



# City of Richmond

## Report to Committee

**To:** Finance Committee **Date:** October 31, 2017  
**From:** Andrew Nazareth **File:** 03-0970-01/2017-Vol  
 General Manager, Finance & Corporate Services 01  
 Robert Gonzalez, P.Eng.  
 Deputy CAO and General Manager,  
 Engineering & Public Works

**Re:** **2018 Utility Budgets and Rates**

### Staff Recommendation

That the 2018 Utility Budgets, as outlined under Option 1 for Water, Option 2 for Sewer, Option 2 for Drainage and Diking, and Option 1 for Solid Waste and Recycling, as contained in the staff report dated October 31, 2017 from the General Manager of Finance & Corporate Services and the Deputy CAO and General Manager of Engineering & Public Works, be approved as the basis for establishing the 2018 Utility Rates and preparing the 5 Year Financial Plan (2018-2021) Bylaw.

Andrew Nazareth  
 General Manager,  
 Finance & Corporate Services  
 (604-276-4095)

Robert Gonzalez, P.Eng.  
 Deputy CAO and General Manager,  
 Engineering and Public Works  
 (604-276-4150)

<b>REPORT CONCURRENCE</b>	
<b>CONCURRENCE OF GENERAL MANAGER</b>	
<b>REVIEWED BY SENIOR MANAGEMENT TEAM</b>	<b>INITIALS:</b> CJ
<b>APPROVED BY CAO</b>	

## Staff Report

### Origin

This report presents the recommended 2018 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, 2017, in order for the rates to take effect on January 1, 2018.

### Analysis

In September 2017, Canada's Ecofiscal Commission released a report discussing best practices for pricing and improving municipal water and sewer services. The report identifies universal water metering, identification of long-term funding requirements, developing full cost recovery strategies for infrastructure and adopting user fees as best practices. The City of Richmond has largely implemented these best practices and staff will continue to explore means to further improve upon the existing budget strategy and remain a leader in the region.

The three primary cost drivers increasing the City's utility budget are:

- Metro Vancouver fees;
- Solid waste processing contract costs; and
- Ageing infrastructure replacement (Capital Program).

Metro Vancouver's 2018 utility rates, as approved by the Metro Vancouver Board on October 27, 2017 are included in the City's 2018 utility rates and are as follows:

- Greater Vancouver Water District (GVWD) unit rate increase is 3.9%. GVWD's water purchase cost represents almost 60% of the total water utility budget.
- Greater Vancouver Sewerage and Drainage District (GVS&DD) sewer levy increase for Richmond is 3.4%. GVS&DD's sewer levy represents 66% of the total sewer utility budget.
- Metro Vancouver solid waste tipping fees for municipal customers will be \$103 per tonne for 2018, 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 replacement of ageing municipal infrastructure. The City's "Ageing Utility and Road Infrastructure Planning – 2017 Update" report received by Council on July 24, 2017 outlines annual funding requirements to support long-term infrastructure replacement. The City has achieved the target range for long-term ageing infrastructure replacement in both the water and drainage utilities and has achieved 72% of the long-term funding target for the sanitary sewer utility. The ageing infrastructure component is discussed in the water, sewer and drainage sections of this report.

The introduction of many new successful recycling and waste reduction services and programs in Richmond has contributed to high recycling rates by residents. Residents are currently recycling approximately 78% of their waste, just 2% short of the regional target of 80% waste diversion by 2020. Increased emphasis on food scraps recycling, coupled with disincentives to waste disposal

(such as switching to bi-weekly garbage collection), has helped advance diversion rates. A key challenge in 2017 has emerged in relation to food scraps processing, and the need for new approaches to address the odour challenges resulting from managing increasing volumes of this material. The lack of suitable, enclosed facilities for composting food scraps is driving processing capacity shortages in the region. Greater processing infrastructure investment from the private sector is needed to respond to these emerging challenges, given traditional outdoor composting methods are not sufficient to capture and treat odours. These are key issues driving the budget increases and rates in the 2018 Solid Waste and Recycling budget.

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 2018. Budgets and rates presented include 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 agency increases, contractual obligations, plant growth, fuel, insurance, etc.) based on the currently approved level 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 a summary of proposed rates for 2018 is shown in Tables 14 and 15.

**Water Utility**

**Table 1. Water Utility Budget**

<b>Key Budget Areas</b>	<b>2017 Base Level Budget (Restated for Comparison)</b>	<b>Option 1 (Recommended) Non-Discretionary Increases</b>	<b>Option 2 Non-Discretionary Increases with \$100,000 increase to Capital</b>	<b>Option 3 Non-Discretionary Increases with \$540,000 drawdown from Rate Stabilization for Zero Rate Increase</b>
<b><u>Expenditures</u></b>				
Salaries	\$5,472,100	\$138,200	\$138,200	\$138,200
PW Materials/Equipment/Power Costs	\$2,129,900	\$60,500	\$60,500	\$60,500
Operating Expenditures <sup>1</sup>	\$1,387,000	\$46,200	\$46,200	\$46,200
Water Meter Reading and Maintenance	\$234,900	\$1,000	\$1,000	\$1,000
Toilet Rebate Program	\$100,000	\$0	\$0	\$0
GVWD Water Purchases (Metro Vancouver)	\$24,303,700	\$129,500	\$129,500	\$129,500
Capital Infrastructure Replacement Program	\$7,500,000	\$0	\$100,000	\$0
Firm Price/Receivable	\$2,544,300	\$33,800	\$33,800	\$33,800
Residential Water Metering Program	\$1,320,000	\$0	\$0	\$0
Overhead Allocation	\$981,100	\$0	\$0	\$0
<b>Total Base Level Expenditure Budget</b>	<b>\$45,973,000</b>	<b>\$46,382,200</b>	<b>\$46,482,200</b>	<b>\$46,382,200</b>
<b><u>Revenues</u></b>				
Provision (Rate Stabilization)	\$0	\$0	\$0	-\$540,000
Investment Income	-\$392,000	\$0	\$0	\$0
Firm Price/Receivable	-\$2,544,300	-\$33,800	-\$33,800	-\$33,800
Water Meter Fixed Charge	-\$2,040,000	\$163,000	\$163,000	\$163,000
YVR Maintenance	-\$30,000	\$0	\$0	\$0
Provision (Toilet Rebate/Flushing)	-\$251,100	\$0	\$0	\$0
Provision (OBI Adjustment) <sup>2</sup>	-\$354,900	\$354,900	\$354,900	\$354,900
Meter Re-Reads and Other Services	-\$80,800	\$0	\$0	\$0
<b>Total Base Level Revenue Budget</b>	<b>-\$5,693,100</b>	<b>-\$5,209,000</b>	<b>-\$5,209,000</b>	<b>-\$5,209,000</b>
<b>Net Budget</b>	<b>\$40,279,900</b>	<b>\$41,173,200</b>	<b>\$41,273,200</b>	<b>\$40,633,200</b>
<b>Net Difference Over 2017 Base Level Budget</b>		<b>\$893,300</b>	<b>\$993,300</b>	<b>\$353,300</b>

<sup>1</sup> Operating Expenditures includes internal shared costs, vehicle charges, and asset management system costs

<sup>2</sup> See "Provision (OBI Adjustment)" on page 6

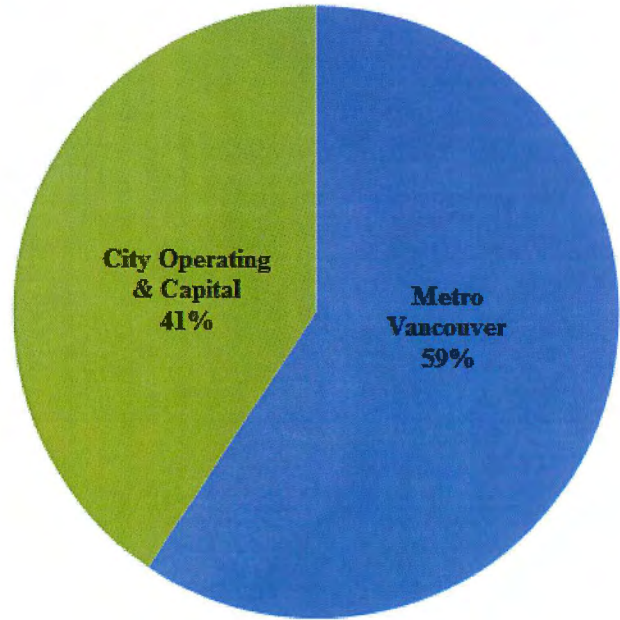
The following is an explanation of the budget reductions and increases outlined in Table 1.

**GVWD Water Purchases – Metro Vancouver**

Bulk water is purchased from Metro Vancouver on a unit volume basis and accounts for 59% of Richmond’s water rate (Figure 1). Highlights of the 2018 GVWD water purchase budget are as follows:

- Metro Vancouver’s water unit rate increase is 3.9%. Metro Vancouver’s 5-year water rate projections are identified in Table 2.
- Richmond’s water purchase budget net increase is 0.5% (\$129,500). Richmond’s successful Water Demand Management Program has mitigated Metro Vancouver’s unit rate increase through reduced water volume purchases. The reduced water purchase was achieved primarily through water metering and pressure management.

**Figure 1. 2018 Water Utility User Fee Breakdown**



**Table 2. Metro Vancouver 5-Year Water Rate Projection**

	2017	2018	2019	2020	2021	2022
<b>Blended Rate (\$/m<sup>3</sup>)</b>	\$0.6728	\$0.6990	\$0.7399	\$0.7966	\$0.8583	\$0.9259
<b>% Change</b>		3.9%	5.8%	7.7%	7.8%	7.9%

The volume of water the City purchases and is subsequently consumed by property owners has a degree of variability, primarily due to weather impacts on summer irrigation demands and the level of water use restrictions activated by Metro Vancouver. The total volume estimated for budget purposes is based on average City water demand over the last 4 years. The variability in the demand during this period has been plus or minus 5%, and similar variability can be anticipated in the 2018 water purchase.

**Capital Infrastructure Replacement Program**

The annual capital contribution for water-related infrastructure replacement is currently \$7.5 million. The “Ageing Utility and Road Infrastructure Planning – 2017 Update” report received by Council on July 24, 2017 identified long-term annual water infrastructure funding requirements of \$7.6 million, which has increased by 1.3% due to inflation. Options 1 and 3 maintain current funding levels for water capital project contributions; Options 2 includes an increase of \$100,000 to meet the increase in ageing infrastructure target funding levels.

### Provision (OBI Adjustment)

One-time transfers from the Provision are utilized each year to fund operating budget impacts (OBIs) for the current year's capital program. This amount is incorporated into the utility in the following year to become part of the base level budget. In 2017, \$354,900 was transferred from the Provision to fund OBIs associated with the 2017 Capital Program.

### Water Metering Program

Residential water metering plays a significant role in the City's water demand management program. Canada's Ecofiscal Commission's report on Best Practices for Pricing and Improving Municipal Water and Wastewater Services published in September 2017 identified water metering as the number one best practice for designing municipal water fees as it allows for implementation of volume-based user fees, allows the municipality to identify leaks, and contributes to long-term planning.

The City's Universal Single-Family Water Meter Program will be complete by the end of 2017. All industrial, commercial and institutional (ICI) properties are currently metered. By 2018, all single-family units and 44% of multi-family units in Richmond will be metered. There continue to be opportunities to advance water metering within the City through the switching out of touchpad meters for implementation of fixed base water metering and continuation of the voluntary multi-family water metering program. Staff will bring forward recommendations for the water metering program as part of the 2018 Capital Program for Council's consideration.

### Water Rate Stabilization Contribution

The Water Levy Stabilization Provision was established by Council as a funding source for water rate stabilization. The Provision, which has a balance of \$9.4 million as of September 30, 2017, has been used 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 \$540,000 drawdown from the Provision to subsidize the water rate. Option 1 is recommended as impacts from Metro Vancouver's 2018 water rate increases have been largely mitigated through water use reductions resulting from Richmond's successful water demand management program.

### 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.

### Impact on 2018 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 rate 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. Numbers in italics represent the difference between 2017 rates and 2018 optional rates.

Option 3 results in the lowest rates as it includes drawdown from the Water Levy Stabilization Provision to minimize rate impacts; Option 2 results in the highest rates as it includes additional contribution to the Capital Infrastructure Replacement Program.

Customer Class	2017 Rates	Option 1 (Recommended)	Option 2	Option 3
Single-Family Dwelling (based on 315 m <sup>3</sup> average)	\$408.41	\$413.55 \$5.14	\$414.49 \$6.08	\$408.41 \$0.00
Townhouse (based on 210 m <sup>3</sup> average)	\$279.47	\$282.90 \$3.43	\$283.53 \$4.06	\$279.47 \$0.00
Apartment (based on 160 m <sup>3</sup> average)	\$194.50	\$197.11 \$2.61	\$197.59 \$3.09	\$194.50 \$0.00
Metered Rate (\$/m <sup>3</sup> )	\$1.1595	\$1.1757 \$0.0162	\$1.1787 \$0.0192	\$1.1595 \$0.0000

Customer Class	2017 Rates	Option 1 (Recommended)	Option 2	Option 3
Single-Family Dwelling	\$615.62	\$624.30 \$8.68	\$625.90 \$10.28	\$615.62 \$0.00
Townhouse	\$503.94	\$511.04 \$7.10	\$512.36 \$8.42	\$503.94 \$0.00
Apartment	\$324.73	\$329.31 \$4.58	\$330.15 \$5.42	\$324.73 \$0.00

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

Advantages/Disadvantages of Various Options

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, which is within the target range identified in the “Ageing Utility and Road Infrastructure Planning – 2017 Update” report.
- Maintains a \$0 impact on the Water Levy Stabilization Provision.

Option 2

- Represents the minimum increase necessary to maintain the current level of service.
- Includes a \$100,000 increase to the Capital Infrastructure Replacement Program in order to meet the target funding level identified in the “Ageing Utility and Road Infrastructure Planning – 2017 Update” report.
- 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, which is within the target range identified in the “Ageing Utility and Road Infrastructure Planning – 2017 Update” report.
- Includes a contribution of \$540,000 drawdown from the Water Levy Stabilization Provision.

Recommended Option

Staff recommends the budgets and rates identified in Option 1 for Water Services. 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 recommends maintaining the current contribution to the Capital Infrastructure Replacement Program at this time since the current funding levels remain within the target funding range. Staff will continue to undertake further assessments to determine infrastructure replacement requirements going forward and identify any recommended changes to the annual contribution.

Reductions in water purchase volumes achieved through the City’s successful water demand management program is mitigating impacts of Metro Vancouver’s water rate increases on Richmond’s rate payers. As such, it is recommended that no additional drawdown from the Provision be utilized at this time. This will allow the Provision to accumulate until such time that Metro Vancouver introduces additional projects requiring that the rate be subsidized to level significant increases in water rates.

2017 Townhouse Flat Rate Credit

The rate identified in the 2017 Utility Budgets and Rates report for townhouse flat rate customers is \$559.93 and the corresponding bylaw indicates a townhouse flat rate of \$599.93. The Utility Rate Amendment Bylaws report that follows this report will include amendments to the 2017 Waterworks and Water Rate Bylaw to reflect the rate identified in the 2017 Utility Budgets and Rates report and recommendations for providing a one-time credit to compensate impacted residents for the additional charge.



## Sewer Utility

Key Budget Areas	2017 Base Level Budget (Restated for Comparison) <sup>1</sup>	Option 1 Non-Discretionary Increases	Option 2 (Recommended) Non-Discretionary Increases with Full-time Grease Inspector	Option 3 Non-Discretionary Increases with Full-time Grease Inspector and \$500,000 Additional Capital Infrastructure Replacement
<b>Expenditures</b>				
Salaries	\$2,850,700	\$60,400	\$100,270	\$100,270
PW Materials/Equipment/Power Costs	\$1,722,400	\$6,900	\$6,900	\$6,900
Operating Expenditures <sup>2</sup>	\$766,400	\$37,900	\$37,900	\$37,900
GVS&DD O&M (Metro Vancouver)	\$20,139,000	\$679,000	\$679,000	\$679,000
GVS&DD Debt (Metro Vancouver)	\$434,300	-\$61,600	-\$61,600	-\$61,600
Capital Infrastructure Replacement Program	\$5,256,400	\$0	\$0	\$500,000
Firm Price/Receivable	\$613,900	\$7,500	\$7,500	\$7,500
Overhead Allocation	\$565,400	\$0	\$0	\$0
<b>Total Base Level Expenditure Budget</b>	<b>\$32,348,500</b>	<b>\$33,078,600</b>	<b>\$33,118,470</b>	<b>\$33,618,470</b>
<b>Revenues</b>				
Provision (Rate Stabilization)	-\$500,000	\$0	\$0	\$0
Provision (OBI Adjustment) <sup>3</sup>	-\$226,200	\$226,200	\$226,200	\$226,200
Investment Income	-\$152,000	\$0	\$0	\$0
Firm Price/Receivable	-\$613,900	-\$7,500	-\$7,500	-\$7,500
Property Tax for GVS&DD Debt <sup>4</sup>	-\$434,300	\$61,600	\$61,600	\$61,600
<b>Total Base Level Revenue Budget</b>	<b>-\$1,926,400</b>	<b>-\$1,646,100</b>	<b>-\$1,646,100</b>	<b>-\$1,646,100</b>
<b>Net Budget</b>	<b>\$30,422,100</b>	<b>\$31,432,500</b>	<b>\$31,472,370</b>	<b>\$31,972,370</b>
<b>Net Difference Over 2017 Base Level Budget</b>		<b>\$1,010,400</b>	<b>\$1,050,270</b>	<b>\$1,550,270</b>

<sup>1</sup> One-time transfer from Provision for funding of grease inspector is excluded for sake of comparison

<sup>2</sup> Operating Expenditures includes internal shared costs, vehicle charges, and asset management system costs

<sup>3</sup> See "Provision (OBI Adjustment)" on page 11

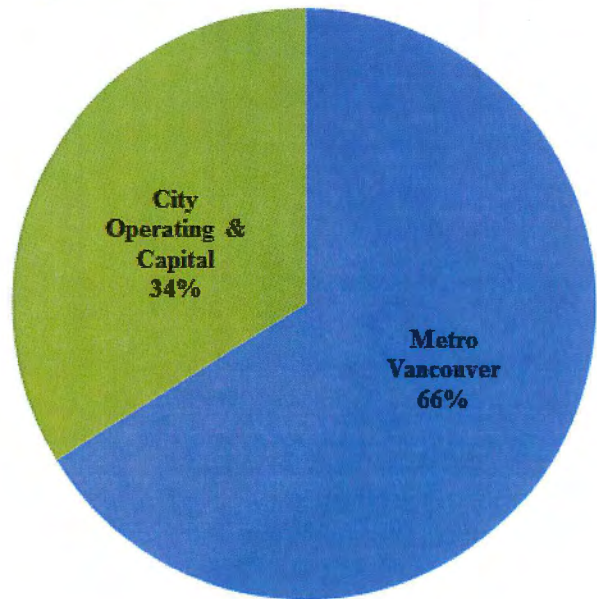
<sup>4</sup> See "Metro Vancouver GVS&DD Operating and Maintenance (O&M) Costs" on page 10

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**

The Metro Vancouver GVS&DD O&M levy will increase by \$679,000 (3.4%) to \$20,818,000 for 2018. Richmond pays Metro Vancouver for bulk transmission and treatment of collected liquid waste on a flat rate basis through the Metro Vancouver O&M levy, which accounts for approximately 66% of Richmond’s sewer rate and is a primary budget driver (Figure 2). 87% of non-discretionary expenditure increases proposed for the 2018 Sewer Utility Budget are attributed to increases in Metro Vancouver’s rates.

**Figure 2. 2018 Sewer Utility User Fee Breakdown**



Metro Vancouver’s overall 2018 sewer cost increase of 3.0% for Richmond includes a \$679,000 (3.4%) increase in the GVS&DD O&M levy to \$20,818,000 that is recovered through the City’s sewer utility rate, and a \$61,600 (14%) decrease in the GVS&DD debt to \$372,600, which is recovered through Richmond’s tax levy.

Metro Vancouver’s 5-year projections for overall sewer increases for the Lulu Island Sewerage Area (LSA) are identified in Table 6. The City of Richmond comprises all of LSA, and small percentages of the Fraser Sewerage Area (FSA) and Vancouver Sewerage Area (VSA). While 5-year projections have not been provided for Richmond, it is anticipated that increases in Richmond’s levy will be largely similar to projected increases for LSA.

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

	2017	2018	2019	2020	2021	2022
<b>Sewer Levy – LSA (\$ Millions)</b>	\$19.3	\$19.9	\$21.2	\$22.4	\$24.7	\$26.9
<b>% Change</b>		3.1%	6.4%	5.7%	10.0%	8.9%

**Grease Bylaw Inspector**

The impact of grease on the sanitary sewer collection system is an ongoing concern for the City of Richmond. The City manages grease through source control, sanitary sewer system monitoring and inspection and on-going maintenance. Richmond’s Drainage, Dyke and Sanitary System Bylaw No. 7551 requires food sector establishments to have and maintain grease traps as part of Richmond’s efforts for grease source control. In 2008, funding for a part-time Bylaw Enforcement staff member was established to ensure that grease interceptors are installed and maintained in accordance with the bylaw in all new food sector buildings.

In 2017, a one-time transfer of \$37,700 from the Sewer Levy Stabilization Provision to fund the increase in level of service from a part-time inspector to a full-time inspector was approved as part of the 2017 Utility Budgets and Rates to assess the effectiveness of the increased level of service. With the grease inspector upgraded from part-time to full-time in 2017, there has been an increase in bylaw compliance, indicating that the additional efforts from the grease inspector through increased education and inspection efforts has been successful in reducing grease discharge. In addition, expanded efforts from the grease inspector have led to development of an improved integrated inspection program that enhances efficiency and effectiveness. Due to the added value observed, the "Grease Inspector Update 2017" report dated September 22, 2017 from the Director, Engineering recommends:

*That a full-time grease inspector be submitted as part of the 2018 Utility Budgets for Council consideration.*

Options 2 and 3 include an additional level of service for upgrading the grease inspector position from part-time to full-time through the Sewer Utility, with a budget impact of \$39,870.

#### Capital Infrastructure Replacement Program

The annual capital contribution for sewer-related infrastructure replacement is currently \$5.25 million. The "Ageing Utility and Road Infrastructure Planning – 2017 Update" report identifies a long-term sustainable funding level of \$7.3 million for sanitary sewer infrastructure. Options 1 and 2 maintain the annual contribution to the capital infrastructure replacement program at its current level of \$5.25 million, while Option 3 increases the program by \$500,000, reducing the funding gap.

#### Provision (OBI Adjustment)

One-time transfers from the Provision are utilized each year to fund operating budget impacts (OBIs) for the current year's capital program. This amount is incorporated into the utility in the following year to become part of the base level budget. In 2017, \$226,200 was transferred from the Provision to fund OBIs associated with the 2017 Capital Program.

#### 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.

#### Sewer Rate Stabilization Provision

The Sewer Levy Stabilization Provision was established by Council as a funding source for sewer rate stabilization. The Provision, which has a balance of \$7.5 million as of September 30, 2017 has been used to offset significant increases in regional sewer treatment and capacity costs. All options maintain the current \$500,000 drawdown on the Sewer Rate Stabilization Provision to partially offset Metro Vancouver GVS&DD O&M increases.

### Impact on 2018 Sewer Rates

The impact of the three budget options on the sewer rates is shown in Tables 7 and 8. Table 7 identifies the impact of each option on metered customers; Table 8 identifies the impact on flat rate customers. Numbers in italics represent the difference between 2017 rates and 2018 optional rates.

Customer Class	2017 Rates	Option 1	Option 2 (Recommended)	Option 3
Single-Family Dwelling (based on 315 m <sup>3</sup> average)	\$321.05	\$329.71 <i>\$8.66</i>	\$330.15 <i>\$9.10</i>	\$335.51 <i>\$14.46</i>
Townhouse (based on 210 m <sup>3</sup> average)	\$214.03	\$219.81 <i>\$5.78</i>	\$220.10 <i>\$6.07</i>	\$223.67 <i>\$9.64</i>
Apartment (based on 160 m <sup>3</sup> average)	\$163.07	\$167.47 <i>\$4.40</i>	\$167.70 <i>\$4.63</i>	\$170.42 <i>\$7.35</i>
Metered Rate (\$/m <sup>3</sup> )	\$1.0192	\$1.0467 <i>\$0.0275</i>	\$1.0481 <i>\$0.0289</i>	\$1.0651 <i>\$0.0459</i>

Customer Class	2017 Rates	Option 1	Option 2 (Recommended)	Option 3
Single-Family Dwelling	\$417.89	\$429.19 <i>\$11.30</i>	\$429.74 <i>\$11.85</i>	\$436.71 <i>\$18.82</i>
Townhouse	\$382.35	\$392.69 <i>\$10.34</i>	\$393.20 <i>\$10.85</i>	\$399.57 <i>\$17.22</i>
Apartment	\$318.45	\$327.06 <i>\$8.61</i>	\$327.48 <i>\$9.03</i>	\$332.79 <i>\$14.34</i>

The rates outlined in Tables 7 and 8 are net rates. The bylaw provides a 10% discount for utility bills paid prior to a deadline. The rates shown will be increased by 10% in the supporting bylaws to provide for the discount incentive while ensuring appropriate cost recovery.

### Advantages/Disadvantages of Various Options

#### Option 1

- Represents the minimum increase necessary to maintain the current level of service.
- Maintains a \$5.25 million contribution to the Capital Infrastructure Replacement Program.
- Maintains a \$500,000 drawdown from the Sewer Levy Stabilization Provision to minimize the impact of regional increases on sewer rates.

#### Option 2 (Recommended)

- Represents the minimum increase necessary to maintain the current level of service.
- Maintains a \$5.25 million contribution to the Capital Infrastructure Replacement Program.
- Maintains a \$500,000 drawdown from the Sewer Levy Stabilization Provision to minimize the impact of regional increases on sewer rates.

- Includes an additional level of service for upgrading the part-time Grease Inspector to a full-time position, as recommended in the “Grease Inspector Update 2017” report.

### Option 3

- Represents the minimum increase necessary to maintain the current level of service.
- Includes a \$500,000 increase to the capital infrastructure replacement program, in order to reduce the gap between the current funding level of approximately \$5.25 million and the long-term annual funding requirement of \$7.3 million, as recommended in the “Ageing Utility and Road Infrastructure Planning – 2017 Update” report.
- Maintains a \$500,000 drawdown from the Sewer Levy Stabilization Provision minimize the impact of regional increases on sewer rates.
- Includes an additional level of service for upgrading the part-time Grease Inspector to a full-time position, as recommended in the “Grease Inspector Update 2017” report.

### Recommended Option

Staff recommends the budgets and rates identified in Option 2 for Sewer Services. This option accommodates an additional level of service for upgrading the part-time grease inspector to full-time, which demonstrated added values during the one-time trial in 2017. Due to significant Metro Vancouver’s O&M levy increases, staff recommends maintaining the current \$5.25 million contribution to the Capital Infrastructure Replacement Program to limit increases to sewer rates. Current funding levels are adequate for short to medium-term sanitary infrastructure replacement needs; however, the funding shortfall defers the financial obligation to future years and bridging the funding gap will be an important consideration in future utility budgets.

## **Drainage and Diking Utility**

The drainage and diking utility was created to develop a reserve fund to maintain, operate and upgrade drainage and diking infrastructure. The objective, as outlined in the “Ageing Utilities and Roads Infrastructure Planning – 2017 Update” report, is to build the fund to an anticipated annual target contribution of approximately \$12.8 million, subject to on-going review of the drainage and diking infrastructure replacement requirements.

### **Box Culvert Preventative Maintenance Program**

Through the 2017 Utility Budgets and Rates report, Council approved annual funding of \$240,000 to implement a Box Culvert Preventative Maintenance Program through the Drainage and Diking Utility. The program includes inspection and minor repairs along the City’s 56 kilometers of concrete box culverts. Inspection completed in 2017 has identified more minor defects than originally anticipated, and additional funding would be required to adequately address minor defects encountered during the inspection process. Staff recommends introducing an additional level of service with respect to the box culvert preventative maintenance program with a budget impact of \$140,000 to address defects encountered during box culvert inspections.

### **Dyke Repair Program**

The City’s dikes are continually subject to erosion, vegetation growth and human activity that damages the dikes. Staff proactively identify and repair this damage to maintain the dike’s high level of flood protection through the Dyke Repair program. Staff have identified a funding gap in the dikes maintenance program and are recommending that \$149,000 be allocated through the Drainage and Diking Utility to close this gap.

### **Drainage Rate Equity (Drainage Rate Options)**

In 2003, Council adopted a starting net rate of \$10 per property for drainage infrastructure replacements and a net rate of \$10 per property for dike upgrades, with an increase of \$10 each year. Since 2016, new rate classes have been introduced to enhance equity amongst users and ensure that user rates reflect varying demands users place on the City’s drainage and diking systems. In 2016, drainage and diking rates were increased for non-stratified industrial, commercial and institutional (ICI) properties with lot areas greater than 800 m<sup>2</sup> to enhance equity amongst users; in 2017, rates were further increased for large non-stratified ICI properties with lot areas greater than 10,000 m<sup>2</sup>. Residential and smaller ICI properties received no drainage and diking rate increases in 2015 and 2016.

Staff propose to further improve equity by introducing a new rate class for multi-family residential units which include apartments and townhouses. These units are associated with a smaller impermeable area and hence place less demand on the drainage system. Option 1 has no increase to individual rate payers, however, there is a budget increase due to growth (projecting an estimated 1,625 additional residential units to the City’s inventory for 2018). Option 2 maintains current drainage and diking rates for multi-family properties, increases rates for large, non-stratified ICI properties by 4% and increases rates for all other properties by 1%. Option 3 increases drainage and diking rates for all properties except multi-family units by 2%.

Drainage and Diking System Fees – Bylaw No. 7551

The City’s Drainage Improvement Reserve Fund was established in 2000 to fund the maintenance, operation and upgrade of drainage and diking infrastructure. Drainage and diking infrastructure works are funded through one utility as key components such as pump stations and canals are shared between the drainage and diking networks which operate as one integrated flood protection system.

The Drainage, Dyke, and Sanitary Sewer System Bylaw No. 7551 can be interpreted to include separate fees for the drainage system and the dike system. Additionally, language in the bylaw can be interpreted to limit use of the funds collected through the Drainage and Diking Utility for capital purposes. Staff will bring forward amendments through the 2018 Utility Rate Amendment Bylaws report that follows this report for clarifying the collection of fees and that the utility funds can be allocated to both capital and maintenance programs.

Impact on 2018 Drainage and Diking Rates

Table 9. 2018 Drainage and Diking Rate Options (Net of Discount)				
Rate Class	2017 Rates	Option 1 Non-discretionary increases	Option 2 (Recommended) 4% increase to Non-stratified ICI Properties > 800 m <sup>2</sup> , 1% increase to all other properties except Multi-family Properties	Option 3 2% increase to all properties except Multi-family Properties
Multi-family Residential	\$140.31	\$140.31 <i>\$0.00</i>	\$140.31 <i>\$0.00</i>	\$140.31 <i>\$0.00</i>
Single-family and Agricultural	\$140.31	\$140.31 <i>\$0.00</i>	\$141.71 <i>\$1.40</i>	\$143.12 <i>\$2.81</i>
ICI - Non-Stratified, between 800 m <sup>2</sup> and 10,000 m <sup>2</sup>	\$290.00	\$290.00 <i>\$0.00</i>	\$301.60 <i>\$11.60</i>	\$295.80 <i>\$5.80</i>
ICI - Non-Stratified, above 10,000 m <sup>2</sup>	\$580.00	\$580.00 <i>\$0.00</i>	\$603.20 <i>\$23.20</i>	\$591.60 <i>\$11.60</i>
ICI - Others	\$140.31	\$140.31 <i>\$0.00</i>	\$141.71 <i>\$1.40</i>	\$143.12 <i>\$2.81</i>
<b>Net Budget</b>	<b>\$11,631,000</b>	<b>\$11,859,000</b>	<b>\$11,920,000</b>	<b>\$11,956,000</b>
Capital Infrastructure Replacement Program	\$11,391,000	\$11,391,000	\$11,391,000	\$11,427,000
Box Culvert Preventative Maintenance Program	\$240,000	\$240,000	\$380,000	\$380,000
Dyke Repair Program	\$0	\$0	\$149,000	\$149,000
<b>Net Difference Over 2017 Base Level Budget</b>		<b>\$228,000</b>	<b>\$289,000</b>	<b>\$325,000</b>

The rates outlined in Table 9 are net rates. The bylaw provides a 10% discount for utility bills paid prior to a deadline. 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 2017 rates and 2018 optional rates.

### Advantages/Disadvantages of Various Options

#### Option 1

- Represents no increase to Drainage and Diking rates.
- Maintains the current Drainage and Diking capital program value of \$11,391,000.

#### Option 2 (Recommended)

- Improves equity by introducing a new rate class for multi-family residential properties and maintaining current rates for this rate class, which place the lowest demands on the City's drainage and diking system.
- Increases the rate for all large, non-stratified ICI properties by 4% and all single-family residential, agricultural and small or stratified ICI properties by 1%.
- Includes additional funding of \$140,000 for the Box Culvert Preventative Maintenance program to include repair of minor deficiencies encountered during box culvert inspections.
- Includes additional funding of \$149,000 for the Dyke Repair Program.
- Maintains the current Drainage and Diking capital program value of \$11,391,000.

#### Option 3

- Improves equity by introducing a new rate class for multi-family residential properties and maintaining current rates for this rate class, which place the lowest demands on the City's drainage and diking system.
- Increases the rate for all properties except multi-family residential units by 2%.
- Includes additional funding of \$140,000 for the Box Culvert Preventative Maintenance program to include repair of minor deficiencies encountered during box culvert inspections.
- Includes additional funding of \$149,000 for the Dyke Repair Program.
- Increases the Drainage and Diking capital program value by \$36,000 to \$11,427,000.

#### Recommended Option

Staff recommends the budgets and rates identified in Option 2 for Drainage and Diking Services. This option continues the City's ongoing efforts to increase equity within the drainage and diking utility rates, accommodates an additional level of service for addressing minor deficiencies encountered during box culvert inspections as part of the Box Culvert Preventative Maintenance Program, provides additional funding to address identified funding gaps in the Dyke Repair Program, and supports an incremental increase to the Drainage and Diking capital program to address the funding gap identified in the "Ageing Utility and Road Infrastructure Planning – 2017 Update" report.



**Solid Waste and Recycling**

Table 10. 2018 Solid Waste & Recycling Budget

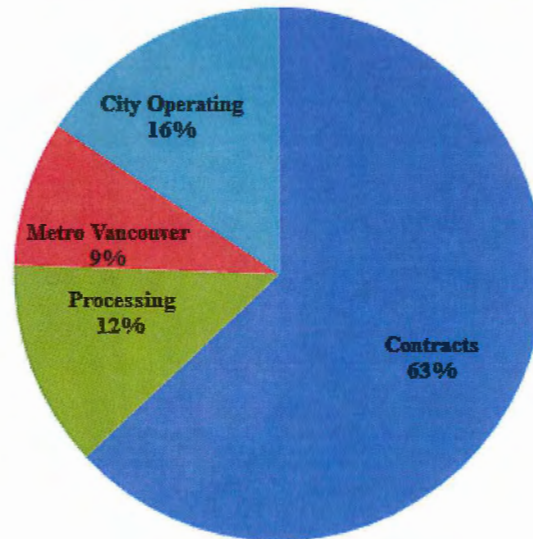
Key Budget Areas	2017 Base Level Budget (Original)	Option 1 (Recommended) Non-Discretionary Increases	Option 2 Non-Discretionary Increases \$200,000 Transfer from Provision	Option 3 Non-Discretionary Increases with \$400,000 Transfer from Provision
<b>Expenditures</b>				
Salaries	\$2,596,800	\$43,600	\$43,600	\$43,600
Contracts	\$8,182,000	\$669,800	\$669,800	\$669,800
Equipment/Materials	\$565,000	\$85,600	\$85,600	\$85,600
Metro Vancouver Disposal Costs	\$1,241,000	\$42,500	\$42,500	\$42,500
Recycling Materials Processing	\$1,275,800	\$553,900	\$553,900	\$553,900
Container Rental/Collection	\$154,100	\$3,600	\$3,600	\$3,600
Operating Expenditures	\$310,900	\$1,800	\$1,800	\$1,800
Internal Shared Costs	\$342,700	-\$2,200	-\$2,200	-\$2,200
Agreements	\$183,500	\$4,600	\$4,600	\$4,600
Rate Stabilization	\$369,500	-\$1,100	-\$1,100	-\$1,100
<b>Base Level Expenditure Budget</b>	<b>\$15,221,300</b>	<b>\$16,623,400</b>	<b>\$16,623,400</b>	<b>\$16,623,400</b>
<b>Revenues</b>				
Transfer from Provision	\$0	\$0	-\$200,000	-\$400,000
Recycling Material	-\$223,600	\$46,800	\$46,800	\$46,800
Garbage Tags	-\$17,500	\$0	\$0	\$0
Revenue Sharing Grant	-\$2,500	-\$600	-\$600	-\$600
MMBC Incentive	-\$1,700,000	-\$131,700	-\$131,700	-\$131,700
<b>Base Level Revenue Budget</b>	<b>-\$1,943,600</b>	<b>-\$2,029,100</b>	<b>-\$2,229,100</b>	<b>-\$2,429,100</b>
<b>Net Budget</b>	<b>\$13,277,700</b>	<b>\$14,594,300</b>	<b>\$14,394,300</b>	<b>\$14,194,300</b>
<b>Net Difference Over 2017 Base Level Budget</b>		<b>\$1,316,600</b>	<b>\$1,116,600</b>	<b>\$916,600</b>

Key Cost Drivers

There are unique issues impacting the Solid Waste and Recycling Budget and rates in 2018, including:

- Contract (transportation) and processing cost increases associated with improved practices to transport and process organic materials. The need for added infrastructure to incorporate improved odour management practices is driving cost increases across the region, so this issue is not unique only to Richmond.
- Metro Vancouver tipping fee costs for waste disposal are increasing by 3%. The impacts from increasing tipping fee costs are mitigated by increased diversion of recyclables, including organics. The City is currently diverting 78% of single-family residential waste.

**Figure 3. 2018 Solid Waste and Recycling User Rate Breakdown**



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

Salaries

All options include non-discretionary salary increases.

Contracts

Contract cost increases relate to non-discretionary increases for solid waste and recycling collection services as outlined in Council-approved agreements and an amount for growth in the number of units serviced. Cost increases also included projected amounts for additional hauling services associated with transportation of organics.

Equipment/Materials

Equipment and material cost increases are primarily associated with increasing costs for handling illegally dumped drywall. WorkSafe requirements for handling drywall relating to the potential presence of asbestos has led to increased illegal dumping of this material as well as added costs for handling and disposal. Increases in this category also relate to handling and replacement of Green Carts, which have higher damage rates due to the weight of organic materials.

### Metro Vancouver Disposal Costs

The regional tipping fee for local governments will increase by 3% or to \$103/tonne in 2018 (up from \$100/tonne in 2017). The \$5 per load transaction fee remains in effect and is unchanged.

The tiered rate structure with varying rates per tonne for solid waste disposal based on load size remains in effect, as outlined in the following table. The 2018 – 2022 Solid Waste Budget outlines a projected annual 3% increase, as shown in Table 11.

	2017	2018	2019	2020	2021	2022
<b>Tipping Fees</b>						
<b>Up to 1 tonne</b>	\$133	\$137	\$141	\$145	\$150	\$155
<b>1 to 9 tonnes</b>	\$112	\$115	\$119	\$122	\$126	\$130
<b>Over 9 tonnes</b>	\$80	\$82	\$85	\$87	\$90	\$93
<b>Municipal</b>	\$100	\$103	\$106	\$109	\$113	\$116

### Recycling Materials Processing

Recycling material processing costs are increased slightly associated with increased volumes from commercial landscape drop off of yard and garden trimmings at Ecowaste.

The most substantial increase relates to additional costs for organic materials processing due to odour management challenges. Greater emphasis on food scraps recycling is creating additional volumes of these more odorous materials as a component of yard and garden trimmings. Traditional low-cost open window composting methods are proving insufficient to treat and capture odours associated with composting food scraps. This is changing the landscape of organics material processing in the region, pointing to the need for developing better (indoor) facilities designed to treat and capture odour. Additional processing infrastructure investment in locally based facilities is needed as part of a broader regional strategy to help address odour management issues.

### Container Rental/Collection and Operating Expenditures

Container rental/collection costs are increased slightly associated with Recycling Depot costs under a new service contract 5757 EOI, awarded by Council on May 23, 2017.

### Internal Shared/Agreements

Internal Shared Costs are reduced to more closely align with expected costs. Agreement costs are increased slightly based on the consumer price index and contractual increase with Vancouver Coastal Health Authority for the City's public health protection service agreement.

### Rate Stabilization

Rate stabilization costs have decreased slightly associated with budget rounding. The Sanitation and Recycling provision has a current balance of \$1.8 million as of September 30, 2017.

### Base Level Expenditure Budget – General

The recommended Solid Waste & Recycling budget also includes a full-time Sanitation & Recycling Assistant position to support the variety of new programs implemented, including bi-weekly garbage, multi-family organics recycling, MMBC program, etc. There is no financial impact to the 2018 utility budget as the funding was approved in prior years as part of implementation of these programs and only represents a consolidation of temporary functions into a single, regular full time position. There is no change in service level or increased staffing levels associated with this full time position as the work is currently being performed on a temporary full-time basis by several staff.

### 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 these revenues will be transferred to the Sanitation and Recycling Provision for future rate stabilization funding.

### Revenues – General Solid Waste and Recycling Provision

#### *Transfer from Provision*

Option 1 reflects no funds being drawn from the Sanitation and Recycling provision to offset rates, thereby reflecting full program cost increases of \$1,316,600. Options 2 and 3 include optional transfers from existing provision funding to offset rates. Option 2 draws \$200,000 from provision for a net budget increase of \$1,116,600 to be recovered from rates. Option 3 draws \$400,000 from provision for a net budget increase of \$916,600 to be recovered from rates. These options can be considered as part of a rate leveling strategy to transition the cost increases over two years.

#### *Recycling Material Revenues*

Recycling material revenues are reduced associated with the decline in commodity markets for materials received at the Recycling Depot. Commodity pricing was sought under a new service contract 5757 EOI, awarded by Council on May 23, 2017.

#### *MMBC Revenue Incentive*

The net MMBC revenue incentive is increased to offset inflationary cost increases in order to maintain no net impact in the Blue Box/Multi-Family Recycling Rate. Overall, the MMBC program is expected to generate net revenue of approximately \$1 million for 2017 and can be deposited into the solid waste provision account subject to Council approval. This is in alignment

with previous Council direction (November 25, 2013) when the decision to join MMBC was made.

**Impact on 2018 Rates**

The impact of the budget options to ratepayers is provided in the tables which follow. The principal reason for the increase in 2018 relates to increased organics processing requirements associated with odour management challenges. Numbers in italics represent the difference between 2017 rates and 2018 optional rates.

Table 12 provides total costs based on standard garbage cart sizes for single-family (240L) and townhouse (120L). Table 13 provides a more detailed breakdown of Option 1 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 to by each customer class is also shown for information. Residents are able to reduce or increase the amount they pay for service based on the cart size they select for garbage collection service.

**Table 12. 2018 Solid Waste and Recycling Rate Options (net of discount)**

Customer Class	2017 Rates	Option 1 (Recommended)	Option 2	Option 3
Single Family Dwelling (Standard 240L Cart)	\$285.10	\$313.10 <i>\$28.00</i>	\$306.10 <i>\$21.00</i>	\$299.15 <i>\$14.05</i>
Townhouse (Standard 120L Cart)	\$213.60	\$223.95 <i>\$10.35</i>	\$223.95 <i>\$10.35</i>	\$223.95 <i>\$10.35</i>
Apartment	\$94.45	\$99.80 <i>\$5.35</i>	\$99.80 <i>\$5.35</i>	\$99.80 <i>\$5.35</i>
Business Rate	\$29.31	\$32.29 <i>\$2.98</i>	\$32.29 <i>\$2.98</i>	\$32.29 <i>\$2.98</i>

**Table 13. 2018 Single-Family and Townhome 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	\$275.10	5%	\$201.95	13%
120L	\$297.10	12%	\$223.95	78%
240L	\$313.10	78%	\$239.95	8%
360L	\$413.10	5%	\$339.95	1%

The rates outlined in Tables 12 and 13 are net rates. The bylaw provides a 10% discount for utility bills paid prior to a deadline. 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

In 2018, tipping fees are expected to increase by 3%. Further, Metro Vancouver has indicated annual projected increases over the next 5-year period, i.e. 2018 – 2022, to be consistent at 3% per year.

Metro Vancouver has undertaken consultation on a proposed new Generator Levy on all residential and commercial/institutional waste generated in the region, regardless of whether it is managed at Metro Vancouver facilities. This proposed levy, coupled with a proposed new Hauler Licensing bylaw, is aimed at ensuring all waste generators in the region contribute to the fixed costs of the region's transfer station network. Public consultation on changes to Greater Vancouver Sewerage and Drainage District Municipal Solid Waste and Recyclable Material Regulatory Bylaw No. 181, 1996 (Bylaw 181) was also undertaken to seek feedback on updated regulation of privately operated solid waste and recycling facilities. These proposed new regulations are being objected to by some members of private industry, who consider the approach as overly prescriptive, potentially limiting of the competitive landscape, and being pursued in a manner too quickly to support adequate consultation.

Metro Vancouver has reported expected overall positive performance in 2017. This is due to higher than expected waste flows combined with management of expenditures which has led to projected results being better than anticipated when compared to the approved 2017 budget. The expected net operational gains will increase the projected surplus to around \$10.9 million compared to a planned budget reserves contribution from generated surplus of \$4.9 million.

Key actions in 2018 include the introduction of an expanded polystyrene disposal ban, the Coquitlam Transfer Station replacement, Surrey small vehicle drop-off facility, and reduction activities focused on food waste and construction and demolition waste. The expanded polystyrene disposal ban would apply to polystyrene used for packaging and distributing products (excludes food and beverage packaging, packing peanuts, etc.) and would attract a 100% surcharge on threshold levels above 20% (by weight or volume). While expected to impact mostly commercial sources, the City could expect that illegal dumping of polystyrene will increase once the ban comes into effect, as typically occurs when disposal bans are introduced.

As noted previously in this report, a key emerging issue impacting the region is a lack of adequate organics processing capacity. In light of the increased focus on food scraps recycling, there is a lack of suitable processing facilities designed to capture, treat and manage odour from those facilities which manage food scraps. Additional efforts at the regional level to encourage greater processing capacity investment are needed.

### Advantages/Disadvantages of Various Options

#### Option 1 (Recommended)

- Represents full cost recovery via rates of all program costs, including substantial cost increases in organics processing.
- Includes funding for a full-time Sanitation & Recycling Assistant position to support the variety of new programs implemented, with no financial impact to the 2018 utility budget or rates as funding was approved in prior years.

#### Option 2

- Represents partial cost recovery via rates of all programs costs, including substantial cost increases in organics processing.
- Includes a \$200,000 offset from the Sanitation & Recycling provision to temporarily offset the rate impact of program cost increases.
- Includes funding for a full-time Sanitation & Recycling Assistant position to support the variety of new programs implemented, with no financial impact to the 2018 utility budget or rates as funding was approved in prior years.

#### Option 3

- Represents partial cost recovery via rates of all programs costs, including substantial cost increases in organics processing.
- Includes a \$400,000 offset from the Sanitation & Recycling provision to temporarily offset the rate impact of program cost increases.
- Includes funding for a full-time Sanitation & Recycling Assistant position to support the variety of new programs implemented, with no financial impact to the 2018 utility budget or rates as funding was approved in prior years.

### Recommended Option

Staff recommend the budget and rates identified in Option 1 for Solid Waste and Recycling. This option provides full funding for all existing programs in 2018. This option also ensures continuity of service by providing adequate resource levels to support solid waste and recycling programs through securing a full-time Sanitation & Recycling Assistant position.

### Total Recommended 2018 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 rates options as follows:

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

Table 14 summarizes the estimated total metered rate utility charge, based on average water and sewer consumption. Table 15 summarizes the total flat rate utility charge. Numbers in italics represent the difference between 2017 rates and 2018 proposed rates.

Table 14. 2018 Estimated Total Net Rates to Metered Customers		
Customer Class	2017 Estimated Net Metered Rates	2018 Estimated Net Metered Rates (Recommended)
Single-Family Dwelling (based on 315 m <sup>3</sup> average)	\$1,154.87	\$1,198.51 <i>\$43.64</i>
Townhouse (on City garbage service) (based on 210 m <sup>3</sup> average)	\$847.41	\$867.26 <i>\$19.85</i>
Townhouse (not on City garbage service) (based on 210 m <sup>3</sup> average)	\$760.41	\$777.76 <i>\$17.35</i>
Apartment (based on 160m <sup>3</sup> average)	\$592.33	\$604.92 <i>\$12.59</i>
<b>Commercial/Industrial</b>		
Metered Water (\$/m <sup>3</sup> )	\$1.1595	\$1.1757 <i>\$0.0162</i>
Metered Sewer (\$/m <sup>3</sup> )	\$1.0192	\$1.0481 <i>\$0.0289</i>
Business: General Environmental Charge	\$29.31	\$32.29 <i>\$2.98</i>
Business: Drainage & Diking (800 m <sup>2</sup> to 10,000 m <sup>2</sup> )	\$290.00	\$301.60 <i>\$11.60</i>
Business: Drainage & Diking (above 10,000 m <sup>2</sup> )	\$580.00	\$603.20 <i>\$23.20</i>
Business: Drainage & Diking (Others)	\$140.31	\$141.71 <i>\$1.40</i>



Customer Class	2017 Net Flat Rates	2018 Net Flat Rates (Recommended)
Single-Family Dwelling	\$1,458.92	\$1,508.86 \$49.94
Townhouse (on City garbage service)	\$1,240.20	\$1,268.50 \$28.30
Townhouse (not on City garbage service)	\$1,153.20	\$1,179.00 \$25.80
Apartment	\$877.94	\$896.90 \$18.96

The rates outlined in Tables 14 and 15 are net rates. The bylaw provides a 10% discount for utility bills paid prior to a 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**

By January 1, 2018, the residential metering program will be successful in transitioning 100% of single-family households from flat rates to metered rates. 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; 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 16:

	2017 Percentages (Mid-year)	2017 Counts (Mid-year)	2018 Counts (Mid-year Estimate)	Difference
Single-Family Residential	Flat Rate (6%)	1,567	681	-886
	Metered (94%)	26,909	28,028	1,119
Townhouse	Flat Rate (70%)	11,647	11,479	-168
	Metered (30%)	5,099	5,383	284
Apartment	Flat Rate (48%)	15,010	14,460	-550
	Metered (52%)	16,178	18,004	1,826
Total Residential Units		76,410	78,035	1,625
Commercial Units	Metered	3,538	3,538	0
Farms	Metered	47	47	0

Comparison of 2017 City Utility Rates to Other Major Household Expenses

In relation to other common household expenses, City utility expenses represent good value when compared with other daily major household expenses, such as telephone, cable, internet, electricity, transit and others. Water, sewer, garbage and drainage utility services are fundamental to a quality lifestyle for residents as well as necessary infrastructure to support the local economy. Figure 4 illustrates the value of these services when compared to other common household expenses.

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

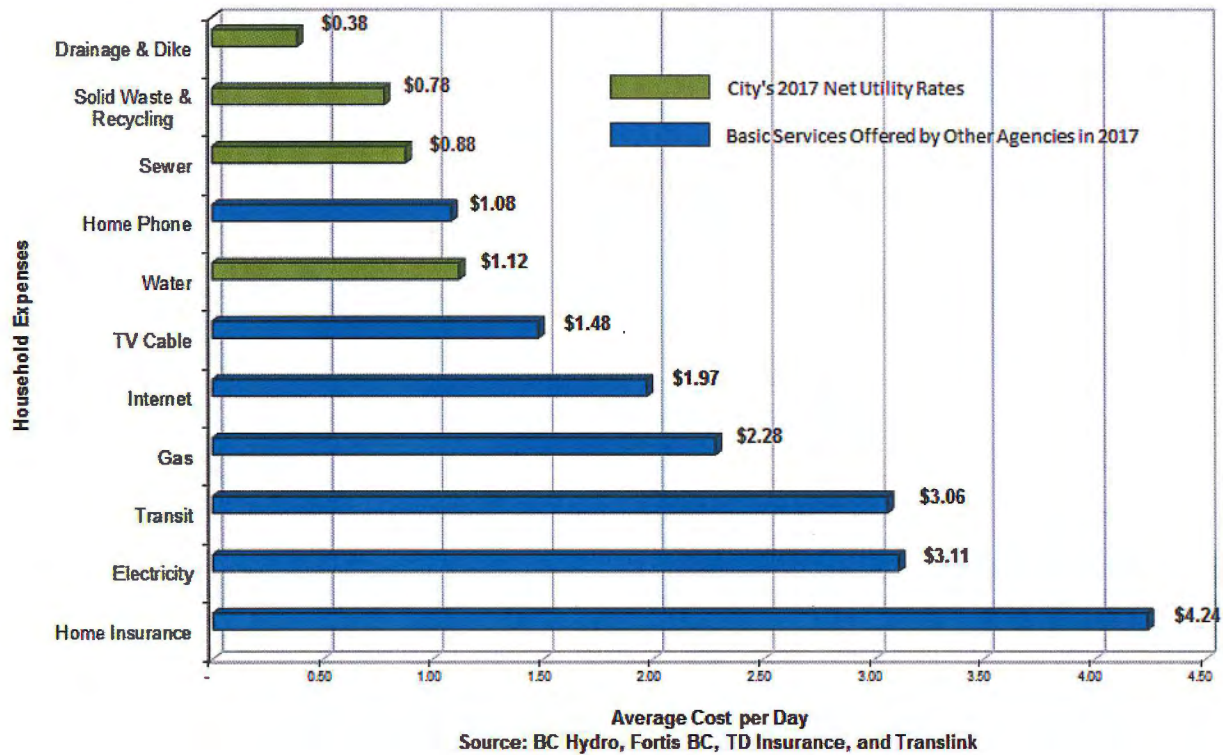


Figure 1 Reference REDMS 5590609

Comparison of City Utility Budgets to Comparative Municipalities

Figure 5 provides a comparison between the City's 2017 utility budget and comparative municipalities.

Figure 5. 2017 Utility Budgets

Division:	Coquitlam	Richmond	Burnaby	Surrey	Vancouver
Waterworks	33,000,000	46,590,100	55,342,700	72,644,000	116,140,000
Sanitary Sewer	34,000,000	34,197,300	43,147,900	49,980,000	72,369,000
Sanitation & Recycling	8,250,000	15,221,300	18,300,000	42,079,000	63,771,000
Storm Drainage	-	19,584,300	-	36,386,000	-
<b>TOTAL</b>	<b>\$75,250,000</b>	<b>\$115,593,000</b>	<b>\$116,790,600</b>	<b>\$201,089,000</b>	<b>\$252,280,000</b>

**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 2018 utility budgets and rates stem from estimated Metro Vancouver increases for bulk water purchase and the sewer levy. Staff recommend the budget and rates options as follows:

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

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 2018 proposed utility budgets and rates for City services relating to the provision of water, the connection of wastewater, drainage and flood protection, as well as the provision of solid waste and recycling services. Considerable measures are 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, organics material processing and hauling cost increases, power and postage 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.

Lloyd Bie, P.Eng.  
Manager, Engineering Planning  
(604-276-4075)

Suzanne Bycraft  
Manager, Fleet &  
Environmental Programs  
(604-233-3338)

Ivy Wong, CPA, CMA  
Manager, Revenue  
(604-276-4046)

Att. 1 2017 Annual Utility Charges – Recommended Gross Rates per Bylaw

Attachment 1

**2018 Annual Utility Charges – Recommended Gross Rates per Bylaw (Estimated Metered and Actual Flat Rates)**

	Water	Sewer	Drainage/ Diking	Garbage/ Recycling	Total
<b>Metered (Based on Average Consumption)</b>					
Single-Family Dwelling	\$459.50	\$366.83	\$157.46	\$347.89	\$1,331.68
Townhouse (with City garbage)	\$314.33	\$244.56	\$155.90	\$248.83	\$963.62
Townhouse (no City garbage)	\$314.33	\$244.56	\$155.90	\$149.39	\$864.18
Apartment	\$219.01	\$186.33	\$155.90	\$110.89	\$672.13
<b>Flat Rate (Actual)</b>					
Single-Family Dwelling	\$693.67	\$477.49	\$157.46	\$347.89	\$1,676.51
Townhouse (with City garbage)	\$567.82	\$436.89	\$155.90	\$248.83	\$1,409.44
Townhouse (no City garbage)	\$567.82	\$436.89	\$155.90	\$149.39	\$1,310.00
Apartment	\$365.90	\$363.87	\$155.90	\$110.89	\$996.56
<b>General – Other/Business</b>					
Metered Water (\$/m <sup>3</sup> )	\$1.3063				
Metered Sewer (\$/m <sup>3</sup> )		\$1.1646			
Business: General Environmental Charge				\$35.88	
Non-Stratified ICI: Drainage & Diking (800 m <sup>2</sup> to 10,000 m <sup>2</sup> )			\$335.11		
Non-Stratified ICI: Drainage & Diking (above 10,000 m <sup>2</sup> )			\$670.22		
ICI: Drainage & Diking (Others)			\$157.46		