



CITY OF VANCOUVER

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 Water Rates for 2007 under the Water Works By-law

RECOMMENDATION

- A. *THAT Council approve an increase of 6.0%, as detailed in this report and as set out in Appendix A, to the following fees under the Water Works By-law:*
- *Flat fees for single dwelling units (increase from \$329 to \$349) (Schedule B),*
 - *Other flat water service charges for single family dwelling unit with suite and each strata title duplex (Schedule "B"),*
 - *Charges for metered water service (Schedule "D"), and*
 - *Charges for temporary water service during construction (Schedule "F")*
- B. *THAT fees for other services included in the Water Works Bylaw be increased as follows:*
- *Flat rate water connection fees (Schedule "A"), service pipe removal fees (Schedule "A.1") and flat service charges for unmetered fire service pipes (Schedule C) by 10%,*
 - *Meter service charge (Schedule E) and fees for installation of water meters (Schedule G) by 5%.*
- C. *THAT the Director of Legal Services be instructed to bring forward for enactment amendments to the Water Works By-law, substantially as set out in Appendix A, to give effect to recommendations A, B, and C of this report.*

GENERAL MANAGER'S COMMENTS

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

COUNCIL POLICY

Water rates for both metered and non-metered customers are specified in the Schedules of Rates and Charges included in the Water Works By-law. These schedules are updated annually by Council.

PURPOSE

The purpose of this report is to recommend increases in water charges for 2007.

BACKGROUND

The waterworks distribution system of the City of Vancouver operates as a Utility. Utility operating costs and debt charges are combined with the cost of water purchased from the Greater Vancouver Water District (GVWD) supply system and are recovered through charges to system users.

The Utility uses a Water Rate Stabilization Reserve to balance revenues and expenditures each year. The cost of purchasing water from the GVWD had annual increases between 12% to over 16% in the past three years and will increase by an additional 52% by 2009. This level of increase is a result of the capital costs requirement for the regional water quality initiatives primarily the new Seymour-Capilano Filtration Project. In anticipation of significant increases in these costs, Council adopted a strategy of using the Water Rate Stabilization Reserve to provide funding to "smooth" significant year-over-year increases in water rates.

DISCUSSION

1. 2006 Waterworks Operating Budget

The waterworks budget is dominated by debt charges (related to City capital works) and regional water purchase costs, which together account for 88% of total expenditures. The remainder of the expenditure budget is comprised of administration, operation and maintenance of the City's water system.

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

Table 1
2006 Budget and 2006 Projected Results

	2006 Budget	2006 Year-end Projection	Inc (Dec)
<u>Expenditures</u>			
Debt Charges	\$26,017,100	\$26,017,100	\$0
Water Purchases (GVWD)	37,608,600	36,745,400	(863,200)
Water Rates Billing	617,400	611,800	(5,600)
Operating and Maintenance	7,711,200	7,233,300	(477,900)
Total Expenditures	\$71,954,300	\$70,607,600	(\$1,346,700)
<u>Revenues</u>			
Flat Rate Revenues	\$28,081,100	\$27,388,600	(\$692,500)
Metered Rate Revenues	39,023,500	37,359,000	(1,664,500)
Meter Service Charges	2,410,600	2,410,600	0
Flat Rate Fire Line Charges	0	1,592,100	1,592,100
Other Revenues	1,200	3,000	1,800
	69,516,400	68,753,300	(763,100)
Transfer from/(to) Reserve	2,437,900	1,854,300	(583,600)
Total Revenues	\$71,954,300	\$70,607,600	(\$1,346,700)

On the expenditures side, staff projects a year-end operating surplus of approximately \$1.34 million (1.9% under-expenditure). This is attributed to water purchase costs being \$863,200 lower than originally budgeted due to lower than anticipated consumption. Also, the operating and maintenance accounts will likely be under expended by approximately \$477,900 as a result of better system performance than anticipated when the budget was prepared.

On the revenues side, staff projects a shortfall of approximately \$763,100 (1.1% under recovery) at year-end. This is primarily attributed to lower metered revenues due to lower than expected usage in the metered accounts. In the previous years, fire line charges received were included in the flat rate and in the metered rate revenues. As these charges are billed annually as a fixed charge to cover the installation cost for an un-metered fire service pipe which has no relation to water consumption, it has been determined that it would be more appropriate to budget these revenues as a separate line item. This will be established for the budget in 2007. In 2006, the \$1.59 million revenue related to flat rate fire line charges that were previously included in flat rate revenues (\$718,200) and metered rate revenues (\$873,900) are being separated out and reported in Table 1 above as a separate revenue item.

It is expected that approximately \$1.85 million will need to be transferred from the Water Rates Stabilization Reserve at year-end. This is \$583,600 less than the budgeted transfer of \$2.43 million from the Reserve that was required to balance the 2006 budget.

2. 2007 Waterworks Operating Budget

Table 2 summarizes the anticipated operating budget for the Water Utility for 2007. The table includes estimates of City operating and debt costs as well as the costs of purchasing water from the Greater Vancouver Water District. Also included are adjustments to the budget based on the revenue and expenditure variances indicated above.

The GVWD has approved an increase in its water rate of 19.7% for 2007. With the implementation of the water quality initiatives at the District, it is anticipated that water costs will increase a further 27% by 2009, making this cost the most significant driver in the Water Utility during the period. Based on the Vancouver water consumption projection, it is estimated that the 2007 water purchase costs will increase by 17.9% from 2006.

Table 2
2006 and 2007 Water Budget

	2006 Budget	2007 Proposed Budget	Inc/(Dec)	%
<u>Expenditures</u>				
Debt Charges	\$26,017,100	\$21,691,200	(\$4,325,900)	-16.6%
Water Purchases (GVWD)	37,608,600	44,353,800	6,745,200	17.9%
Water Rates Billing	617,400	655,900	38,500	6.2%
Operating and Maintenance	7,711,200	8,075,200	364,000	4.7%
Total Expenditures	\$71,954,300	\$74,776,100	\$2,821,800	3.9%
<u>Revenues</u>				
Flat Rate Revenues	\$28,081,100	\$29,057,000	\$975,900	3.5%
Metered Rate Revenues	39,023,500	40,687,200	1,663,700	4.3%
Meter Service Charges	2,410,600	2,531,100	120,500	5.0%
Flat Rate Fire Line Charges	0	1,600,000	1,600,000	
Other Revenues	1,200	2,400	1,200	100.0%
	69,516,400	73,877,700	4,361,300	6.3%
Transfer from/(to) Reserve	2,437,900	898,400	(1,539,500)	
Total Revenues	\$71,954,300	\$74,776,100	\$2,821,800	3.9%

City operating and maintenance costs are anticipated to increase by 4.7% from the 2006 budget level as a result of inflationary increases. The 2007 debt charges which arise from the waterworks capital program are expected to be 16.6% (\$4.32 million) lower than the 2006 budget amount. The decrease in debt charges is due to the lower interest and sinking fund payments required in 2007. This will help offset some of the water costs increase and brings the overall 2007 expenditures increase to 3.9%.

There are a number of adjustments to the revenue side of the waterworks budget which influence the proposed water rates increase. First, metered water consumption is declining both in volumes and as a proportion of total consumption. At the same time, both the number of flat rate accounts and the overall non metered consumption is increasing. These

changes influence the impact that rates have on the water revenue resulting in a recommended increase in rates that is above the increase in costs.

Based on the projected water consumption, and a transfer of \$898,400 from the Water Rate Stabilization Reserve (see discussion below), a water rate increase of 6% is required to balance the 2007 budget. This increase will raise the flat water fee for residential properties from \$329 in 2006 to \$349 in 2007.

The proposed fees are included in Appendix A, attached.

3. Water Rates Stabilization Reserve

The Water Utility uses the Water Rates Stabilization Reserve as a "shock absorber" to moderate significant year-over-year increases in water rates. This strategy has been particularly effective in keeping increases in the City's water rates in the 6% to 7.5% range during the period in which the cost of water purchased from the region has been increasing at a much higher rate of between 12% and 19.7%.

In the short term, the reserve balance is historically high, with that balance being built and then drawn down in order to mitigate against the rate increases that would otherwise result from the significant growth in water purchase costs from the GVWD. In the longer term, the objective is to maintain the reserve at approximately 7.5% of water purchase costs (currently \$3.3 million and rising in future years with water purchase costs). This will ensure that there are adequate reserves to provide for fluctuations in annual consumption without impacting on the operating budget. The reserve also provides contingency funding for emergent waterworks funding issues.

On the assumption of a 6% rate increase in 2007, Table 3 projects City water rate increases from 2008 through 2011. By using the Water Rates Stabilization Reserve, it is anticipated that increases to users during this period can be gradually lowered to the 4% range by 2011.

Table 3
Forecast of Water Rate Stabilization Reserve

	2007	2008	2009	2010	2011
Projected GVWD Water Rate					
(\$ per cubic meter)	\$.3480	\$.3888	\$.4428	\$.4672	\$.4672
% Increase	19.7%	11.7%	13.9%	5.5%	4.0%
Anticipated Change in City Water Rate	6.0%	5.5%	5.5%	5.0%	4.0%
Water Rate Stabilization Reserve					
Reserve Balance Beg. of Year (\$ millions)	\$17.63	\$16.73	\$14.78	\$7.05	\$6.10
Operating Surplus / (Deficit) (\$ millions)	(0.90)	(1.95)	(7.73)	(0.95)	(1.80)
Reserve Balance End of Year (\$ millions)	\$16.73	\$14.78	\$7.05	\$6.10	\$4.30

The potential impact of the 311 Access Vancouver project funding proposal, requiring \$700,000 from the Water Rate Stabilization Reserve in 2007, has not been included in Table 3 as that project has not been approved by Council.

Success in achieving the result indicated above will depend on the region completing its capital program and translating those costs to water rates as currently projected.

4. Connection Fees and Other Water Fees and Charges

In addition to consumption based charges, the Water Works By-law includes fees and charges for a variety of services provided by the Water Utility, including service connection fees, service removal fees, unmetered fire service fees and meter installation and service charges. These are provided through a cost recovery program and the applicable fees are detailed in Schedules A, A.1, C, E, and G of the by-law.

It is recommended that the following fee adjustments be approved:

- 10% increase for flat rate connection fees, removal fees and flat service charges for unmetered fire service pipes. About 5% of this increase is to cover general inflationary increases in wages, equipment rental and materials as well as an anticipated increase (78%) in the cost of copper piping utilized in installing these services. 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.
- 5% increase in meter service charge (Schedule E) and fees for installation of water meters (Schedule G) to cover general inflationary increases in wages, equipment rental and materials.

No changes are recommended to fees in Schedules H and I.

The proposed fees are included in Appendix 1, attached.

CONCLUSION

Rates for water consumption and services are adjusted annually to offset cost increases in the water utility, including operating and debt charge costs and the costs of purchasing water from the GVWD. Based on a review of the waterworks costs for 2007, it is recommended that water consumption based fees be increased by approximately 6% and service and connection fees be increased by 5% to 10%, as described in this report.

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Water Works By-Law No. 4848
Schedules of Rates and Charges for 2007
(with comparable rates for 2006)

Recommended Fee Adjustments		
Water rate increase	6.00%	Applicable to Sch B, D & F
Connection Fee Increase	10.00%	Schedule A, A1 and C
Service Fee Increase	5.00%	Applicable to Sch E & G
Other Fees	0.00%	Schedule A: all other fees
		Applicable to Schedule H & I

Schedule A	Flat Rate Connection Fees	
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<u>Service Pipe Size</u>	<u>Present</u>	<u>Proposed Fee</u>
<u>Single-Family & Two-Family Dwellings</u>		
20 mm (3/4")	\$2,707	\$2,978
25 mm (1")	\$2,816	\$3,098
40 mm (1 1/2")	\$3,247	\$3,572
50 mm (2")	\$3,247	\$3,572
<u>Other Connections</u>		
20 mm (3/4")	\$5,415	\$5,957
25 mm (1")	\$5,635	\$6,199
40 mm (1 1/2")	\$6,503	\$7,153
50 mm (2")	\$6,503	\$7,153
100 mm (4")	\$9,401	\$10,341
150 mm (6")	\$11,627	\$12,790
200 mm (8")	\$12,697	\$13,967
300 mm (12")	\$17,869	\$19,656

Schedule A.1	Removal Fees	
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20mm (3/4") to 50mm (2") inclusive	\$681	\$749
100mm (4") to 300mm (12") inclusive	\$2,041	\$2,245

Schedule B	Annual Flat Rate Service Charges for Residential Properties	
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	<u>Present</u>	<u>Proposed</u>
Single dwelling unit	\$329	\$349
Single-Family with suite	\$446	\$473
For each strata title duplex	\$223	\$236

Schedule C	Annual Flat Service Charges for Unmetered Fire Service Pipes	
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Pipe Size	Present	Proposed
50 mm (2") or smaller	\$149	\$164
75 mm (3")	\$224	\$246
100 mm (4")	\$309	\$340
150 mm (6")	\$357	\$393
200 mm (8")	\$418	\$460
250 mm (10")	\$444	\$488
300 mm (12")	\$476	\$524

Schedule D	Charges for Metered Water Service	
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		Present	Proposed
		Rate per Unit (2,831.6 liters)	
Two Monthly Period	Four Monthly Period		
Per unit	Per unit	\$1.590	\$1.687

A minimum charge of 8 units per month will be charged should lower or no consumption be recorded in any billing period

Schedule E	Meter Service Charges	
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The following schedule shows the meter charge based on the size and type of meter, payable on each service, in addition to water consumption charges.

Per Two Monthly Period	Present	Proposed
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Services with Standard Type Meters

17 mm (1/2") and 20 mm (3/4")	\$23	\$24
25 mm (1")	\$25	\$26
40 mm (1 1/2")	\$29	\$30
50 mm (2")	\$37	\$39
75 mm (3")	\$75	\$79
100 mm (4")	\$91	\$96
150 mm (6")	\$118	\$124
200 mm (8")	\$183	\$192
250 mm (10")	\$225	\$236
300 mm (12")	\$269	\$282

Services with Low Head Loss Meters / Detector Check Valves

100 mm (4")	\$106	\$111
150 mm (6")	\$154	\$162
200 mm (8")	\$207	\$217
250 mm (10")	\$257	\$270
300 mm (12")	\$308	\$323

Per Four Monthly Period	Present	Proposed
<u>Services with Standard Type Meters</u>		
17 mm (1/2") and 20 mm (3/4")	\$29	\$30
25 mm (1")	\$34	\$36
40 mm (1 1/2")	\$45	\$47
50 mm (2")	\$60	\$63

Schedule F	Charges for Temporary Water Service During Construction
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Building Size in Square Meters of Gross Floor Area	Present	Proposed
	Rate in Dollars of Gross Floor Area per Building	
Up to and including 500 sq.m	\$145	\$154
Over 500 but not exceeding 2,000	\$285	\$302
Over 2,000 but not exceeding 9,000	\$428	\$454
Over 9,000 but not exceeding 24,000	\$719	\$762
Over 24,000 but not exceeding 45,000	\$1,076	\$1,141
Over 45,000	\$1,428	\$1,514

Schedule G	Fees for Installation of Water Meters
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Size of Standard Meter	Meter on City Property	Present	Proposed Fee
20 mm (3/4")		\$2,212	\$2,323
25 mm (1")		\$2,276	\$2,390
40 mm (1 1/2")		\$2,352	\$2,470
50 mm (2")		\$2,352	\$2,470
75 mm (3")		\$8,379	\$8,798
100 mm (4")		\$8,379	\$8,798
150 mm (6")		\$28,919	\$30,365
200 mm (8")		\$28,919	\$30,365
250 mm (10")		\$34,693	\$36,428
300 mm (12")		\$34,693	\$36,428

Size of Standard Meter	Meter on Private Property	Present	Proposed Fee
20 mm (3/4")		\$279	\$293
25 mm (1")		\$296	\$311
40 mm (1 1/2")		\$296	\$311
50 mm (2")		\$420	\$441
75 mm (3")		\$649	\$681
100 mm (4")		\$649	\$681
150 mm (6")		\$726	\$762
200 mm (8")		\$840	\$882
250 mm (10")		\$1,093	\$1,148
300 mm (12")		\$1,093	\$1,148

Schedule H	Miscellaneous Fees for Water Users
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	Present	Proposed
Cross Connection Control Administration Fees		
First Assembly	\$20	\$20
Additional Assembly	\$10	\$10
Charges when service pipes are shut off for more than ninety days (per month)		
15mm, 20mm or equivalent unmetered services	\$2	\$2

Schedule I	Miscellaneous Charges
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	Present	Proposed
Charges for Returned Cheques	\$35	\$35
Residual Water Pressure Estimate Fees		
Original calculation	\$35	\$35
Additional copies for same location	\$10	\$10
Miscellaneous water information requests (per hour)	\$40	\$40