



ADMINISTRATIVE REPORT

Report Date: November 27, 2018
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Meeting Date: December 11, 2018

TO: Vancouver City Council
FROM: General Manager of Engineering Services
SUBJECT: 2019 Annual Review of Water Rates and Water Works By-law Amendments

RECOMMENDATION

- A. THAT Council approve, in principle, proposed amendments to the Water Works By-law related to housekeeping and billing, generally as set out in Appendix B.
- B. THAT Council approve the 2019 rates and fees under the Water Works By-law, with the following recommended increases: 9.7% increase in the per unit flat fee for Single Dwelling (from \$653 per unit in 2018 to \$716 per unit in 2019); 9.7% increase in per unit Metered Rate in off season (from \$2.849 in 2018 to \$3.125 in 2019) and peak season (from \$3.571 in 2018 to \$3.917 in 2019); 2.2% increase for Water Flat Rate Connection Fees for Single and Two Family dwellings; 2.2% for all other Water Flat Rate Connection Fees (as listed in Appendix A, Schedule A); and varied increases for all other Water Utility User Rates (as listed in Appendix A, Schedules B, C, E, F, G and H).
- C. THAT Council instruct the Director of Legal Services to bring forward for enactment the necessary amendments to the Water Works By-law, generally as set out in Appendix B.

REPORT SUMMARY

Each year, staff reviews all costs related to the Water Utility and recommend rates for the year to come. This is also an opportunity for staff to provide an update to Council and the public on the objectives of the Utility and what progress has been made towards those objectives.

In this report are updates on 2018 overall performance and some specific initiatives already underway such as seismic improvements, conservation efforts, and the Pay as You Go strategy for debt financing. Also, included in this report is a look ahead to work planned in 2019.

This report seeks Council approval of the recommended 2019 rates and fees for water service, which incorporates a 9.7% increase for single family flat rates and consumption driven metered rates; 2.2% increase for Water Flat Rate Connection Fees for Single and Two Family dwellings; 2.2% increase for meter service charges; and 2.2% increase for other user rates. These increases achieve full cost recovery for water services as well as investing in a program that will reduce future financing costs. Finally, also proposed are housekeeping and minor amendments to the Water Works By-law.

COUNCIL AUTHORITY/PREVIOUS DECISIONS

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.

In 2001, Council endorsed the Greater Vancouver Regional District Board (Metro Vancouver) decision to construct the Capilano Seymour filtration plant.

On December 13, 2011, Council adopted the 2011-2014 Greenest City Clean Water Work Plan including By-law revisions requiring residential water metering for all new single family and duplex properties.

On December 13, 2011, Council approved transition from a uniform volumetric rate for commercial and residential metered customers to a seasonal rate consisting of two different rates for low and high seasons.

On November 27, 2012, Council approved the establishment of a peak and off-peak seasonal rate structure for all remaining metered properties.

On November 27, 2012, Council approved By-law revisions that changed billing frequency to 3 reads and 3 bills per year to better align with seasonal rates.

On November 4, 2015, Council adopted the 2016-2020 Greenest City Clean Water Work Plan to expand water conservation programs.

On November 1, 2017, Council adopted the recommendation to broaden the water conservation program to include non-potable water resources (rain water, ground water, and waste water) to address long term water demands.

CITY MANAGER'S/GENERAL MANAGER'S COMMENTS

The General Manager of Engineering Services recommends approval of recommendations A, B and C above.

REPORT

Background/Context

The City's water system is comprised of approximately 1,474 km of water mains that distribute water to more than 101,000 service connections and 6,600 fire hydrants. All water supplied to the City is purchased from Metro Vancouver, which is responsible for supply reservoirs, treatment, and delivery of water to the City system.

The capital cost for timely replacement of these assets, the operating costs of maintaining the system and the cost to purchase water from Metro Vancouver make up the total costs of the water system. The City's water rates and fees are designed to fully recover all of these costs so that no costs related to the delivery of water are included in the general tax levy. In the City of Vancouver, all sectors are fully metered except for single and dual family homes.

In 2012, Council implemented the policy to achieve a fully metered water system over time by requiring meters for all new single-family and duplex properties undergoing redevelopment or major renovations. Currently, 8.0% or 6,800 of single-family and duplex properties are metered.

Strategic Analysis

The Water Utility has a mandate to provide the best drinking water of any major city in the world by 2020, to use potable water efficiently to extend the life of our current water supplies, to ensure continued availability for consumption and fire suppression, and to ensure we are prepared for emergencies.

As part of a strategic asset management approach, the City evaluates asset condition based on system performance and industry benchmarks. To ensure reliable performance of the system and minimize failures, the City should be renewing the system at a rate of approximately 1.0% per year. The current asset condition assessment indicates that 27.0% of the system is in poor condition and the current rate of renewal of 0.5% is not sufficient to improve the overall system condition which would continue to deteriorate. The approved 2019-2022 Capital Plan considers an increase to the rate of renewal, targeting 0.7% per year by the end of the plan, and future plans will consider further increases to ensure assets are maintained in a state of good repair.

The water distribution network, valued at \$2.5 billion, is made of 1,474 km of buried pipelines, including over 6,600 fire hydrants, 30,000 valves, and 19,000 water meters. The system is carefully managed using an asset management process.

Water Works also operates a dedicated fire protection system for the downtown area valued at \$80 million consisting of 12 km of dedicated high pressure pipes and 2 pumping stations. In an emergency, salt water can be used to provide fire protection, if the potable water supply is interrupted.

Key services delivered

- **Water distribution service** — Providing clean water to businesses, residents and communities and serving growth. Ensuring that water system assets are in good condition and well managed by replacing aging and deteriorating infrastructure.
- **Emergency preparedness** – Supporting emergency preparedness through response planning and increasing resiliency by strategically strengthening infrastructure.

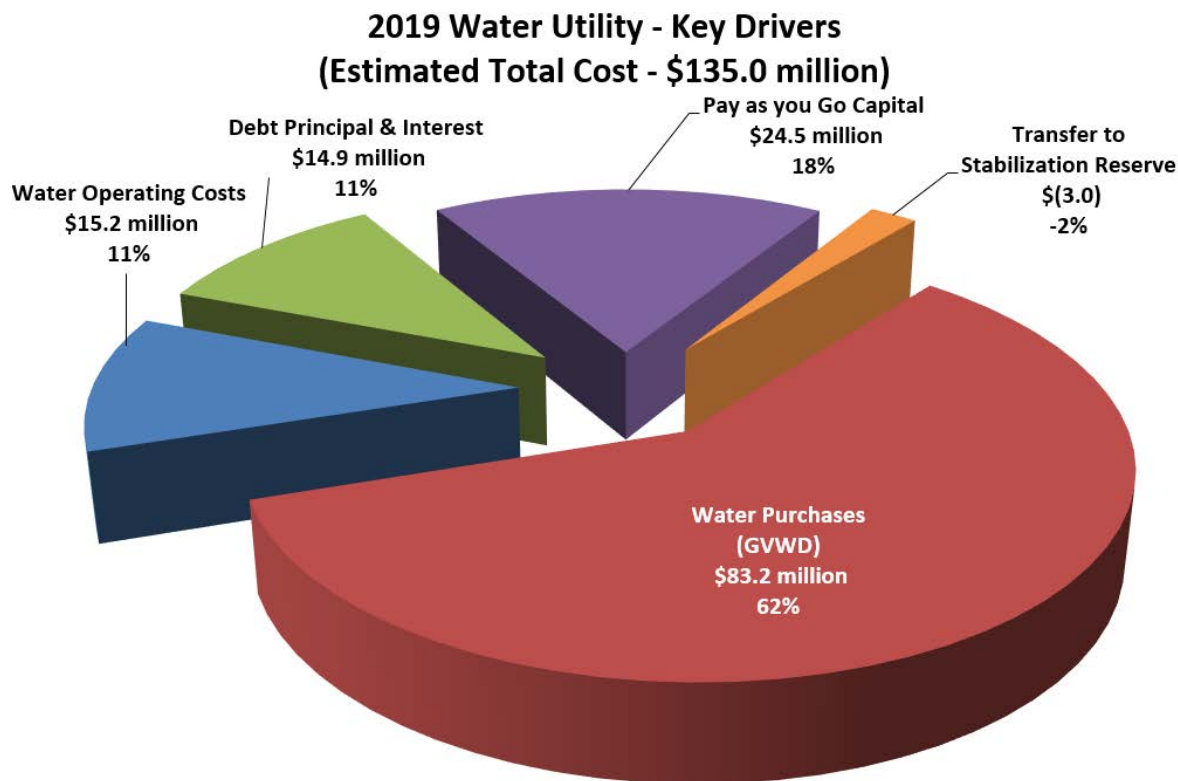
- **Water conservation and resource management** – Enabling the efficient use of water corporately and in the community.

Financial Implications

Key Cost Drivers

The Water Utility expenditures consist of four (4) key cost drivers: water purchased from Metro Vancouver which makes up 62.0% of the budget, City of Vancouver's operating costs which make up about 11.0% of the total budget, and costs associated with Water Works Capital Plan expenditures which make up about 29.0% of the budget as shown graphically in Figure 1 below. A description of each component and its related activities follows.

Figure 1 – Water Utility Costs



Water Purchases

As discussed, the City of Vancouver and other Lower Mainland municipalities purchase water from Metro Vancouver based on consumption. The cost to purchase water is the largest cost driver in the Water Utility. The cost of water to the City of Vancouver is driven by the price per cubic metre that Metro charges all member municipalities, as well as the consumption within the City itself.

Significant increases to the regional cost of water since 2004 are a result of regional capital water quality initiatives - primarily the Seymour-Capilano Filtration project and the associated twin tunnel project between Capilano and Seymour Lakes. These initiatives have resulted in greatly improved water quality in the region. We are now seeing stabilized rate increases from Metro as all of the costs for the treatment plant have now been built into their wholesale rates.

Although water consumption is higher than expected this year, the success of water conservation programs in the city has led to a trend of declining water consumption over time. Since most of the costs associated with the delivery of water are fixed costs, over time there will be an upward trend in the price per unit of water as consumption continues to decline, but this will be offset to some extent by the avoided cost of deferrals in capacity expansion in the Metro system.

Capital Program

For the 2019-2022 Capital Plan, the water capital program will be fully funded on a pay-as-you-go basis. The current debt charges represent past borrowing, so the reduction of debt charges from moving to pay-as-you-go will be realized gradually.

Operating and Maintenance

These are the costs associated with cleaning, repairing, inspecting and managing the infrastructure, as well as, emergency response for main breaks and other trouble calls. This also includes customer billing and general administration.

2018 Budget Performance

Table 2 summarizes the operating budget and current forecast for the Water Utility in 2018.

Table 2 – 2018 Budget Performance

Water Utility (\$ millions)	2018 Forecast	2018 Budget	\$ Variance	% Variance
Water Consumption Volume	112,733,531	114,260,458		
Revenues				
Metered Rate Revenues	\$ 64.9	\$ 65.4	\$ (0.5)	-0.7%
Flat Rate Revenues	51.2	49.9	1.3	2.5%
Meter Service Charges	4.4	4.0	0.4	9.3%
Flat Rate Fire Line Charges	3.3	2.9	0.4	14.6%
Other Revenues	0.8	0.7	0.1	10.9%
Total Revenues	\$ 124.5	\$ 122.9	\$ 1.7	1.3%
Expenses				
Water Purchases (GVWD)	\$ 79.0	\$ 79.4	\$ 0.4	0.5%
Total Waterworks Operations	14.8	15.4	0.6	3.8%
Debt Interest	4.1	4.1	-	0.0%
Total Expenses	98.0	98.9	1.0	1.0%
Transfers				
Debt Principal	10.5	10.5	-	0.0%
Pay As you Go Capital	13.5	13.5	-	0.0%
Transfer to/(from) Stabilization Reserve	2.6	-	(2.6)	0.0%
Total Transfers	26.6	24.0	(2.6)	-10.9%
Total Expenses & Transfers	\$ 124.5	\$ 122.9	\$ (1.7)	-1.3%
Surplus/(Deficit)	\$ -	\$ -	\$ -	0.0%

**Tables may not sum due to rounding. The purpose of this table is to explain budget performance. Additional revenue is reported as positive and additional expenditures as negative.*

2018 Revenues

The current forecast for metered revenues is about \$0.5 Million less than budgeted. Metered rate revenues are estimated as a percentage of total water consumption, which is lower than budgeted this year. Flat rate revenues are higher than budgeted due to additional revenue generated from the flat rate units that have a laneway or suite and as a result are charged the higher unit rate.

The 2018 budget was based on a forecast that total per capita use would decrease from the previous year by about 1.5%; water consumption in 2018 has been lower than budgeted. This can be attributed in part to the effectiveness of water conservation efforts supporting increased efficiency and mitigating water wastage, specifically new outdoor watering regulations passed by Council earlier this year and the continued adoption of eliminating non-recirculating systems that use drinking water, such as in once through cooling systems. Programs that support shifts in water use behaviours and decision making have also contributed, including the Water Ambassador Program which provided home owners with free irrigation assessments to ensure their automatic irrigation systems were programmed according to the regulations and operating efficiency and effectively.

Meter service charges and fire line charges, which apply only to multi-family and commercial accounts, are also higher than anticipated due to an increase in the number of these accounts in recent years.

Other revenues include administrative fees for cross connection control, permit fees for high water use air conditioning units and various other cost recovery fees as set out in the Water Works By-law. These were favourable to budget in 2018.

2018 Expenditures

As previously stated, the largest driver of expenses in the Water Utility is the purchase of bulk water from Metro Vancouver. This expense is also based on water consumption, which is forecasted to be 1.0% lower than estimated in the 2018 budget.

2018 Transfers

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.

In 2018, there was no budgeted transfer to the Reserve to fund water conservation efforts; however, for this year \$2.6 million is expected to be contributed to the reserve. This variance is due to higher than budgeted revenue, lower than budgeted water purchases and lower operating costs, which are largely offset by a transfer to the Connections program.

2019 Proposed Budget and Rates

Water utility rates will increase by 9.7% or \$63 per year for a single-family residence. This increase is necessary due to:

- An increase of 5.8% in Metro Vancouver water rates that fund infrastructure improvements throughout the region, including improvements to reservoirs and filtration to provide a high-quality water supply as Vancouver grows.
- An increase in funding for water capital projects relating to the approved 2019-2022 Capital Plan.
- Cost increases to deal with maintenance of the aging infrastructure.

Actual water consumption is lower than budgeted in 2018 and the longer term trend demonstrates an overall reduction in per capita use. The enhanced strategic water conservation activities and additional investment in water conservation programs, planned over the next few years, are expected to further contribute to the downward per capita trend. The water consumption volume budget for 2019 has been set at 113,000,000m³ and actual usage will be influenced by many factors including changes in weather and the impacts of future population growth.

The 2019 proposed budget is summarized in Table 3 with the restated 2018 budget and forecast for comparison.

Table 3 – Proposed 2019 Budget

Water Utility (\$ millions)	2018 Budget	2019 Proposed	\$ Change from 2018 Budget	% Change
Water Consumption Volume	114,260,458	113,000,000		
Revenues				
Metered Rate Revenues	\$ 65.4	\$ 71.0	\$ 5.6	8.6%
Flat Rate Revenues	49.9	55.4	5.5	11.0%
Meter Service Charges	4.0	4.5	0.5	11.7%
Flat Rate Fire Line Charges	2.9	3.3	0.5	16.3%
Other Revenues	0.7	0.7	0.0	0.0%
Total Revenues	\$ 122.9	\$ 135.0	\$ 12.1	9.8%
Expenses				
Water Purchases (GVWD)	\$ 79.4	\$ 83.2	\$ 3.8	4.8%
Total Waterworks Operations	15.4	15.2	(0.1)	-0.8%
Debt Interest	4.1	4.2	0.1	1.8%
Total Expenses	98.9	102.7	3.8	3.8%
Transfers				
Debt Principal	10.5	10.7	0.2	2.3%
Pay As you Go Capital	13.5	24.5	11.0	81.7%
Transfer to/(from) Stabilization Reserve	-	(3.0)	(3.0)	0.0%
Total Transfers	24.0	32.3	8.3	34.5%
Total Expenses & Transfers	\$ 122.9	\$ 135.0	\$ 12.1	9.8%
Surplus/(Deficit)	\$ -	\$ -	\$ -	0.0%

* Tables may not sum due to rounding. The purpose of this table is to present year-over-year changes in the budget as presented in the 2019 Budget Book where both additional revenue and expenses are presented as positive changes.

2019 Revenues & Proposed Rates

For both metered customers and flat-fee single-family dwellings, a 9.7% rate increase is recommended for 2019. Since 2012, all new single-family dwellings must be metered and no longer pay the flat fee. The 2019 budget for flat-rate revenues reflects the 9.7% rate increase and a change to better reflect the types of housing subject to flat fees, such a higher number of single-family dwellings with lane way or suites. As a result of these changes, water rates for single-family dwellings are projected to be \$716 versus \$653 in 2018.

Also, recommended are inflationary increases of 2.2% for fire line charges and meter service charges. Both the revenue and expense changes for meter service charges and fire line charges reflect an increase in the number of accounts over the last several years.

2019 Expenditures

The increase for the 2019 water purchase budget is \$3.8 million, of which a \$4.6 million increase is due to a Metro Vancouver price increase of 5.8% offset by a \$0.8 million decrease due to decreased volume. Water Works operational costs have remained largely flat due to new

investments and inflationary increases being off-set by the 2018 One Water Strategy program being moved to Capital (now Integrated Water Resource Planning).

2019 Transfers

In 2012, the Water Works utility began paying a portion of its annual capital program from utility fees; as a result, debt service charges are decreasing. The plan is to increase the pay-as-you-go contribution until all new capital expenditures are covered through current revenues; ultimately, this will eliminate the debt interest expense. In 2019, City staff recommends a \$11.0 million increase in the pay-as-you-go contribution from \$13.5 million to \$24.5 million to expand the capital work and address the increasing level of service breaks and costs of aging infrastructure, per the approved 2019-2023 Capital Plan. The current debt charges represent past borrowing and will continue to decrease over time as current borrowing is gradually eliminated.

Staff proposes to transfer \$3.0 million from the Water Rates Stabilization Reserve in 2019 to mitigate what would otherwise be a higher year-over-year rate increase.

Five Year Outlook

Table 4 summarizes the five (5) year outlook for the Water Utility and the following paragraphs discuss the assumptions used.

Table 4 – Water Utility Five-year Outlook

Water Utility (\$ millions)	2019	2020	2021	2022	2023
Assumptions:					
Water Consumption Volume	113,000,000	113,000,000	113,000,000	113,000,000	113,000,000
Metro Price Increase	5.8%	10.9%	11.0%	11.7%	11.6%
City Rate Increase	9.7%	9.8%	9.8%	9.6%	9.8%
Revenues					
Metered Rate Revenues	\$ 71.0	\$ 77.9	\$ 85.6	\$ 93.8	\$ 103.0
Flat Rate Revenues	55.4	59.9	64.7	69.8	75.3
Meter Service Charges	4.5	4.6	4.7	4.8	4.9
Flat Rate Fire Line Charges	3.3	3.4	3.5	3.5	3.6
Other Revenues	0.7	0.7	0.7	0.7	0.7
Total Revenues	135.0	146.5	159.1	172.6	187.5
Expenses					
Water Purchases (GVWD)	83.2	92.3	102.5	114.5	127.7
Total Waterworks Operations	15.2	15.6	15.9	16.2	16.5
Total Expenses	98.5	107.9	118.3	130.6	144.2
Transfers					
Debt Transfers & Interest	14.9	13.1	9.9	6.9	4.7
Pay As you Go Capital	24.5	24.0	30.9	33.6	40.9
Transfer to/(from) Stabilization Reserve	(3.0)	1.6	-	1.4	(2.3)
Total Transfers	36.5	38.6	40.8	42.0	43.3
Total Expenses & Transfers	135.0	146.5	159.1	172.6	187.5
Surplus/(Deficit)	\$ -	\$ -	\$ -	\$ -	\$ -

**Tables may not sum due to rounding – some of the revenues are grouped in Cost recoveries, grants & donations and Other revenue in the budget book*

Table 4 assumes a flat level of consumption, with the assumption that conservation measures off-set population increase. This is a conservative approach for financial planning purposes, which will be reviewed annually as water consumption results are realized.

The price of water purchases from the GVWD (Metro Vancouver) is increasing 5.8% in 2018. The following four (4) years are forecasted to increase between 10.9-11.6%. These increases are based on projected operating and capital costs for supply reservoirs, treatment, and delivery of high quality water to the City. However, the actual rate increases in recent years have been below the forecasted rate increases. In addition, continued water conservation efforts, including educational and demand management programs, contribute to the decreased use of regional drinking water, resulting in savings to residents who ultimately pay a smaller portion of regional infrastructure related costs.

Debt charges will continue to decrease due to the pay-as-you-go strategy, because we have reduced our debenture borrowing since the program started in 2012. By increasing the Pay as You Go contribution per year, all new routine capital spending for the transmission and distribution main work will be from current revenues sooner than anticipated, eliminating the need to borrow for ongoing capital programs.

While City operating costs are showing inflationary increases for the purpose of this forecast, staff will continue to look for ways to provide the same service at a lower cost.

An increase to the budget to repair main breaks and impacted roadways has been incorporated into the outlook. Since 2012, the number of main breaks has increased over 30.0%, a strong indication of an aging water system. This budget increase does not include unanticipated needs that may emerge as a result of a spike in leaks or breaks beyond the multi-year trend. Pipe breaks tend to fluctuate year to year and is dependent on weather conditions, system pressures and pipe age. Single year anomalies will require an offset from reserve funding, whereas an increased trend beyond what is currently anticipated would require additional program funding as an appropriate response.

Housekeeping By-law Amendments

Certain housekeeping amendments are proposed, including amendments further to fee increases which include updates to the cross connection control schedules, and an amendment to ensure that notices under the By-law are also sent to the owners of the property if the owner's address differs from the address of the premises.

Connection Fees

All new development and major renovation projects in the City are required to install water and combined water and sewer connections on private property and pay connection fees for the corresponding connections on City property. These fees are updated regularly to ensure cost recovery.

Connection fees are collected prior to the timing of the actual work and are based on an average price model and the underlying complexities can vary by job and by job type. Fee

increases are required to cover annual inflationary increases for construction costs, as well as to account for the timing of work being performed.

As of September 2018, the increase in the 12-month average Consumer Price Index (CPI) for Metro Vancouver was 2.9%. Certain non-wage items such as electricity and gasoline have increased in the range of 2.8% to 12.1% over the past year. The Conference Board of Canada forecasted that the CPI for Metro Vancouver would increase 2.2% for 2019 and 2.0% for 2020 through 2022.

To maintain full cost recovery, it is recommended that a 2.2% increase be approved for Water Flat Rate Connection Fees for Single-Family and Two Family Dwellings, while a 2.2% increase is recommended for approval for all other Water Flat Rate Connection and Removal fees.

Legal Implications

The amendments to the Water Works By-law are contained in Appendix B.

In addition to the annual rate and fee changes, a number of minor updates are recommended to the By-law wording to support billing and account administration. The Director of Legal Services has also taken the opportunity to make some editorial changes to the By-law to modernize language, improve consistency and readability.

CONCLUSION

Rates for water services are adjusted annually to offset cost increases in the water utility, including operating and debt costs and water purchases from Metro Vancouver. Based on a review of the proposed water costs for 2018, it is recommended that flat and metered water fees be increased by 9.7%, service and connection fees be increased by 2.2% and Fire Line Charges and Meter Service Charges be increased by 2.2% as described in this report.

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Appendix A
Water Works By-Law No. 4848
2019 Rate Changes

Schedule A Flat Rate Connection Fees

	2018	Proposed 2019	% Increase
<u>Single-Family & Two-Family Dwellings</u>			
20 mm (3/4")	\$5,901	\$6,031	2.2%
25 mm (1")	\$6,110	\$6,244	2.2%
40 mm (1 1/2")	\$7,346	\$7,508	2.2%
50 mm (2")	\$8,146	\$8,325	2.2%
<u>Other Connections</u>			
20 mm (3/4")	\$9,907	\$10,125	2.2%
25 mm (1")	\$10,307	\$10,534	2.2%
40 mm (1 1/2")	\$11,894	\$12,156	2.2%
50 mm (2")	\$11,894	\$12,156	2.2%
100 mm (4")	\$17,197	\$17,575	2.2%
150 mm (6")	\$21,270	\$21,738	2.2%
200 mm (8")	\$23,227	\$23,738	2.2%
300 mm (12")	\$32,688	\$33,407	2.2%

Schedule A.1 Removal Fees

	2018	Proposed 2019	% Increase
20mm (3/4") to 50mm (2") inclusive	\$1,153	\$1,178	2.2%
100mm (4") to 300mm (12") inclusive	\$3,457	\$3,533	2.2%

Schedule B Flat Service Charges for Residential Properties

	2018	Proposed 2019	% Increase
Single dwelling unit	\$653	\$716	9.7%
Single-Family with suite or laneway house	\$885	\$971	9.7%
Single-Family with suite and laneway house	\$1,118	\$1,226	9.7%
For each strata title duplex	\$442	\$485	9.7%
Parking Lot/Community Garden	\$201	\$220	9.7%
Water Service - Turned Off	\$148	\$162	9.7%
Other Property	\$148	\$162	9.7%

Schedule C Flat Service Charges for Unmetered Fire Service Pipes

	2018	Proposed 2019	% Increase
50 mm (2") or smaller	\$226	\$231	2.2%
75 mm (3")	\$340	\$347	2.2%
100 mm (4")	\$469	\$479	2.2%
150 mm (6")	\$541	\$553	2.2%
200 mm (8")	\$634	\$648	2.2%
250 mm (10")	\$674	\$689	2.2%
300 mm (12")	\$722	\$738	2.2%

Schedule D Charges for Metered Water Service

		2018	Proposed 2019	% Increase
Four Month Period		Rate in Dollars per Unit (2,831.6 litres)		
Rate for all metered uses				
October 1 - May 31	Per Unit	\$2.849	\$3.125	9.7%
June 1 - September 30	Per Unit	\$3.571	\$3.917	9.7%

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.

Per Four Monthly Period	2018	Proposed 2019	% Increase
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Services with Standard Type Meters

17 mm (1/2") and 20 mm (3/4")	\$32	\$33	2.2%
25 mm (1")	\$32	\$33	2.2%
40 mm (1 1/2")	\$69	\$71	2.2%
50 mm (2")	\$96	\$98	2.2%
75 mm (3")	\$215	\$220	2.2%
100 mm (4")	\$262	\$268	2.2%
150 mm (6")	\$341	\$349	2.2%
200 mm (8")	\$528	\$540	2.2%
250 mm (10")	\$647	\$661	2.2%
300 mm (12")	\$767	\$784	2.2%

Services with Low Head Loss Meters / Detector Check Valves

100 mm (4")	\$303	\$310	2.2%
150 mm (6")	\$443	\$453	2.2%
200 mm (8")	\$594	\$607	2.2%
250 mm (10")	\$741	\$757	2.2%
300 mm (12")	\$884	\$903	2.2%

Schedule F Charges for Temporary Water Service during Construction

Building Size in Square Meters of Gross Floor Area	2018	Proposed 2019	% Increase
	Rate in Dollars of Gross Floor Area Per Building		
Up to an including 500 sq.m	\$288	\$316	9.7%
Over 500 but not exceeding 2,000	\$564	\$619	9.7%
Over 2,000 but not exceeding 9,000	\$848	\$930	9.7%
Over 9,000 but not exceeding 24,000	\$1,426	\$1,564	9.7%
Over 24,000 but not exceeding 45,000	\$2,133	\$2,340	9.7%
Over 45,000	\$2,830	\$3,105	9.7%

Schedule G Fees for Installation of Residential Water Meters

Single-Family & Two-Family Dwellings

20 mm (3/4") meter assembly and box	\$1,144	\$1,169	2.2%
25 mm (1") meter assembly and box	\$1,248	\$1,275	2.2%

Fees for Installation of Water Meters

Size of Standard Meter	Meter on City Property	2018	Proposed 2019	% Increase
20 mm (3/4")		\$3,324	\$3,397	2.2%
25 mm (1")		\$3,475	\$3,551	2.2%
40 mm (1 1/2")		\$3,787	\$3,870	2.2%
50 mm (2")		\$3,915	\$4,001	2.2%
75 mm (3")		\$13,663	\$13,964	2.2%
100 mm (4")		\$14,941	\$15,270	2.2%
150 mm (6")		\$48,797	\$49,871	2.2%
200 mm (8")		\$50,188	\$51,292	2.2%
250 mm (10")		\$67,806	\$69,298	2.2%
300 mm (12")		\$74,973	\$76,622	2.2%

Size of Standard Meter	Meter on Private Property	2018	Proposed 2019	% Increase
20 mm (3/4")		\$525	\$537	2.2%
25 mm (1")		\$606	\$619	2.2%
40 mm (1 1/2")		\$809	\$827	2.2%
50 mm (2")		\$1,116	\$1,141	2.2%
75 mm (3")		\$2,464	\$2,518	2.2%
100 mm (4")		\$3,744	\$3,826	2.2%
150 mm (6")		\$7,939	\$8,114	2.2%
200 mm (8")		\$9,496	\$9,705	2.2%
250 mm (10")		\$19,139	\$19,560	2.2%
300 mm (12")		\$26,308	\$26,887	2.2%

Schedule H Miscellaneous Fees and Charges

	2018	Proposed 2019	% Increase
Cross Connection Control Administration Fees			
First Assembly	\$30	\$31	2.2%
Additional Assembly	\$13	\$13	2.2%
Extra charge for inaccessible meter (per incident)	\$75	\$77	2.2%
Special meter reading (per occurrence)	\$100	\$102	2.2%
Customer requested meter test (deposit)	\$200	\$204	2.2%
Charges for Returned Cheques	\$35	\$36	2.2%
Residual Water Pressure Estimate Fee			
Original calculation	\$36	\$37	2.2%
Additional copies for same location	\$10	\$10	2.2%
Miscellaneous water information requests (per hour)	\$45	\$46	2.2%
City Crew call out fee (normal working hours) (per hour or portion thereof)	\$100	\$102	2.2%
City Crew call out fee (outside normal working hours) (per hour or portion thereof)	\$200	\$204	2.2%
Frozen pipe thawing	at cost	at cost	

**DRAFT By-law to amend Water Works By-law No. 4848
Regarding 2019 Water Rates and Fees and Housekeeping Amendments**

Note: A By-law will be prepared generally in accordance with the provisions listed below, subject to change and refinement prior to posting.

1. In section 1.1, Council adds the following new definition in the correct alphabetical order:
“ “CLEAR-WATER WASTE” means waste water with impurity levels that will not be harmful to health and may include cooling water and condensate drainage from refrigeration and air-conditioning equipment and cooled condensate from steam heating systems, but does not include storm water; “.
2. In section 1.5, Council strikes out subsection (a) and substitutes the following:
“(a) four days after mailing, if sent by ordinary prepaid mail to the address of the premises which are the subject of the notice, and to the owner’s address as it appears on the records of the British Columbia Assessment Authority if the owner’s address differs from the address of the premises;”.
3. In subsection 3.8(a), Council strikes out “using fire sprinklers”.
4. In Schedule I, Backflow Preventer – Premises Isolation, Council strikes out the footnote number “1” in the title of the final column, “Type of Backflow Preventer”, wherever it appears.
5. In Schedule J, Backflow Preventer – Fixture Isolation, Council:
 - (a) adds the following titles to each column:
“

Type of Facility or Premises	Health Hazard Classification	Type of Backflow Preventer
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”.
 - (b) adds the following new row in the correct alphabetical order:
“Non-potable Water System, using rainwater or clear-water waste – Potable Make-up Water High AG”;
 - (c) strikes out “Ice Machine - Water Feed – See Note #1” and substitutes “Ice Machine – Water Feed²”;
 - (d) strikes out “Dental Equipment – Water Supply to Dental Chair – For Multiple Chairs on one Dedicated Water Connection – See Note #1” and substitutes “Dental Equipment – Water Supply to Dental Chair – For Multiple Chairs on One Dedicated Water Connection¹”;

- (e) strikes out “Dockside Water Connection – For Multiple Connections to a Dedicated Water Connection – See Note #1” and substitutes “Dockside Water Connection – For Multiple Connections to a Dedicated Water Connection¹”;
 - (f) strikes out “Ice Machine – Water Feed – See Note #1 Below” and substitutes “Ice Machine – Water Feed¹”;
 - (g) strikes out “Medical Equipment – Dialysis Equipment – For Multiple Dialysis Machines on One Dedicated Water Connection – See note #1 Below” and substitutes “Medical Equipment – Dialysis Equipment – For Multiple Dialysis Machines on One Dedicated Water Connection¹”; and
 - (h) strikes out “Pedicure Spa/Bowl – For Multiple Pedicure Spa/Bowls on one Dedicated Water Connection – See Note #1 Below” and substitutes “Pedicure Spa/Bowl – For Multiple Pedicure Spa/Bowls on one Dedicated Water Connection¹”.
6. Council strikes out Schedules A, B, C, D, E, F, G and H and substitutes the following:

“SCHEDULE A
Flat Rate Connection Fees
And Service Pipe Removal Fees

Flat Rate Connection Fees

<i>Service Pipe Size</i>	<i>Single-Family and Two-Family Dwelling with or without a Laneway House</i>
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20 mm (3/4")	\$6,031.00
25 mm (1")	6,244.00
40 mm (1 1/2")	7,508.00
50 mm (2")	8,325.00

<i>Service Pipe Size</i>	<i>Other Connections</i>
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20 mm (3/4")	\$10,125.00
25 mm (1")	10,534.00
40 mm (1 1/2")	12,156.00
50 mm (2")	12,156.00
100 mm (4")	17,575.00
150 mm (6")	21,738.00
200 mm (8")	23,738.00
300 mm (12")	33,407.00

Service Pipe Removal Fees

Service Pipe Size

20 mm (3/4") to 50 mm (2") inclusive	\$1,178.00
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100 mm (4") to 300 mm (12") inclusive	3,533.00
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SCHEDULE B
Annual Flat Rate Service Charges for Residential Properties

The following charges apply to unmetered single family dwellings and dwellings comprising not more than two separate dwelling units:

Single Dwelling Unit	\$716.00
Single-Family with suite or laneway house	971.00
Single-Family with suite and laneway house	1,226.00
For each strata title duplex	485.00
Parking Lot/Community Garden	\$220.00
Water Service - Turned Off	162.00
Other Property	162.00

SCHEDULE C
Annual Flat Rate Service Charges for Unmetered Fire Service Pipes

Fire Service Pipe Size

50 mm (2") or smaller	\$231.00
75 mm (3")	347.00
100 mm (4")	479.00
150 mm (6")	553.00
200 mm (8")	648.00
250 mm (10")	689.00
300 mm (12")	738.00

SCHEDULE D
Charges for Metered Water Service

<i>Four Month Period</i>	<i>Rate In Dollars per Unit (2,831.6 Litres)</i>
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Rate for all metered uses

October 1 - May 31	Per unit	\$3.125
June 1 - September 30	Per unit	\$3.917

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:

Per Four Month Period

Services with Standard Type Meters

17 mm (1/2") and 20 mm (3/4")	\$ 33.00
25 mm (1")	33.00
40 mm (1 1/2")	71.00
50 mm (2")	98.00
75 mm (3")	220.00
100 mm (4")	268.00
150 mm (6")	349.00
200 mm (8")	540.00
250 mm (10")	661.00
300 mm (12")	784.00

Services with Low Head Loss Meters/Detector Check Valves

100 mm (4")	\$310.00
150 mm (6")	453.00
200 mm (8")	607.00
250 mm (10")	757.00
300 mm (12")	903.00

SCHEDULE F
Charges for Temporary Water Service During Construction

<i>Building Size in Square Meters of Gross Floor Area</i>	<i>Rate in Dollars of Gross Floor Area Per Building</i>
Up to and including 500	\$316.00
Over 500 but not exceeding 2,000	619.00
Over 2,000 but not exceeding 9,000	930.00
Over 9,000 but not exceeding 24,000	1,564.00
Over 24,000 but not exceeding 45,000	2,340.00
Over 45,000	3,105.00

SCHEDULE G
Fees for Installation of Water Meters

Fees for Installation of Water Meters for Single and Two Family Dwellings with or without a Laneway House

Size of Standard Meter

20 mm (3/4") meter assembly and box	\$1,169
25 mm (1") meter assembly and box	\$1,275

Fees for Installation of Water Meters on Other Connections

<i>Size of Standard Meter</i>	<i>Meter on City Property</i>	<i>Meter on Private Property</i>
20 mm (3/4")	\$ 3,397.00	\$ 537.00
25 mm (1")	3,551.00	619.00
40 mm (1 1/2")	3,870.00	827.00
50 mm (2")	4,001.00	1,141.00
75 mm (3")	13,964.00	2,518.00
100 mm (4")	15,270.00	3,826.00
150 mm (6")	49,871.00	8,114.00
200 mm (8")	51,292.00	9,705.00
250 mm (10")	69,298.00	19,560.00
300 mm (12")	76,622.00	26,887.00

SCHEDULE H
Miscellaneous Fees and Charges

Cross Connection Control Administration Fees	
First Assembly	\$ 31.00
Additional Assembly	13.00
Extra charge for inaccessible meter (per incident)	77.00
Special Meter Reading (per occurrence)	102.00
Customer Requested Meter Test (deposit)	204.00
Charges for Returned Cheques	36.00
Residual Water Pressure Estimate Fee	
Original calculation	37.00
Additional copies for same location	10.00
Miscellaneous water information requests (per hour)	46.00
City Crew call out fee (normal working hours)	

(per hour or portion thereof)	102.00
City Crew call out fee (outside normal working hours) (per hour or portion thereof)	204.00
Frozen pipe thawing	At cost (Section 5.4)".

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