

ITEM 28  
MANAGER'S REPORT NO. 55  
COUNCIL MEETING 89/09/05

RE: WATERWORKS UTILITY RATES FOR 1990

MUNICIPAL MANAGER'S RECOMMENDATION:

1. THAT the recommendation of the Director Finance be adopted.

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TO: MUNICIPAL MANAGER 1989 August 30  
FROM: DIRECTOR FINANCE File: W5-4

SUBJECT: WATERWORKS UTILITY RATES FOR 1990

PURPOSE: To obtain Council approval for a 5.0% increase in water rates and charges for 1990, and to remove the last increment from the metered water rate schedule.

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RECOMMENDATION

1. THAT Burnaby Waterworks Regulation Bylaw 1953, No. 3325, be amended to provide for the metered water rates contained in Schedule A attached effective 1990 January 01.

SUMMARY

There are two parts to this report. Part I presents the results of the review of metered water rates. Part II projects the revenues and expenditures of the waterworks utility for 1990.

Part I concludes that large volume users pay less than their share of water costs. To ensure that water rates recover costs from large volume users, the removal of the fifth (lowest unit rate) sliding scale increment is recommended. It is also proposed that the remaining discount given to Burnaby's larger volume water users be removed by phasing in additional increases for the fourth increment in 1991 and subsequent years. For 1990, the removal of the last increment is expected to increase water rates for 12 of Burnaby's larger metered water users by 4% to 10%, depending on the volume of water used, in addition to the proposed general rate increase of 5%.

Part II recommends a general rate increase of 5.0% for all water utility users. This increase is necessary to recover increased water and distribution costs, and to ensure that the utility continues to be financially self-sustaining.

If approved, the annual water rate for a single family home in 1990 would increase by \$2.95 from the present \$58.70 to \$61.65. Water rates for metered users would also increase by 5.0%. Schedule A attached shows the current and proposed water rates for metered and flat rate water users.

The Director Engineering concurs with the recommendation contained in this report.

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REPORT

INTRODUCTION

On 1988 November 09 Council was advised that a review of metered water rates would be conducted this Fall. Part I of this report presents the results of the review of metered water rates. Part II projects the revenues and expenditures of the waterworks utility for 1990.

Two approaches are used to set water charges in Burnaby. Small residential and commercial users are not metered, due to the high cost of meter reading, installation and maintenance, and are charged a flat annual rate for water. The current rate for a single family home is \$58.70. Large volume water users are metered, and charged for each cubic meter of water used on a sliding scale. Schedule A attached shows the current water rates for Burnaby.

It is Council's objective that the waterworks utility be financially self-supporting. There was a 10% increase in rates in 1989, 1988, 1987 and a 5% increase in 1986.

PART I - REVIEW OF THE METERED WATER SLIDING RATE SCHEDULE

A) Background to Sliding Scale Rates

Most Greater Vancouver municipalities charge for metered water on a sliding scale basis. Sliding scale means that the per unit charge for water decreases as the volume of water used increases. A sliding rate schedule is a valid approach to setting metered water rates, as it reflects some savings in the cost of providing water to larger volume users. In addition, a higher initial charge ensures recovery of the fixed costs of providing water service.

Burnaby's sliding scale rate schedule was first introduced in the 1950s, and provided for lower rates for large volume users of water. The lower rates were provided for larger volume users to attract major industry to Burnaby. At the time, attracting major industry was used to promote growth, increase the tax base, and establish a stable source of revenue for the water utility.

B) Review of Burnaby's Metered Water Sliding Rate Schedule

To determine whether large volume water users in Burnaby are currently paying their share of water costs, a review of the sliding rate schedule was conducted. The cost of providing water service was compared to the water consumption and the revenue generated from each metered water customer. This comparison showed that large industrial and institutional water users are paying less than their share of water costs.

C) Survey of Metered Water Rates in G.V.R.D. Municipalities

A survey of 1989 meter water rates in G.V.R.D. municipalities was conducted. Table 1 attached presents the metered water rates of other municipalities, adjusted to match Burnaby's monthly rate schedule.

In comparison with other municipalities, Burnaby has the second lowest metered water rates in the region. New Westminster has the lowest rates. Table 2 attached compares the charges for given quantities of water in Burnaby and other G.V.R.D. municipalities.

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D) Removal of Last Sliding Scale Rate Increment

To reduce the benefit given to large volume water users in Burnaby and ensure that large volume users of water pay their share of costs, we are recommending a two step process:

- Step 1) That the high volume discount rate given to Burnaby's larger volume water users be reduced by removing the fifth increment of the current rate schedule for 1990.
- Step 2) That the remaining discount given to Burnaby's larger volume water users be removed by phasing in additional price increases for the fourth increment in 1991 and subsequent years.

The removal of the last increment would affect only those water users who consumed over 14,250 cubic meters of water per month. Based on 1988 water consumption figures, the removal of the last increment for 1990 would increase water rates for 12 of Burnaby's larger volume water users. These users would experience increases ranging from 4% to 10%, depending on the volume of water used. This would be in addition to any general increase proposed for 1990.

Table 3 attached summarizes the impact of the proposed rates for the 12 water users that would be affected. Included are Burnaby's largest commercial, industrial and institutional users of water.

The removal of the last increment would generate approximately \$50,000 in water revenue from the water users listed above. The removal of the last increment is expected to have no impact on water charges for the remaining 1,600 metered water customers.

The estimated additional \$50,000 in revenue is insufficient to keep the water utility financially self-sufficient. Therefore a general rate increase is also needed.

PART II - PROJECTION OF REVENUES AND EXPENDITURES FOR 1990

A) Estimate of Revenues and Expenditures for 1990

In order to ensure that the water utility remains financially self-sufficient with an operating surplus of \$1.5 million, a 5.0% general rate increase is recommended. Schedule B attached provides the estimates of expenditures and revenues for 1990, with a 5.0% general rate increase, and the last increment of the sliding scale removed. It also shows the effect these actions would have on the operating surplus at the end of 1990.

The Greater Vancouver Water District projects that the unit cost of water will increase by 1.5%. Currently, the G.V.W.D. supplies water to Burnaby at 4.45 cents per cubic meter. This is projected to increase to 4.52 cents per cubic meter in 1990. We are estimating average water consumption, based on the last several years, for 1990. Transmission, distribution and pumping costs, estimated at \$1,815,000, are about 6% higher than 1989.

Total estimated capital expenditure planned for 1990 is \$1,180,000, as included in the five year capital budget. About \$329,000 of capital costs is planned to be financed from the water utility sinking fund surplus now held as reserve, and the balance of \$851,000 from the water utility.

Without a general increase in water rates the operating capital reserve is projected to be \$1,236,925 at the end of 1990, which is below the minimum \$1.5 million level. In addition to a 5.0% general increase, and the removal of the last increment of the metered rate schedule, it is planned to Finance \$329,000 of the capital program from the water utility sinking fund surplus. These actions are expected to increase the operating surplus to \$1,464,288, near the target level.

The operating surplus represents the accumulation of waterworks revenues in excess of expenditures over the years. Council policy established that the operating surplus shall be maintained at a minimum of \$1.5 million to offset large fluctuations in capital spending, help moderate rate increases and provide for an adequate working capital level. Interest earnings on the operating reserve are not credited to the utility, but are taken into general municipal revenue to offset administrative costs absorbed by general revenues.

The sinking fund surplus is the result of higher than anticipated interest rates on investments in the sinking fund. The surplus funds were returned to the municipality when the debt for which the sinking fund was created had been retired. Generally, these funds can only be used for capital expenditures or debt retirement.

The balance of the water utility sinking fund at the end of 1990 would be nil.

It is recommended that Burnaby Waterworks Regulation Bylaw 1953, No. 3325, be amended to provide for the metered water rates contained in Schedule A effective 1990 January 01.

COMPARISON WITH OTHER G.V.R.D. MUNICIPALITIES

If approved, the annual water rate for a single family home in 1990 would increase by \$2.95 from the present \$58.70 to \$61.65.

Flat water rates for a detached single family residence for G.V.R.D. communities were collected. With the exception of Delta, Burnaby's current rate of \$58.70 was lower than the other G.V.R.D. municipalities. The rate charged in Delta was \$53.00. Delta does not operate its water utility on a self-sustaining basis.

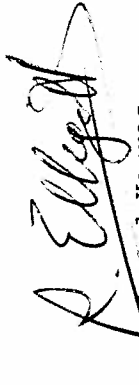
For metered water, Burnaby would maintain its standing among G.V.R.D. communities offering one of the lowest metered water rates.

PUBLICITY

Once approved by Council, we would notify all metered water users of the removal of the last increment in the metered water rate schedule, effective 1990 January 01. In addition, an article would be placed in the 1989 November issue of Information Burnaby to ensure that all taxpayers are given ample notice of the rate increase.

DIRECTOR ENGINEERING CONCURRENCE

The Director Engineering concurs with the recommendation contained in this report.

  
 Howard Karras  
 DIRECTOR FINANCE

LP:gw  
 Attach.

cc: Director Administrative & Community Services  
 Director Engineering  
 Municipal Solicitor  
 Municipal Clerk

ENGINEERING - WATERWORKS

WATER RATES

SCHEDULE A

Effective	1982	1984	1985	1986	1987	1988	1989	1990
Jan. 01		\$	\$	\$	\$	\$	\$	\$
Through	1982	1984	1985	1986	1987	1988	1989	1990
Flat Rates	42.00	31.50	31.50	33.10	36.40	48.50	53.35	58.70
Detached single family	42.00	42.00	42.00	44.10	48.50	53.35	58.70	61.65
Single family within duplex	31.50	31.50	31.50	33.10	36.40	40.05	44.05	46.25
Single family within multiple	31.50	31.50	31.50	33.10	36.40	40.05	44.05	46.25
Commercial not more than 3 stores/offices	24.00	24.00	24.00	25.20	27.70	30.50	33.55	35.25
Commercial and living quarters 1 family	84.00	84.00	84.00	88.20	97.00	106.70	117.40	123.30
Commercial and no living quarters	42.00	42.00	42.00	44.10	48.50	53.35	58.70	61.65
Metered Rates	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly
First 300 cubic meters	0.127	0.127	0.127	0.134	0.147	0.162	0.179	0.188
Next 550 cubic meters	0.09	0.09	0.09	0.095	0.105	0.116	0.128	0.134
Next 1,400 cubic meters	0.07	0.07	0.07	0.074	0.081	0.090	0.099	0.104
Next 12,000 cubic meters	0.06	0.06	0.06	0.063	0.069	0.076	0.084	0.088
Over 14,250 cubic meters	0.053	0.053	0.053	0.056	0.062	0.069	0.076	0.088
Minimum monthly	3.50	3.50	3.50	3.70	4.07	4.48	4.95	5.20
Quarterly	0.127	0.127	0.127	0.134	0.147	0.162	0.179	0.188
First 900 cubic meters	0.09	0.09	0.09	0.095	0.105	0.116	0.128	0.134
Next 1,650 cubic meters	0.07	0.07	0.07	0.074	0.081	0.090	0.099	0.104
Next 4,200 cubic meters	0.06	0.06	0.06	0.063	0.069	0.076	0.084	0.088
Over 42,750 cubic meters	0.053	0.053	0.053	0.056	0.062	0.069	0.076	0.088
Minimum quarterly	10.50	10.50	10.50	11.05	12.20	13.44	14.85	15.60
Connection fee 19 mm and less	550.00	550.00	550.00	550.00	550.00	550.00	550.00	550.00
Rate Increase	-	-	-	-	5%	10%	10%	5%
Cost of Connection	Cost of Connection	Cost of Connection	Cost of Connection	Cost of Connection	Cost of Connection	Cost of Connection	Cost of Connection	Cost of Connection

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**ENGINEERING - WATERWORKS**

**OPERATING COSTS**

	1987	1988	1989	1990
	Actual	Actual	Annual	Estimate
	\$	\$	\$	\$
<b>Expenditure</b>				
Cost of water	1,245,412	1,643,145	1,789,000	1,908,507
Transmission, distribution and pumping	1,330,065	1,436,955	1,713,688	1,815,000
Long term debt	133,876	268,151	232,199	255,000
Contribution to capital	1,201,329	1,207,407	1,272,415	851,000
	=====	=====	=====	=====
<b>Revenue/Transfers</b>				
Fee increase - flat rates	2,012,343	2,252,731	2,750,000	2,777,500
Fee increase - metered rates	1,127,149	1,354,142	1,634,000	1,769,761
Flat rates	233,790	241,089	320,000	325,000
Connection fees	125,000	125,000	125,000	125,000
Water charge to Fire Department	412,400	230,118	178,302	(395,117)
Prior year's surplus	3,910,682	4,203,080	5,007,302	4,829,507
	=====	=====	=====	=====
Operating surplus - year end	1,999,752	1,769,632	1,069,171	1,464,288
	=====	=====	=====	=====
Rate increase	5%	10%	10%	5%

Note (1) Capital program is \$1,180,000, with \$329,000 financed by the water utility sinking fund surplus, now held as reserve.

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COMPARISON OF 1989 METERED WATER RATES FOR G.V.R.D. MUNICIPALITIES  
 ADJUSTED TO CONFORM WITH BURNABY'S MONTHLY SLIDING RATE SCHEDULE

TABLE 1

Municipality	Minimum Charge	First 300	Next 550	Next 1,400	Next 12,000	Over 14,250
New Westminster	\$ 4.28	\$0.120	\$0.072	\$0.065	\$0.065	\$0.065
Burnaby	14.46	0.179	0.128	0.099	0.084	0.076
Burnaby - Last increment removed	14.46	0.179	0.128	0.099	0.084	0.084
Port Moody	18.00	0.183	0.166	0.146	0.140	0.140
Delta	14.25	0.196	0.155	0.117	0.106	0.085
North Vancouver City	4.25	0.220	0.169	0.125	0.094	0.094
Vancouver	15.24	0.224	0.187	0.149	0.127	0.126
Surrey	31.48	0.252	0.144	0.115	0.106	0.106
North Vancouver District	21.90	0.257	0.240	0.184	0.121	0.106
Richmond	21.85	0.258	0.193	0.145	0.130	0.120
Cogitlam	28.75	0.266	0.170	0.170	0.144	0.095
West Vancouver	27.50	0.388	0.219	0.219	0.219	0.219
Median	18.00	0.224	0.169	0.145	0.127	0.106
Average	18.36	0.231	0.168	0.139	0.121	0.112

Charge per Cubic Meter at Each Increment

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CHARGE FOR GIVEN QUANTITIES OF WATER IN G.V.R.D. MUNICIPALITIES

Municipality	300	850	2,250	14,250	28,500
New Westminster	\$ 36	\$ 76	\$167	\$ 947	\$1,873
Burnaby	54	124	263	1,271	2,354
Burnaby - last increment removed	54	124	263	1,271	2,468
Port Moody	55	146	351	2,031	4,026
Delta	59	144	308	1,580	2,791
North Vancouver City	66	159	334	1,462	2,801
Vancouver	67	170	379	1,903	3,698
Surrey	76	155	316	1,588	3,098
North Vancouver District	77	209	467	1,919	3,429
Richmond	77	184	387	1,947	3,657
Coquitlam	80	173	411	2,139	3,493
West Vancouver	116	237	543	3,171	6,292
Median	67	160	363	1,887	3,398
Average	69	162	357	1,814	3,410

Monthly or Quarterly Dollar Charge for Given Cubic Meters

TABLE 2

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ESTIMATED ANNUAL IMPACT OF PROPOSED 1990 WATER RATES  
FOR BURBABY'S LARGEST METERED WATER USERS

BASED ON 1988 WATER CONSUMPTION

ITEM	1988	1989	Estimated Annual Water Charge	Impact of Removing Last Increment Increase	5% Increase	Combined Impact of Proposed Rates Increase	ITEM	1988	1989	Estimated Annual Water Charge	Impact of Removing Last Increment Increase	5% Increase	Combined Impact of Proposed Rates Increase	MANAGER'S REPORT NO.	
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Shell Canada Ltd.	1,957,358	151,003	14,299	9	7,877	22,177	15	22,177	14,213	5,226	7,877	15	22,177	89/09/05	
Chevron Canada Ltd.	1,294,379	100,625	8,987	9	5,226	14,213	14	14,213	9,450	3,638	5,226	14	14,213		
Simon Fraser University	897,480	70,461	5,812	8	3,638	9,450	13	9,450	8,678	3,381	3,638	13	8,678		
Fraser Valley Milk Producers Association	833,155	65,572	5,297	8	3,381	8,678	13	8,678	6,881	2,782	3,381	13	6,881		
Paperboard Industries Corporation	683,432	54,193	4,099	8	2,782	6,881	13	6,881	4,387	1,950	2,782	13	4,387		
Montenay Inc.	475,615	38,399	2,437	6	1,950	4,387	11	4,387	2,908	1,457	1,950	11	2,908		
Weiser Lock Company of Canada Ltd.	352,302	29,027	1,450	5	1,457	2,908	10	2,908	2,696	1,262	1,457	10	2,696		
Royal City Foods Ltd.	303,977	24,964	1,433	6	1,262	2,696	11	2,696	926	778	1,262	11	926		
Burnaby Hospital	182,564	16,072	148	1	778	926	6	926	1,223	712	778	6	926		
Forest Lawn Development Ltd.	167,940	14,357	510	4	712	1,223	9	1,223	1,133	619	712	9	1,223		
B.C.I.T.	144,059	12,389	514	4	619	1,133	9	1,133	856	449	619	9	856		
Ocean View Development Co.	103,815	8,964	406	5	449	856	10	856							

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TABLE 3

