i>	<i>5.0%</i>
<i>Metered Rate Revenues</i>	<i>18,877,700</i>	<i>19,433,900</i>	<i>\$556,200</i>	<i>2.9%</i>
Total Sewer Revenues	\$32,478,000	\$33,716,900	\$1,238,900	3.8%
<i>Less:</i>				
<i>Sewer Billing/Administration</i>	<i>419,600</i>	<i>443,900</i>	<i>24,300</i>	<i>5.8%</i>
Sewer User Fees (net)	\$32,058,400	\$33,273,000	\$1,214,600	3.8%

Note 1: Transfer sewer fee surplus due to rounding of flat rates up to the nearest dollar to Sewer Reserve

(A) Expenditures

The Sewer Utility expenditures consist of two major components: GVS&DD levy and City costs. The preliminary requisition from the GVS&DD indicates that the levy for Vancouver will increase by \$2.15 million (5.8%) in 2007. Regional staff indicates that the key drivers for the 2007 increase are inflation and higher maintenance costs anticipated for the aging sewerage collection system and two treatment plants in Vancouver and the North Shore. Regional staff further indicates there are several significant budget items related to Iona Wastewater Treatment Plant operations included in the 2007 budget that were not forecasted a year ago when the Long Range Plan was compiled. The budget items mostly established this Fall to better reflect the 2006 experience and 2007 cost increases include labour costs, chemicals, electricity/water usage and asset purchase and maintenance items. These items collectively contributed to the 2007 levy for Vancouver by approximately \$1 million more than the Long Range Plan projection.

The proposed City costs budget includes a \$528,400 increase in debt charges arising from the sewer capital program. City operating expenditures are anticipated to increase by 2.7% from the 2006 gross budget level to cover inflationary increases in employment and other costs. Table 2, however shows there is a 1.2% decrease from 2006. This is due an under allocation of overhead costs from the operating budget to the capital budget in the 2006 assessment set-up. This Finance adjustment resulted in an overstatement of \$250,000 in the 2006 net operating budget which has been rectified in the 2007 budget projection.

The combined GVS&DD levy and City sewer cost increases result in a projected 3.9% increase in the 2007 overall expenditure budget from the 2006 budget levels.

(B) Revenues

As indicated in the table above, revenues are primarily generated from user fees, including flat rate fees charged to properties that are not metered for water service and unit fees for properties that are metered for water service.

In order to balance the utility operation, the recommended sewer rates and fees for 2007 are shown in Table 3 below. A full listing of 2007 sewer rates and fees is detailed in Appendix A (Schedules A and B).

Table 3
2007 Sewer Rates

Description	2006 Rates	2007 Rates	Inc (Dec)	% Change
<u>Metered rate per unit:</u>	\$0.990	\$1.053	\$0.063	6.4%
<u>Non metered (flat) fees:</u>				
Single Family Dwelling	\$162	\$171	\$9	5.6%
Extra Unit	\$57	\$60	\$3	5.3%
Duplex (each unit)	\$110	\$115	\$5	4.5%
Vacant Lot	\$92	\$97	\$5	5.4%

Sewer Rates Stabilization Reserve

As with the Water and Solid Waste Utilities, the Sewer Utility maintains a rate stabilization reserve to mitigate the impact of fluctuating revenues and expenditures. The balance in the reserve at the end of 2005 was \$6.4 million. In addition to the requirement to transfer \$673,700 to cover the budget shortfall noted above, there are several projects that are being funded directly from the Reserve:

- the SAP evolution project requires \$200,000 (May 2005 Council approval), and
- the IMS project requires \$910,300 (approved by Council in September 2006).

With these additional draws, the balance of the Sewer Stabilization Reserve is projected to be approximately \$4.6 million at the end of 2006. The potential impact of the 311 Access Vancouver project funding proposal, requiring \$700,000 from the Reserve, has not been included as that project has not been approved by Council.

As the bulk of the sewer user fees are billed to customers based on water consumption, the Sewer Utility is faced with the same potential fluctuation in revenues as the Water Utility. As a result, in managing the reserve over the longer term, the objective is to maintain a reserve balance in the range of 7.5% of water purchase costs - similar to the objectives for the water utility. The current balance of the reserve at \$4.6 million is slightly above that amount, however, planned draws from the reserve in 2007 will move the balance closer to the long term target.

3. Sewer BOD/TSS/Flow Rates for 2007

Based on projected treatment costs for BOD/TSS/Flow at the Iona Treatment Plant, GVS&DD staff has calculated Sewer BOD/TSS/Flow unit rates for 2007 as detailed in Appendix A (Schedule B). It is estimated that based on the proposed unit rates and the estimated industrial wastewater discharges and loading levels in 2007, approximately \$1.27 million will be recovered from permitted industrial users in 2007. This represents an 8.9% increase from the 2006 budget. The increase is attributed to a slightly higher discharge volume anticipated for a small number of permitted industrial users.

4. Public Sewer Connection Rates for 2007

Connections to the City's sewer system (public sewer connections) are provided by the City through a cost-recovery program. Under the City Building By-law, new developments are required to pay for the renewal of the sewer and water connections servicing their property. Fees for this program are adjusted annually to reflect costs required to provide the services. Staff estimates that a 10% increase will be required in 2007. About 5% of this increase is to cover general inflationary increase in wages, equipment rental and materials. The other 5% increase is to cover the City's street cut degradation fee that will be applied to these utility installations starting in January 2007.

The applicable fees are detailed in Schedule A, Part I of the by-law.

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Sewers and Watercourse By-Law No. 8093
Schedules of Rates for 2007
(with comparable rates for 2006)

Schedule A

Part I		Sewer Connection Flat Rates	
		2006	Proposed 2007
1.	Public Sewer Connection, for One-Family or Two-Family Dwellings	\$ 5,857	\$ 6,442
2.	Public Sewer Connection, other than One-Family or Two-Family Dwellings		
a)	4 inch/100 mm diameter	\$ 7,651	\$ 8,416
b)	6 inch/150 mm diameter	\$ 9,234	\$10,157
c)	8 inch/200 mm diameter	\$10,446	\$11,490
d)	10 inch/250 mm diameter	\$12,052	\$13,257
e)	12 inch/300 mm diameter	\$13,694	\$15,063
f)	15 inch/375 mm diameter	\$15,312	\$16,843
g)	Greater than 15 inch/375 mm diameter pursuant to Sentence 2.7 of Sewer and Watercourse By-law	\$15,312	\$16,843
h)	Manhole installation in conjunction with a public sewer connection pursuant to Sentence 2.7 (3) of Sewer and Watercourse By-law	At Cost pursuant to Sentence 2.7 (3)	
3.	Where a public sewer connection will be placed more than 5 feet below the ground elevation, taken to the nearest foot and measured at the centre line of the street or lane as determined by the City Engineer, the fees payable shall be an amount equivalent to an increase of 10%, for each additional foot below 5 feet, of the fee otherwise payable by section 1 or 2 above.		
4.	New fitting on a twin sewer pursuant to Sentence 2.7 (4)	\$ 2,854	\$ 3,139
5.	New fitting on a single sewer pursuant to Sentence 2.7 (4)	\$ 1,258	\$ 1,383
6.	Inspection of a plumbing system, subsoil drainage pipes and a building sewer	\$ 198	\$ 218

Part III		Flat Rates for Unmetered Property	
	Single Family Dwelling	\$ 162	\$ 171
	Single Family Dwelling with Suite	\$ 219	\$ 231
	Strata Duplex (per dwelling unit)	\$ 110	\$ 115
	2 Services, 1 Lot	\$ 324	\$ 342
	3 Services, 1 Lot	\$ 486	\$ 513
	4 Services, 1 Lot	\$ 648	\$ 684
	Parking Lot/Garden	\$ 92	\$ 97

Part IV		Flat Rates for Other Property or Shut Off Water Service	
Other Property		\$ 92	\$ 97
Turned Off, 1 Service		\$ 92	\$ 97
Turned Off, 2 Services		\$ 92	\$ 97
Turned Off, 3 Services		\$ 92	\$ 97
Part V		Unit-Based Rates for Metered Property	
Minimum Charge		\$ 6.73	\$ 7.16
Metered Property Rate		\$ 0.990	\$ 1.053
Waste Discharge Permit User Rate		\$ 0.09163	\$ 0.09776

Schedule B

Part II		BOD/TSS/Flow Rates	
		2006	Proposed 2007
A. Usage-Based Rate:			
BOD Load Rate (per kilogram of BOD Load)		\$ 0.034	\$ 0.035
TSS Load Rate (per kilogram of TSS Load)		\$ 0.313	\$ 0.327
Flow Rate (per cubic metre of Flow)		\$ 0.039	\$ 0.041
B. GVS&DD Sewage Facility – Capacity Utilization Rate:			
BOD Load Capacity Utilization Rate (per Average BOD Load/Operating Day/ per year, as calculated below)		\$ 3.405	\$ 3.194
TSS Load Capacity Utilization Rate (per Average TSS Load/Operating Day/ per year, as calculated below)		\$ 24.712	\$ 23.179
Flow Load Capacity Utilization Rate (per Average Flow/Operating Day/ per year, as calculated below)		\$ 29.431	\$ 29.496

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