



# City of Richmond

## Report to Committee

**To:** Finance Committee **Date:** November 6, 2020  
**From:** John Irving, P.Eng. MPA **File:** 03-0970-01/2020-Vol  
 General Manager, Engineering and Public Works 01  
 Jerry Chong, CPA, CA  
 Acting General Manager, Finance and Corporate Services  
**Re:** **2021 Utility Budgets and Rates**

### Staff Recommendation

That the 2021 utility budgets, as presented in Option 2 for Water (page 5), Option 2 for Sewer (page 10), Option 1 for Drainage and Diking (page 16), and Option 3 for Solid Waste and Recycling (page 18), as outlined in the staff report, dated November 6, 2020 from the General Manager, Engineering and Public Works and the Acting General Manager, Finance and Corporate Services, be approved as the basis for establishing the 2021 utility rates and included in the Consolidated 5 Year Financial Plan (2021-2025) Bylaw.

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 (604-276-4064)

Att. 1

<b>REPORT CONCURRENCE</b>	
<b>CONCURRENCE OF GENERAL MANAGER</b>	
<b>REVIEWED BY SMT</b>	<b>INITIALS:</b>
	SL
<b>APPROVED BY CMO</b>	

## Staff Report

### Origin

This report presents the recommended 2021 utility budgets and rates for Water, Sewer, Drainage and Diking, and Solid Waste and Recycling. The utility rates need to be established and amended bylaws adopted by December 31, 2020 in order to take effect January 1, 2021.

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**

Utility services, including water, sewer, flood protection, and solid waste and recycling have been defined as essential services by the Province of BC during the COVID-19 pandemic. As such, the City continues to provide all utility services during this time, including:

### *Water*

All residents and businesses continue to have access to clean water for drinking, cleaning, gardening, and fire protection. Operation, maintenance and upgrade of the City's water infrastructure are on-going.

### *Sewer*

All residents and businesses with a sewer connection continue to receive full sewer service, including sewage collection and treatment. Operation, maintenance and upgrade of the City's sewer infrastructure are on-going.

### *Flood Protection*

The City continues to be well-protected from flood risks. Operation, maintenance, and upgrade of the City's drainage and diking infrastructure are on-going.

### *Solid Waste and Recycling*

Residents continue to receive regularly scheduled garbage and recycling collection. Litter collection, illegal dumping clean-up, and public space recycling are on-going, and the Recycling Depot continues to operate and serve the public.

During the COVID-19 pandemic, the City continues to provide a high level of service to Richmond residents and businesses, and the City's operating expenditures are carefully managed while operational efficiencies continue to be pursued in order to minimize the impact on ratepayers during this time.

Metro Vancouver's 2021 budget, as presented in their 2021-2025 Financial Plan, form a key component of the City's 2021 utility rates for water, sewer, and solid waste and recycling. Metro Vancouver rate increases for 2021 are as follows:

### *Water*

The 2021 Greater Vancouver Water District (GVWD) rate increase is 3.5%. The GVWD water purchase cost represents 58% of the City's Water Utility user fee budget.

### *Sewer*

The 2021 Greater Vancouver Sewerage and Drainage District (GVS&DD) sewer levy increase is 4.4%. The operations and maintenance component of the GVS&DD sewer

levy, which is funded through the Sewer Utility, represents 66% of the City's Sewer Utility user fee budget.

### *Solid Waste*

The Metro Vancouver solid waste tipping fees are increased by \$4 to \$117 per tonne for 2021, 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. Based on the "Ageing Utility and Road Infrastructure Planning – 2019 Update" report, dated August 16, 2019, there are additional annual funding requirements of \$1.7 million for water infrastructure, \$2.6 million for sanitary infrastructure, and \$7.4 million for drainage and diking infrastructure. The ageing infrastructure component is analyzed in subsequent sections of this report.

The recommended 2021 solid waste and recycling services include maintaining all services and programs which are designed to advance broader waste reduction and recycling objectives. The City remains a leader in providing robust recycling programs, currently diverting 79% of single-family residential waste. Budget amounts presented within this report include additional costs under the City's organics processing agreement for completion of the facility enclosure and related odour management controls. Various options are also presented relating to social distancing traffic control measures at the City's recycling depot, which are expected to be required through June 2021 in light of COVID-19.

Recognizing the impact of the COVID-19 pandemic on ratepayers as well as 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 2021. This includes three different options for each of the City's utilities.

For water, sewer, flood protection, and solid waste and recycling, Option 1 presents a zero rate increase; Options 2 and 3 present various actions the City can take to increase the 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 2021 rates are summarized in Tables 13 and 14.

**Water Utility**

Table 1. Water Utility Budget

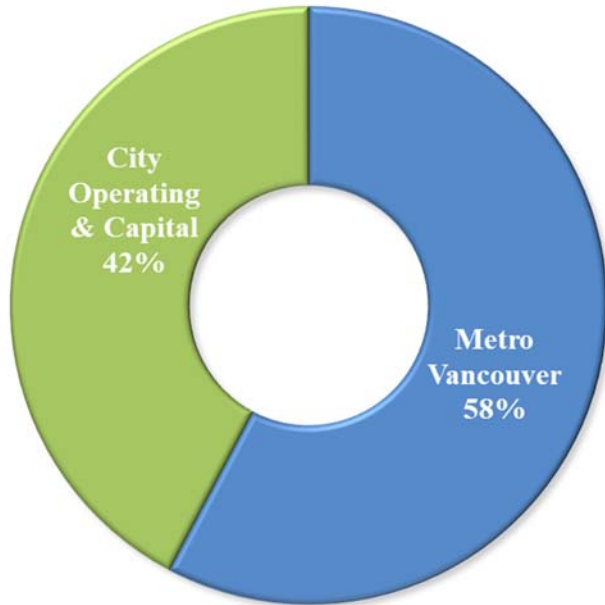
<b>Key Budget Areas</b>	<b>2020 Base Level Budget</b>  (Restated for Comparison <sup>1</sup> )	<b>Option 1</b> Zero Rate Impact  \$1,400,000 Drawdown from Provision	<b>Option 2</b> <b>(Recommended)</b>  \$700,000 Drawdown from Provision	<b>Option 3</b>  Non- Discretionary Increases
<b><u>Expenditures</u></b>				
Salary	\$6,261,300	\$258,300	\$258,300	\$258,300
PW Materials/Equipment/Power Costs	\$2,409,700	\$400	\$400	\$400
Operating Expenditures	\$1,319,400	<b>-\$19,600</b>	<b>-\$19,600</b>	<b>-\$19,600</b>
Water Meter Reading and Maintenance	\$182,400	\$0	\$0	\$0
Toilet Rebate Program	\$100,000	\$0	\$0	\$0
GVWD Water Purchases (Metro Vancouver)	\$27,558,300	\$135,900	\$135,900	\$135,900
Capital Infrastructure Replacement Program	\$7,500,000	\$0	\$0	\$0
Firm Price/Receivable	\$2,677,100	\$79,600	\$79,600	\$79,600
Residential Water Metering Program	\$1,285,900	\$0	\$0	\$0
Overhead Allocation	\$976,100	\$0	\$0	\$0
<b>Total Base Level Expenditure Budget</b>	<b>\$50,270,200</b>	<b>\$50,724,800</b>	<b>\$50,724,800</b>	<b>\$50,724,800</b>
<b><u>Revenues</u></b>				
Provision (Rate Stabilization)	\$0	<b>-\$1,400,000</b>	<b>-\$700,000</b>	\$0
Investment Income	<b>-\$392,000</b>	\$196,000	\$196,000	\$196,000
Firm Price/Receivable	<b>-\$2,677,100</b>	<b>-\$79,600</b>	<b>-\$79,600</b>	<b>-\$79,600</b>
Meter Rental	<b>-\$1,917,000</b>	<b>-\$28,400</b>	<b>-\$28,400</b>	<b>-\$28,400</b>
YVR Maintenance	<b>-\$30,000</b>	\$0	\$0	\$0
Provision (Toilet Rebate/Flushing)	<b>-\$259,200</b>	<b>-\$7,000</b>	<b>-\$7,000</b>	<b>-\$7,000</b>
Provision (OBI Adjustment) <sup>1</sup>	<b>-\$74,900</b>	\$74,900	\$74,900	\$74,900
Meter Re-Reads and Other Services	<b>-\$80,800</b>	\$0	\$0	\$0
<b>Total Base Level Revenue Budget</b>	<b>-\$5,431,000</b>	<b>-\$6,675,100</b>	<b>-\$5,975,100</b>	<b>-\$5,275,100</b>
<b>Net Budget</b>	<b>\$44,839,200</b>	<b>\$44,049,700</b>	<b>\$44,749,700</b>	<b>\$45,449,700</b>
<b>Net Difference Over 2020 Base Level Budget</b>		<b>-\$789,500</b>	<b>-\$89,500</b>	<b>\$610,500</b>

<sup>1</sup>The 2020 Base Level budget has been restated to include the approved Operating Budget Impacts approved with the 2020 Capital Budget. Refer to "Provision (OBI Adjustment)" discussion on page 7.

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

GVWD Water Purchases – Metro Vancouver

Figure 1. 2021 Water Utility User Fee Breakdown



Metro Vancouver has indicated that their water rate will increase by 3.5%. Through careful management of the City’s water demand, the corresponding increase in water purchase cost from Metro Vancouver is \$135,900.

Bulk water is purchased from Metro Vancouver on a volumetric basis and accounts for 58% of Richmond’s water rate (Figure 1). The City’s 2021 water rates are based on Metro Vancouver’s 2021-2025 Financial Plan (Table 2), which was approved by the Metro Vancouver Board on October 30, 2020.

Table 2. Metro Vancouver Water Rate Projection – 2021-2025 Financial Plan

	2021	2022	2023	2024	2025
<b>Blended Rate (\$/m<sup>3</sup>)</b>	\$0.8110	\$0.8532	\$0.9078	\$0.9886	\$1.0954
<b>% Change</b>	3.5%	5.2%	6.4%	8.9%	10.8%

Metro Vancouver’s projected rate increases for the next three years are significantly less than previously indicated in their 2020-2024 Financial Plan, with the objective of reducing cost impacts to municipalities considering the implications of the COVID-19 pandemic. To achieve this, Metro Vancouver has deferred parts of their capital plan and increased borrowing, transferring the burden to future years in order to recover the shortfall resulting from delaying larger rate increases. This will likely result in more significant Metro Vancouver rate increases beyond 2025.

Water Metering (Avoided Water Purchase Costs)

Water metering plays a significant role in the City’s water demand management program, which improves equity to ratepayers 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 12% despite an increase in population of 26%. In 2019, this reduction in per capita water usage resulted in annual savings of \$11.9 million in avoided water purchase cost.

The City has made significant advances in water metering since the program was first introduced. Approximately 83% of the City's water use is currently metered. All single-family and ICI properties are metered and 50% of multi-family units are metered. Programs are in place to continue advancing water metering within the City particularly through the volunteer multi-family water metering program.

### City Operating Expenditures

The City's total operating expenditures (excluding Metro Vancouver costs) is below the Consumer Price Index (CPI). The main cost drivers for the operating expenditure increase include:

- Salary increase estimates for union agreements; and
- Equipment cost 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 2015 has been 1.3%, which is significantly below the CPI over the same period.

### Provision (OBI Adjustment)

Each year, subsequent to the approval of the utility budgets, the City's Capital Budget is approved, including operating budget impacts associated with the approved projects. Operating budget impacts (OBIs) may result in increases to the utility budget. Since the utility budget is already established, the impacts are included in the Consolidated 5 Year Financial Plan, funded by a one-time transfer from the Water Levy Stabilization Provision. In 2020, \$74,900 was transferred from the Water Levy Stabilization Provision to fund OBIs associated with the 2020 Capital Program and has been incorporated into the 2021 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 its long-term variability. Any actual revenue will be transferred to the Water Levy Stabilization Provision for future rate stabilization funding.

### Capital Infrastructure Replacement Program Contribution

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 funding requirement of \$9.2 million, with a target funding range of \$8.6 million to \$10.4 million. Considering the economic impact of the COVID-19 pandemic, in order to minimize rate increases, there are no proposed increases to the Water Capital Infrastructure Replacement Program.

#### Water Levy Stabilization Provision Contribution (Water Rate Options)

The Water Levy Stabilization was established by Council as a funding source for water rate stabilization. The Provision has a balance of \$15.7 million as of September 30, 2020, and is intended to offset significant increases in regional water purchase costs. Option 1 includes a drawdown of \$1.4 million and Option 2 includes a drawdown of \$0.7 million from the Water Levy Stabilization Provision to subsidize the water rate and reduce the impact on ratepayers; Option 3 maintains a \$0 impact on the Provision.

#### Investment Income

Due to the economic impacts of the COVID-19 pandemic, the Bank of Canada decreased their policy interest rate by 1.5% in 2020 (from 1.75% to 0.25%), which has a direct impact on the City's investment return. The interest rate is expected to remain at this low level until there are signs of steady economic recovery in future years.

#### Impact on 2021 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 the 2020 rates and the 2021 optional rates.

Option 1 presents zero rate increase with a drawdown from the Water Levy Stabilization Provision. Options 2 and 3 result in rate increases and less drawdown from the Provision.

Table 3. 2021 Metered Rate Water Options (net of discount)

Customer Class	2020 Rates	Option 1	Option 2 (Recommended)	Option 3
Single-Family Dwelling (based on 325 m <sup>3</sup> average)	\$459.27	\$459.27 <i>\$0</i>	\$466.22 <i>\$6.95</i>	\$473.18 <i>\$13.91</i>
Townhouse (based on 218 m <sup>3</sup> average)	\$315.08	\$315.08 <i>\$0</i>	\$319.75 <i>\$4.67</i>	\$324.41 <i>\$9.33</i>
Apartment (based on 157 m <sup>3</sup> average)	\$209.99	\$209.99 <i>\$0</i>	\$213.35 <i>\$3.36</i>	\$216.71 <i>\$6.72</i>
Metered Rate (\$/m <sup>3</sup> )	\$1.2802	\$1.2802 <i>\$0</i>	\$1.3016 <i>\$0.0214</i>	\$1.3230 <i>\$0.0428</i>



Table 4. 2021 Flat Rate Water Options (net of discount)

Customer Class	2020 Rates	Option 1	Option 2 (Recommended)	Option 3
Single-Family Dwelling	\$679.83	\$679.83 \$0	\$691.17 \$11.34	\$702.52 \$22.69
Townhouse	\$556.49	\$556.49 \$0	\$565.78 \$9.29	\$575.06 \$18.57
Apartment	\$358.60	\$358.60 \$0	\$364.58 \$5.98	\$370.57 \$11.97

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 in the bylaw will be before the 10% discount is applied, in order to achieve full cost recovery.

### Options Summary

#### *Option 1*

- Represents zero rate increase while maintaining the current level of service.
- Includes a drawdown of \$1.4 million from the Water Levy Stabilization Provision.
- Maintains \$7.5 million contribution to the Capital Infrastructure Replacement Program.

#### *Option 2 (Recommended)*

- Includes a drawdown of \$0.7 million from the Water Levy Stabilization Provision.
- Maintains \$7.5 million contribution to the Capital Infrastructure Replacement Program.

#### *Option 3*

- Maintains \$0 impact on the Water Levy Stabilization Provision.
- Maintains \$7.5 million contribution to the Capital Infrastructure Replacement Program.

### Recommended Option

Staff recommend the budgets and rates identified in Option 2 for the Water Utility. This option maintains the current level of service while utilizing the Water Levy Stabilization Provision to reduce the rate increase, considering the economic impact of COVID-19. Staff also recommend maintaining the current contribution to the Capital Infrastructure Replacement Program at this time, as it is relatively close to the target funding range, and the funding gap can be reduced in future years when the impacts of COVID-19 on residents and businesses subside, without any negative effect on long-term ageing infrastructure.

**Sewer Utility**

Table 5. Sewer Utility Budget

<b>Key Budget Areas</b>	<b>2020 Base Level Budget</b> (Restated for Comparison <sup>1</sup> )	<b>Option 1</b> Zero Rate Impact \$1,200,000 Drawdown from Provision	<b>Option 2</b> <b>(Recommended)</b> \$600,000 Drawdown from Provision	<b>Option 3</b> Non-Discretionary Increases
<b><u>Expenditures</u></b>				
Salary	\$3,397,000	\$136,400	\$136,400	\$136,400
PW Materials/Equipment/Power Costs	\$1,811,400	\$2,400	\$2,400	\$2,400
Operating Expenditures	\$733,200	-\$11,700	-\$11,700	-\$11,700
GVS&DD O&M (Metro Vancouver)	\$24,119,800	-\$41,000	-\$41,000	-\$41,000
GVS&DD Debt (Metro Vancouver) <sup>2</sup>	\$2,218,600	\$1,193,700	\$1,193,700	\$1,193,700
Capital Infrastructure Replacement Program	\$5,806,400	\$0	\$0	\$0
Firm Price/Receivable	\$642,600	\$18,100	\$18,100	\$18,100
Overhead Allocation	\$585,400	\$0	\$0	\$0
<b>Total Base Level Expenditure Budget</b>	<b>\$39,314,400</b>	<b>\$40,612,300</b>	<b>\$40,612,300</b>	<b>\$40,612,300</b>
<b><u>Revenues</u></b>				
Provision (Rate Stabilization)	-\$500,000	-\$700,000	-\$100,000	\$500,000
Provision (OBI Adjustment) <sup>1</sup>	-\$83,200	\$83,200	\$83,200	\$83,200
Investment Income	-\$152,000	\$76,000	\$76,000	\$76,000
Firm Price/Receivable	-\$642,600	-\$18,100	-\$18,100	-\$18,100
Property Tax for GVS&DD Debt <sup>2</sup>	-\$2,218,600	-\$1,193,700	-\$1,193,700	-\$1,193,700
<b>Total Base Level Revenue Budget</b>	<b>-\$3,596,400</b>	<b>-\$5,349,000</b>	<b>-\$4,749,000</b>	<b>-\$4,149,000</b>
<b>Net Budget</b>	<b>\$35,718,000</b>	<b>\$35,263,300</b>	<b>\$35,863,300</b>	<b>\$36,463,300</b>
<b>Net Difference Over 2020 Base Level Budget</b>		<b>-\$454,700</b>	<b>\$145,300</b>	<b>\$745,300</b>

<sup>1</sup> The 2020 Base Level budget has been restated to include the approved Operating Budget Impacts approved with the 2020 Capital Budget. Refer to "Provision (OBI Adjustment)" discussion on page 12

<sup>2</sup> GVS&DD Debt (Metro Vancouver) charges levied through taxes based on property assessment values

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

Metro Vancouver GVS&DD Sewer Levy

Metro Vancouver’s GVS&DD Sewer Levy will increase by \$1.15 million for Richmond in 2021. Metro Vancouver’s Sewer Levy comprises of an operations and maintenance component as well as a debt component. The debt component, which is mainly due to the Gilbert Road Sewer, has historically been levied through taxes as sewer debt levy and charged to property owners who are in sewer areas and based on property assessment values.

Richmond pays Metro Vancouver for bulk transmission and treatment of liquid waste on a flat rate basis. Metro Vancouver costs account for 66% of Richmond’s sewer rate and is a primary budget driver (Figure 2). Richmond’s 2021 sanitary sewer rates are based on Metro Vancouver’s 2021-2025 Financial Plan (Table 6), which was approved by the Metro Vancouver Board on October 30, 2020.

Figure 2. 2021 Sewer Utility User Fee Breakdown

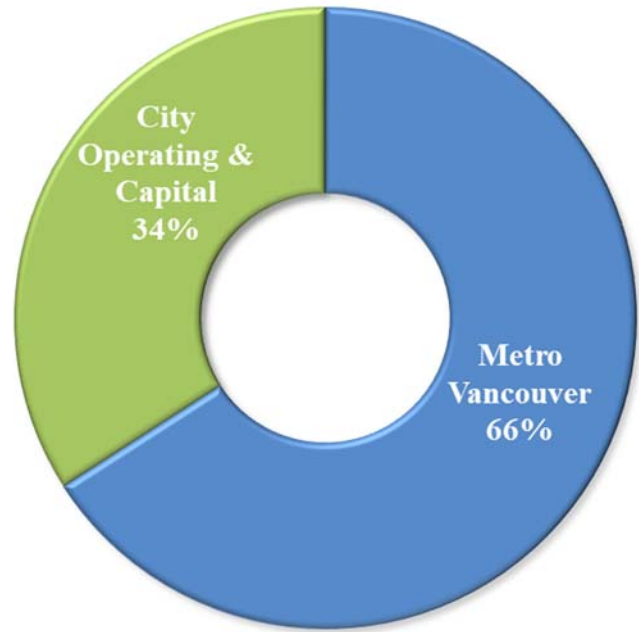


Table 6. Metro Vancouver 5-Year Overall Sewer Cost Projections – Lulu Island Sewerage Area

	2021	2022	2023	2024	2025
<b>Sewer Levy – LSA (\$ Millions)</b>	\$27.5	\$30.8	\$34.9	\$38.1	\$43.3
<b>% Change</b>	4.4%	12.2%	13.4%	8.9%	13.8%

Similar to their water rate, Metro Vancouver’s 2021 sewer rate increase is significantly less than previously indicated in their 2020-2024 Financial Plan, with the objective of reducing cost impacts to municipalities over that period considering the implications of the COVID-19 pandemic. To achieve this, Metro Vancouver has deferred parts of their capital plan and increased borrowing, transferring the burden to future years in order to recover the shortfall resulting from delaying larger rate increases. This will likely result in more significant Metro Vancouver rate increases beyond 2025.

Operating Expenditures

The City’s total operating expenditures (excluding Metro Vancouver costs) is below the CPI. The main cost drivers for the operating expenditure increase include:

- Salary increase estimates for union agreements; and
- Equipment cost increases.

The City's operating expenditures are carefully managed and considerable measures have been taken to minimize cost increases where possible.

#### Provision (OBI Adjustment)

Each year, subsequent to the approval of the utility budgets, the City's Capital Budget is approved, including OBIs associated with the approved projects. OBIs may result in increases to the utility budget. Since the utility budget is already established, the impacts are included in the Consolidated 5 Year Financial Plan, funded by a one-time transfer from the Sewer Levy Stabilization Provision. This amount is incorporated into the base sewer utility budget in the following year. In 2020, \$83,200 was transferred from the Sewer Levy Stabilization Provision to fund OBIs associated with the 2020 Capital Program and has been incorporated into the 2021 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 its long-term variability. Any actual revenue will be transferred to the Sewer Levy Stabilization Provision for future rate stabilization funding.

#### Capital Infrastructure Replacement Program

The annual capital contribution for sewer-related infrastructure replacement is currently \$5.8 million. The "Ageing Utility and Road Infrastructure Planning – 2019 Update" report identified a long-term annual funding requirement of \$8.4 million, with a target funding range of \$7.8 million to \$9.1 million. Considering the economic impact of the COVID-19 pandemic, in order to minimize rate increases, there are no proposed increases to the Sewer Capital Infrastructure Replacement Program.

#### Sewer Levy Stabilization Provision (Sewer Rate Options)

The Sewer Levy Stabilization was established by Council as a funding source for sewer rate stabilization. The Provision has a balance of \$9.1 million as of September 30, 2020, and is intended to offset significant increases in regional sewer collection and treatment costs.

Over the past few years, the sewer utility has maintained a \$500,000 drawdown to partially offset rate increases. Option 1 increases the drawdown to \$1.2 million and Option 2 increases the drawdown to \$0.6 million from the Sewer Levy Stabilization Provision to subsidize the sewer rate and reduce the impact on ratepayers. Option 3 includes a \$0 impact on the Provision.

### Investment Income

Due to the economic impacts of the COVID-19 pandemic, the Bank of Canada decreased their policy interest rate by 1.5% in 2020 (from 1.75% to 0.25%), which has a direct impact on the City's investment return. The interest rate is expected to remain at this low level until there are signs of steady economic recovery in future years.

### Impact on 2021 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. Italicized numbers represent the difference between the 2020 rates and the 2021 optional rates.

Option 1 presents zero rate increase with a drawdown from the Sewer Levy Stabilization Provision. Options 2 and 3 result in rate increases and less drawdown from the Provision.

Table 7. 2021 Metered Rate Sewer Options (net of discount)

Customer Class	2020 Rates	Option 1	Option 2 (Recommended)	Option 3
Single-Family Dwelling (based on 325 m <sup>3</sup> average)	\$400.11	\$400.11 \$0	\$407.06 \$6.95	\$414.02 \$13.91
Townhouse (based on 218 m <sup>3</sup> average)	\$268.38	\$268.38 \$0	\$273.05 \$4.67	\$277.71 \$9.33
Apartment (based on 157 m <sup>3</sup> average)	\$193.28	\$193.28 \$0	\$196.64 \$3.36	\$200.00 \$6.72
Metered Rate (\$/m <sup>3</sup> )	\$1.2311	\$1.2311 \$0	\$1.2525 \$0.0214	\$1.2739 \$0.0428

Table 8. 2021 Flat Rate Sewer Options (net of discount)

Customer Class	2020 Rates	Option 1	Option 2 (Recommended)	Option 3
Single-Family Dwelling	\$504.76	\$504.76 \$0	\$513.53 \$8.77	\$522.29 \$17.53
Townhouse	\$461.84	\$461.84 \$0	\$469.86 \$8.02	\$477.88 \$16.04
Apartment	\$384.65	\$384.65 \$0	\$391.33 \$6.68	\$398.01 \$13.36

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 in the bylaw will be before the 10% discount is applied, in order to achieve full cost recovery.

### Options Summary

#### *Option 1*

- Represents zero rate increase while maintaining the current level of service.
- Increases the drawdown from the Sewer Levy Stabilization Provision to \$1.2 million.
- Maintains \$5.8 million contribution to the Capital Infrastructure Replacement Program.

#### *Option 2 (Recommended)*

- Increases the drawdown from the Sewer Levy Stabilization Provision to \$0.6 million.
- Maintains \$5.8 million contribution to the Capital Infrastructure Replacement Program.

#### *Option 3*

- Reduces drawdown from the Sewer Levy Stabilization Provision to \$0.
- Maintains \$5.8 million contribution to the Capital Infrastructure Replacement Program.

### 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 utilizing the Sewer Levy Stabilization Provision to reduce the rate increase, considering the economic impact of COVID-19. Staff also recommend maintaining the current contribution to the Capital Infrastructure Replacement Program at this time, as the funding gap can be reduced in future years when the impacts of COVID-19 on residents and businesses subside, without any negative effect on long-term ageing infrastructure.

## **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 \$13.4 million.

### Flood Protection Rate Equity and Funding

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

At the November 4, 2019 Finance Committee, a referral was made for staff to examine the property rate classes for the Drainage and Diking rates. At the November 12, 2019 Regular Council Meeting, a referral was made for staff to examine the timing, concepts and plans for the potential acceleration of improvements to the City's diking system.

Staff have been developing a plan and options with respect to the above noted referrals for Council consideration. However, accelerating the flood protection program will result in significant utility rate increases to all ratepayers, and improving equity between rate classes will increase utility rates for some rate classes.

In consideration of the on-going COVID-19 pandemic, its economic impact, as well as the uncertainty and variability of the financial situation of Richmond ratepayers and the City, the report in response to both referrals has been deferred until Q2 2021, in advance of developing the 2022 Utility Rates and Budgets. Any recommended acceleration to the flood protection program in a fully accelerated mode would still be delivered over several decades, and delaying acceleration by one or two years will not have any negative impacts over the long term.

### Drainage Operations and Maintenance

The drainage operating cost for 2021 is approximately \$5.5 million and, since inception in 2001, has been included in the City's operating budget. It is appropriate for the Drainage and Diking Utility to fund both capital and operating, consistent with the Water Utility and Sewer Utility. The 2021 flood protection rate options include \$2 million for drainage operations and maintenance, as part of a phased approach to relocate the drainage operations and maintenance from the operating budget to the Drainage and Diking Utility. This will not result in a rate increase for 2021, as the Capital Infrastructure Replacement Program can be reduced in the immediate term without negative long term impacts.

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 rates shown in the bylaw will be before the 10% discount is applied, in order to ensure appropriate cost recovery. Italicized numbers represent the difference between 2020 and 2021 optional rates.

Table 9. 2021 Flood Protection Rate Options (net of discount)

Rate Class	2020 Rates	Option 1 (Recommended) Zero Rate Impact	Option 2  15% increase to medium and large non-stratified ICI properties, 2% increase to single-family, agricultural and small or stratified ICI properties, 1% increase to multi-family properties	Option 3  30% increase to medium and large non-stratified ICI properties, 4% increase to single-family, agricultural and small or stratified ICI properties, 2% increase to multi-family properties
Multi-family Residential	\$145.31	\$145.31 <i>\$0</i>	\$146.77 <i>\$1.46</i>	\$148.22 <i>\$2.91</i>
Single-family Residential and Agricultural	\$154.55	\$154.55 <i>\$0</i>	\$157.64 <i>\$3.09</i>	\$160.73 <i>\$6.18</i>
Small or Stratified ICI (less than 800m <sup>2</sup> )	\$154.55	\$154.55 <i>\$0</i>	\$157.64 <i>\$3.09</i>	\$160.73 <i>\$6.18</i>
Medium Non-Stratified ICI (between 800m <sup>2</sup> and 10,000m <sup>2</sup> )	\$488.60	\$488.60 <i>\$0</i>	\$561.88 <i>\$73.28</i>	\$635.17 <i>\$146.57</i>
Large Non-Stratified ICI, above 10,000m <sup>2</sup>	\$977.18	\$977.18 <i>\$0</i>	\$1,123.75 <i>\$146.57</i>	\$1,270.33 <i>\$293.15</i>
<b>Net Budget</b>	<b>\$13,353,800</b>	<b>\$13,391,600</b>	<b>\$13,668,800</b>	<b>\$13,945,600</b>
Capital Infrastructure Replacement Program	\$12,824,800	\$10,862,600	\$11,139,800	\$11,416,600
Drainage Operations and Maintenance	N/A	\$2,000,000	\$2,000,000	\$2,000,000
Box Culvert Preventative Maintenance Program	\$380,000	\$380,000	\$380,000	\$380,000
Dyke Repair Program	\$149,000	\$149,000	\$149,000	\$149,000
<b>Net Difference Over 2020 Base Level Budget</b>	<b>\$0</b>	<b>\$37,800</b>	<b>\$315,000</b>	<b>\$591,800</b>



### Options Summary

#### *Option 1 (Recommended)*

- Zero rate impact to all properties.
- Maintains existing funding for the Box Culvert Preventative Maintenance Program and the Dike Repair Program.

#### *Option 2*

- Improves equity based on different levels of demand various properties have on the City's drainage and diking systems. Increases the rate for medium and large non-stratified ICI properties by 15%, single-family, agricultural, and small or stratified ICI properties by 2%, and multi-family properties by 1%.
- Maintains existing funding for the Box Culvert Preventative Maintenance Program and the Dike Repair Program.

#### *Option 3*

- Improves equity based on different levels of demand various properties have on the City's drainage and diking systems. Increases the rate for medium and large non-stratified ICI properties by 30%, single-family, agricultural, and small or stratified ICI properties by 4%, and multi-family properties by 2%.
- 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 1, which represents a zero rate increase for flood protection services. Mitigating the impacts of climate change-induced sea level rise and implementing the Flood Protection Management Strategy and Dike Master Plan is a long-term initiative that will span several decades. The funding gap can be reduced in future years when the impacts of COVID-19 on residents and businesses subside, without any negative impact to the City's level of flood protection in the immediate and long term.

**Solid Waste and Recycling**

Table 10. 2021 Solid Waste and Recycling Budget

<b>Key Budget Areas</b>	<b>2020 Base Level Budget</b>	<b>Option 1 Zero Rate Impact</b>	<b>Option 2 Partial Cost Increases Offset by Provision Funding</b>	<b>Option 3 (Recommended) Same as Option 2 (with no Offset by Provision Funding)</b>
<b><u>Expenditures</u></b>				
Salaries	\$3,760,600	\$430,400	\$430,400	\$430,400
Contracts	\$9,843,700	\$435,200	\$435,200	\$435,200
Equipment/Materials	\$918,000	\$73,600	\$73,600	\$73,600
Metro Vancouver Disposal Costs	\$1,391,600	\$223,000	\$223,000	\$223,000
Recycling Materials Processing	\$3,777,300	\$173,600	\$173,600	\$173,600
Container Rental/Collection	\$424,100	-\$53,600	-\$53,600	-\$53,600
Operating Expenditures	\$337,700	-\$100	-\$100	-\$100
Internal Shared Costs	\$104,900	\$7,300	\$7,300	\$7,300
Agreements	\$197,700	\$0	\$0	\$0
Rate Stabilization	\$368,400	\$0	\$0	\$0
<b>Base Level Expenditure Budget</b>	<b>\$21,124,000</b>	<b>\$22,413,400</b>	<b>\$22,413,400</b>	<b>\$22,413,400</b>
<b><u>Revenues</u></b>				
Application Fees	-\$90,000	\$0	\$0	\$0
Inspection Fees	-\$10,000	\$0	\$0	\$0
Recycling Material	-\$229,500	-\$57,600	-\$57,600	-\$57,600
Garbage Tags	-\$17,500	\$0	\$0	\$0
Unrealized Discounts	-\$108,000	\$0	\$0	\$0
Revenue Sharing Grant/Other	-\$9,100	\$0	\$0	\$0
Recycle BC Incentive	-\$1,927,800	-\$139,400	-\$139,400	-\$139,400
Provision (OBI Adjustment)	-\$1,061,200	-\$804,800	-\$261,900	\$0
<b>Base Level Revenue Budget</b>	<b>-\$3,453,100</b>	<b>-\$4,454,900</b>	<b>-\$3,912,000</b>	<b>-\$3,650,100</b>
<b>Net Budget</b>	<b>\$17,670,900</b>	<b>\$17,958,500</b>	<b>\$18,501,400</b>	<b>\$18,763,300</b>
<b>Net Difference Over 2020 Base Level Budget</b>		<b>\$287,600</b>	<b>\$830,500</b>	<b>\$1,092,400</b>

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

### Metro Vancouver Disposal Costs

The Metro Vancouver regional tipping fee for local governments will increase by \$4 from \$113/tonne in 2020 to \$117/tonne for 2021. 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.

Option 1 includes costs required to meet the City's contractual obligations relating to air quality permit requirements at the organics processing facility and continuation of all services under existing programs. Traffic control services provided by City staff at the Recycling Depot to achieve social distancing measures are also reflected in Option 1. Cost increases are offset by drawing from provision funding to keep rates at 2020 levels for most residents. Under Option 2, the cost for traffic control services (only) are offset by drawing from provision funding. All other program cost increases are recovered through rate increases. Under Option 3 there is no provision funding applied, therefore all program costs, including traffic control services, are recovered through rate increases.

These program options are discussed in more detail later in this report.

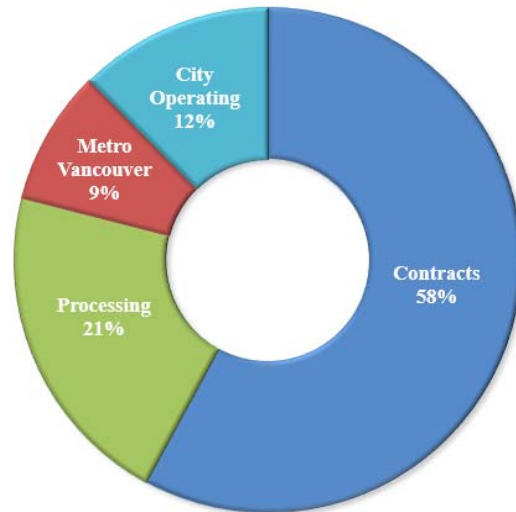
### City Operating Expenditures

Salary increase estimates relating to union agreements are the primary utility budget increases. Additional costs under all options include labour resource requirements to provide City-operated traffic control services at the Recycling Depot (vs. using a contracted service provider) for a period of up to six months (assumed timeframe). This would require approximately three additional on-call or part-time staff resources for each day of operation during this period. These costs are necessary to keep the Recycling Depot operational for residents while conforming to provincial social distancing guidelines in light of the current pandemic situation.

### Contracts

Contract costs are increased in accordance with overall growth in the number of units serviced and escalation clauses as stipulated in the City's solid waste and recycling services contract, which commenced January 1, 2019 and is for a maximum 10 year term. Costs include

Figure 3. 2021 Solid Waste and Recycling User Rate Breakdown



approximately \$30,000 for contracted traffic control services for the projected six month timeframe needed for social distancing measures at the Recycling Depot for those times where it may be needed periodically should trained City staff be unavailable.

### Recycling Materials Processing

Recycling material processing costs are increased to meet the City's obligations under the current organics processing contract. The organics processing operator, GFL Environmental, completed their facility enclosure as of the end of August, 2020. As a result, the operational aspects of the ongoing odour management upgrades at the facility are now in effect. The associated costs were identified as a component of the City's agreement with GFL Environmental. Other cost increases relate to processing materials at the Recycling Depot, including additional hazardous waste items accepted.

### Single-Use Plastics and Other Items

The City's *Single-Use Plastics and Other Items Bylaw 10000* was approved by the Minister of Environment and Climate Change Strategy on March 11, 2020. However, as the COVID-19 pandemic was emerging as a prevalent issue at that time, the provincial announcement regarding the bylaw approval was delayed until September 12, 2020. To enact the City's bylaw requires final adoption by Council. As the pandemic situation remains prevalent to this day and has impacted many businesses, implementation of the City's bylaw remains on hold at this time. Within the budget amounts in Table 10, all options include implementation costs of \$560,000 as per prior Council approvals. This allows for the bylaw implementation to proceed, once appropriate, in 2021. There is no impact to rates associated with this expenditure as there is a corresponding transfer from provision funding to offset these costs.

The challenges caused by plastic pollution is garnering action at both the provincial and federal levels of government. The province released amendments to the *Recycling Regulation* on June 29, 2020 based on feedback from the *CleanBC Plastics Action Plan* which includes the addition of "single-use products" to BC's extended producer responsibility program. The province is currently in consultation on their *Recycling Regulation Policy Intentions Paper* released September 12, 2020, which focuses specifically on extended producer responsibility programs in BC. At the federal level, Environment and Climate Change Canada is seeking feedback on a discussion paper released October 7, 2020, which proposes to restrict six harmful single-use plastics, establish recycled content requirements and improve and expand extended producer responsibility across Canada. Staff are actively reviewing these initiatives to evaluate potential impacts and will incorporate any necessary modifications to the City's implementation of Bylaw 10000.

### 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 \$3.3 million as of September 30, 2020.

## Service Level Enhancements Discussion

### *Recycling Depot Operation*

*Seven Day per Week Service:* All options include costs to expand the Recycling Depot to a seven day per week operation (increase from six days per week). Implementation of the seven day per week service level was contingent upon completion of the Recycling Depot upgrade project, which was substantially delayed during 2020 due to the COVID-19 pandemic. The upgrade project is now on target for completion in the fourth quarter 2020. As such, the seven day per week service level will commence January, 2021. The operating hours will remain from 9:00 a.m. – 6:15 p.m.

*City Provided Traffic Control:* The budgets and rates presented include the addition of labour hours for City staff (vs. a contractor) to conduct the traffic control operation at the Recycling Depot for an estimated six months in 2021 (i.e. to June, 2021). This service is needed to meet health regulation requirements for social distancing at the Recycling Depot in order for the facility to remain open to the public. Approximately three additional staff resources on a temporary full-time basis are required each day for this service.

Traffic control was initially considered a part-time need at the onset of the COVID-19 pandemic, therefore, contracting these services was appropriate. However, given the need is ongoing into 2021, a comparison of City staff vs. contracted services was undertaken. It was found that City staff provided services can be delivered at a savings of approximately \$40,000. The cost for contracted traffic control services seven days per week is estimated at \$300,000 vs. \$260,000 for City staff provided traffic control. The \$260,000 amount includes \$30,000 for contractor support, if required where City staff may be unavailable. Under Options 1 and 2, the additional traffic control costs do not impact the rates charged to residents since they are fully offset by a contribution from provision. Under Option 3, the additional costs do impact rates. Option 3 is the recommended approach as it does not dip into the City's provision funding for traffic control costs in the event additional funding is needed to continue traffic control services beyond the estimated six month timeframe.

In 2019, there were approximately 210,000 visits to the Recycling Depot, averaging over 17,400 visits per month, or over 73 customers for every hour the Recycling Depot is open. This represents a 25% increase in visits over the prior year.

### *Commercial Recycling Services Review*

This project was also not undertaken during 2020 due to the impacts to business caused by the COVID-19 pandemic. The purpose of this initiative is to undertake a detailed review and scoping exercise to establish opportunities for enhanced recycling for the commercial sector. Recycling rates in the commercial sector are among the lowest in accordance with Metro Vancouver's waste composition audits, at 50%. The activities for this project 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. The outcome would be an approach and strategy, with recommendations, to present to Council for further review and consideration.

The costs and temporary resources needed to undertake this project are included under all options at a cost of approximately \$370,000 with the expectation that this project will be undertaken at the appropriate time in 2021 (dependent on the pandemic situation). As the suggested review involves a scoping study to identify potential options for the commercial sector, the associated costs are offset by a contribution from provision in order that there is no impact to rates. Only after the results of the study are completed and reported back to Council would a recommended approach for City supported solutions be identified (with budget and rates 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 motor oil.

#### *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 \$663,000 for 2021 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 2021 Rates

The impact of the budget options to ratepayers is provided in the tables which follow. The principal reason for the increase in 2021 relates to inflationary contract costs stipulated in existing contracts, disposal cost increases, and costs associated with organics processing under the change in law provisions for odour management/air quality permit requirements. Numbers in italics represent the difference between 2020 rates and 2021 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. 2021 Solid Waste and Recycling Rate Options (net of discount)

Customer Class	2020 Rates	Option 1	Option 2	Option 3 (Recommended)
Single-Family Dwelling (Standard 240L Cart)	\$372.90	\$372.90 \$0.00	\$384.40 \$11.50	\$387.65 \$14.75
Townhouse (Standard 120L Cart)	\$257.15	\$257.15 \$0.00	\$264.40 \$7.25	\$267.65 \$10.50
Apartment	\$118.60	\$118.60 \$0.00	\$122.85 \$4.25	\$126.10 \$7.50
Business Rate	\$36.18	\$36.18 \$0.00	\$36.95 \$0.77	\$37.60 \$1.42

Table 12. 2021 Single-Family and Townhouse Net Rates by Garbage Cart Size (Per Recommended Option 3)

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	\$338.40	4%	\$243.15	17%
120L	\$362.90	11%	\$267.65	74%
240L	\$387.65	79%	\$292.40	8%
360L	\$492.65	6%	\$397.40	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 in the bylaw will be before the 10% discount is applied.

### Regional Issues

In 2021, garbage tipping fees for municipal loads will increase by \$4 per tonne. The generator levy will increase by \$6 per tonne, which represents the fixed costs of the region's transfer station network and solid waste planning. Tipping fees are projected to increase by \$4 per tonne in 2022, and increase by \$7 per tonne per year from 2023 to 2025.

In addition to standard operating programs, Metro Vancouver intends to pursue an update to the region's solid waste management plan to advance zero waste and incorporate circular economy principles. Other key activities to target in 2021 include an update to the funding model for recycling depots located at transfer stations, construction commencement at the Coquitlam Transfer Station replacement project and Surrey Recycling and Waste Drop-Off facility.

## Options Summary

### *Option 1*

- Represents full recovery via rates of all program costs, including seven day per week service at the Recycling Depot, and City staff provided traffic control for social distancing measures (for six months) to comply with COVID-19 related public health guidelines, where added program and traffic control costs are offset by provision funding for no net rate impact. The only exception under this Option is for multi-family residents who subscribe to the City's optional garbage service, where the optional garbage rate increases by \$1.75 or from \$75.00 to \$76.75.
- Meets the City's contractual obligations related to inflationary aspects of agreements and costs associated with odour management upgrades at the organics processing facility.
- Includes funding to implement the City's Single-Use Plastics and Other Items Bylaw 10000 and undertake a Commercial Recycling Services Review at the appropriate time, depending on the current pandemic situation, offset by provision funding.

### *Option 2*

- Represents full recovery via rates of all program costs, including seven day per week service at the Recycling Depot, and City staff provided traffic control services to achieve social distancing measures (for six months) to comply with COVID-19 related public health guidelines where these added traffic control costs are offset by provision funding. Other program cost increases are reflected as an increase in the rates charged to residents.
- Meets the City's contractual obligations related to inflationary aspects of agreements and costs associated with odour management upgrades at the organics processing facility.
- Includes funding to implement the City's Single-Use Plastics and Other Items Bylaw 10000 and undertake a Commercial Recycling Services Review at the appropriate time, depending on the current pandemic situation, offset by provision funding.

### *Option 3 (Recommended)*

- Represents full recovery via rates of all program costs, including seven day per week service at the Recycling Depot, and City staff provided traffic control services to achieve social distancing measures (for six months) to comply with COVID-19 related public health guidelines.
- Meets the City's contractual obligations related to inflationary aspects of agreements and costs associated with odour management upgrades at the organics processing facility.
- Includes funding to implement the City's Single-Use Plastics and Other Items Bylaw 10000 and undertake a Commercial Recycling Services Review at the appropriate time, depending on the current pandemic situation, offset by provision funding.

## 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 2021. Additionally, this option allows for traffic control services to be provided by City staff resources for a six-month period in 2021 to ensure social distancing measures are effectively delivered at the City's Recycling Depot.



### Total Recommended 2021 Utility Rate Option

In light of the economic impacts of the COVID-19 pandemic on ratepayers, staff recommend the budget and rate options as follows:

- Option 2 is recommended for Water
- Option 2 is recommended for Sewer
- Option 1 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 2020 rates and 2021 proposed rates.

Table 13. 2021 Estimated Total Net Rates to Metered Customers

Customer Class	2020 Estimated Net Metered Rates	2021 Estimated Net Metered Rates (Recommended)
Single-Family Dwelling	\$1,386.83	\$1,415.48 <i>\$28.65</i>
Townhouse (on City garbage service)	\$985.92	\$1,005.76 <i>\$19.84</i>
Townhouse (not on City garbage service)	\$892.92	\$910.26 <i>\$17.34</i>
Apartment	\$667.18	\$681.40 <i>\$14.22</i>
<b>Commercial/Industrial</b>		
Metered Water (\$/m <sup>3</sup> )	\$1.2802	\$1.3016 <i>\$0.0214</i>
Metered Sewer (\$/m <sup>3</sup> )	\$1.2311	\$1.2525 <i>\$0.0214</i>
Business: Garbage	\$36.18	\$37.60 <i>\$1.42</i>
Business: Drainage & Diking (800 m <sup>2</sup> to 10,000 m <sup>2</sup> )	\$488.60	\$488.60 <i>\$0</i>
Business: Drainage & Diking (above 10,000 m <sup>2</sup> )	\$977.18	\$977.18 <i>\$0</i>
Business: Drainage & Diking (Others)	\$154.55	\$154.55 <i>\$0</i>

Table 14. 2021 Total Net Rates to Flat Rate Customers

Customer Class	2020 Net Flat Rates	2021 Net Flat Rates (Recommended)
Single-Family Dwelling	\$1,712.04	\$1,746.90 \$34.86
Townhouse (on City garbage service)	\$1,420.79	\$1,448.60 \$27.81
Townhouse (not on City garbage service)	\$1,327.79	\$1,353.10 \$25.31
Apartment	\$1,007.16	\$1,027.32 \$20.16

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 in the bylaw will be before the 10% discount is applied, in order to achieve full 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. 50% 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.

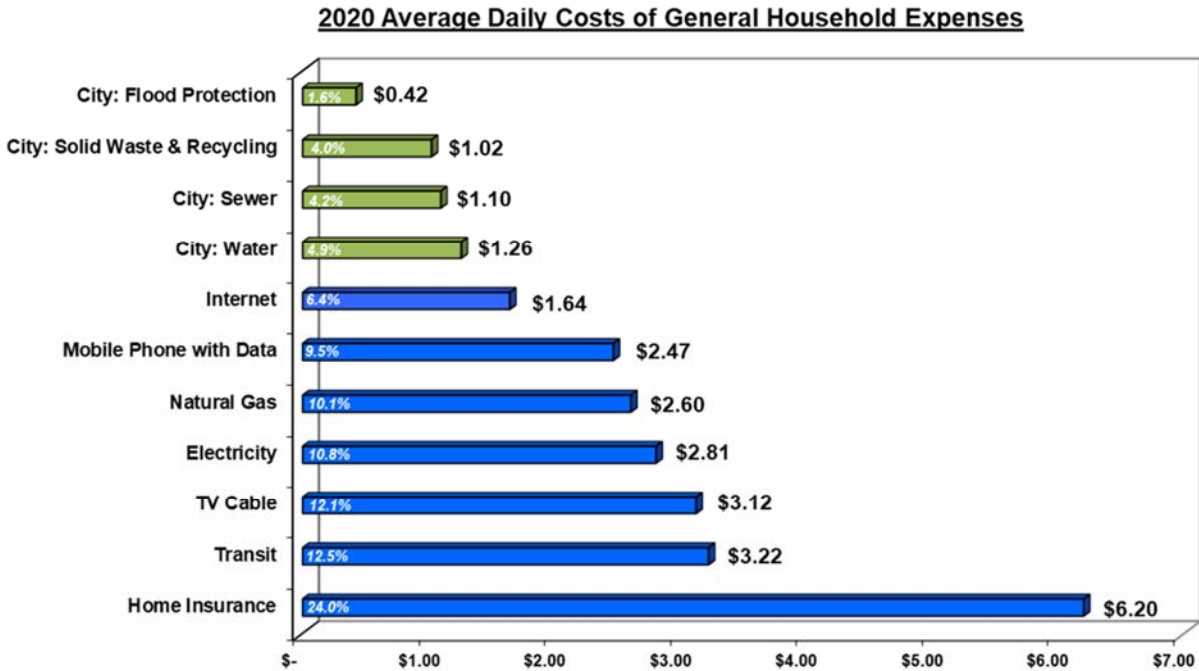
Table 15. Flat Rate and Metered Property Unit Counts

	2020 Percentages (Mid-Year)	2020 Counts (Mid-Year)	2021 Counts (Mid-Year Estimated)	Difference
Single-Family Residential	Flat Rate (3%)	769	769	0
	Metered (97%)	27,998	28,042	44
Townhouse	Flat Rate (64%)	11,482	11,367	-115
	Metered (36%)	6,344	6,516	172
Apartment	Flat Rate (43%)	14,797	14,715	-82
	Metered (57%)	19,481	20,694	1,213
Total Residential Units		80,871	82,103	1,232
Commercial Units	Metered	3,537	3,537	0
Farms	Metered	45	45	0

Comparison of 2020 City Utility Rates to Other Major Household Expenses

City utility fees represent approximately 15% 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

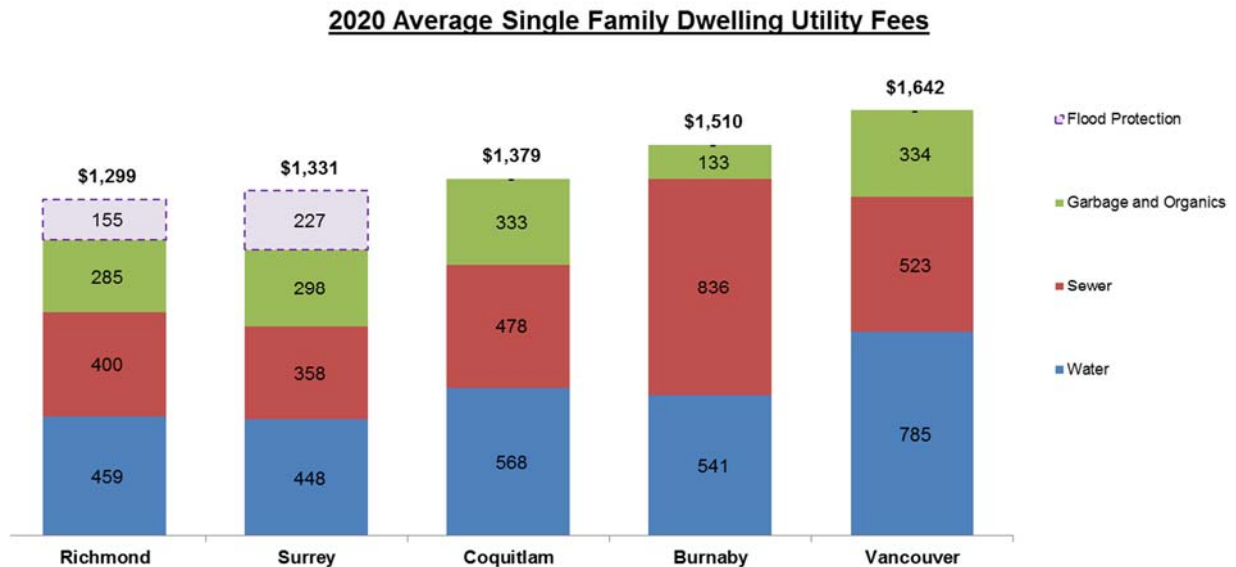


*Source: BC Hydro, Fortis BC, Rogers, Shaw, TD Insurance, and Translink  
Reference REDMS 6517059*

Comparison of 2020 Comparator Municipality Utility Fees

Figure 5 provides a comparison between the City's 2020 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 325m<sup>3</sup> and 345m<sup>3</sup> respectively, as single-family dwellings in these cities are 100% and 70% metered respectively; all other comparator municipalities are predominately charging 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 2020 Average Single-Family Dwelling Utility Fees



Sources:

City of Richmond - Based on metered rate

- Waterworks and Water Rates Bylaw No. 5637; Amendment Bylaw No. 10113
- Drainage, Dyke and Sanitary Sewer System Bylaw No. 7551; Amendment Bylaw No. 10114
- Solid Waste & Recycling Regulation Bylaw No. 6803; Amendment Bylaw No. 10115

City of Surrey - Based on metered rate

- Waterworks Regulation and Charges By-law No 2007 ; Amendment By-law No. 16337
- Sanitary Sewer Regulation and Charges By-law No. 2008; Amendment By-law No. 16611
- Waste Management Regulations and Charges Bylaw No. 2015; Amendment Bylaw No. 18412
- Drainage Parcel Tax By-law No. 2001; Amendment By-law No. 14593

City of Coquitlam - Based on flat rate

- Water Distribution Bylaw No. 4428; Amendment Bylaw No. 5021
- Sewer and Drainage Bylaw No. 4429; Amendment Bylaw No. 5022
- Solid Waste Management Bylaw No. 4679; Amendment Bylaw No. 5023

City of Burnaby - Based on metered rate

- Waterworks Regulation Bylaw No 1953 ; Amendment Bylaw No. 14113
- Sewer Charge Bylaw No. 1961; Amendment Bylaw No. 14111
- Solid Waste & Recycling Bylaw No. 2010; Amendment Bylaw No. 14090
- Sewer Parcel Tax Bylaw No. 1994; Amendment Bylaw No. 14110

City of Vancouver - Based on flat rate

- Water Works By-law No. 4848; Amendment Bylaw No. 12596
- Sewer & Watercourse By-law No. 8093; Amendment Bylaw No. 12600
- Solid Waste By-law No. 8417; Amendment Bylaw No. 12637

**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.

Staff recommend the following budgets by utility:

- Option 2 is recommended for Water, for a net budget of \$44.7 million;
- Option 2 is recommended for Sewer, for a net budget of \$35.9 million;
- Option 1 is recommended for Drainage and Diking, for a net budget of \$13.4 million;
- Option 3 is recommended for Solid Waste and Recycling, for a net budget of \$18.8 million; and
- An overall net utility budget of \$112.8 million.

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 2021 proposed utility budgets and rates for City services relating to the provision of water, sewer, flood protection, as well as solid waste and recycling. 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 and contract cost impacts. 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: 2021 Annual Utility Charges – Recommended Gross Rates per Bylaw

**2021 Annual Utility Charges – Recommended Gross Rates per Bylaw (Estimated Metered and Actual Flat Rates)**

	Water	Sewer	Flood Protection	Solid Waste & Recycling	Total
<b>Metered (Based on Average Consumption)</b>					
Single-Family Dwelling	\$518.02	\$452.29	\$171.72	\$430.72	\$1,572.75
Townhouse (with City garbage)	\$355.28	\$303.39	\$161.46	\$297.39	\$1,117.52
Townhouse (no City garbage)	\$355.28	\$303.39	\$161.46	\$191.28	\$1,011.41
Apartment	\$237.06	\$218.49	\$161.46	\$140.11	\$757.12
<b>Flat Rate (Actual)</b>					
Single-Family Dwelling	\$767.97	\$570.59	\$171.72	\$430.72	\$1,941.00
Townhouse (with City garbage)	\$628.64	\$522.07	\$161.46	\$297.39	\$1,609.56
Townhouse (no City garbage)	\$628.64	\$522.07	\$161.46	\$191.28	\$1,503.45
Apartment	\$405.09	\$434.81	\$161.46	\$140.11	\$1,141.47
<b>General – Other/Business</b>					
Metered Water (\$/m <sup>3</sup> )	\$1.4462				
Metered Sewer (\$/m <sup>3</sup> )		\$1.3917			
Business: Garbage				\$41.78	
Flood Protection (Medium Non-stratified ICI)			\$542.89		
Flood Protection (Large Non-Stratified ICI)			\$1,085.76		
Flood Protection (Small or Stratified ICI)			\$171.72		