



A12

ADMINISTRATIVE REPORT

Report Date: November 23, 2010
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Meeting Date: November 30, 2010

TO: Vancouver City Council
FROM: General Manager of Engineering Services
SUBJECT: 2011 Annual Review of Water Rates under the Water Works By-law

RECOMMENDATION

- A. *THAT Council approve an increase of 12.0%, as detailed in this report and as set out in Appendix A, to the following fees under the Water Works By-law:*
- *Flat rate annual consumption fees for single family dwelling units (increase from \$417 to \$467) (Schedule "B"),*
 - *Other flat rate 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 By-law be increased by 3.2% as follows:*
- *Flat rate water connection fees for single family and two family dwellings (Schedule "A"),*
 - *Flat rate water connection fees for properties other than single family and two family dwellings (Schedule "A") and service pipe removal fees (Schedule "A.1"),*
 - *Meter service charge (Schedule "E"), flat service charges for unmetered fire service pipes (Schedule "C"), and fees for installation of water meters (Schedule "G").*
- 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 and B of this report.*

GENERAL MANAGER'S COMMENTS

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

CITY MANAGER'S COMMENTS

The City Manager RECOMMENDS approval of A through C above.

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 2011.

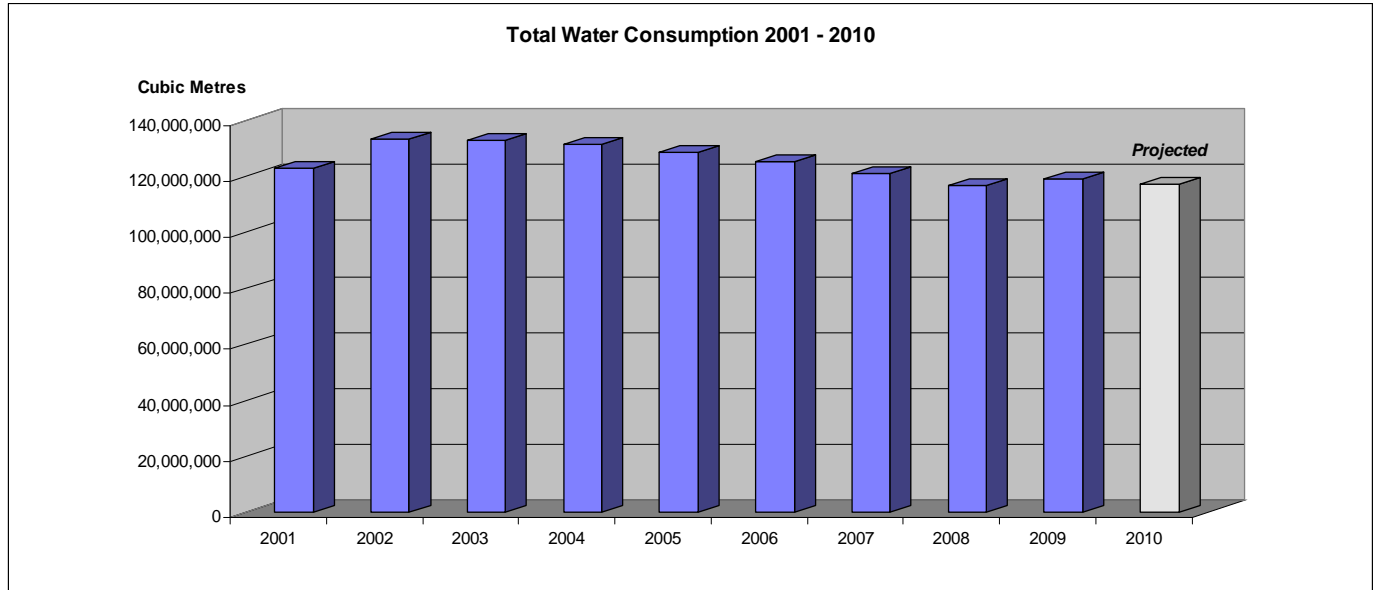
BACKGROUND

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 Metro Vancouver 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.

Presently, revenues are collected from metered customers based on consumption and from single family dwellings through an annual flat fee. Approximately 55% of consumption is currently metered, and metered customers are charged a uniform rate per unit of water consumed, throughout the year. Water billing policies and demand management programs are under review through the Greenest City process. Recommended policy and program changes will be reported to Council in early 2011.

Total system consumption has been decreasing in recent years, despite population growth, as shown in Figure 1.

Figure 1: Total City Water Consumption



The unit price of water from Metro Vancouver has increased annually from 9.9% to over 15.8% in the last three years, 14% in 2011, and an anticipated 13.4% in 2012 and 10.7% in 2013. These costs are a result of regional capital water quality initiatives - primarily the new Seymour-Capilano Filtration project. The Seymour-Capilano filtration plant is now complete; however, delays to the associated twin tunnel project between Capilano and Seymour reservoirs have resulted in increased construction costs and therefore continued forecasted increases in regional water rates over the next few years.

DISCUSSION

1. 2011 Waterworks Operating Budget

Table 1 summarizes the operating budget and current forecasts for the Water Utility for 2010 and the proposed budget for 2011. The table includes estimates of City operating and debt costs as well as the costs of purchasing water from Metro Vancouver.

Table 1
2010 and 2011 Water Revenues & Expenditures

	2010 Budget	2010 Projected Results	2011 Proposed Budget	Inc/(Dec) in 2010 Projected and 2011 Proposed Budget	%
<u>Expenditures</u>					
Water Purchases (GVWD)	61,753,500	58,500,000	66,646,400	8,146,400	13.9%
Debt Charges	17,647,100	17,647,100	19,252,870	1,605,770	9.1%
Operating and Maintenance	11,392,225	11,392,000	11,351,795	(40,205)	-0.4%
Total Expenditures	90,792,825	87,539,100	97,251,065	9,711,965	11.1%
<u>Revenues</u>					
Flat Rate Revenues	34,934,200	34,675,000	39,375,100	4,700,100	13.6%
Metered Rate Revenues	47,466,700	45,640,000	50,695,600	5,055,600	11.1%
Meter Service Charges	2,805,800	2,805,800	2,861,100	55,300	2.0%
Flat Rate Fire Line Charges	1,773,600	2,275,000	2,320,500	45,500	2.0%
Other Revenues	3,000	3,000	3,000	-	0.0%
	86,983,300	85,398,800	95,255,300	9,856,500	11.5%
Transfer from/(to) Reserve	3,809,525	2,140,300	1,995,765		
Total Revenues	90,792,825	87,539,100	97,251,065	9,711,965	11.1%

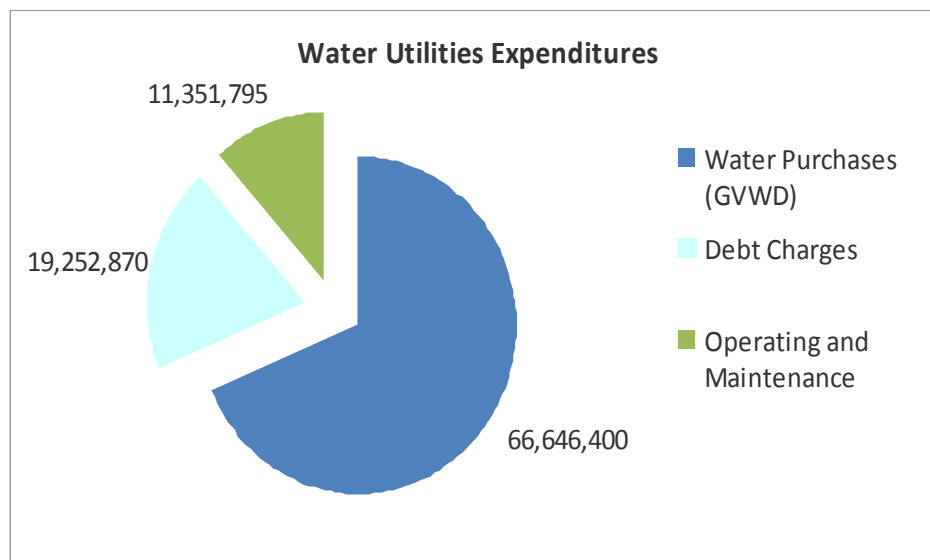
Expenditures

The projected results for 2010 show water purchase costs will be significantly less than budgeted. Historically, staff have used long-term consumption averages to forecast the cost of water. However, due to a steep decline in water consumption in recent years, a more suitable forecast based on consumption since 2008 has been used to develop the 2011 rates.

Debt charges associated with the waterworks capital program are expected to increase by \$1.6M (9.1%) in 2011, due mainly to debenture issuance in 2010 and 2011, slightly offset by debt maturities in the same period.

Operating, maintenance, and billing expenditures, making up about 11% of the utility budget, are estimated to decrease by 0.4% overall, from the 2010 budget level. This slight decrease is due to some adjustments to overhead cost allocations between the operating and capital budgets.

Figure 2: 2011 Water Utility Expenditures



Water purchases are the main driver of the budget at 69% of the total, debt charges 20%, and operating and maintenance costs at 11%.

Revenues

Based on recent trends, the projected water consumption used to develop rates in 2011 is 118 million cubic meters as compared to 124.6 million in 2010. While this reduction in the consumption changes the total revenues estimated, it has little impact on the rate as the volume of water purchased decreases as well.

Utilizing approximately \$2 million from the Water Rate Stabilization Reserve will allow the Water Utility to hold its water rate increase to 12.0% in 2011. This increase will bring the flat water fee for residential properties to \$467, up from \$417 in 2010.

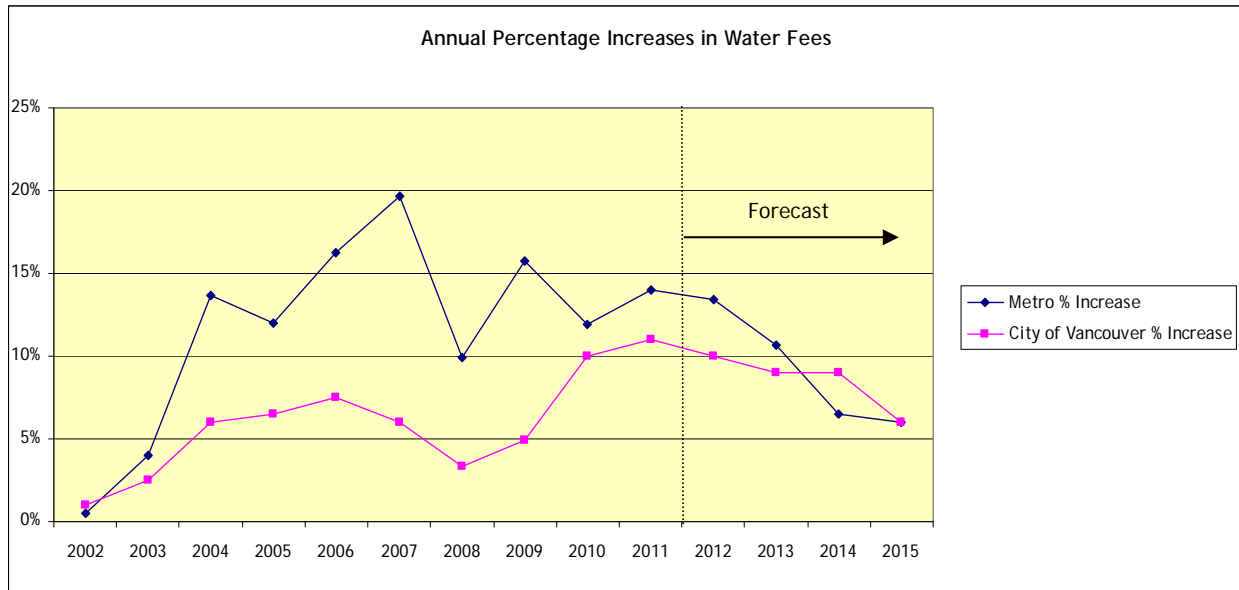
The annual budgeted revenues from the Flat Fee Fire Line Charges have not kept pace with the actual increases in revenue, and therefore a revenue increase of 30.8% over the 2010 budget level is projected in 2011.

The proposed fees are included in Appendix A.

2. Water Rates Stabilization Reserve

The Water Utility uses the Water Rates Stabilization Reserve to mitigate year-over-year increases in water rates, and balance year-end differences between budgeted and actual revenues. This strategy has been particularly effective in keeping increases in the City's water rates to an average of 5% from 2001 to 2010 when the cost of water purchased from the region has increased an average of 11.5% for the same period. Figure 3 demonstrates how the City has used the reserve to smooth rates over time.

Figure 3: Annual Percentage Increases in Water Fees



Several years ago, in anticipation of the significant capital costs of the Seymour/Capilano water filtration project the City began to increase rates to build the size of the reserve. In this way the reserve was used to smooth the impact of this substantial project on our customers. The impact of the filtration project was greater than anticipated because of the contractual difficulties and cost overruns that Metro Vancouver has experienced on the tunnelling portion of this project. As a result, rates are forecast to continue to increase by double digit percentages, as well as drawing down the reserve through 2010 to 2014.

Past practice has been to maintain a balance of at least 7.5% of water purchases which is approximately \$5 million based on the 2011 budgeted water purchases. However, because the reserve has been built up, the current balance of \$15 million will allow the City to continue to use the reserve over the next few years to smooth out the water rates and mitigate the increase in Metro's projected cost of water. Following this strategy, the projected reserve balance in 2014 will be close to the 7.5% minimum target (as shown in Table 2).

Table 2
Forecast of Water Rate Stabilization Reserve

	2011	2012	2013	2014	2015
Projected GVWD Water Rate					
(\$ per cubic meter)	\$0.5648	\$0.6407	\$0.7093	\$0.7556	\$0.8009
% Increase	14.00%	13.40%	10.70%	6.50%	6.00%
Anticipated Change in City Water Rate	12.00%	10.00%	9.00%	9.00%	6.00%
Water Rate Stabilization Reserve					
Reserve Balance Beg. of Year (\$ millions)	15.19	13.20	9.95	7.92	6.61
Operating Surplus / (Deficit) (\$ millions)	(2.00)	(3.25)	(2.03)	(1.31)	0.60
Reserve Balance End of Year (\$ millions)	13.20	9.95	7.92	6.61	7.21
% of Water Purchase Costs	19.80%	13.15%	9.46%	7.41%	7.63%

Sensitivity analysis has indicated that success in achieving the result indicated above will depend on the GVWD completing its water treatment capital program and translating those costs to water rates as currently projected in their report, Financial Projections for 2010 to 2015. This reserve forecast will also depend on the cost of future capital works undertaken by the City and the associated cost of borrowing for capital works, as well as annual operating costs. If there are changes to these projections, City water rates will be adjusted appropriately to manage the reserve.

3. 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 detailed in Schedules A, A.1, C, E, G, H and I of the by-law.

It is recommended that the following fee adjustments be approved:

- 3.2% increase for flat rate connection fees, removal fees and flat service charges for unmetered fire service pipes. This increase is required to cover increases in wages, equipment rental and materials, to maintain full cost recovery for these services.
- 3.2% increase in meter service charge (Schedule E) and fees for installation of water meters (Schedule G) to cover increases in wages, equipment rental and materials. This figure is required to maintain full cost recovery for these services.

The proposed fees are included in Appendix A.

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 Metro Vancouver. Based on a review of the waterworks costs for 2011, it is recommended that water consumption based fees be increased by approximately 12.0% and service and connection fees be increased by 3.2%, as described in this report.

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Appendix A
Water Works By-Law No. 4848
2011 Rates

Recommended Fee Adjustments		
Water rate increase	12.00%	Applicable to Sch B, D & F
SF & Two-Family Dwellings Connection Fee Increase	3.20%	Applicable to Schedule A, A.1 and C
Other Connection Fee Increase	3.20%	Applicable to Schedule A, A.1 and C
Meter Service Fee Increase	3.20%	Applicable to Schedule C, E & G

Schedule A: Flat Rate Connection Fees

<i>Service Pipe Size</i>	2010	2011 Proposed Fee
<i>Single-Family & Two-Family Dwellings with or without a Laneway House</i>		
20 mm (3/4")	\$3,512	\$3,624
25 mm (1")	\$3,654	\$3,771
40 mm (1 1/2")	\$4,213	\$4,348
50 mm (2")	\$5,045	\$5,206
<i>Other Connections</i>		
20 mm (3/4")	\$7,482	\$7,721
25 mm (1")	\$7,784	\$8,033
40 mm (1 1/2")	\$8,982	\$9,269
50 mm (2")	\$8,982	\$9,269
100 mm (4")	\$12,986	\$13,402
150 mm (6")	\$16,062	\$16,576
200 mm (8")	\$17,540	\$18,101
300 mm (12")	\$24,683	\$25,473

Schedule A.1: Removal Fees

<i>Service Pipe Size</i>	2010	2011 Proposed Fee
20mm (3/4") to 50mm (2") inclusive	\$940	\$970
100mm (4") to 300mm (12") inclusive	\$2,819	\$2,909

Schedule B: Flat Service Charges for Residential Properties

	2010	2011 Proposed Fee
Single dwelling unit	\$417	\$467
Single-Family with suite or laneway house	\$564	\$632
Single-Family with suite and laneway house	\$712	\$797
For each strata title duplex	\$282	\$316

Schedule C: Flat Service Charges for Unmetered Fire Service Pipes

<i>Fire Service Pipe Size</i>	2010	2011 Proposed Fee
50 mm (2") or smaller	\$187	\$193
75 mm (3")	\$280	\$289
100 mm (4")	\$387	\$399
150 mm (6")	\$446	\$460
200 mm (8")	\$522	\$539
250 mm (10")	\$554	\$572
300 mm (12")	\$595	\$614

Schedule D: Charges for Metered Water Service

	2010	2011 Proposed Fee
Per unit (2831.6 Litres)	\$2.010	\$2.251

Schedule E: Meter Service Charge

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.

<i>Per Three Month Period</i>	2010	2011 Proposed Fee
<i>Services with Standard Type Meters</i>		
17 mm (1/2") and 20 mm (3/4")	\$26	\$27
25 mm (1")	\$31	\$32
40 mm (1 1/2")	\$44	\$45
50 mm (2")	\$60	\$62
75 mm (3")	\$136	\$140
100 mm (4")	\$165	\$170
150 mm (6")	\$214	\$221
200 mm (8")	\$332	\$343
250 mm (10")	\$407	\$420
300 mm (12")	\$484	\$499
<i>Services with Low Head Loss Meters / Detector Check Valves</i>		
100 mm (4")	\$190	\$196
150 mm (6")	\$279	\$288
200 mm (8")	\$374	\$386
250 mm (10")	\$466	\$481
300 mm (12")	\$557	\$575

Schedule F: Charges for Temporary Water Service during Construction

<i>Building Size in Square Meters of Gross Floor Area</i>	2010	2011 Proposed Fee
Up to an including 500 sq.m	\$184	\$206
Over 500 but not exceeding 2,000	\$360	\$403
Over 2,000 but not exceeding 9,000	\$541	\$606
Over 9,000 but not exceeding 24,000	\$909	\$1,018
Over 24,000 but not exceeding 45,000	\$1,361	\$1,524
Over 45,000	\$1,805	\$2,022

Schedule G: Fees for Installation of Water Meters

<i>Size of Standard Meter Property</i>	<i>Meter on City</i>	2010	2011 Proposed Fee
20 mm (3/4")		\$2,638	\$2,722
25 mm (1")		\$2,714	\$2,801
40 mm (1 1/2")		\$2,805	\$2,895
50 mm (2")		\$2,805	\$2,895
75 mm (3")		\$9,992	\$10,312
100 mm (4")		\$9,992	\$10,312
150 mm (6")		\$34,485	\$35,589
200 mm (8")		\$34,485	\$35,589
250 mm (10")		\$41,370	\$42,694
300 mm (12")		\$41,370	\$42,694

<i>Size of Standard Meter Property</i>	<i>Meter on Private</i>	2010	2011 Proposed Fee
20 mm (3/4")		\$333	\$344
25 mm (1")		\$353	\$364
40 mm (1 1/2")		\$353	\$364
50 mm (2")		\$501	\$517
75 mm (3")		\$773	\$798
100 mm (4")		\$773	\$798
150 mm (6")		\$865	\$893
200 mm (8")		\$1,002	\$1,034
250 mm (10")		\$1,304	\$1,346
300 mm (12")		\$1,304	\$1,346

Schedule H: Miscellaneous Fees for Water Users

	2010	2011 Proposed Fee
Cross Connection Control Administration Fees		
First Assembly	\$25.00	\$25.00
Additional Assembly	\$12.50	\$12.50
Charges when service pipes are shut off for more than 90 days for 15mm, 20mm or equivalent unmetered services for each month or part thereof	\$2.00	\$2.00
Extra charge for inaccessible meter reading (per month)	\$45.00	\$45.00
Annual flat rate for air conditioning units drawing more than 28.4 litres per minute (fee per year)	\$300.00	\$300.00
Special Meter Reading (per occurrence)	\$75.00	\$75.00
Customer Requested Meter Test (deposit)	\$110.00	\$110.00

Schedule I: Miscellaneous Charges

	2010	2011 Proposed Fee
Charges for Returned Cheques	\$35.00	\$35.00
Residual Water Pressure Estimate Fee		
Original calculation	\$35.00	\$35.00
Additional copies for same location	\$10.00	\$10.00
Miscellaneous water information requests (per hour)	\$40.00	\$40.00
City Crew Call Out fee (normal working hours) (per occurrence)	\$50.00	\$50.00
City Crew Call Out fee (outside normal working hours) (per occurrence)	\$200.00	\$200.00
Frozen pipe thawing request		
Deposit	\$90.00	\$90.00
Fee to thaw frozen pipe	at cost	at cost
Water Service Shut Off or Turn On request (per occurrence)	\$50.00	\$50.00