

TO: CHAIR AND MEMBERS
FINANCIAL MANAGEMENT
COMMITTEE

DATE: 2015 November 12

FROM: DIRECTOR FINANCE

FILE: 39500-07
Reference: Water Rates

SUBJECT: 2016 WATERWORKS UTILITY RATES

PURPOSE: To request Council approval for a 2% increase to the 2016 Waterworks Utility rates.

RECOMMENDATION:

1. **THAT** Financial Management Committee recommend Council approve the amendment of the Burnaby Waterworks Regulation Bylaw to provide for the water rates contained in Schedule C as outlined in Section 3.0 of this report and Bylaw amendments as outlined in Section 4.0 of this report, effective 2016 January 01.

REPORT

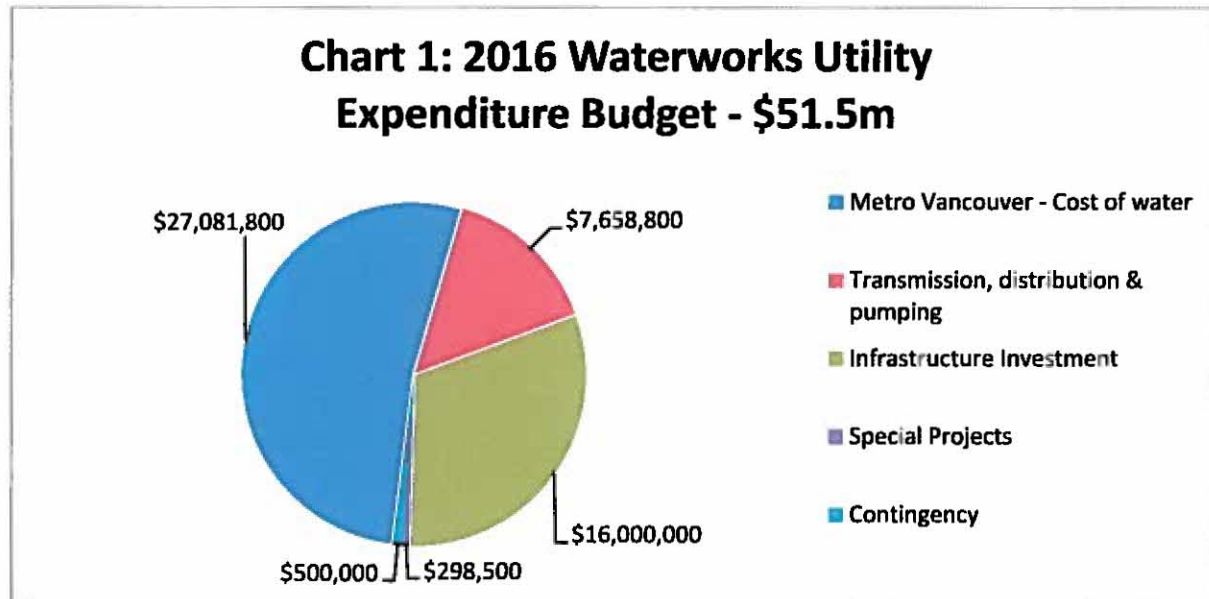
1.0 BACKGROUND

The Waterworks Utility Fund is financially self-sustaining and therefore rate changes do not impact property taxes. Water rates are reviewed annually and revised to account for changes in costs associated with the delivery of water to Burnaby and water rates are changed through the adoption by Council of an amendment to the Burnaby Waterworks Regulation Bylaw.

Waterworks Utility fees are due by March 15th each year. To promote payment by the due date, Burnaby offers a 5% discount for payments received on or before March 15th of a given year. Metered water users are offered the same 5% discount for payments made within 30 days of the billing date on the metered water bill.

2.0 WATERWORKS UTILITY FUND EXPENDITURES

The 2016 Waterworks Utility expenditures total \$51.5m, an increase of \$2m over 2015. The 2016 expenditure budget is summarized in Chart 1. Schedule A (attached) provides the City's Waterworks Five Year Operating Budget.



Metro Vancouver Costs

The Greater Vancouver Water District (GVWD) provides safe, reliable, high-quality drinking water to Burnaby. The GVWD is responsible for acquiring and maintaining the water supply, treating it to ensure its quality and delivering it to the City. The GVWD also provides for ongoing capital work for the treatment of water, including the upgrading of facilities to meet safety and environmental standards.

Schedule B (attached) summarizes the projected GVWD increase in the cost of water to Burnaby for 2016 based on GVWD rates and estimated consumption. The GVWD Board has set the Water Rate for GVWD members in 2016 at:

- \$0.7407 per cubic metre for June to September; and
- \$0.5926 per cubic metre for January to May and October to December.

Based on the City's estimation of consumption for 2016, the cost of the GVWD water delivery service for Burnaby is estimated to be \$27.1m. This amount accounts for 52.5% of the City's total 2016 Water Utility operating budget and reflects a 2.5% increase in City costs over 2015.

Transmission, Distribution & Pumping

The City's Engineering Department manages Burnaby's water transmission system to ensure drinking water delivered to customers meets relevant health and water quality guidelines. The City's Cross Connection Program also helps to safeguard against contaminants entering the

community's drinking water systems. Cross-connection control devices are installed, maintained and tested annually.

Infrastructure Investment

Burnaby relies on over 700 km of watermain to deliver approximately 115 million litres of water every day to Burnaby residents and businesses. In 2016 a large percentage of the capital investment is committed to the replacement of 15km of aging and undersized watermain, which once complete will reduce the likelihood of breaks and continue to maintain the supply of water in Burnaby. The 2016 capital plan for investment in Burnaby's Water Utility infrastructure is \$15.6m.

The City continues to make provision for the replacement of aging pumping stations to meet current and future growth related demands. Infrastructure investment contributes both in the short and longer term to the quality and safety of the City's water supply. The five year capital replacement plan and infrastructure investment is \$69m.

Special Projects – One Time Funding from the Water Operating Fund

For 2016, \$298,000 of funding from the Water Operating Reserve has been budgeted for three special projects as follows:

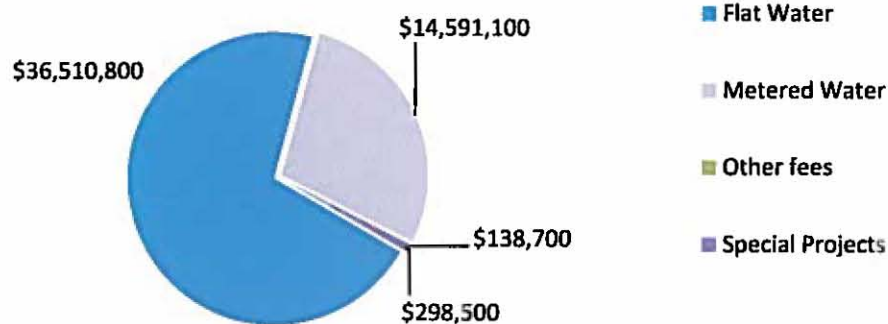
1. Infrastructure Asset Management Plan – \$40,000
Funding is to support development of an asset management plan for the entire waterworks infrastructure. This project is scheduled to be completed by May 30th.
2. Summer Water Conservation Management – \$200,000
One time funding is required for conservation measures and the development of a sustainment plan for inclusion in the water operating budget.
3. Water Air Valve Replacement Project – \$58,500
Funding is required to complete the replacement of end of life and non-performing water air valves in the water distribution system.

Water Operating Funds from prior year surplus are being used to fund these projects, which reduces the impact on the current Water Utility rates.

3.0 2016 RATE SETTING

The Waterworks Utility is self-funding. Rates are based on a user pay principle and structured to fund the cost of Burnaby's water services. The rate structure includes the funding of the City's capital infrastructure renewal programs and new water services, the supply cost of water provided by the GVWD, and the funding of operations including maintenance programs. The rate structure is divided into three categories: Flat Water, Metered Water and Other fees. Prior year surplus is used to stabilize rates and fund important one time projects. Chart 2 provides a breakdown of funding sources net of discounts.

**Chart 2 - 2016 Waterworks Utility
Sources of Funds**



For 2016 the rate increase is 2.0%. This increase is reflected in Schedule C of this report. Rate increases for 2016 and the previous five years are set out below in Table 2.

Table 2 – Rate Increases

2011	2012	2013	2014	2015	2016
11.0%	6.0%	6.0%	5.5%	3.0%	2.0%

High rate increases in 2011 and subsequent years were due to significant capital investment in the upgrading of Metro Vancouver's water treatment system. The Seymour-Capilano filtration project went into service in late 2009. More recently higher rates reflect the work on the twin tunnels linking the Capilano source with the Seymour-Capilano Filtration Plant. This project will result in improved filtration and enhanced supply, it is scheduled for completion and full operation in 2015.

Flat Water Rates

All properties pay a flat charge for water consumption unless they are metered. Flat Water rates fund 71% or \$36.5m of the Water Utility budget (after applicable discounts). The flat rate increase for a single family home is \$11.23, bringing the total to \$572.45 if payment is made on or before the due date of 2016 March 15. The charge for a single family home after the due date of 2016 March 15 will increase by 5% to \$602.58. Schedule C provides the Waterworks Rates for 2016.

Secondary Suite Rates

All Single Family Dwellings with a secondary suite or grandfathered in-law suite will pay an additional consumption charge set at 50% of the Flat Water Rate of a detached Single Family Dwelling. Two Family Dwelling units with a grandfathered in-law suite will pay an extra fee equal to 50% of the flat rate for that property type.

Metered Water Rates

An analysis of metered customer consumption has identified that annual consumption levels have dropped by a compounded average of 1.61% since 2005. Metered Water provides 28% or \$14.5m of the funding for the Waterworks Utility.

Other Rates

Other rates contained within the bylaw are subject to the general rate increase for the utility of 2% with the exception of rates impacted by the bylaw adjustments set out in section 4.0 of this report.

4.0 BYLAW REVISIONS

1. Section 15 (1), (B) and (C)

The bylaw requires that subject to Section 16, all water services shall be metered except services to:

- (a) Single-Family residences whether detached or within a multiple-family building used exclusively for residential purposes;
- (b) Commercial premises comprising not more than three stores or offices without living quarters;
- (c) Commercial premises comprising not more than three stores or offices and living quarters for one family only.

Following consultation with Engineering, it is recommended that subsections (b) and (c) be repealed, and replaced with a new subsection (b), that reads:

"Only upon determination by the City may an exception from metering be permitted. Such properties would be subject to flat rates, as set out within Schedule A of this bylaw".

2. New Section – Future Metered Service

It is recommended that the following new wording is included in the bylaw as Section 15 (3):

Section 15 (3) "All multiple-family buildings shall configure their water service or mechanical room with a sufficient straight length of pipe or spool piece to enable a future metered service".

3. New Section - Construction Water Charges

Construction water charges are currently levied through a flat one-time fee, based on the size of connection to the City's system. Flat rates have been used for a number of years and were updated for 2015; however, the current process does not allow for the accurate measurement of consumption during construction, which poses a cost risk to the City.

It is therefore recommended that the following new section be added to the bylaw:

"Construction Water Charges

- *Installation of a water meter is required during construction from the time of connection to the City's system except for Single-Family and Duplex Dwelling Units.*

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- The City is to provide and install all construction meters, regardless the size, and remove such meters at the end of construction period. The owner is responsible to cover the replacement cost if the City installed construction meter is missing at the end of the construction period.
- The owner is to pay a one-time connection fee (See Schedule A to this bylaw), in addition to the standard rate for any consumption during construction.
- The owner is to prepare the installation site, including the installation of double-check valve assembly.
- Construction meters will be read monthly by the City".

5.0 RECOMMENDATION

Schedule A (attached) reflects a Waterworks Utility rate increase of 2% with total planned revenue of \$51.5m for 2016 after the estimated 5% discount for flat and metered rates. The rate adjustments will ensure that the Water Utility continues to be financially self-sustaining and will support needed infrastructure investment. Once approved by Council, a general notice informing users of the rate increase will be placed in a local newspaper and *InfoBurnaby*. Metered users will be notified by letter.

It is recommended that Financial Management Committee recommend Council approve the amendment of the Burnaby Waterworks Regulation Bylaw to provide for the water rates contained in Schedule C as outlined in Section 3.0 of this report and Bylaw amendments as outlined in Section 4.0 of this report, effective 2016 January 01. The Director Engineering concurs with the recommendations contained in this report.



Denise Jorgenson
DIRECTOR FINANCE
DJ:RR/ml

Attachments: Schedule A – 5 Year Operating Budget
Schedule B – Cost of Water Supplied to Burnaby by Metro Vancouver (GVWD)
Schedule C – Water Rates

Copied to: City Manager
Director Engineering
City Solicitor
City Clerk

2016 WATERWORKS UTILITY - 5 YEAR OPERATING BUDGET**SCHEDULE A**

	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Annual	2016 Annual	2017 Projected	2018 Projected	2019 Projected	2020 Projected
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
EXPENDITURE										
Metro Vancouver - Cost of water	21,512,387	24,087,812	25,820,790	25,199,090	26,411,300	27,081,800	27,633,000	29,253,300	30,958,300	32,753,000
Transmission, distribution & pumping	5,273,687	5,581,493	5,671,086	6,083,121	6,908,455	7,658,800	7,888,600	8,125,300	8,369,100	8,620,200
Infrastructure Investment	13,870,000	13,315,650	14,500,000	15,001,520	15,682,345	16,000,000	16,000,000	16,000,000	16,000,000	16,000,000
Contingency	-	-	-	-	500,000	500,000	500,000	500,000	500,000	500,000
Special Projects	-	-	-	-	-	298,500	-	-	-	-
Surplus	124,038	-	-	2,347,641	-	-	-	-	-	-
TOTAL	40,780,112	42,984,955	45,991,876	48,631,372	49,502,100	51,539,100	52,021,600	53,878,600	55,827,400	57,873,200
REVENUES/ TRANSFERS										
Flat rates	29,340,124	31,367,601	33,728,080	35,837,549	37,205,800	38,267,800	38,770,600	40,127,600	41,532,100	42,985,700
Metered Rates	13,250,697	13,430,333	13,985,119	14,993,427	14,520,600	15,293,300	15,599,200	15,900,600	16,298,100	16,705,600
Discount (flat and metered)	-1,926,198	-2,025,973	-2,212,158	-2,346,159	-2,359,000	-2,459,200	-2,489,800	-2,565,800	-2,648,300	-2,733,500
Construction - Metered Charges	31,629	42,890	33,630	41,143	38,600	39,400	40,200	41,200	42,200	43,300
Construction - Flat Rate Charges	40,885	45,390	54,093	58,892	49,100	50,100	51,100	52,400	53,700	55,000
Permits and Fees	-	-	-	13,351	13,000	13,300	13,600	13,900	14,200	14,600
Other Sales of Services	42,975	29,415	23,007	33,168	34,000	35,900	36,600	37,500	38,400	39,400
Special Projects	-	-	-	-	-	298,500	-	-	-	-
Previous year's surplus brought forward	-	95,299	380,105	-	-	-	100	271,200	497,000	763,100
TOTAL	40,780,112	42,984,955	45,991,876	48,631,372	49,502,100	51,539,100	52,021,600	53,878,600	55,827,400	57,873,200
Rate Increase	11.00%	6.00%	6.00%	5.50%	3.00%	2.00%	2.00%	2.50%	2.50%	2.50%

COST OF WATER SUPPLIED TO BURNABY BY THE G.V.W.D.**SCHEDULE B**

Year	Rate Per Cubic Meter						Total volume (2)			Annual Cost to Burnaby	Increase in total cost of water to Burnaby	
	Cost/M³		Increase from previous year				purchased 000 M³					
	Off-Peak	Peak	\$		%		Peak	Off-Peak	Total			
			Off-Peak	Peak	Off-Peak	Peak						
										000 \$	000 \$	%
2011	0.5135	0.6419	0.0630	0.0788	14.0	14.0	15,135	22,975	38,109	21,512	1,288	6.4
2012	0.5437	0.6796	0.0302	0.0377	5.9	5.9	16,454	23,737	40,191	24,088	2,575	12.0
2013	0.5504	0.6880	0.0067	0.0084	1.2	1.2	17,690	24,800	42,490	25,821	1,733	7.2
2014	0.5724	0.7155	0.0220	0.0275	4.0	4.0	17,348	22,338	39,687	25,199	-622	-2.4
2015	0.5816	0.7270	0.0092	0.0115	1.6	1.6	17,118	24,014	41,132	26,411	1,212	4.8
2016	0.5926	0.7407	0.0110	0.0137	1.9	1.9	17,510	23,814	41,324	27,082	671	2.5
2017	0.6222	0.7777	0.0296	0.0370	5.0	5.0	16,192	24,171	40,363	27,633	551	2.0
2018	0.6533	0.8166	0.0311	0.0389	5.0	5.0	16,325	24,370	40,695	29,253	1,620	5.9
2019	0.6860	0.8575	0.0327	0.0408	5.0	5.0	16,454	24,562	41,016	30,958	1,705	5.8
2020	0.7203	0.9003	0.0343	0.0429	5.0	5.0	16,579	24,748	41,327	32,753	3,499	11.3
Increase 2011 - 2015			0.1311	0.1639	13.26	13.26					6,187	22.77
Projected increase 2016 - 2020			0.1387	0.1733	21.55	21.55					8,046	20.94

NOTES: 2011-2014 volumes are based on actuals up to December 31 2014.

2015 volumes are based on invoices posted for January 1 to November 2. An estimate is used for the remainder of the year based on prior year averages.

2016 volumes are based on the City of Burnaby average volume for the prior 3 years.

2017 - 2020 rates are based on an estimated 5% increase per year. Volumes for this period are based on GVWD Projections.

Finance Department
2015 November

WATERWORKS RATES**SCHEDULE C****Finance Department****2015 November****FLAT RATES**

Detached Single Family Dwelling

Two Family Dwelling, including strata, forming part of a duplex - Per Unit

Multiple Family Dwelling, including strata, not part of a duplex - Per Unit

Secondary suite, or grandfathered in-law suite in a Single Family Dwelling

Previous rate - Single Family Dwelling with one Secondary Suite or Grandfathered In-Law Suite

Grandfathered In-Law Suite in a Two Family Dwelling.

*Previous rate - Two Family Dwelling with one Grandfathered In-Law Suite Per Unit***Commercial Not More Than 3 Stores/Offices (if not on a meter)**

Commercial with living quarters, 1 family

Commercial, no living quarters

CROSS CONNECTION CONTROLS

Per Device

Minimum Per Unit

METERED RATES**Monthly**

First 300 cubic metres

Next 550 cubic metres

Next 1,400 cubic metres

Excess

Minimum monthly

Quarterly

First 900 cubic metres

Next 1,650 cubic metres

Next 4,200 cubic metres

Excess

Minimum quarterly

SPECIAL METER READING**Connection Fee****CONSTRUCTION FLAT WATER**

19 mm Connection

25 mm Connection

50 mm Connection

Construction meter connection charge

Construction meter Usage charge

MISCELLANEOUS CHARGES**I. Water Turn-on / Turn-off request (per occurrence)****Regular hours:** 7am to 11 pm Monday to Friday except statutory holidays**After hours:** 11pm to 7am Mon - to Fri, weekends and statutory holidays**II. Fire Hydrant**

Permit (Inspection fee)

Water use per day

Damage deposit (refundable)

III. Meter Test or retest

16 mm, 19 mm, 25 mm, 32 mm, 38 mm or 50 mm meters

76 mm, 102 mm, 152 mm or meters over 152 mm

IV. Rain Barrels (Inclusive of GST/PST)

Small

Large

Delivery fee

General Rate Increase

Effective Jan 1 2015 Paid by Mar. 15	Effective Jan 1 2015 Paid after Mar. 15	Effective Jan 1 2016 Paid by Mar. 15	Effective Jan 1 2016 Paid after Mar. 15
\$	\$	\$	\$
561.22	590.76	572.45	602.58
420.85	443.00	429.34	451.94
322.26	339.22	328.70	346.00
<u>New rate structure for 2016</u>		286.23	301.29
841.83	886.14	N/A	N/A
<u>New rate structure for 2016</u>		214.67	225.97
631.27	664.50	N/A	N/A
1122.44	1,181.52	1144.89	1,205.15
561.22	590.76	572.45	602.58
50.43	53.08	51.44	54.15
6.31	6.64	6.46	6.80
Paid within 30 days of billing date	Paid 31 or more days after billing date	Paid within 30 days of billing date	Paid 31 or more days after billing date
1.490	1.568	1.520	1.600
1.490	1.568	1.520	1.600
1.490	1.568	1.520	1.600
1.490	1.568	1.520	1.600
46.77	49.23	47.70	50.21
1.490	1.568	1.520	1.600
1.490	1.568	1.520	1.600
1.490	1.568	1.520	1.600
1.490	1.568	1.520	1.600
140.30	147.68	143.103	150.63
No discount	77.25	No discount	78.80
Per agreed cost of connection		Per agreed cost of connection	
No discount	1,320.00	Discontinued	
No discount	3,440.00	Discontinued	
No discount	10,500.00	Discontinued	
N/A	N/A	No discount	200.00
N/A	N/A	As per Metered rates	
No discount	51.50	No discount	52.53
No discount	154.50	No discount	157.59
No discount	154.50	No discount	157.59
No discount	25.75	No discount	26.27
No discount	515.00	No discount	525.30
No discount	118.45	No discount	120.82
No discount	231.75	No discount	236.39
No discount	30	No discount	30.60
No discount	70	No discount	71.40
No discount	5	No discount	5.10
3.00%	3.00%	2.00%	2.00%