

ITEM	13
MANAGER'S REPORT NO.	77
COUNCIL MEETING	90/12/17

TO: MUNICIPAL MANAGER

1990 December 11

FROM: DIRECTOR FINANCE

File: W5-4

SUBJECT: WATERWORKS UTILITY RATES FOR 1991

PURPOSE: To obtain Council approval for 1991 water rates.

RECOMMENDATION

1. THAT Burnaby Waterworks Regulation Bylaw 1953, No. 3325, be amended to provide for the flat water rates contained in Schedule A, effective 1991 January 01, and the metered water rates contained in Schedule A, effective 1991 February 01.

SUMMARY

This is the annual waterworks utility report which reviews revenues and expenditures of the waterworks utility and proposes water rates for 1991.

This report proposes:

- a general rate increase of 25% for all water utility users; and
 - to continue phasing out the high volume discount for metered water users by removing the fourth (lowest unit rate) increment on the sliding scale.
- The general rate increase is required to:
- offset the increases in the cost of water proposed in the Greater Vancouver Regional District Five Year Plan; and
 - provide more funds to replace aging water mains.

If approved, the annual water rate for a single family home in 1991 would increase by \$15.35, from \$61.65 to \$77.00. With this increase, Burnaby's rate will remain among the lowest in the region.

Removal of the fourth increment continues the phased removal of the discount to large volume users approved by Council in 1989, and is expected to increase water rates for 63 of Burnaby's larger metered water users by 1% to 22%, depending on the volume of water used. In addition, the proposed general rate increase of 25% would apply to all metered water users.

Schedule A attached shows the current and proposed water rates for flat and metered water users. In combination, the proposed rate increases would ensure that the water utility continues to be financially self-supporting.

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

REPORT

1. INTRODUCTION

Water rates are reviewed and adjusted annually to reflect changes in revenues and expenditures and to ensure that the waterworks utility continues to be financially self-supporting.

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 1990 rate for a single family home is \$61.65. This charge is levied as part of the property tax bill and is due at the beginning of July each year. Large volume water users are metered, and charged for each cubic meter of water used on a sliding scale. The sliding scale provides a high volume discount rate to Burnaby's larger volume water users. Schedule A shows the current water rates for Burnaby.

2. PHASING OUT THE METERED WATER SLIDING SCALE DISCOUNT

A review of the metered water sliding rate scale was completed in 1989 and showed that large industrial and institutional water users are paying less than their share of water costs. For 1990, Council decided to begin phasing out this high volume discount, and removed the fifth increment on the scale. Consistent with this position, it is proposed that the fourth increment on the scale be removed in 1991.

Removal of the fourth increment will affect only those metered water users who consume over 2,250 cubic meters of water per month. Burnaby has in excess of 1,700 metered water users. Based on 1988 consumption figures, this would affect 63 of Burnaby's largest water users, increasing individual water charges from 1% to 22%, depending on the volume of water used. Table 1 attached lists the users who are likely to be affected the most by this change.

The removal of the last increment will generate approximately \$180,000 in water revenue in 1991. This estimated revenue is insufficient to keep the water utility self-sustaining. Therefore a general rate increase is also recommended.

3. PROJECTED REVENUES AND EXPENDITURES FOR 1991

It is Council's objective that the waterworks utility be financially self-supporting with an operating surplus of \$1.5 million. The surplus is needed to finance inventories, accounts receivable, and to provide working capital. To meet this objective, revenues and expenditures are reviewed and water rates adjusted annually. There was a 5% increase in rates in 1990 and 10% in 1989, 1988 and 1987.

A 25% general rate increase for all water utility users, metered and flat rate, is proposed for 1991. Schedule B attached provides the estimates of expenditures and revenues for 1991, with a 25% general rate increase and the fourth increment of the sliding scale removed. It also shows the effect these actions would have on the operating surplus at the end of 1991.

The general rate increase is required to offset anticipated increases in expenditures in 1991. The two primary reasons for the increase are the cost of water projections included in the G.V.R.D. Five Year Plan and the need to provide more funds to replace Burnaby's aging water mains.

(a) G.V.R.D. FIVE YEAR PLAN

Water is supplied to Burnaby and other communities in the G.V.R.D. by the Greater Vancouver Water District (GVWD). Burnaby pays for this water on the basis of volume (cubic meters) used. The G.V.W.D. projects that the unit cost of water to Burnaby will increase by 17.7%. Currently the G.V.W.D. supplies water to Burnaby at 4.85 cents per cubic meters. This is projected to increase to 5.71 cents per cubic meter in 1991.

In addition to the 1991 increase, the G.V.R.D. has prepared a Five Year Plan which projects a 137% increase in the cost of water over the next five years. Table 2 attached summarizes the projected increases in the cost of water to Burnaby.

The increases are required by the G.V.W.D. in order to bring the regional system up to the emerging Federal and Provincial water quality standards.

(b) REPLACEMENT OF AGING WATER MAINS

Burnaby's water distribution system is aging and there is a growing need to replace the older water mains at a faster rate than has been done over the past few years.

The Engineering Department advises that water mains have a life expectancy of 40 to 50 years, and that preliminary analysis indicates that 15% of Burnaby's water mains are over 40 years old and an additional 45% are over 30 years old. This suggests that 60% of Burnaby's water distribution system may need replacing over the next 20 years.

The Engineering Department is currently carrying out a detailed analysis of the system and anticipates coming forward with a comprehensive replacement program in 1991. Until this work is complete, the long term replacement costs and accompanying requirements for capital contributions are not known.

As an interim step, we propose to increase contributions to capital for replacement of water mains by \$1.4 million to a total of \$2.165 million for 1991.

In addition, transmission, distribution and pumping costs are projected to increase by 6% in 1991. Long term debt charges will be less in 1991.

Without a general increase in water rates the operating capital reserve is projected to be \$150,000 at the end of 1991, which is far below the minimum \$1.5 million. The 25% general rate increase and the removal of the last increment of the metered rate schedule are expected to maintain the operating surplus at \$1.5 million.

The proposed rate would increase the tax bill for single family homes by \$15 in 1991. This equates to approximately a 2% increase on the median home at 1990 tax rates.

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

Burnaby's flat water rates are currently among the lowest in the region. See Table 3 attached. With the 1991 proposed 25% increase, Burnaby's rate would remain less than the average.

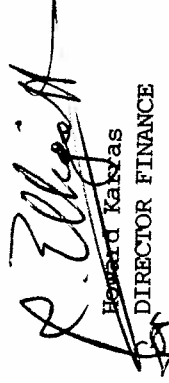
Burnaby's metered water rates are currently among the lowest in the region. With the general rate increase and the removal of the last increment from the sliding scale, Burnaby's 1991 metered water rates would move closer to being average for the region. Table 4 attached outlines the metered rates for other communities in the region and Table 5 attached compares metered water costs for given quantities of water.

5. PUBLIC NOTICE

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 1991 February 01. In addition, a general notice will be placed in local newspapers to ensure all taxpayers are informed of the rate increase.

6. DIRECTOR ENGINEERING CONCURRENCE

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


R. Elger
Regional Director
Director FINANCE

PS:RE:gw
Attach.

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

ENGINEERING - WATERWORKS

WATER RATES

ITEM	1982		1985		1986		1987		1988		1989		1990		Proposed 1991	
	Through	1985	Through	1985	Through	1986	Through	1987	Through	1988	Through	1989	Through	1990	Through	1991
Plat Rates																
Detached single family	42.00	44.10	48.50	44.10	48.50	44.10	48.50	44.10	48.50	44.10	48.50	44.10	48.50	44.10	48.50	44.10
Single family within duplex	31.50	33.10	36.40	33.10	36.40	33.10	36.40	33.10	36.40	33.10	36.40	33.10	36.40	33.10	36.40	33.10
Single family within multiple	24.00	25.20	27.70	25.20	27.70	25.20	27.70	25.20	27.70	25.20	27.70	25.20	27.70	25.20	27.70	25.20
Commercial not more than 3 stores/offices	84.00	88.20	97.00	88.20	97.00	88.20	97.00	88.20	97.00	88.20	97.00	88.20	97.00	88.20	97.00	88.20
Commercial and living quarters 1 family	42.00	44.10	48.50	44.10	48.50	44.10	48.50	44.10	48.50	44.10	48.50	44.10	48.50	44.10	48.50	44.10
Commercial and no living quarters	154.15	154.15	154.15	154.15	154.15	154.15	154.15	154.15	154.15	154.15	154.15	154.15	154.15	154.15	154.15	154.15
Metered Rates																
Monthly																
First 300 cubic meters	0.127	0.134	0.147	0.134	0.147	0.134	0.147	0.134	0.147	0.134	0.147	0.134	0.147	0.134	0.147	0.134
Next 50 cubic meters	0.09	0.095	0.105	0.095	0.105	0.095	0.105	0.095	0.105	0.095	0.105	0.095	0.105	0.095	0.105	0.095
Next 1,400 cubic meters	0.07	0.074	0.081	0.074	0.081	0.074	0.081	0.074	0.081	0.074	0.081	0.074	0.081	0.074	0.081	0.074
Next 12,000 cubic meters	0.06	0.063	0.069	0.063	0.069	0.063	0.069	0.063	0.069	0.063	0.069	0.063	0.069	0.063	0.069	0.063
Over 14,250 cubic meters	0.053	0.056	0.062	0.056	0.062	0.056	0.062	0.056	0.062	0.056	0.062	0.056	0.062	0.056	0.062	0.056
Minimum monthly	3.50	3.70	4.07	3.70	4.07	3.70	4.07	3.70	4.07	3.70	4.07	3.70	4.07	3.70	4.07	3.70
Quarterly																
First 900 cubic meters	0.127	0.134	0.147	0.134	0.147	0.134	0.147	0.134	0.147	0.134	0.147	0.134	0.147	0.134	0.147	0.134
Next 1,650 cubic meters	0.09	0.095	0.105	0.095	0.105	0.095	0.105	0.095	0.105	0.095	0.105	0.095	0.105	0.095	0.105	0.095
Next 4,200 cubic meters	0.07	0.074	0.081	0.074	0.081	0.074	0.081	0.074	0.081	0.074	0.081	0.074	0.081	0.074	0.081	0.074
Next 36,000 cubic meters	0.06	0.063	0.069	0.063	0.069	0.063	0.069	0.063	0.069	0.063	0.069	0.063	0.069	0.063	0.069	0.063
Over 42,750 cubic meters	0.053	0.056	0.062	0.056	0.062	0.056	0.062	0.056	0.062	0.056	0.062	0.056	0.062	0.056	0.062	0.056
Minimum quarterly	10.50	11.05	12.20	11.05	12.20	11.05	12.20	11.05	12.20	11.05	12.20	11.05	12.20	11.05	12.20	11.05
Connection fee 19 mm and less	550.00	550.00	550.00	550.00	550.00	550.00	550.00	550.00	550.00	550.00	550.00	550.00	550.00	550.00	550.00	550.00
Rate Increase																
Finance																
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ENGINEERING - WATERWORKS

OPERATING COSTS

	1986	1987	1988	1989	1990	1991
	Actual	Actual	Actual	Actual	Annual	Estimate
	\$	\$	\$	\$	\$	\$
Expenditure						
Cost of water	1,245,412	1,290,567	1,643,145	1,813,198	2,075,000	2,468,226
Transmission, distribution and pumping	1,330,065	1,436,955	1,590,032	1,713,452	1,831,494	1,941,384
Long term debt	133,876	268,151	266,790	232,200	229,356	150,333
Contribution to capital	1,201,329	1,207,407	1,462,626	1,328,415	752,465	2,165,000
Revenue/Transfers	3,910,682	4,203,080	4,962,593	5,087,265	4,888,315	6,724,943
Fee increase - flat rates						730,425
Fee increase - metered rates						626,519
Flat rates	2,012,343	2,252,731	2,500,091	2,782,553	2,921,700	3,067,785
Metered rates	1,127,149	1,354,142	1,485,458	1,657,859	1,790,750	1,880,288
Connection fees	233,790	241,089	329,885	354,855	376,150	398,719
Water charge to Fire Department	125,000	125,000	125,000	125,000	125,000	125,000
Surplus	412,400	230,118	522,159	166,998	(325,285)	(103,793)
Operating surplus - year end	3,910,682	4,203,080	4,962,593	5,087,265	4,888,315	6,724,943
Rate increase	5%	10%	10%	10%	5%	25%
	1,999,752	1,769,632	1,247,473	1,080,475	1,405,760	1,509,553

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SCHEDULE B

**ESTIMATED ANNUAL IMPACT OF PROPOSED 1991 WATER RATES
FOR BURBARY'S LARGEST METERED WATER USERS**

ITEM	1988	Estimated	Annual	Impact of Removing (1)		25% Increase	Combined Impact
				Impact of	Last Increment		
	Cubic Meters	Annual	Water Charge	\$	%	\$	%
Shell Canada Ltd.	1,957,358	173,180	38,610	43,295	22	81,905	47
Chevron Canada Ltd.	1,294,379	114,838	25,351	28,710	22	54,060	47
Simon Fraser University	897,480	79,911	17,412	19,978	22	37,390	47
Fraser Valley Milk Producers Association	833,155	74,250	16,127	18,563	22	34,689	47
Paperboard Industries Corporation	683,432	61,074	13,133	15,269	21	28,401	46
Montenay Inc.	475,615	42,787	8,975	10,697	21	19,672	46
Weiser Lock Company of Canada Ltd.	352,302	31,935	6,509	7,984	20	14,493	45
Royal City Foods Ltd.	303,977	27,659	5,572	6,915	20	12,487	45
Burnaby Hospital	182,564	16,998	3,115	4,250	18	7,364	43
Forest Lawn Development Ltd.	167,940	15,580	2,942	3,895	18	6,837	43
B.C.I.F.	144,059	13,522	2,454	3,818	18	5,834	43
Ocean View Development Co.	103,815	9,820	1,762	2,455	18	4,217	43
Foremost Foods	158,328	14,865	2,630	3,716	18	6,346	43
McDonalds Consolidated	150,933	14,215	2,481	3,554	17	6,035	42
Trilea Centres Inc.	144,031	13,607	2,344	3,402	17	5,746	42
B.C. Telephone Co.	132,141	12,561	2,106	3,140	17	5,246	42
Sheraton Villa Inn	107,936	10,431	1,621	2,608	16	4,229	41
Dairyland	105,311	10,200	1,569	2,550	15	4,119	40
Mt. Seymour Pet Food Cannery	98,528	9,582	1,460	2,396	15	3,855	40
Nabob Foods	99,935	9,724	1,465	2,431	15	3,896	40
Central Western Holdings Ltd.	98,672	9,616	1,436	2,404	15	3,840	40
Freightliner of Canada	95,202	9,310	1,368	2,328	15	3,695	40
B.C. Buildings Corporation	89,219	8,784	1,247	2,196	14	3,443	39
Trilea Centres Yorkdale Place	84,920	8,405	1,162	2,101	14	3,263	39
B.C. Buildings Corporation	84,114	8,334	1,147	2,084	14	3,230	39
Circuit Graphics	77,647	7,741	1,047	1,935	13	2,982	39

NOTE (1): The estimated impact of removing the last increment is less than \$1000 for 1991 on the remaining metered water users.

TABLE 1

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COST OF WATER SUPPLIED TO BURNABY BY THE GREATER VANCOUVER WATER DISTRICT

Year	Cost per Cubic Meter	Increase from Previous Year	Total Volume (2) Purchased Cubic Meters	Annual Cost to Burnaby	Increase in total cost of water to Burnaby from Previous Year
	\$	\$	(000)	\$	\$
1986	.0348	.0013	34,000	1,183,200	83,200
1987	.0373	.0035	34,754	1,296,324	113,124
1988	.0409	.0036	40,174	1,643,117	346,793
1989	.0445	.0036	40,746	1,813,197	170,080
1990	.0485	.0040	42,800	2,075,800	262,603
1991	.0571 (1)	.0086	44,000	2,512,400	436,600
1992	.0637 (1)	.0066	45,300	2,885,610	373,210
1993	.0755 (1)	.0118	46,600	3,518,300	632,690
1994	.0919 (1)	.0164	48,000	4,411,200	892,900
1995	.1152 (1)	.0233	49,500	5,702,400	1,291,200
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Increase 1986 - 1990	.0160	47.8	192,474	8,010,638	975,800
Projected Increase 1991 - 1995	.0667	137.5	233,400	19,029,910	3,626,600
					174.7

NOTES: (1) Water costs from the G.V.R.D.'s proposed five year plan 1990-1994.
 (2) Total volume of water purchased by Burnaby from the Greater Vancouver Water District. 1987 to 1989 are actual volumes, 1990 to 1995 are projected.

TABLE 2

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TABLE 3

1990 FLAT WATER RATES IN G.V.R.D. MUNICIPALITIES

	Flat Rate Single Family Dwelling \$
City of New Westminster	58.00
Corporation of Delta	60.00
City of Richmond	60.72
District of Burnaby	61.65
City of Port Moody	69.88
District of Coquitlam	83.00
District of Surrey	85.00
City of North Vancouver	88.00
District of West Vancouver	87.00
City of Vancouver	107.00
District of North Vancouver	133.89
<hr/>	
Average	81.29
Median	83.00
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Proposed 1991 Burnaby rate	77.00

COMPARISON OF 1990 METRED WATER RATES FOR G.V.R.D. MUNICIPALITIES
ADJUSTED TO CONFORM WITH BURNABY'S MONTHLY SLIDING RATE SCHEDULE

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	15.60	0.188	0.134	0.104	0.088	0.088
Port Moody	18.90	0.190	0.177	0.160	0.141	0.141
Delta	15.25	0.210	0.165	0.124	0.113	0.092
North Vancouver City	6.08	0.243	0.186	0.140	0.104	0.104
Vancouver	16.30	0.240	0.200	0.159	0.136	0.135
Surrey	31.48	0.252	0.144	0.115	0.106	0.106
North Vancouver District	27.90	0.327	0.310	0.233	0.157	0.157
Richmond	24.20	0.289	0.215	0.161	0.144	0.133
Coquitlam	30.75	0.260	0.180	0.180	0.148	0.102
West Vancouver	24.17	0.407	0.230	0.230	0.230	0.230
Median	18.90	0.243	0.180	0.159	0.136	0.120
Average	19.54	0.248	0.183	0.152	0.130	0.123
Burnaby - proposed 1991 rates	19.50	0.235	0.168	0.130	0.130	0.130

Charge per Cubic Meter at Each Increment

TABLE 4

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CHARGE FOR GIVEN QUANTITIES OF WATER IN G.V.R.D. MUNICIPALITIES - 1990

Monthly or Quarterly Dollar Charge for Given Cubic Meters				
Municipality	300	850	2,250	14,250
New Westminster	\$ 36	\$ 76	\$ 167	\$ 947
Burnaby	56	130	276	1,332
Port Moody	57	154	378	2,070
Delta	63	154	328	1,684
North Vancouver City	73	175	371	1,619
Vancouver	72	182	405	2,037
Surrey	76	155	316	1,588
North Vancouver District	98	269	595	2,479
Richmond	87	205	430	2,158
Coquitlam	78	177	429	2,205
West Vancouver	122	249	571	3,331
Median	73	175	378	2,037
Average	74	175	388	1,950
Burnaby - 1991	71	163	346	1,934
				3,815

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TABLE 5

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