



City of Richmond

Report to Committee

To: Finance Committee
From: Andrew Nazareth
General Manager, Finance & Corporate Services
John Irving, P.Eng. MPA
General Manager,
Engineering & Public Works
Date: October 15, 2019
File: 03-0970-01/2019-Vol
01
Re: 2020 Utility Budgets and Rates

Staff Recommendation

That the 2020 Utility Budgets, as outlined in Option 1 for Water, Option 2 for Sewer, Option 2 for Drainage and Diking, and Option 3 for Solid Waste and Recycling including a new personnel complement control number for a regular full-time Recycling Coordinator position, as outlined in the staff report, dated October 15, 2019 from the General Manager, Finance and Corporate Services and the General Manager, Engineering and Public Works, be approved as the basis for establishing the 2020 utility rates and preparing the Consolidated 5 Year Financial Plan (2020-2024) Bylaw.

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REPORT CONCURRENCE	
CONCURRENCE OF GENERAL MANAGER 	
REVIEWED BY SMT	INITIALS:
APPROVED BY CAO 	

Staff Report

Origin

This report presents the recommended 2020 utility budgets and rates for Water, Sewer, Drainage and Diking, and Solid Waste and Recycling. The utility rates need to be established by December 31, 2019, in order to take effect January 1, 2020.

This report supports the following strategies within Council's Strategic Plan 2018-2022:

Strategy #1, A Safe and Resilient City:

Enhance and protect the safety and well-being of Richmond.

1.2 Future-proof and maintain city infrastructure to keep the community safe.

1.3 Ensure Richmond is prepared for emergencies, both human-made and natural disasters.

Strategy #2, A Sustainable and Environmentally Conscious City:

Environmentally conscious decision-making that demonstrates leadership in implementing innovative, sustainable practices and supports the City's unique biodiversity and island ecology.

2.1 Continued leadership in addressing climate change and promoting circular economic principles.

2.2 Policies and practices support Richmond's sustainability goals.

Strategy #5, Sound Financial Management:

Accountable, transparent, and responsible financial management that supports the needs of the community into the future.

5.1 Maintain a strong and robust financial position.

5.2 Clear accountability through transparent budgeting practices and effective public communication.

5.3 Decision-making focuses on sustainability and considers circular economic principles.

5.4 Work cooperatively and respectfully with all levels of government and stakeholders while advocating for the best interests of Richmond

Analysis

Metro Vancouver rate increases are the primary drivers for the 2020 utility budget increase. The City's 2020 utility rates are based on Metro Vancouver's five-year projections, as outlined in their proposed 2020-2024 Financial Plan. Staff anticipate that the Metro Vancouver Board will review the Metro Vancouver rates in November, and staff will report back to Council for further consideration if the approved rates differ substantially from Metro Vancouver's projected rates.

Estimated Metro Vancouver rate increases are as follows:

Water

The estimated 2020 Greater Vancouver Water District (GVWD) rate increase is 6.0%. The GVWD water purchase cost represents 62% of the City's water utility user fee budget, which translates to 91% of the City's recommended water utility budget increase.

Sewer

The estimated 2020 Greater Vancouver Sewerage and Drainage District (GVS&DD) sewer levy increase is 14.9%. The GVS&DD sewer levy represents 68% of the City's sewer utility user fee budget, which translates to 78% of the City's recommended sewer utility budget increase.

Solid Waste

The Metro Vancouver solid waste tipping fees are projected to increase by \$5 to \$113 per tonne for 2020, plus a transaction fee of \$5 per load. A tiered structure based on load size/weight will continue to be used for small vehicles and commercial customers.

Another component of the City's utility budget relates to the replacement of ageing municipal infrastructure. The "Ageing Utility and Road Infrastructure Planning – 2019 Update" report, dated August 16, 2019, estimates additional annual funding requirements of \$1.7M for water infrastructure, \$3.1M for sanitary infrastructure and \$7.4M for drainage and diking infrastructure. The ageing infrastructure component is analyzed in the water, sewer, and drainage and diking sections of this report.

The recommended 2020 solid waste and recycling services include various programs designed to achieve the City's established waste diversion target of 80% by 2020. The City is a leader in providing robust recycling programs, currently diverting 78% of single-family residential waste. Budget amounts presented with this report include additional costs under the City's organics processing agreement associated with change of law provisions to meet air quality permit requirements at the contracted processing facility. Various options are also presented with this report to address items raised through Council deliberations and referrals to further expand recycling services.

Recognizing the challenges of cost increases outside of the City's control and those associated with maintaining City infrastructure, staff have presented various budget and rate options for 2020. This includes three different options for each of the City's utilities.

Option 1 presents the minimum non-discretionary increases necessary to meet demands placed on the City by factors outside of the City's direct control (e.g. regional or other government agency increases, contractual obligations, plant growth, fuel, insurance, etc.) based on currently approved levels of service. Options 2 and 3 present various actions the City can take to either reduce or increase the budget and rates depending on the varying circumstances and needs within each budget area. The various options are presented for each of the City utilities in the following sections, and the proposed 2020 rates are summarized in Tables 13 and 14.

Water Utility

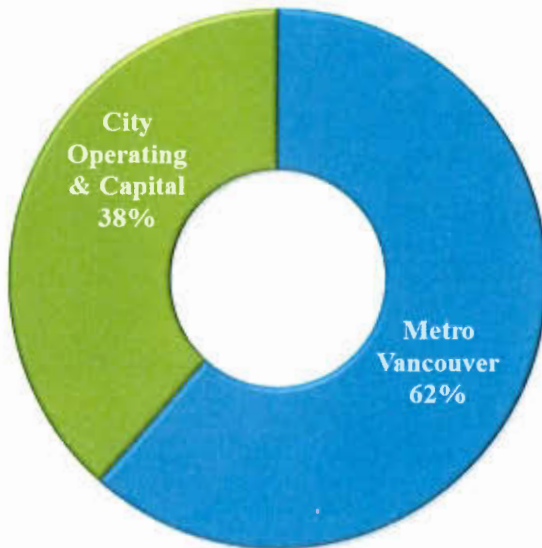
Table 1. Water Utility Budget

Key Budget Areas	2019 Base Level Budget (Restated for Comparison)	Option 1 (Recommended) Non-Discretionary Increases	Option 2 Non-Discretionary Increases with \$500,000 Increase to Reserves	Option 3 Non-Discretionary Increases with \$500,000 from Provision for Rate Stabilization
<u>Expenditures</u>				
Salary	\$6,062,600	\$128,700	\$128,700	\$128,700
PW Materials/Equipment/Power Costs	\$2,329,200	\$35,600	\$35,600	\$35,600
Operating Expenditures	\$1,279,700	\$39,700	\$39,700	\$39,700
Water Meter Reading and Maintenance	\$222,400	\$0	\$0	\$0
Toilet Rebate Program	\$100,000	\$0	\$0	\$0
GVWD Water Purchases (Metro Vancouver)	\$25,994,800	\$1,563,500	\$1,563,500	\$1,563,500
Capital Infrastructure Replacement Program	\$7,500,000	\$0	\$500,000	\$0
Firm Price/Receivable	\$2,641,200	\$35,900	\$35,900	\$35,900
Residential Water Metering Program	\$1,299,400	-\$13,500	-\$13,500	-\$13,500
Overhead Allocation	\$1,006,100	-\$30,000	-\$30,000	-\$30,000
Total Base Level Expenditure Budget	\$48,435,400	\$50,195,300	\$50,695,300	\$50,195,300
<u>Revenues</u>				
Provision (Rate Stabilization)	\$0	\$0	\$0	-\$500,000
Investment Income	-\$392,000	\$0	\$0	\$0
Firm Price/Receivable	-\$2,641,200	-\$35,900	-\$35,900	-\$35,900
Meter Rental/Maintenance	-\$1,908,600	-\$8,400	-\$8,400	-\$8,400
YVR Maintenance	-\$30,000	\$0	\$0	\$0
Provision (Toilet Rebate/Flushing)	-\$251,200	-\$8,200	-\$8,200	-\$8,200
Provision (OBI Adjustment)	-\$4,800	\$4,800	\$4,800	\$4,800
Meter Re-Reads and Other Services	-\$80,800	\$0	\$0	\$0
Total Base Level Revenue Budget	-\$5,308,600	-\$5,356,300	-\$5,356,300	-\$5,856,300
Net Budget	\$43,126,800	\$44,839,000	\$45,339,000	\$44,339,000
Net Difference Over 2019 Base Level Budget		\$1,712,200	\$2,212,200	\$1,212,200

The following is an explanation of the budget reductions and increases outlined in Table 1.

GVWD Water Purchases – Metro Vancouver

Figure 1. 2020 Water Utility User Fee Breakdown



Metro Vancouver estimates their water rate will increase by 6.0%. The corresponding increase in water purchase cost from Metro Vancouver is \$1.56M, which accounts for 91% of Richmond's non-discretionary expenditure increases.

Bulk water is purchased from Metro Vancouver on a volumetric basis and accounts for 62% of the Richmond's water rate (Figure 1). The City's 2020 water rates are based on Metro Vancouver's 5-year projections approved in their proposed 2020-2024 Financial Plan (Table 2). Staff anticipate that the Metro Vancouver Board will review the Metro Vancouver water rates in November, and staff will report back to Council for further consideration if the final approved rates are substantially different.

Table 2. Metro Vancouver Water Rate Projection – Proposed 2020-2024 Financial Plan

	2020	2021	2022	2023	2024
Blended Rate (\$/m³)	\$0.7836	\$0.8314	\$0.9046	\$0.9942	\$1.0946
% Change	6.0%	6.1%	8.8%	9.9%	10.1%

Water Metering (Avoided Water Purchase Costs)

Water metering plays a significant role in the City's water demand management program, which improves equity to rate payers by providing volume-based user fees and reduces bulk water purchase costs by promoting water conservation and reducing private-side leakage. Since the inception of the program in 2003, the City's total water use has decreased by 11% despite an increase in population of 25%. In 2018, this reduction in per capita water usage resulted in annual savings of \$9.9 million in avoided water purchase cost.

The City has made significant advances in water metering since the program was first introduced. Approximately 82% of the City's water use is currently metered. All single-family, industrial, commercial, and institutional (ICI) properties are metered and 48% of multi-family units are metered. Programs are in place to continue advancing water metering within the City through the continuation of the volunteer multi-family water metering program.

City Operating Expenditures

The City's total operating expenditure increase (excluding Metro Vancouver costs) is below the Consumer Price Index (CPI). A number of operating expenditures have increased due to factors beyond the City's control, including:

- Salary increase estimates for union agreements;
- Electricity and natural gas increases;
- Material and equipment cost increases; and
- Vehicle cost increases, including fuel and insurance increases.

The City's operating expenditures are carefully managed and considerable measures have been taken to minimize cost increases where possible. The average increase to the City's operating expenditures since 2014 has been 1.2%, which is significantly below CPI over the same period.

Provision (OBI Adjustment)

One-time transfers from the Water Levy Stabilization Provision are utilized each year to fund operating budget impacts (OBIs) for the current year's capital program. This amount is incorporated into the base water utility budget in the following year. In 2019, \$4,700 was transferred from the Water Levy Stabilization Provision to fund OBIs associated with the 2019 Capital Program and has been incorporated into the 2020 base level budget.

Construction Period Revenues

The City receives construction period revenues from development customers for water use during construction. This revenue is not budgeted due to the long-term variability in these revenues. Any actual revenue will be transferred to the Water Levy Stabilization Provision for future rate stabilization funding.

Capital Infrastructure Replacement Program Contribution (Water Rate Options)

The Capital Infrastructure Replacement Program facilitates proactive management of the City's water assets, allowing the City to maintain a high level of service by minimizing watermain breaks and service disruptions. Through proactive management of ageing infrastructure and implementation of the City's water pressure management program, the City has also successfully reduced water losses due to pipe leakage in the water distribution system. This has resulted in additional cost savings from avoided Metro Vancouver water purchase costs.

The annual capital contribution for water-related infrastructure replacement is currently \$7.5 million. The "Ageing Utility and Road Infrastructure Planning – 2019 Update" report identified a long-term annual water infrastructure funding requirement of \$9.2 million, with a target funding range of \$8.6 million to \$10.4 million. Option 2 includes an increase of \$500,000 to reduce the funding gap and progress towards the required annual funding level.

Water Levy Stabilization Provision Contribution (Water Rate Options)

The Water Levy Stabilization Provision was established by Council as a funding source for water rate stabilization. The Provision has a balance of \$11.5 million as of September 30, 2019, and is intended to offset significant increases in regional water purchase costs. Options 1 and 2 maintain a \$0 impact on the Water Levy Stabilization Provision; Option 3 includes a \$500,000 drawdown from the Provision to subsidize the water rate.

Impact on 2020 Water Rates

The impact of the three budget options on water rates is shown in Tables 3 and 4. Table 3 shows the various options for metered customers; Table 4 shows the options for flat rate customers. The rates presented include fixed costs for metering, such as meter reading, billing, and maintenance. Italicized numbers represent the difference between 2019 rates and 2020 optional rates.

Option 1 includes only the non-discretionary increases necessary to meet demands placed on the City by factors outside of the City's direct control. Option 2 results in the highest rates, as it includes additional contribution to the Capital Infrastructure Program. Option 3 results in the lowest rates, as it includes a drawdown from the Water Levy Stabilization Provision.

Table 3. 2020 Metered Rate Water Options (net of discount)

Customer Class	2019 Rates	Option 1 (Recommended)	Option 2	Option 3
Single-Family Dwelling (based on 325 m ³ average)	\$445.62	\$459.27 <i>\$13.65</i>	\$464.17 <i>\$18.55</i>	\$454.39 <i>\$8.77</i>
Townhouse (based on 218 m ³ average)	\$305.93	\$315.08 <i>\$9.15</i>	\$318.38 <i>\$12.45</i>	\$311.81 <i>\$5.88</i>
Apartment (based on 157 m ³ average)	\$203.40	\$209.99 <i>\$6.59</i>	\$212.36 <i>\$8.96</i>	\$207.64 <i>\$4.24</i>
Metered Rate (\$/m ³)	\$1.2382	\$1.2802 <i>\$0.0420</i>	\$1.2953 <i>\$0.0571</i>	\$1.2652 <i>\$0.0270</i>

Table 4. 2020 Flat Rate Water Options (net of discount)

Customer Class	2019 Rates	Option 1 (Recommended)	Option 2	Option 3
Single-Family Dwelling	\$657.51	\$679.83 <i>\$22.32</i>	\$687.83 <i>\$30.32</i>	\$671.83 <i>\$14.32</i>
Townhouse	\$538.22	\$556.49 <i>\$18.27</i>	\$563.04 <i>\$24.82</i>	\$549.94 <i>\$11.72</i>
Apartment	\$346.83	\$358.60 <i>\$11.77</i>	\$362.82 <i>\$15.99</i>	\$354.38 <i>\$7.55</i>

The rates outlined in Tables 3 and 4 are net rates. The Waterworks and Water Rates Bylaw provides a 10% discount for utility bills paid prior to the due date. The rates shown will be increased by 10% in the supporting bylaws to provide for the discount incentive while ensuring full cost recovery.

Options Summary

Option 1 (Recommended)

- Represents the minimum increase necessary to maintain the current level of service.
- Maintains a \$7.5 million contribution to the Capital Infrastructure Replacement Program.
- Maintains \$0 impact on the Water Levy Stabilization Provision.

Option 2

- Represents the minimum increase necessary to maintain the current level of service.
- Includes a \$500,000 increase to the Capital Infrastructure Replacement Program to reduce the funding gap and progress towards the annual required funding level.
- Maintains a \$0 impact on the Water Levy Stabilization Provision.

Option 3

- Represents the minimum increase necessary to maintain the current level of service.
- Maintains a \$7.5 million contribution to the Capital Infrastructure Replacement Program.
- Includes a \$500,000 drawdown from the Water Levy Stabilization Provision.

Recommended Option

Staff recommend the budgets and rates identified in Option 1 for the Water Utility. This option represents the minimum increase necessary to maintain the current level of service without subsidizing the water rate using the Water Levy Stabilization Provision. Staff recommend maintaining the current contribution to the Capital Infrastructure Replacement Program at this time, as it is relatively close to the target funding range. The Metro Vancouver water rate is expected to increase significantly over the next five years. As such, it would be prudent to preserve the Water Levy Stabilization Provision for utilization in the future when larger Metro Vancouver water rate increases are realized.

Sewer Utility

Table 5. Sewer Utility Budget

Key Budget Areas	2019 Base Level Budget (Restated for Comparison)	Option 1 Non-Discretionary Increases	Option 2 (Recommended) Non-Discretionary Increases with \$500,000 Increase to Reserves	Option 3 Non-Discretionary Increases with \$500,000 from Provisions for Rate Stabilization
<u>Expenditures</u>				
Salary	\$3,274,900	\$57,400	\$57,400	\$57,400
PW Materials/Equipment/Power Costs	\$1,790,300	\$3,500	\$3,500	\$3,500
Operating Expenditures	\$703,600	\$28,800	\$28,800	\$28,800
GVS&DD O&M (Metro Vancouver)	\$21,939,900	\$2,179,900	\$2,179,900	\$2,179,900
GVS&DD Debt (Metro Vancouver)	\$976,200	\$1,242,400	\$1,242,400	\$1,242,400
Capital Infrastructure Replacement Program	\$5,306,400	\$0	\$500,000	\$0
Firm Price/Receivable	\$621,400	\$21,200	\$21,200	\$21,200
Overhead Allocation	\$575,400	\$10,000	\$10,000	\$10,000
Total Base Level Expenditure Budget	\$35,188,100	\$38,731,300	\$39,231,300	\$38,731,300
<u>Revenues</u>				
Provision (Rate Stabilization)	-\$500,000	\$0	\$0	-\$500,000
Provision (OBI Adjustment)	-\$13,700	\$13,700	\$13,700	\$13,700
Investment Income	-\$152,000	\$0	\$0	\$0
Firm Price/Receivable	-\$621,400	-\$21,200	-\$21,200	-\$21,200
Property Tax for GVS&DD Debt	-\$976,185	-\$1,242,415	-\$1,242,415	-\$1,242,415
Total Base Level Revenue Budget	-\$2,263,285	-\$3,513,200	-\$3,513,200	-\$4,013,200
Net Budget	\$32,924,815	\$35,218,100	\$35,718,100	\$34,718,100
Net Difference Over 2019 Base Level Budget		\$2,293,285	\$2,793,285	\$1,793,285

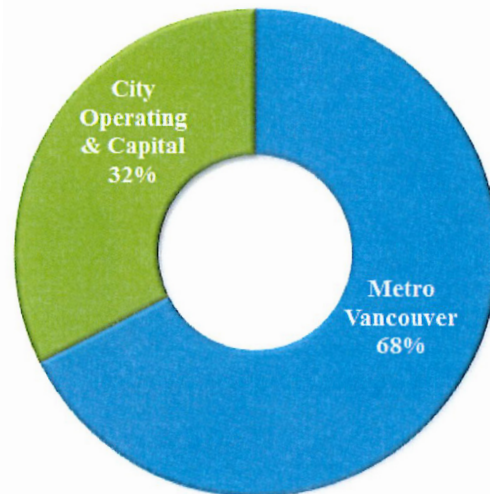
The following is an explanation of the budget reductions and increases outlined in Table 5.

Metro Vancouver GVS&DD Operating and Maintenance (O&M) Costs

Metro Vancouver's GVS&DD O&M cost is projected to increase by \$2.18M for Richmond in 2020. This increase accounts for 78% of the non-discretionary expenditure increases proposed for 2020.

Richmond pays Metro Vancouver for bulk transmission and treatment of liquid waste on a flat rate basis. Metro Vancouver costs account for 68% of Richmond's sewer rate and is a primary budget driver (Figure 2). The City's 2020 sanitary sewer rates are based on Metro Vancouver's five-year projections approved in their proposed 2020-2024 Financial Plan (Table 6). Staff anticipate that the Metro Vancouver Board will review the Metro Vancouver sanitary sewer rates in November, and staff will report back to Council for further consideration if the final approved rates are substantially different.

Figure 2. 2020 Sewer Utility User Fee Breakdown



Metro Vancouver rate increases for the Lulu Island Sewerage Area are anticipated to be significant over the next four years and beyond.

Table 6. Metro Vancouver 5-Year Overall Sewer Cost Projections – Lulu Island Sewerage Area

	2020	2021	2022	2023	2024
Sewer Levy – LSA (\$ Millions)	\$26.3	\$29.9	\$34.3	\$38.1	\$41.2
% Change	14.9%	13.7%	14.6%	11.2%	8.2%

Operating Expenditures

The City's operating budget expenditures have increased due to factors beyond the City's control, including:

- Salary increase estimates for union agreements;
- Electricity and natural gas increases;
- Material and equipment cost increases; and
- Vehicle cost increases, including insurance increases.

The City's operating expenditures are carefully managed and considerable measures have been taken to minimize cost increases where possible. The average increase to the City's operating expenditures (excluding Metro Vancouver costs) since 2014 has been 0.8%, which is significantly below CPI over the same period.

Provision (OBI Adjustment)

One-time transfers from the Sewer Levy Stabilization Provision are utilized each year to fund operating budget impacts (OBIs) for the current year's capital program. This amount is incorporated into the sanitary sewer utility in the following year to become part of the base level budget. In 2019, \$13,700 was transferred from the Sewer Levy Stabilization Provision to fund OBIs associated with the 2019 Capital Program and has been incorporated in the 2020 base level budget.

Construction Period Revenues

The City receives construction period revenues from development customers for sewer use during construction. This revenue is not budgeted due to the long-term variability in these revenues. Any actual revenue will be transferred to the Sewer Levy Stabilization Provision for future rate stabilization funding.

Capital Infrastructure Replacement Program Contribution (Sewer Rate Options)

The annual capital contribution for capital infrastructure replacement is currently \$5.3 million. The "Ageing Utility and Road Infrastructure Planning – 2019 Update" report identifies a long-term sustainable funding level of \$8.4 million for sanitary sewer infrastructure. Option 2 includes an increase of \$500,000 to reduce the funding gap and progress towards the required annual funding level.

Sewer Levy Stabilization Provision (Sewer Rate Options)

The Sewer Level Stabilization Provision was established by Council as a funding source for sewer rate stabilization. The Provision, which has a balance of \$7.6 million as of September 30, 2019, has been used to offset significant increases in regional sewer treatment and capacity costs. Options 1 and 2 maintain the current \$500,000 drawdown on the Sewer Levy Stabilization Provision to partially offset Metro Vancouver GVS&DD O&M increases; Option 3 includes an additional drawdown of \$500,000, for a total of \$1,000,000, to further offset rate increases.

Staff recommend maintaining the current drawdown of \$500,000. While the current balance in the Sewer Levy Stabilization Provision is adequate to maintain the current drawdown and stabilize 2020 rate increases, more significant Metro Vancouver rate increases are anticipated in future years and further drawdown is not recommended at this time.

Metro Vancouver Sewer Debt Levy

Metro Vancouver sewer debt charges have historically been levied through taxes to property owners who are in sewer areas and based on property assessment values. For 2020, the GVS&DD debt is budgeted for \$2.2M and expected to increase significantly in the next four years due to the ongoing Gilbert Truck Sewer Twinning project. Staff will bring forward options through the 2021 budget process that could include a phase-in transfer of the sewer debt charge from property taxes to the sewer utility budget.

Sewer Rate Cap

As resolved by Council at the April 23, 2019 Regular Council Meeting, a sewer rate cap has been incorporated into the sewer rates presented in this report. Sewer charges for the third quarter will be billed based on water usage, up to a maximum limit equivalent to the sewer flat rate pro-rated for that quarter.

There is no impact to net revenues from this change in rate structure, as full cost recovery will be maintained for the sanitary sewer utility.

Impact on 2020 Sewer Rates

The impact of the three budget options on sewer rates is shown in Tables 7 and 8. Table 7 shows the various options for metered customers; Table 8 shows the options for flat rate customers. Numbers in italics represent the difference between 2019 rates and 2020 optional rates.

Option 1 includes only the non-discretionary increases necessary to meet demands placed on the City by factors outside of the City's direct control. Option 2 results in the highest rates, as it includes additional contribution to the Capital Infrastructure Program. Option 3 results in the lowest rates, as it includes an additional drawdown from the Sewer Levy Stabilization Provision.

Table 7. 2020 Metered Rate Sewer Options (net of discount)

Customer Class	2019 Rates	Option 1	Option 2 (Recommended)	Option 3
Single-Family Dwelling (based on 325 m ³ average)	\$360.52	\$394.39 <i>\$33.87</i>	\$400.11 <i>\$39.59</i>	\$388.70 <i>\$28.18</i>
Townhouse (based on 218 m ³ average)	\$241.83	\$264.54 <i>\$22.71</i>	\$268.38 <i>\$26.55</i>	\$260.73 <i>\$18.90</i>
Apartment (based on 157 m ³ average)	\$174.16	\$190.52 <i>\$16.36</i>	\$193.28 <i>\$19.12</i>	\$187.77 <i>\$13.61</i>
Metered Rate (\$/m ³)	\$1.1093	\$1.2135 <i>\$0.1042</i>	\$1.2311 <i>\$0.1218</i>	\$1.1960 <i>\$0.0867</i>

Table 8. 2020 Flat Rate Sewer Options (net of discount)

Customer Class	2019 Rates	Option 1	Option 2 (Recommended)	Option 3
Single-Family Dwelling	\$454.81	\$497.55 <i>\$42.74</i>	\$504.76 <i>\$49.95</i>	\$490.34 <i>\$35.53</i>
Townhouse	\$416.13	\$455.25 <i>\$39.12</i>	\$461.84 <i>\$45.71</i>	\$448.65 <i>\$32.52</i>
Apartment	\$346.58	\$379.16 <i>\$32.58</i>	\$384.65 <i>\$38.07</i>	\$373.67 <i>\$27.09</i>

The rates outlined in Tables 7 and 8 are net rates. The Drainage, Dyke and Sanitary Sewer System Bylaw provides a 10% discount for utility bills paid prior to the due date. The rates

shown will be increased by 10% in the supporting bylaws to provide for the discount incentive while ensuring appropriate cost recovery.

Options Summary

Option 1

- Represents the minimum increase necessary to maintain the current level of service.
- Maintains a \$5.3 million contribution to the Capital Infrastructure Replacement Program. The funding shortfall defers the financial obligation to future years, which will place additional burden to future rate payers.
- Maintains \$500,000 impact on the Sewer Levy Stabilization Provision.

Option 2 (Recommended)

- Represents the minimum increase necessary to maintain the current level of service.
- Includes a \$500,000 increase to the Capital Infrastructure Replacement Program to reduce the gap and progress towards the annual required funding level.
- Maintains a \$500,000 impact on the Sewer Levy Stabilization Provision.

Option 3

- Represents the minimum increase necessary to maintain the current level of service.
- Maintains a \$5.3 million contribution to the Capital Infrastructure Replacement Program. The funding shortfall defers the financial obligation to future years, which will place additional burden to future rate payers.
- Includes a \$1,000,000 drawdown from the Sewer Levy Stabilization Provision to further minimize the impact of regional increases on sewer rates.

Recommended Option

Staff recommend the budgets and rates identified in Option 2 for the Sewer Utility. This option maintains the current level of service while increasing funding for the Capital Infrastructure Replacement Program, in order to progress towards the annual required funding level. Staff also recommend that the Sewer Levy Stabilization Provision be preserved for utilization in the future when larger rate increases from external sources are realized.

Drainage and Diking Utility

The drainage and diking utility was created to develop a reserve fund to operate, maintain, and upgrade Richmond's flood protection infrastructure. The "Ageing Utility and Road Infrastructure Planning – 2019 Update" report identifies a capital funding target of \$19.5 million. Since 2003, Council has approved increasing annual funding levels for the Drainage and Diking Utility from \$0.6 million to its current level of \$12.1 million.

The Drainage operations department is part of the Engineering and Public Works Division's general operations. The operating costs incurred for drainage operations is and historically has been included in the City's operating budget.

Flood Protection Rate Equity

In 2003, Council adopted an initial net rate of \$10 per property for flood protection, and increased the rate by \$10 each year from 2004 to 2015. Since 2016, new rate classes have been introduced to enhance equity amongst users and reflect the different levels of demand various properties have on the City's drainage and diking systems. Over the last four years, five rate classes have been established, along with separate drainage and diking rates:

- Single-family residential and agricultural
- Multi-family residential
- Small or stratified ICI
- Medium non-stratified ICI
- Large non-stratified ICI

Staff propose to further improve equity by varying the rate increases for the different rate classes in 2020.

Flood Protection Funding

The \$10 increase per property in past years effectively increased flood protection funding by approximately \$1 million each year. Staff propose to continue in this direction and, while varying the rate increases for different rate classes to improve equity, achieve approximately \$1 million in additional flood protection funding. This would allow the City to progress towards the annual required funding level, in order to continue providing a high level of flood protection for the City and proactively preparing for the impacts of climate change. This would also correspond with strong feedback received through the public consultation process for the City's Flood Protection Management Strategy 2019, where there was strong support for increasing flood protection fees to accelerate the flood protection program.

Moving forward, staff recommend that the Drainage and Diking Utility continue to be increased gradually over the long term, as climate change -induced sea level rise is an emerging issue and implementation of flood protection measures, including the Dike Master Plan and pump station upgrades, will require additional funding.

Impact on Flood Protection Rates

Table 9 provides a summary of the proposed flood protection rates for each rate class and the impact on the net utility budget. The rates outlined in Table 9 are net rates. The bylaw provides a 10% discount for utility bills paid prior to the due date. The net rates shown will be increased by 10% in the supporting bylaws to provide for the discount incentive while ensuring appropriate cost recovery. Numbers in italics represent the difference between 2019 and 2020 optional rates.

Table 9. 2020 Flood Protection Rate Options (net of discount)

Rate Class	2019 Rates	Option 1 15% increase to medium and large non-stratified ICI properties, \$5 increase to single-family, agricultural and small or stratified ICI properties, \$2.50 to multi-family properties	Option 2 (Recommended) 25% increase to medium and large non-stratified ICI properties, \$10 increase to single-family, agricultural and small or stratified ICI properties, \$5 to multi-family properties	Option 3 50% increase to medium and large non-stratified ICI properties, \$10 increase to single-family, agricultural and small or stratified ICI properties, \$5 to multi-family properties
Multi-family Residential	\$140.31	\$142.81 <i>\$2.50</i>	\$145.31 <i>\$5.00</i>	\$145.31 <i>\$5.00</i>
Single-family and Agricultural	\$144.55	\$149.55 <i>\$5.00</i>	\$154.55 <i>\$10.00</i>	\$154.55 <i>\$10.00</i>
Small or Stratified ICI (less than 800 m ²)	\$144.55	\$149.55 <i>\$5.00</i>	\$154.55 <i>\$10.00</i>	\$154.55 <i>\$10.00</i>
Medium Non-Stratified ICI (between 800 m ² and 10,000 m ²)	\$325.73	\$374.59 <i>\$48.86</i>	\$407.16 <i>\$81.43</i>	\$488.60 <i>\$162.87</i>
Large Non-Stratified ICI (above 10,000 m ²)	\$651.45	\$749.17 <i>\$97.72</i>	\$814.31 <i>\$162.86</i>	\$977.18 <i>\$325.73</i>
Net Budget	\$12,106,800	\$12,903,300	\$13,239,000	\$13,353,800
Capital Infrastructure Replacement Program	\$11,577,800	\$12,374,300	\$12,710,000	\$12,824,800
Box Culvert Preventative Maintenance Program	\$380,000	\$380,000	\$380,000	\$380,000
Dike Repair Program	\$149,000	\$149,000	\$149,000	\$149,000
Net Difference Over 2019 Base Level Budget	\$0	\$796,500	\$1,132,200	\$1,247,000

Options Summary*Option 1*

- Improves equity by increasing the rate for medium and large non-stratified ICI properties by 15%, single-family, agricultural, and small or stratified ICI properties by \$5, and multi-family properties by \$2.50.
- Increases funding for the Capital Infrastructure Replacement Program to \$12,374,300.
- Maintains existing funding for the Box Culvert Preventative Maintenance Program and the Dike Repair Program.

Option 2 (Recommended)

- Improves equity by increasing the rate for medium and large non-stratified ICI properties by 25%, single-family, agricultural, and small or stratified ICI properties by \$10, and multi-family properties by \$5.
- Increases funding for the Capital Infrastructure Replacement Program to \$12,710,000.
- Maintains existing funding for the Box Culvert Preventative Maintenance Program and the Dike Repair Program.

Option 3

- Provides a larger improvement to equity by increasing the rate for medium and large non-stratified ICI properties by 50%, single-family, agricultural, and small or stratified ICI properties by \$10, and multi-family properties by \$5.
- Increases funding for the Capital Infrastructure Replacement Program to \$12,824,800.
- Maintains existing funding for the Box Culvert Preventative Maintenance Program and the Dike Repair Program.

Recommended Option

Staff recommend the budgets and rates identified in Option 2 for flood protection services. This option makes progress towards addressing the funding gap identified in the “Ageing Utility and Road Infrastructure Planning – 2019 Update” report, is consistent with public support for increasing rates to accelerate the flood protection program, and continues to improve equity within the drainage and diking utility rates.

Solid Waste and Recycling

Table 10. 2020 Solid Waste and Recycling Budget

Key Budget Areas	2019 Base Level Budget (Restated for Comparison)	Option 1 Non-Discretionary Increases	Option 2 Recycling Depot Open 7 Days per Week	Option 3 (Recommended) Same as Option 2 Plus Enhanced Commercial Recycling Focus
<u>Expenditures</u>				
Salary	\$3,275,200	\$103,200	\$298,700	\$485,400
Contracts	\$9,295,700	\$372,000	\$372,000	\$548,000
Equipment/Materials	\$990,200	-110,000	-72,200	-72,200
Metro Vancouver Disposal Costs	\$1,367,600	\$24,000	\$24,000	\$24,000
Recycling Materials Processing	\$2,252,700	\$1,494,600	\$1,524,600	\$1,524,600
Container Rental/Collection	\$222,600	\$173,500	\$201,500	\$201,500
Operating Expenditures	\$325,300	\$9,600	\$12,400	\$12,400
Internal Shared Costs	\$330,800	-\$225,900	-\$225,900	-\$225,900
Agreements	\$192,900	\$4,800	\$4,800	\$4,800
Rate Stabilization	\$368,400	\$0	\$0	\$0
Base Level Expenditure Budget	\$18,621,400	\$20,467,200	\$20,761,300	\$21,124,000
<u>Revenues</u>				
Application Fees	-\$90,000	\$0	\$0	\$0
Inspection Fees	-\$10,000	\$0	\$0	\$0
Recycling Material	-\$176,200	-\$53,300	-\$53,300	-\$53,300
Garbage Tags	-\$17,500	\$0	\$0	\$0
Unrealized Discounts	-\$109,200	\$1,200	\$1,200	\$1,200
Revenue Sharing Grant/Other	-\$8,100	-\$1,000	-\$1,000	-\$1,000
Recycle BC Incentive	-\$1,810,700	-\$117,100	-\$117,100	-\$117,100
Provision (OBI Adjustment)	-\$698,000	-\$500	-\$500	-\$363,200
Base Level Revenue Budget	-\$2,919,700	-\$3,090,400	-\$3,090,400	-\$3,453,100
Net Budget	\$15,701,700	\$17,376,800	\$17,670,900	\$17,670,900
Net Difference Over 2019 Base Level Budget		\$1,675,100	\$1,969,200	\$1,969,200

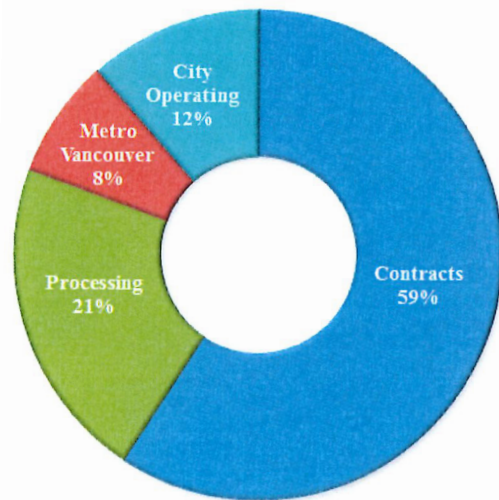
The following is an explanation of the budget reductions and increases outlined in Table 10.

Metro Vancouver Disposal Costs

The regional tipping fee for local governments has been projected by Metro Vancouver to increase by \$5 from \$108/tonne in 2019 to \$113/tonne for 2020. The \$5 per load transaction fee remains in effect and is unchanged. Due to the success of the City's recycling initiatives, Metro Vancouver increases have lessened impacts (as more waste is diverted for recycling) on City budgets and rates.

The higher processing fees in Option 1 include amounts to meet the City's contractual obligations relating to air quality permit requirements at the organics processing facility. Option 2 costs address previously requested information from Council regarding operating the Recycling Depot seven days per week. The increase in Option 3 includes a focused review of the current state of commercial/business recycling and opportunities to enhance and support business in this regard. These program options are discussed in more detail later in this report.

Figure 3. 2020 Solid Waste and Recycling User Rate Breakdown



City Operating Expenditures

Salary increase estimates relating to union agreements and cost reallocations to the City's Operating Budget are primary utility budget increases. Additional costs under Options 2 and 3 include added resource requirements to provide seven days per week operation at the City's Recycling Depot and consultation/evaluation of commercial recycling opportunities.

Staff wish to note that responsibility for managing the City's emergency program function previously resided within Sanitation and Recycling. Over time, the responsibility shifted to the Community Safety division, however, some of the costs continued to be funded by the Sanitation and Recycling utility. Starting with the 2020 budget, these costs are being shifted from the Sanitation and Recycling Utility budget to the Community Safety Division's operating budget. Overall, there is no change in the City's cost of providing emergency program services.

Contracts

Contract costs are increased in accordance with the expansion of the large item pickup program (from 4 – 6 items) as well as escalation clauses as stipulated in the City's solid waste and recycling services contract which commenced January 1, 2019 and is for a maximum ten year term.

Recycling Materials Processing

Recycling material processing costs are increased substantially to meet the City's obligations under the current organics processing contract. The organics processing operator, GFL Environmental, identified cost increases under the change in law provisions of this contract in light of substantial facility upgrades to meet air quality permit requirements imposed by Metro Vancouver. Negotiations are continuing with GFL Environmental, therefore, costs reflected in the budget and rates are estimated/preliminary at this time. Once a proposed agreement is more defined, staff will report to Council separately on this item. The terms of the City's agreement with GFL Environmental contemplated cost increases associated with odour management upgrades.

Options 2 and 3 assume higher processing costs associated with handling increased volumes and types of materials at the Recycling Depot under seven days per week operation.

Single-Use Plastics and Other Items

In July, 2019, Council gave first three readings to Single-Use Plastics and Other Items Bylaw 10000. The City is awaiting an approval decision by the Minister of Environment and Climate Change Strategy on the City's bylaw. Concurrently, the province is undertaking consultation on the BC Plastics Action Plan, which would address the issue of single-use plastics on a provincial scale. Indications are that a decision on a provincial regulatory approach can be expected in the Spring/Summer of 2020. As such, it is unlikely the City can expect an approval decision on Bylaw 10000 before that time.

In the interim and in preparation for the City's bylaw, staff are actively undertaking business engagement to advise businesses of the anticipated changes and seek their input on the support and tools they will require during implementation and for on-going compliance. Key feedback to date has been that most businesses are unwilling to make the change until they are required to do so because of the added cost associated with the shift away from single-use plastic items. Also, feedback to ensure robust and consistent enforcement measures as a component of the bylaw has been emphasized to ensure a level playing field is applied.

To address the business engagement activities, participate in regional and provincial policy consultation activities, and maintain and monitor developments on the issue of single-use plastics, funding for staff and consultation costs in the amount of \$560,000 was approved and allocated by Council. This funding is reflected in the above budget amounts in order to continue this work into 2020. There is no impact to rates associated with this expenditure as there is a corresponding transfer from provision offset.

General Solid Waste & Recycling Rate Stabilization provision (Rate Options)

The General Solid Waste and Recycling Provision was established by Council as a funding source for rate stabilization. The provision has a balance of \$1.8 million as of September 30, 2019.

Service Level Enhancements Discussion – Options 2 and 3

Recycling Depot Operation – 7 Days per Week

Options 2 and 3 include costs associated with expanding the Recycling Depot to a seven day per week operation. This information had been requested of staff during Council's consideration of configuration changes at the Recycling Depot.

The budgets and rates presented under Option 2 include the addition of labour hours to operate the Recycling Depot at an additional day per week and the addition of a regular full-time Recycling Coordinator position to support the operation. The expansion to seven days per week tips the scale and inflection point beyond that which can be supported with current staffing levels. An additional position would be required to support contract management, ensure safe operating procedures in accordance with WorkSafe BC requirements, manage data tracking details, coordinate depot tours/education outreach, support supervisory staff in coordinating seven day per week staff scheduling and contractor servicing needs to avoid user conflicts, etc.

The Recycling Depot is conveniently located and is highly used by residents since a wide range of materials are accepted for recycling. In 2019, the hours of the Recycling Depot were expanded to 6 days per week (previously 5 days per week). Currently, there are approximately 168,500 visits per year, averaging over 14,000 visits per month, or over 70 customers for every hour the Recycling Depot is open. The depot is open from 9:00 a.m. – 6:15 p.m. These operating hours would be maintained under seven days per week operation, if this option is selected by Council.

Commercial Recycling Services Review

Option 3 also proposes to undertake a detailed review and scoping exercise to establish enhanced recycling for the commercial sector as referenced in prior staff correspondence and a February 25, 2019 Council referral on this issue. To date, the commercial sector has been independent in establishing their own garbage and recycling service arrangements, with the key drivers for recycling being to meet waste disposal bans imposed at regional facilities by Metro Vancouver. Recycling rates in the commercial sector are among the lowest in accordance with Metro Vancouver's waste composition audits, at 50%. The activities under option 3 would include consultation with business, a review of current practices, limitations, challenges, etc. as well as a review of the waste collection industry's current practices and capacity as it relates to commercial recycling services.

To facilitate the scoping study, Option 3 includes the addition of two temporary full-time positions – a Recycling Coordinator and Sanitation and Recycling Assistant to undertake an assessment of commercial recycling needs. Consultation services to engage business in potential City-supported solutions would also be included. Engagement with existing waste collection service providers would be required. The outcome would be an approach and strategy, with recommendations, to present to Council for further review and consideration. As the suggested review involves a scoping study to identify potential options for the commercial sector, it is proposed that the associated costs be offset by a contribution from provision in order that there is

no impact to rates. Only after the results of the scoping study are known and reported back to Council would a more formal program with a budget and rates, etc. be identified.

Construction Period Revenues

The City receives construction period revenues from development customers for solid waste and recycling during construction. This revenue is not budgeted due to the long term variability in these revenues. Any actual revenues will be transferred to the General Solid Waste and Recycling provision for future rate stabilization funding.

Revenues – General Solid Waste and Recycling Provision

Recycling Material Revenues

Recycling material revenues are increased associated with payments obtained through staff initiative in seeking engagement contracts with producer responsibility stewards for electronics and large appliances.

Recycle BC Incentive

The net Recycle BC revenue incentive is adjusted to offset inflationary cost increases in order to maintain no net impact in the Blue Box/Multi-Family Recycling Rate. Overall, the Recycle BC program is expected to generate net revenues of approximately \$703,797 for 2020 and can be deposited into the General Solid Waste and Recycling provision account subject to Council approval. This is in alignment with previous Council direction (November 25, 2013) when the decision to join Recycle BC was made.

Impact on 2020 Rates

The impact of the budget options to ratepayers is provided in the tables which follow. The principal reason for the increase in 2020 relates to anticipated increased service contract costs associated with additional organics processing costs under the change in law provisions for odour management/air quality permit requirements. Other key contributing factors include contract costs for additional large item collection services and inflationary costs stipulated in existing contracts. Numbers in italics represent the difference between 2019 rates and 2020 optional rates.

Table 11 provides total costs based on standard garbage cart sizes for single-family (240L) and townhouse (120L). Table 12 provides a more detailed breakdown of Option 3 rates based on the four different garbage cart size options that are available to residents in single-family and townhouse units. The percentage of container sizes subscribed by each customer class is also presented for reference. Residents are able to reduce or increase the amount they pay based on the cart size they select for garbage collection services.

Table 11. 2020 Solid Waste and Recycling Rate Options (net of discount)

Customer Class	2019 Rates	Option 1	Option 2 Recycling Depot Open 7 Days per Week	Option 3 (Recommended) Same as Option 2 Plus Enhanced Commercial Recycling Focus
Single-Family Dwelling (Standard 240L Cart)	\$334.15	\$369.25 \$35.10	\$372.90 \$38.75	\$372.90 \$38.75
Townhouse (Standard 120L Cart)	\$239.40	\$253.50 \$14.10	\$257.15 \$17.75	\$257.15 \$17.75
Apartment	\$106.20	\$114.95 \$8.75	\$118.60 \$12.40	\$118.60 \$12.40
Business Rate	\$34.97	\$35.45 \$0.48	\$36.18 \$1.21	\$36.18 \$1.21

Table 12. 2020 Single-Family and Townhouse Net Rates by Garbage Cart Size

Cart Size	Single Family		Townhomes	
	Full Service Rate (Including Recycling, Organics, Other Services)	Approximate Percent - Subscribed Size	Full Service Rate (Including Recycling, Organics, Other Services)	Approximate Percent - Subscribed Size
80L	\$328.40	4%	\$234.15	15%
120L	\$351.40	11%	\$257.15	76%
240L	\$372.90	79%	278.65	8%
360L	\$475.40	6%	\$381.15	1%

The rates outlined in Tables 11 and 12 are net rates. The Solid Waste & Recycling Regulation bylaw provides a 10% discount for utility bills paid prior to the due date. The rates shown will be increased by 10% in the supporting bylaws to provide for the discount incentive while ensuring appropriate cost recovery.

Regional Issues

For 2020, garbage tipping fees for municipal loads are expected to increase by \$5 per tonne. The recycling fee for source-separated organic waste, green waste and clean wood is expected to increase by \$5 per tonne to allow for cost recovery for managing those materials. Tipping fees are projected to increase at a rate of \$7 per tonne per year for the years 2021 to 2024.

Metro Vancouver Board adopted a funding and service model in July 2019 for organics and paid recyclables at Metro Vancouver transfer stations which allows cost recovery of operational costs and provision of organics transfer services to municipalities upon request and under contract with full-cost recovery. Metro Vancouver is also developing a business case for the provision of commercial organics transfer services. 2019 education campaigns and initiatives to drive waste reduction include the Metro Vancouver Single-Use Item Toolkit, textile, food waste and abandoned waste campaigns. Design and construction of a new Coquitlam Transfer Station and detailed design of a new Surrey Recycling and Waste Drop-off Facility were undertaken in 2019

with Coquitlam Transfer Station anticipated to be operational in 2020 and Surrey Recycling and Waste Drop-off Facility in 2021. With the closure of wood processing facilities (Harvest Urban Wood Recyclers and Smithers Enterprises) at the end of 2018, clean wood disposal ban surcharges were temporarily waived from January to September 2019 at Metro Vancouver transfer stations to give time to the construction and demolition industry to make adjustments to the new market conditions. Ecowaste, the new owner of Urban Wood Recyclers, opened the New Westminster facility in August and Metro Vancouver is developing a business case for an alternative fuel and recyclables recovery project that can potentially process additional construction and demolition waste.

The BC Minister of Environment and Climate Change Strategy in his letter of July 25, 2019 to Metro Vancouver indicated that changes to the waste management regulatory system contemplated in the proposed Commercial Waste Hauler Licensing Bylaw and Bylaw 181 Updates would be best considered as part of a solid waste management planning process. Metro Vancouver intends to initiate their solid waste management plan review in 2020.

Options Summary

Option 1

- Represents full recovery via rates of all program costs, including substantial increases in estimated organics processing costs associated with change in law provisions for odour management/air quality permit requirements per existing contractual agreements.

Option 2

- Represents full recovery via rates of all program costs, including substantial increases in organics processing costs associated with change in law provisions for odour management/air quality permit requirements per existing contractual agreements.
- Includes enhanced service levels through expanding the operating hours at the Recycling Depot from 6 to 7 days per week (inclusive of added resource hours, estimated additional material handling costs, and the addition of a regular full-time Recycling Coordinator position).

Option 3 (Recommended)

- Represents full recovery via rates of all program costs, including substantial increases in organics processing costs associated with change in law provisions for odour management/air quality permit requirements per existing contractual agreements.
- Includes enhanced service levels through expanding the operating hours at the Recycling Depot from 6 to 7 days per week (inclusive of added resource hours, estimated additional material handling costs, and the addition of a regular full-time Recycling Coordinator position).
- Includes a service level review to support and identify opportunities to expand commercial recycling efforts. Incorporates funding for two temporary full-time positions (Recycling Coordinator and Sanitation & Recycling Assistant) plus consulting and other costs to engage the business community in developing a strategy for City-supported solutions to enhance recycling.

Recommended Option

Staff recommend the budget and rates identified in Option 3 for Solid Waste and Recycling. This option provides full funding for all existing programs in 2020. Additionally, this option allows for expansion of the City's Recycling Depot service to seven days per week (currently six) and includes an initiative to prepare a strategic approach to expand commercial recycling efforts.

Total Recommended 2020 Utility Rate Option

In light of the significant challenges associated with the impacts of regional costs and new programs in the City, staff recommend the budget and rate options as follows:

- Option 1 is recommended for Water
- Option 2 is recommended for Sewer
- Option 2 is recommended for Drainage and Diking
- Option 3 is recommended for Solid Waste and Recycling

Table 13 summarizes the estimated total metered rate utility charge, based on average water and sewer consumption. Table 14 summarizes the total flat rate utility charge. Numbers in italics represent the difference between 2019 rates and 2020 proposed rates.

Table 13. 2020 Estimated Total Net Rates to Metered Customers

Customer Class	2019 Estimated Net Metered Rates	2020 Estimated Net Metered Rates (Recommended)
Single-Family Dwelling (based on 325 m ³ average)	\$1,284.84	\$1,386.83 <i>\$101.99</i>
Townhouse (based on 218 m ³ average and on City garbage service)	\$927.47	\$985.92 <i>\$58.45</i>
Townhouse (based on 218 m ³ average and not on City garbage service)	\$833.47	\$892.92 <i>\$59.45</i>
Apartment (based on 157 m ³ average)	\$624.07	\$667.18 <i>\$43.11</i>
Commercial/Industrial		
Metered Water (\$/m ³)	\$1.2382	\$1.2802 <i>\$0.0420</i>
Metered Sewer (\$/m ³)	\$1.1093	\$1.2311 <i>\$0.1218</i>
Business: Garbage	\$34.97	\$36.18 <i>\$1.21</i>
Business: Drainage & Diking (800 m ² to 10,000 m ²)	\$325.73	\$407.16 <i>\$81.43</i>
Business: Drainage & Diking (above 10,000 m ²)	\$651.45	\$814.31 <i>\$162.86</i>
Business: Drainage & Diking (Others)	\$144.55	\$154.55 <i>\$10.00</i>

Table 14. 2020 Total Net Rates to Flat Rate Customers

Customer Class	2019 Net Flat Rates	2020 Net Flat Rates (Recommended)
Single-Family Dwelling	\$1,591.02	\$1,712.04 \$121.02
Townhouse (on City garbage service)	\$1,334.06	\$1,420.79 \$86.73
Townhouse (not on City garbage service)	\$1,240.06	\$1,327.79 \$87.73
Apartment	\$939.92	\$1,007.16 \$67.24

The rates outlined in Tables 13 and 14 are net rates. The bylaws provide a 10% discount for utility bills paid prior to the deadline. The rates shown will be increased by 10% in the supporting bylaws to provide for the discount incentive while ensuring appropriate cost recovery. The recommended rates outlined above result in gross rate charges to residents as outlined in Attachment 1. These rates would be reflected in the amending bylaws for each utility area, should they be approved by Council.

Flat Rate and Metered Customers

All single-family and ICI properties in the City are metered. The single-family residential flat rate will continue to apply to duplex units that share one water service. These units require significant internal plumbing separation work to facilitate metering and were not included in the universal metering program. The majority of townhouses and apartments are still on flat rate utility services; however, the number with meters will continue to increase with the ongoing volunteer and mandatory water meter programs for multi-family dwellings. The number of units by customer class is identified in Table 15.

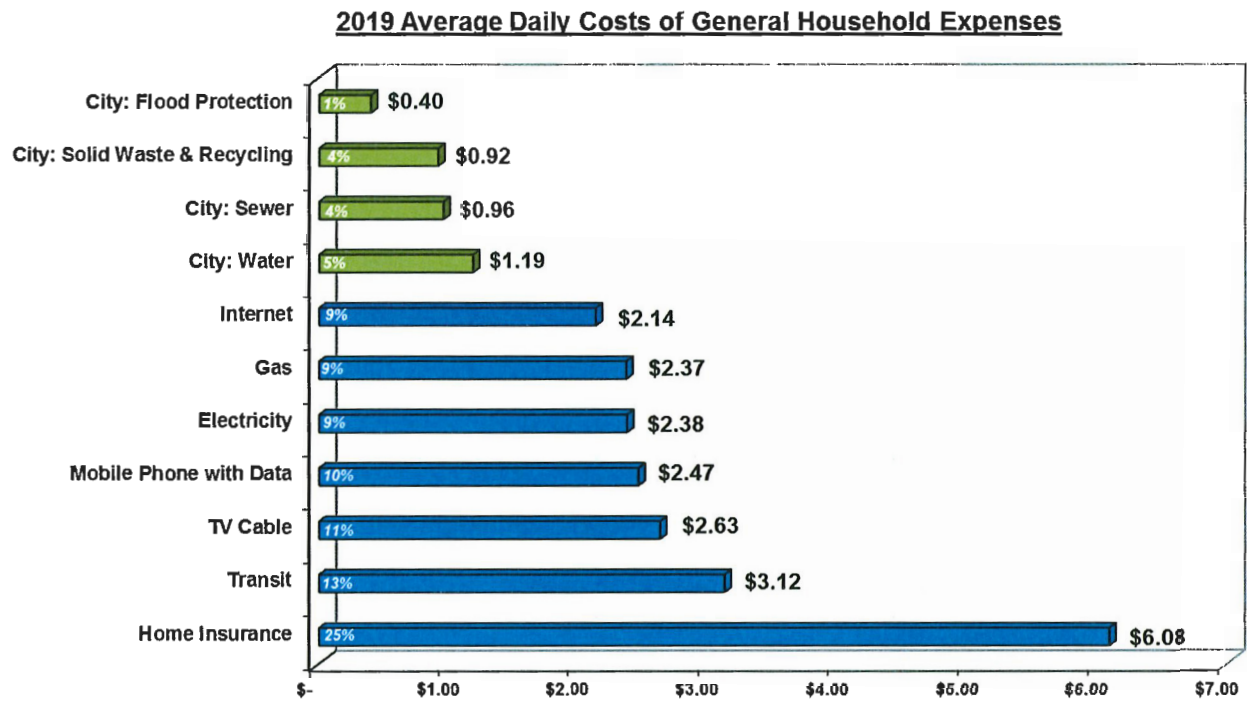
Table 15. Flat Rate and Metered Property Unit Counts

	2019 percentages (Mid-Year)	2019 Counts (Mid-Year)	2020 Counts (Mid-Year Estimated)	Difference
Single-Family Residential	Flat Rate (3%)	808	808	0
	Metered (97%)	27,941	28,072	131
Townhouse	Flat Rate (66%)	11,633	11,518	-115
	Metered (34%)	5,894	6,429	535
Apartment	Flat Rate (45%)	14,798	14,716	-82
	Metered (55%)	18,256	20,479	2,223
Total Residential Units		79,330	82,022	2,692
Commercial Units	Metered	3,541	3,541	0
Farms	Metered	45	45	0

Comparison of 2019 City Utility Rates to Other Major Household Expenses

City utility fees represent approximately 14% of total average daily household expenses and are of good value when compared with common household expenses. Water, sewer, solid waste and recycling, and flood protection services are fundamental to the quality of life for residents and necessary infrastructure to support the local economy. Figure 4 illustrates the value of these services when compared to other common daily household expenses.

Figure 4. Cost Comparison of Main Household Expenses for a Single-Family Dwelling



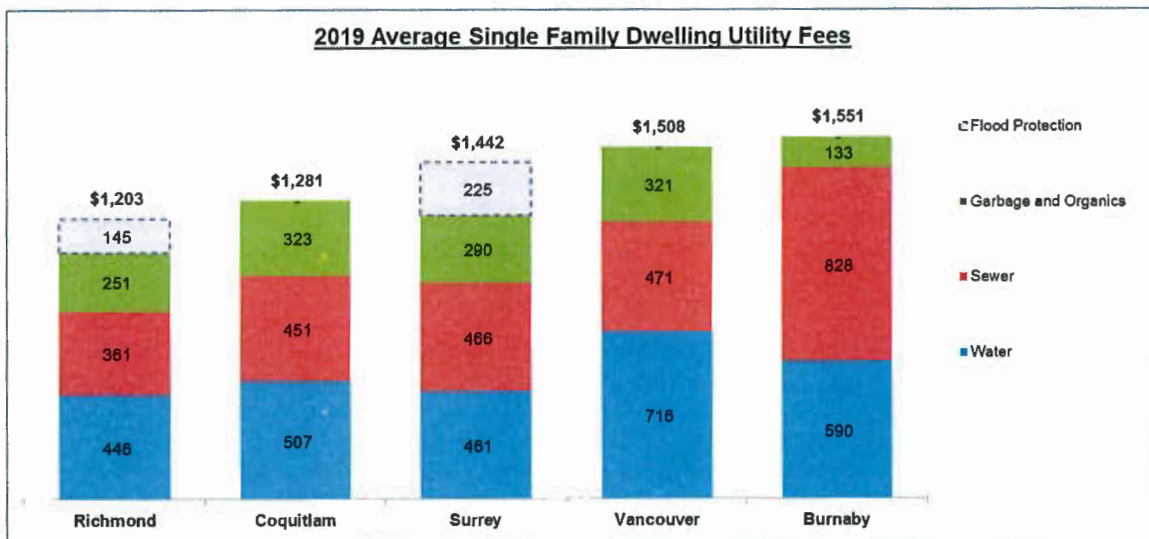
Source: BC Hydro, Fortis BC, Rogers, Shaw, TD Insurance, and Translink

Figure 4 Reference REDMS 6311908

Comparison of 2019 Comparator Municipality Utility Fees

Figure 5 provides a comparison between the City's 2019 average single-family dwelling utility fees with comparator municipalities. All utility fees presented below are net of applicable discounts. Richmond and Surrey water and sewer rates include applicable metering costs and are based on an average annual consumption of 325m³ and 375m³ respectively, as single-family dwellings in these cities are 100% and 70% metered respectively; all other comparator municipalities are predominately charged a flat rate for water and sewer services. Blue box, general recycling and waste management fees have been excluded in the garbage and organics fee presented for comparison purposes, as not all municipalities offer the same services. Coquitlam, Burnaby and Vancouver do not have applicable rates for drainage and flood protection services. The City of Richmond offers this additional and critical service while still maintaining the lowest combined fee for utility services.

Figure 5. Comparison of 2019 Average Single-Family Dwelling Utility Fees



Sources:

City of Richmond

- *Waterworks and Water Rates Bylaw No. 5637; Amendment Bylaw No. 9942*
- *Drainage, Dyke and Sanitary Sewer System Bylaw No. 7551; Amendment Bylaw No. 9943*
- *Solid Waste & Recycling Regulation Bylaw No. 6803; Amendment Bylaw No. 9941*

City of Coquitlam:

- *Water Distribution Bylaw No. 4428; Amendment Bylaw No. 4937*
- *Sewer and Drainage Bylaw No. 4429; Amendment Bylaw No. 4938*
- *Solid Waste Management Bylaw No. 4679; Amendment Bylaw No. 4827*

City of Burnaby:

- *Waterworks Regulation Bylaw No 1953 ; Amendment Bylaw No. 3325C*
- *Sewer Charge Bylaw No. 1961; Amendment Bylaw No. 4231C*
- *Solid Waste & Recycling Bylaw No. 2010; Amendment Bylaw No. 12875C*
- *Sewer Parcel Tax Bylaw No. 1994; amending by-law No. 13961*

City of Vancouver:

- *Water Works By-law No. 4848; Amendment Bylaw No. 12336*
- *Sewer & Watercourse By-law No. 8093; Amendment Bylaw No. 12423*
- *Solid Waste By-law No. 8417; Amendment Bylaw No. 12412*

City of Surrey:

- *Waterworks Regulation and Charges Bylaw No 2007 ; Amendment Bylaw No. 16337*
- *Sanitary Sewer Regulation and Charges By-law No. 2008; Amendment Bylaw No. 16611*
- *Waste Management Regulations and Charges By-law No. 2015; Amendment Bylaw No. 18412*
- *Drainage Parcel Tax By-law No. 2183; amending bylaw No. 14593*

Financial Impact

The budget and rate impacts associated with each option are outlined in detail in this report. In all options, the budgets and rates represent full cost recovery for each City service.

The key impacts to the recommended 2020 utility budgets and rates result from Metro Vancouver's forecasted increases for bulk water purchase and the sewer levy. Staff recommend the following budgets by utility:

- Option 1 is recommended for Water, for a net budget of \$44.8M;
- Option 2 is recommended for Sewer, for a net budget of \$35.7M;
- Option 2 is recommended for Drainage and Diking, for a net budget of \$13.2M;
- Option 3 is recommended for Solid Waste and Recycling, for a net budget of \$17.7M;
- and
- An overall net utility budget of \$111.4M

Considerable effort has been made to minimize City costs and other costs within our ability, in order to minimize the impact to property owners.

Conclusion

This report presents the 2020 proposed utility budgets and rates for City services relating to the provision of water, wastewater, flood protection, as well as solid waste and recycling services. Considerable measures have been taken to reduce costs where possible in order to minimize rate increases. A significant portion of the City's costs relate to impacts from influences outside of the City's direct control, such as regional cost impacts, fuel and insurance increases, etc. Regional costs are expected to continue increasing to meet demands for high quality drinking water and sewer treatment. Staff recommend that the budgets and rates, as outlined in this report, be approved and that the appropriate amending bylaws be brought forward to Council to bring these rates into effect.



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Att. 1 2020 Annual Utility Charges – Recommended Gross Rates per Bylaw

Attachment 1

2020 Annual Utility Charges – Recommended Gross Rates per Bylaw (Estimated Metered and Actual Flat Rates)

	Water	Sewer	Flood Protection	Solid Waste & Recycling	Total
Metered (Based on Average Consumption)					
Single-Family Dwelling	\$510.30	\$444.57	\$171.72	\$414.33	\$1,540.92
Townhouse (with City garbage)	\$350.09	\$298.20	\$161.46	\$285.72	\$1,095.47
Townhouse (no City garbage)	\$350.09	\$298.20	\$161.46	\$182.39	\$992.14
Apartment	\$233.32	\$214.76	\$161.46	\$131.78	\$741.31
Flat Rate (Actual)					
Single-Family Dwelling	\$755.37	\$560.84	\$171.72	\$414.33	\$1,902.26
Townhouse (with City garbage)	\$618.32	\$513.16	\$161.46	\$285.72	\$1,578.66
Townhouse (no City garbage)	\$618.32	\$513.16	\$161.46	\$182.39	\$1,475.33
Apartment	\$398.44	\$427.39	\$161.46	\$131.78	\$1,119.07
General – Other/Business					
Metered Water (\$/m ³)	\$1.4224				
Metered Sewer (\$/m ³)		\$1.3679			
Business: Garbage				\$40.20	
Flood Protection (Medium Non-stratified ICI)			\$452.40		
Flood Protection (Large Non-Stratified ICI)			\$904.79		
Flood Protection (Small or Stratified ICI)			\$171.72		